

CHAPTER FIVE -- TRANSPORTATION

I. INTRODUCTION

This chapter of the Comprehensive Plan serves as the Transportation Element as defined by the Washington State Growth Management Act (GMA), RCW 36.70A. The contents of this chapter include descriptions of the highway and road system, local transit service, bicycle and pedestrian ways, and rail and air systems in Thurston County; the specific GMA requirements for the Transportation Element; and maps showing existing and future roadways (M-33), existing and future bikeways (M-35), intercity transit routes (M-34), and rail systems (M-41).

A transportation system includes a variety of facilities and services. Roads and highways, public transit, high occupancy vehicle (HOV) facilities, bicycle and pedestrian paths, equestrian trails, sidewalks, rail facilities, waterways, airports, and utility transmission corridors can all be considered part of an area's transportation system. Transportation systems serve an important function in our society; they connect communities and provide routes for trade and commerce, easy access to a variety of destinations, and recreation and exercise. Transportation systems can also generate noise and safety issues and create barriers or boundaries. In order to realize the most good and limit adverse impacts, transportation systems must be thoughtfully planned, and coordinated with planned land use patterns and intensities, taking into account regional and local needs in the process.

This Chapter was reviewed and updated in 2004 as part of a periodic review required by RCW 36.70A.130(4)(a).

A. Critical Issues:

Critical issues confronting decision makers regarding delivery of transportation systems include how to:

1. Maintain acceptable operating service levels and a safe transportation network;
2. Maintain roads as efficiently as possible;
3. Provide public transportation services where planned in the region to help meet decreased auto dependence goals and serve the needs of people who rely on public transportation;
4. Finance extension of road systems especially new connections that establish a network that can help meet county and regional goals;
5. Monitor and regulate the transportation of hazardous materials;

6. Avoid environmental impacts associated with transportation systems; and
7. Preserve and promote options for passenger rail in the Puget Sound Corridor.

B. Requirements of the State Growth Management Act:

The State Growth Management Act includes a Transportation Planning Goal to encourage efficient multimodal transportation systems that are based on regional priorities and coordinated with county and city comprehensive plans.

The State Growth Management Act requires this Transportation Chapter and the Transportation Goals and Policies to implement and be consistent with the land use elements of plans and include at a minimum:

1. Land use assumptions used to estimate travel.

The assumptions in this Chapter are consistent with those used in the Regional Transportation Plan and the Land Use Chapter of this Thurston County Comprehensive Plan. The regionally-adopted population and employment forecasts reflect locally-adopted land use plans, and have been approved for use by the Office of Financial Management. The 2025 land use forecasts are based on the general policy concept of concentrating high density residential development and commercial development in cities and urban growth areas where it can be accommodated with urban services and infrastructure, and maintaining low density residential patterns outside of those areas to preserve rural resource lands and lifestyles, and to minimize sprawl.

2. Estimated traffic impacts to state-owned transportation facilities resulting from land use assumptions.

The Regional Transportation Plan analyzes traffic impacts for the entire regional network, including state facilities. The traffic forecast volumes provided in Appendix E, Map 46 and Map 47 include estimated traffic impacts to state-owned transportation facilities.

3. An inventory of existing air, water, and land transportation facilities and services, and future facility and service needs.

The maps in this chapter show current and proposed transportation facilities and services. Refer to the adopted joint Plans for proposed transportation facilities within the urban growth areas around the cities and towns. Refer to the Grand Mound Subarea Plan for proposed facilities within the Grand Mound urban growth area. Appendix F identifies the existing state transportation facilities in Thurston County. Six-year capacity needs are

included in the Capital Facilities Plan (CFP) in unincorporated areas both inside and outside urban growth boundaries.

4. Regionally coordinated level of service (LOS) standards for state highways, locally owned arterials and transit routes to serve as a gauge to judge performance of the system. Specific actions and requirements for bringing locally owned transportation facilities into compliance with established LOS standards.

LOS standards for regionally-significant state facilities are consistent with those adopted by local agencies. LOS standards for highways of statewide significance (HSS) are not subject to locally-adopted standards. The list of regionally-significant transportation projects include those needed to maintain adopted LOS standards, and are included in the Capital Facilities Plan as appropriate. Specific actions and requirements for bringing facilities into compliance with established LOS standards are listed in this chapter. Goal 4, Objective C addresses transit LOS. Goal 4, Objective A, Policies 6 and 7 describe LOS for state highways, arterials, transit routes and other roads in the county.

5. Traffic forecasts for at least ten years that identify vehicle trips generated by forecasted population, employment and adopted land use plans.

Twenty-year traffic forecasts have been completed as part of the Regional Transportation Planning process and a sample of information available is presented in Maps 46 and 47 and Appendix E. The list of transportation system improvements in the CFP reflect the results of that forecast. The traffic volume forecasts document the actual numbers used in the analysis and are hereby made a part of this chapter of the Thurston County Comprehensive Plan.

6. A multi-year transportation financing plan that identifies system expansion and management needs that meet current and future demands and analyzes needs against probable funding resources. If probable funding falls short of meeting needs, discuss the strategy for assuring that LOS standards will be met.

Short term (six year) needs are identified in the Capital Facilities Plan (CFP) where possible funding resources are identified. The proposed financing plan beyond six years, to meet future demands, is identified in the Regional Transportation Plan. All known improvements needed to provide for capacity at adopted LOS standards are included in the CFP. The CFP contains detailed discussion for addressing funding shortfalls in CFP Goal 1, Objective C, Policy 9. Goal 4, Objective A, Policy 8 discusses alternatives for addressing facilities that do not meet adopted LOS standards.

7. A description of intergovernmental coordination efforts including an assessment of the County transportation plan and land use assumptions on the transportation systems of adjacent jurisdictions.

Land use and transportation goals, policies, and CFP projects are based on the Regional Transportation Plan and the coordinated regional planning process. If adjacent jurisdiction plans are in compliance with the Regional Transportation Plan, then Thurston County's Plan will not adversely impact adjacent jurisdictions. Intergovernmental coordination policies are included in Goal 1, Objective A, Policy 3.

8. Demand management strategies to reduce reliance on single occupancy vehicles by offering alternatives to the use of single occupancy vehicles.

Transportation demand management strategies include promoting use of public transportation such as Intercity Transit, bicycling, walking, and alternative commute options. These strategies are consistent with the Regional Transportation Plan. Demand management strategies can be found under Goal 1, Objective A, Policy 2 and Goal 2, Objectives A and B, and associated policies.

9. Policy for transportation concurrency.

The County has adopted a Concurrency Ordinance and will monitor the impacts of developments on the capacity of transportation facilities. Concurrency policies can be found under Goal 1, Objective A, Policy 7 and Goal 4, Objective A, Policy 8.

C. County-Wide Planning Policies:

This Transportation Chapter reflects the County-Wide Planning Policies with their emphasis on building an efficient transportation system that provides for travel by a variety of modes, based on regional priorities. The policies are reflected in the adopted Regional Transportation Plan. In addition, intergovernmental coordination policies lay out the commitment to coordinate regional and local transportation plans through Thurston Regional Planning Council.

D. Thurston Regional Transportation Plan:

The Thurston County Comprehensive Plan works in concert with the Regional Transportation Plan. Both plans work together in support of a transportation system that offers safe, efficient, affordable travel choices for people and goods, while supporting land use plans and long-term quality of life objectives. The Regional Transportation Plan provides a blueprint to guide local agency decisions on transportation and land use. The Comprehensive Plan and Capital Facilities Plan are important implementation tools for carrying out that plan. The coordination and

collaboration involved in the regional transportation planning process helps to ensure that decisions carried out by all local agencies will be consistent with each other and with long-range objectives. In turn, course corrections needed during the implementation process inform the Regional Transportation Plan and the region's long-range strategy. This consistency between local and regional plans is an underlying tenet of the Growth Management Act.

This Comprehensive Plan fully reflects the policies, land use assumptions, and travel demand forecasts on which the adopted Regional Transportation Plan is based.

II. HIGHWAYS AND ROADS

Roadways have three basic roles in serving our overall transportation needs in Thurston County. These are:

- To provide for safe travel (SAFETY)
- To provide for the movement of people and goods (MOBILITY).
- To provide access to land (ACCESS).

These three concepts of SAFETY, MOBILITY and ACCESS are the key to designing and locating the various classes of roadways. Arterial highways and roads serve as the primary providers of mobility within the county. Land access is provided primarily by local urban and rural roadways. Intermediate to these classes of roadways is a collector/distribution function performed by collector roadways. Each of these roadways allows safe travel from one destination to another, usually by several different modes.

A. Design and Locational Standards:

Design and location of county roadways depends on a number of factors related to traffic demand and land use. Roadways in Thurston County must meet different standards depending on whether they are inside or outside urban growth areas. Roads are constructed to a different operating standard within urban growth areas to serve higher density and more intense development. Rural roadways serving less dense but generally higher speed traffic are constructed to a different standard. Extending roadways with urban standards and excess capacity (i.e., more travel lanes than needed) out into undeveloped rural areas would have the potential of encouraging development outside urban growth areas, resulting in unnecessary costs for construction and on-going maintenance.

Inside urban growth areas, there is a memorandum of understanding that efforts will be made to adopt the road design standards in the joint plan of each applicable jurisdiction. Inside urban growth areas around the south county cities and towns, right-of-way needed to meet urban standards in each joint plan will apply, but rural

road improvement standards will apply for residential areas. (See the joint plans for Yelm, Tenino and Rainier.) Setting aside the right-of-way needed to meet urban standards in the future will assure that, when urban development does occur, adequate right-of-way will be available for upgrading roads to urban street standards. When areas within the south county urban growth areas are annexed to the adjacent jurisdiction, urban road standards will apply (in cities and towns where urban road standards exist). County urban road standards will apply in the Grand Mound Urban Growth Area, consistent with the road cross-sections in the Grand Mound Subarea Plan. For more detailed information on road standards see “*Thurston County Road Standards*”.

Roadway classifications should reflect the appropriate emphasis on access or mobility. A roadway intended as a major carrier of traffic should have its efficiency of traffic flow maintained by limiting access. Designated as an arterial or collector, access to this roadway is limited to intersections and widely spaced driveways. Conversely, if access is to be maximized, then local access roads should be designated.

Thurston County has prepared maps of critical areas within the county (i.e., floodplains, wetlands, geological hazard areas, etc). These maps are on file at Thurston County Development Services and are available for public review. Critical areas make up a significant proportion of county lands. Locating roads to serve developing areas of the county would almost always impact critical areas. Minimizing these impacts through careful and thoughtful location and design of roadways is critical. When impacts to critical areas cannot be avoided, appropriate mitigation shall be made.

Other land use related concerns should be addressed when locating a particular class of county roadway. Alignment should consider the configuration, use and size of a parcel it traverses, continuity with existing and proposed future roadways and bikeways, and the required lane capacity (i.e., number of travel lanes) and alternative mode support to accommodate the expected movement of goods and people. Compatibility also implies that roadway class should be appropriate to the type of land use. In urban areas, good connections will be important to:

1. Disperse traffic to a multiple of roads giving vehicles options and avoiding funneling traffic on too few arterial and collector roads;
2. Provide good access for pedestrians, bike riders, transit riders and vehicles; and
3. Reduce the need for road widenings. Regionally adopted standards limit the width of streets and road to 5 lanes – two through lanes each direction and a center turn lane – as wider facilities are not in keeping with the scale and character of the region and discourage people from walking or biking.

B. Level of Service (LOS):

Table 5-1 explains roadway level of service (LOS). LOS is defined as a qualitative measure describing operational conditions within a traffic stream, and the perception by motorists and/or passengers of the driving experience during those conditions. A "level of service" describes these conditions in terms of speed and travel times, freedom to maneuver, traffic interruptions, comfort and convenience, and safety. Six LOS standards, much like an academic grading system (A-F), represent conditions from "free flow" (A) to "gridlock" (F). The LOS standards derive from a numeric calculation of how much traffic a particular facility was designed to carry compared to how much traffic it is actually carrying. The closer a facility comes to carrying one hundred percent of the traffic it was designed to carry, the lower the LOS standard. It was designed to be, and is used as, a measure of vehicular congestion. The current edition of the Highway Capacity Manual presents the primary measures of effectiveness used to define LOS for each type of facility (Transportation Planning Handbook, 2nd Edition). Map M-48 illustrates the adopted LOS standards for Thurston County.

Thurston County's adopted LOS standards are consistent with the current, regionally-adopted standards which are based on a two-hour p.m. peak period.

The distinction between urban and rural operating conditions is a critical policy issue. What may be an acceptable level of congestion on urban streets – with their slower speed limits, frequent turning movements, and frequent signal spacing – may be completely inappropriate on rural roads, where there are higher travel speeds, fewer turns, and no signals. However, higher density urban population centers are areas where transportation alternatives will be most heavily used making the most of investment in transit, car/vanpool programs, and excellent bike and pedestrian paths. Low density urban sprawl and development in rural areas cannot be efficiently served by alternatives and results in almost total auto dependence and higher costs, both in dollars and degraded quality of life for the entire community which must provide a regional transportation network.

Roads Within Urban Growth Areas:

In Thurston County, the adopted LOS standard for roads within unincorporated urban growth areas is LOS D. Refer to joint plans for specific LOS for each urban growth area. Refer to Policy 4 A (7) for the LOS standards that apply within the Grand Mound Urban Growth Area.

**Table 5-1
Level of Service Characteristics by Roadway Type**

Level of Service	Controlled Access Highways	Multilane Rural Without Access Control	Two Lanes	Urban and Suburban Arterials
A	Free flow. Average travel speeds at or greater than 60 mph. Service flow rate of 700 passenger cars per hour per lane.	Average travel speed 57 mph or greater. Under ideal conditions, flow rate is limited to 700 passenger cars per lane per hour or 36 percent of capacity.	Average travel speeds of 50 mph or higher. Most passing maneuvers can be made with little or no delay. Under ideal conditions, a service flow rate of 420 passenger car per hour, total two-way, can be achieved.	Average travel speed of about 90 percent of free flow speed. Stopped delay at signalized intersections is minimal.
B	Reasonably free flow conditions. Average travel speed at greater than 57 mph. Service flow rate not greater than 1,100 passenger cars per hour per lane.	Reasonably free flow. Volume at which actions of preceding vehicle will have some influence on following vehicles. Flow rates will not exceed 54 percent of capacity of 1100 passenger vehicles per lane per hour at a 53 mph average travel speed under ideal conditions.	Average travel speeds of 55 mph or higher. Flow rates may reach 27 percent of capacity with continuous passing sight distance. Flow rates of 750 passenger cars per hour, total two-way, can be carried under ideal conditions.	Average travel speeds drop due to intersection delay and inter-vehicular conflicts, but remain at 70 percent of the flow speed. Delay is not unreasonable.
C	Operation stable, but becoming more critical. Average travel speed of 54 mph, service flow at 77 percent of capacity or not more than flow rate of 1550 passenger cars per hour per lane.	Stable flow to a flow rate not exceeding 71 percent of capacity of 1400 passenger cars per lane per hour, under ideal conditions, maintaining at least a 50 mph average travel speed.	Flow still stable. Average travel speeds of 52 mph or above with total flow rate under ideal conditions equal to 43 percent of capacity with continuous passing sight distance, or 1,200 passenger cars per hour total two-way.	Stable operations. Longer queues at signals result in average travel speeds of about 50 percent of free flow speeds. Motorists will experience appreciable tension.
D	Lower speed range of stable flow. Operation approaches instability and is susceptible to changing conditions. Average travel speeds approx. 46 mph. Service flow rates at 93 percent of capacity. Flow rate cannot exceed 1850 passenger cars per hour per lane.	Approaching unstable flow at flow rates up to 87 percent of capacity or 1,750 passenger cars per hour at an average travel speed of about 40 mph under ideal conditions.	Approaching unstable flow. Average travel speeds approx. 50 mph. Flow rates, two-directional, at 64 percent of capacity with continuous passing opportunity, or 1,800 passenger cars per hour total two-way under ideal conditions.	Approaching unstable flow. Average travel speeds down to 40 percent of free flow speed. Delays at intersections may become extensive.
E	Unstable flow. Average travel speeds of 30-35 mph. Flow rate at capacity or 2,000 passenger cars per hour per lane under ideal conditions. Traffic stream cannot dissipate even minor disruptions. Any incident may produce a serious breakdown.	Flow at 100 percent of capacity or 2,000 passenger cars per lane per hour under ideal conditions. Average travel speeds of about 30 mph.	Average travel speeds in neighborhood of 45 mph. Flow rate under ideal conditions, total two-way, equal to 2800 passenger cars per hour. Level E may never be attained. Operation may go directly from Level D to Level F.	Average travel speeds 33 percent of free flow speed. Unstable flow. Continuous backup on approaches to intersections.
F	Forced flow. Freeway acts as a storage for vehicles backed up from downstream bottleneck. Average travel speeds range from near 30 mph to stop-and-go operation.	Forced flow, congested condition with widely varying volume characteristics. Average travel speeds of less than 30 mph.	Force, congested flow with unpredictable characteristics. Operating speeds less than 45 mph.	Average travel speed between 25 and 33 percent of free flow speed. Vehicular backups, and high approach delays at signalized intersections.

SOURCE: AASHTO, 1990. A Policy on Geometric Design of Highways and Streets, American Association of State Highway and

Transportation Officials, Washington, DC.

Rural Roadways

The adopted LOS standard for roads outside urban growth areas, is LOS C except for Mud Bay Road, from the Olympia urban growth boundary west to Highway 101. Because that facility functions like an urban street, it has a LOS standard of D, even though it is outside the urban growth boundary.

Multi-Modal Approach to Level of Service Goals – Strategy Corridors

Another exception to the LOS standard is a select number of regionally-identified “Strategy Corridors.” These strategy corridors, located primarily within the north urban area, are facilities on which LOS standards do not apply. That is because these facilities cannot be widened sufficiently to ever solve congestion, either because they are already at the maximum five-lane width, or because the surrounding land is fully built out already, or due to environmental constraints. In these corridors a targeted mix of land use policy, access management, travel demand management, investment in travel alternatives, and system efficiency measures will be used to improve mobility to the best extent possible.

Martin Way is designated as a strategy corridor, over which Thurston County has jurisdiction in the unincorporated urban growth area. The moratorium aspects of concurrency ordinances do not necessarily apply in this corridor. Ordinances should emphasize and support a range of measures for improving efficiency and travel alternatives within corridors even when road widening itself is not an option.

The results of the east/west traffic study determined that a connection south of the Yelm Highway would not relieve congestion along the highway. Both road widening (in the Hewitt Lake area) and travel demand management incentives planned as part of the Regional Transportation Plan will be used in the area along the Yelm Highway.

State Highways

Washington Department of Transportation (WSDOT) utilizes a 24-hour highway assessment instead of the two-hour p.m. peak-hour volumes utilized by the county and the Regional Transportation Plan. The state’s system translates to LOS D in urban areas and LOS C in rural areas for all Regionally Significant state highways as well as those designated Highways of Statewide Significance. Policy 4 A (6) addresses the LOS for state highways in Thurston County. .

Two Hour P.M. Peak Used to Determine Peak Traffic Period

The Regional Transportation Plan looks at Level of Service in a broader context than volume-to-capacity (V/C) ratio. A V/C ratio, calculated using a peak period of two hours, will be used as a screening tool for identifying capacity deficiencies. Once a deficient corridor is identified, other factors such as road spacing and type or classification, road connections and access, environmental, social and physical constraints should be considered in determining the need and feasibility for road

widening.

Concurrency: The Growth Management Act requires that adequate transportation facilities be available when the impacts of development occur, or that a financial plan is in place to assure that needed facilities are in place within six years of the development.

Jurisdictions are required to adopt and enforce ordinances which prohibit development approval if the development causes the level of service on a transportation facility to drop below adopted standards outlined in the transportation chapter of the comprehensive plan. However, concurrency requirements do not apply to transportation facilities and services of statewide significance, per RCW 36.70A.070(6).

The County has adopted a Concurrency Ordinance and will monitor the impact of approving development on the capacity of transportation facilities.

Consistency: The Growth Management Act requires that city and county transportation plans be consistent with one another and with the Regional Transportation Plan. The Growth Management Act defines consistency as meaning that no feature of a plan be incompatible with any other feature of a plan. This requirement recognizes that transportation and land use decisions affect one another and will affect the ability of the region to provide efficient transportation services and reach reduced auto dependency goals.

The requirements for consistency also recognize that transportation systems cross jurisdiction boundaries. This makes compatible road and bikeway standards important as well as coordinated transit service goals and shared responsibility for the preservation of rail corridors.

C. Existing County Roadway System:

Thurston County, as a whole, has a good roadway network. However, many roadways within the urban area and the growth areas are experiencing varying degrees of congestion. The most severe levels of congestion are experienced mainly within the incorporated cities and towns. For the most part, rural roadways operate with minimal congestion. Map M-33 illustrates the existing network of arterial roadways serving rural unincorporated Thurston County.

Of more immediate concern is the condition of existing roads. While Thurston County has an effective pavement management program that keeps most rural road surfaces in good driving condition, there are many miles of road that do not meet current design standards. These are typically old facilities that have narrow travel lanes, minimal or no shoulders, or tight curves that create poor sight distance. Thurston County is also responsible for hundreds of bridges, many of which are nearing the end of their useful design life, many others of which should be retrofitted

to better accommodate the needs of salmon and other wildlife. As population increases in rural Thurston County, pressure increases to retrofit these old facilities and bring them up to modern design standards. Unfortunately this is a very expensive need, one for which there is a significant funding shortfall.

Additional analysis is warranted to review appropriate levels of roadway congestion in combination with what level of future population growth can be accommodated in rural Thurston County. There are only a few key north-south corridors, such as Rainier Road, Littlerock Road, Old 99, and SR 510, where level of service will be a possible concern during the morning and evening commute times. The Regional Transportation Plan identified this as an area for further evaluation to ensure that Thurston County has appropriate levels of mobility on its roads in conjunction with appropriate land use zoning for projected growth well into the future.

D. Future Capacity Needs:

Roadway Classifications: As discussed previously, there is a functional hierarchy of roadway classes that provides varying degrees of access and mobility. Exhibits B through F illustrate the classes of county roadways in the rural area. These conceptual renderings are consistent with current county road standards. In urban growth areas adjacent to cities and towns, efforts will be made to adopt the street standards of the applicable adjacent jurisdiction.. In the Grand Mound Urban Growth Area, refer to the subarea plan for the urban standards that apply. In all other areas, rural road standards will apply since the low residential densities currently allowed in these areas do not require urban road standards.

Issues: A portion of Yelm Highway and a portion of Martin Way are identified as strategy corridors (see Multi-Modal Approach to Level Of Service Goals - Strategy Corridors - pg. 5-11).

Future Roadways: An adequate network of roadways will be needed to accommodate both existing and future development. To meet future needs, the roadway system will need to be located and designed in a way that effectively serves the areas that will exceed level of service measures. In addition, future roadways should provide for sufficient vehicle capacity, minimize hazards, and be efficient in the use of county funds. Capacity improvements in the unincorporated county are based on a 20-year traffic forecast done during the regional transportation planning process (see Appendix E). These traffic forecasts used the average of the p.m. two-hour peak period. These forecasts will be updated as needed. A list of all improvements planned for the next six years can be found in the joint plans and the Capital Facilities Chapter of this Comprehensive Plan. These improvements are consistent with the Regional **Transportation Plan**.

Map M-33 shows the existing and future rural roadway system in Thurston County. The network of arterials and collectors delineated on the future roadway map is based on the land use designations contained in the Land Use Chapter. These

designations are used to project expected population and employment distribution and provide a logical basis for planning a future roadway system for Thurston County.

E. Roadway Maintenance Needs:

The county evaluates its roadways every two years for pavement condition and annually for high frequency accident locations.

To determine the maintenance needs of our roadway pavements, the county evaluates the pavement surface for signs of cracking distresses on at least a two-year cycle. This results in an inventory of pavement condition ratings, which is the basis for prioritizing maintenance efforts for pavement overlays and asphalt sealing of the pavement surface. Roadway pavement maintenance is mainly financed by County road funds.

F. Safety & Design Standard Improvements:

Section V, E of the Capital Facilities Chapter outlines the funding capacity and resources to finance the roadway improvements including design standard improvements and safety projects proposed for the next six years.

The proposed upgrades of roads to higher standards and safety features are those that could receive matching funds from state and federal grant programs. However, there is considerable competition for limited grant funding.

When development occurs in the urban area on property fronting on County public roads, developers are required to upgrade the half of the road, which they front on, to new design standards. Also developers may have to make contributions reflective of their traffic impacts to off site transportation projects.

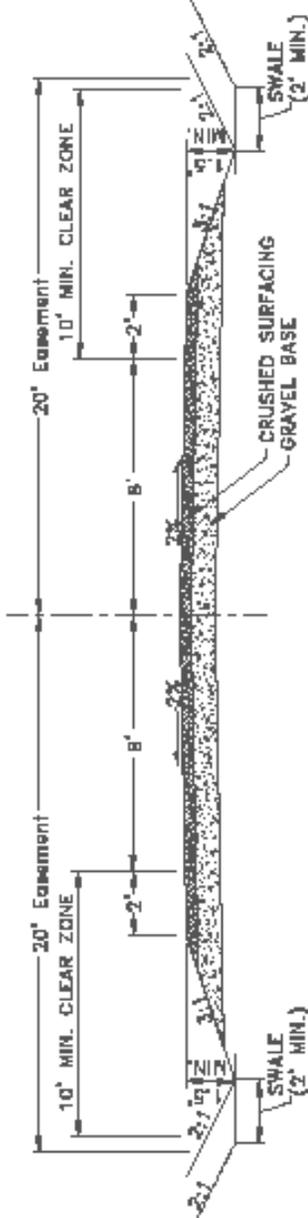
G. State Highways

State transportation facilities in Thurston County are identified in Appendix F. Note that concurrency requirements do not apply to transportation facilities and services of statewide significance, per RCW 36.70A.070(6).

REVISIONS	DATE				
THURSTON COUNTY ROADS AND TRANSPORTATION SERVICES DEVELOPMENT REVIEW					
ROADWAY STANDARDS					
PRIVATE ROADWAY SECTION					
Exhibit B					

RURAL AREA ROADWAY DESIGN STANDARDS

ROADWAY CLASSIFICATION: PRIVATE ROAD
 20-YR. PROJECTED AVERAGE DAILY TRAFFIC (ADT): LESS THAN 160
 (18 DETACHED SINGLE FAMILY HOMES)



DESIGN CRITERIA

DESIGN SPEED	20 M.P.H.
MAXIMUM ROAD GRADE	12%
MINIMUM ROAD GRADE	0.5%
MINIMUM SURFACING WIDTH	18'
MINIMUM ROADWAY WIDTH	20'
MINIMUM DESIGN LOAD	HS 20-44
EASEMENT WIDTH	40' MIN.
ROADWAY GEOMETRICS	PER AASHTO AND WSDOT STD..
MINIMUM REQUIRED:	
CRUSHED SURFACING, TOP COURSE	0.17' COMPACTED DEPTH
GRAVEL BASE	0.75' COMPACTED DEPTH
VERTICAL CLEARANCE	16.5'

NOTES:

CLEAR ZONE DISTANCE SHOWN APPLIES TO ROADS WITH A POSTED SPEED OF 25 MPH OR LESS.

EASEMENT WIDTHS MAY BE REDUCED WHERE THE COUNTY ENGINEER HAS DETERMINED THAT ADEQUATE PROVISIONS HAVE BEEN MADE FOR THE PRIVATE MAINTENANCE OF WALKWAYS, TRAILS, BIKEWAYS AND SWALES.

IN FILL SECTIONS, THE COUNTY ENGINEER MAY REQUIRE A THICKENED EDGE TO CONTROL EROSION.

THE USE OF ROADSIDE SWALES FOR STORMWATER TREATMENT, BIO-FILTRATION, MAY REQUIRE ADDITIONAL EASEMENT WIDTH.

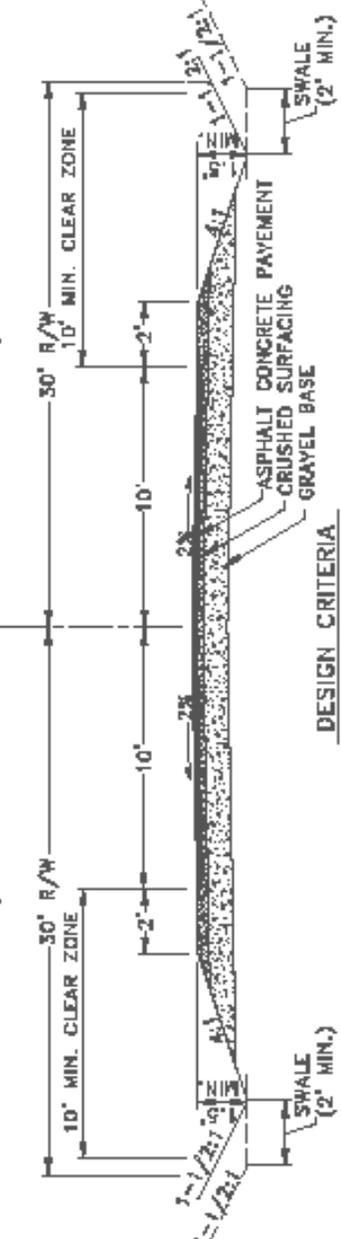
FILE: ROAD1

Exhibit B

REVISIONS	DATE				
THURSTON COUNTY ROADS AND TRANSPORTATION SERVICES DEVELOPMENT REVIEW					
ROADWAY STANDARDS					
MINOR LOCAL ROADWAY SECTION					
Exhibit C					

RURAL AREA ROADWAY DESIGN STANDARDS

ROADWAY CLASSIFICATION: MINOR LOCAL ROAD
 20-YR. PROJECTED AVERAGE DAILY TRAFFIC (ADT): 161 - 250
 (17 - 25 DETACHED SINGLE FAMILY HOMES)



DESIGN CRITERIA

DESIGN SPEED	25 M.P.H.
MAXIMUM ROAD GRADE	12%
MINIMUM ROAD GRADE	0.5%
MINIMUM SURFACING WIDTH	20'
MINIMUM ROADWAY WIDTH	24'
MINIMUM DESIGN LOAD	HS 20-44
RIGHT-OF-WAY WIDTH	30' MIN.
ROADWAY GEOMETRICS	PER AASHTO AND WSDOT STDS.
MINIMUM REQUIRED:	
ASPHALT CONCRETE PAVEMENT	0.20' COMPACTED DEPTH
CRUSHED SURFACING, TOP COURSE	0.17' COMPACTED DEPTH
GRAYEL BASE	0.75' COMPACTED DEPTH
VERTICAL CLEARANCE	16.5'

NOTES:

CLEAR ZONE DISTANCE SHOWN APPLIES TO ROADS WITH A POSTED SPEED OF 35 MPH OR LESS.

FULL DEPTH PAVED SHOULDERS MAY BE REQUIRED ON CURVES AND WHERE ADDITIONAL LANES ARE, OR WILL BE, REQUIRED. ADDITIONAL R/W MAY BE REQUIRED TO ACCOMMODATE ADDITIONAL LANES.

R/W WIDTHS MAY BE REDUCED WHERE THE COUNTY ENGINEER HAS DETERMINED THAT ADEQUATE PROVISIONS HAVE BEEN MADE FOR THE PRIVATE MAINTENANCE OF WALKWAYS, TRAILS, BIKWAYS AND SWALES.

IN FILL SECTIONS, THE COUNTY ENGINEER MAY REQUIRE A THICKENED EDGE TO CONTROL EROSION.

STRUCTURAL ROADWAY SECTION TO BE DESIGNED BY A PROFESSIONAL ENGINEER REGISTERED IN WASHINGTON.

THE USE OF ROADSIDE SWALES FOR STORMWATER TREATMENT, BIO-FILTRATION, MAY REQUIRE ADDITIONAL R/W WIDTH.

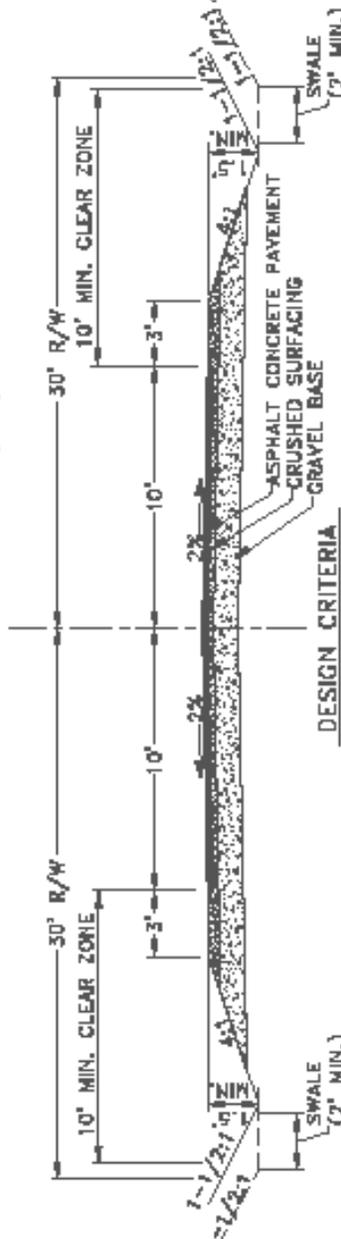
FIELD BOARD

Exhibit C

REVISIONS	DATE				
		THURSTON COUNTY ROADS AND TRANSPORTATION SERVICES DEVELOPMENT REVIEW		ROADWAY STANDARDS	
		LOCAL ROADWAY SECTION		Exhibit D	

RURAL AREA ROADWAY DESIGN STANDARDS

ROADWAY CLASSIFICATION: LOCAL ROAD
20-YR. PROJECTED AVERAGE DAILY TRAFFIC (ADT): 251 - 400



DESIGN CRITERIA

DESIGN SPEED	35 M.P.H.
MAXIMUM ROAD GRADE	10%
MINIMUM ROAD GRADE	0.5%
MINIMUM SURFACING WIDTH	20'
MINIMUM ROADWAY WIDTH	28'
MINIMUM DESIGN LOAD	H5 20-44
RIGHT-OF-WAY WIDTH	60' MIN.
ROADWAY GEOMETRICS	PER AASHTO AND WSDOT STDS.
MINIMUM REQUIRED:	
ASPHALT CONCRETE PAVEMENT	0.20' COMPACTED DEPTH
CRUSHED SURFACING, TOP COURSE	0.17' COMPACTED DEPTH
GRAVEL BASE	0.75' COMPACTED DEPTH
VERTICAL CLEARANCE	18.5'

NOTES:

CLEAR ZONE DISTANCE SHOWN APPLIES TO ROADS WITH A POSTED SPEED OF 35 MPH OR LESS.

WHERE BICYCLE LANES ARE REQUIRED, PAVEMENT WIDTHS AND R/W WIDTHS SHALL BE INCREASED TO ACCOMMODATE THE BICYCLE LANE.

R/W WIDTHS MAY BE REDUCED WHERE THE COUNTY ENGINEER HAS DETERMINED THAT ADEQUATE PROVISIONS HAVE BEEN MADE FOR THE PRIVATE MAINTENANCE OF WALKWAYS, TRAILS, BIKEWAYS AND SWALES.

FULL DEPTH PAVED SHOULDERS MAY BE REQUIRED ON CURVES AND WHERE ADDITIONAL LANES ARE, OR WILL BE, REQUIRED.

ADDITIONAL R/W MAY BE REQUIRED TO ACCOMMODATE ADDITIONAL LANES.

IN FILL SECTIONS, THE COUNTY ENGINEER MAY REQUIRE A THICKENED EDGE TO CONTROL EROSION.

STRUCTURAL ROADWAY SECTION TO BE DESIGNED BY A PROFESSIONAL ENGINEER REGISTERED IN WASHINGTON.

THE USE OF ROADSIDE SWALES FOR STORMWATER TREATMENT, BIO-FILTRATION, MAY REQUIRE ADDITIONAL R/W WIDTH.

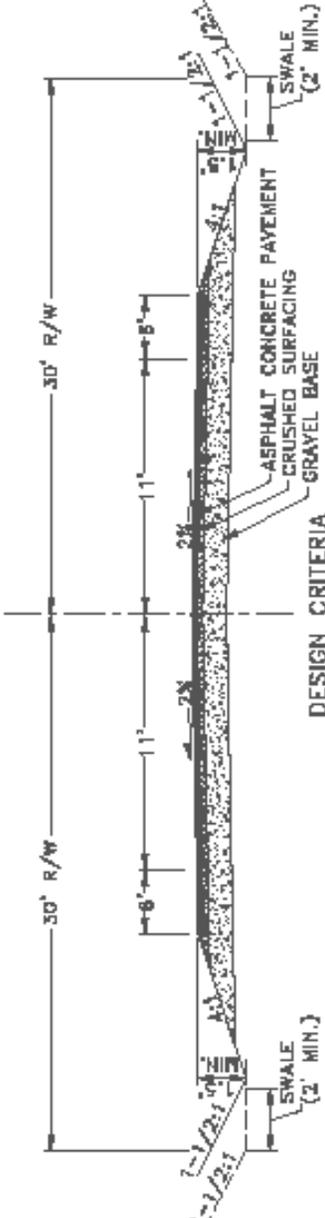
FILE BOOK

Exhibit D

REVISIONS	DATE			THURSTON COUNTY ROADS AND TRANSPORTATION SERVICES DEVELOPMENT REVIEW	
ROADWAY STANDARDS				COLLECTOR ROADWAY STANDARDS	
Exhibit E					

RURAL AREA ROADWAY DESIGN STANDARDS

ROADWAY CLASSIFICATION: COLLECTOR
20-YR. PROJECTED AVERAGE DAILY TRAFFIC (ADT): 401 - 2000



DESIGN CRITERIA

DESIGN SPEED	40 M.P.H.
MAXIMUM ROAD GRADE	10%
MINIMUM ROAD GRADE	0.5%
MINIMUM SURFACING WIDTH	22' PLUS TWO 6' SHOULDERS
MINIMUM ROADWAY WIDTH	34'
MINIMUM DESIGN LOAD	H5 20-44
RIGHT-OF-WAY WIDTH	60' MIN.
ROADWAY GEOMETRICS	PER AASHTO AND WSDOT STDS.
MINIMUM REQUIRED:	
ASPHALT CONCRETE PAVEMENT	0.25' COMPACTED DEPTH
CRUSHED SURFACING, TOP COURSE	0.17' COMPACTED DEPTH
GRAVEL BASE	0.75' COMPACTED DEPTH
VERTICAL CLEARANCE	16.5'

NOTES:

WHERE BICYCLE LANES ARE REQUIRED, PAVEMENT WIDTHS AND R/W WIDTHS SHALL BE INCREASED TO ACCOMMODATE THE BICYCLE LANE.

R/W WIDTHS MAY BE REDUCED WHERE THE COUNTY ENGINEER HAS DETERMINED THAT ADEQUATE PROVISIONS HAVE BEEN MADE FOR THE PRIVATE MAINTENANCE OF WALKWAYS, TRAILS, BIKEWAYS AND SWALES.

IN FILL SECTIONS, THE COUNTY ENGINEER MAY REQUIRE A THICKENED EDGE TO CONTROL EROSION.

FULL DEPTH PAVED SHOULDERS MAY BE REQUIRED ON CURVES AND WHERE ADDITIONAL LANES ARE OR WILL BE REQUIRED.

ADDITIONAL R/W MAY BE REQUIRED TO ACCOMMODATE ADDITIONAL LANES.

CLEAR ZONE REQUIREMENTS OBTAINED IN THE LOCAL AGENCY DIBULENE AND APPENDIX B-F SHALL BE COMPLIED WITH.

STRUCTURAL ROADWAY SECTION TO BE DESIGNED BY A PROFESSIONAL ENGINEER REGISTERED IN WASHINGTON.

THE USE OF ROADSIDE SWALES FOR STORMWATER TREATMENT, BIO-FILTRATION, MAY REQUIRE ADDITIONAL R/W WIDTH.

FEET ROAD

Exhibit E

REVISIONS	DATE



THURSTON COUNTY
ROADS AND
TRANSPORTATION
SERVICES

DEVELOPMENT
REVIEW

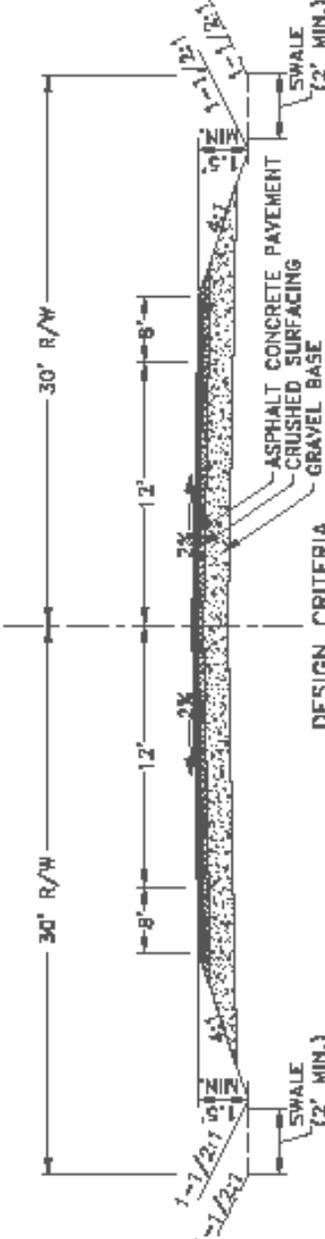
ROADWAY
STANDARDS

ARTERIAL
ROADWAY
SECTION

Exhibit F

RURAL AREA ROADWAY DESIGN STANDARDS

ROADWAY CLASSIFICATION: ARTERIAL
20-YR. PROJECTED AVERAGE DAILY TRAFFIC (ADT): ABOVE 2000



DESIGN CRITERIA

DESIGN SPEED	50 M.P.H.
MAXIMUM ROAD GRADE	10%
MINIMUM ROAD GRADE	0.5%
MINIMUM SURFACING WIDTH	24' PLUS TWO 8' SHOULDERS
MINIMUM ROADWAY WIDTH	40'
MINIMUM DESIGN LOAD	HS 20-44
RIGHT-OF-WAY WIDTH	60' MIN.
ROADWAY GEOMETRICS	PER AASHTO AND WSDOT STDS.
MINIMUM REQUIRED:	
ASPHALT CONCRETE PAVEMENT	0.33' COMPACTED DEPTH
CRUSHED SURFACING, TOP COURSE	0.17' COMPACTED DEPTH
GRAVEL BASE	0.75' COMPACTED DEPTH
VERTICAL CLEARANCE	16.5'

NOTES:

WHERE BICYCLE LANES ARE REQUIRED, PAVEMENT WIDTHS AND R/W WIDTHS SHALL BE INCREASED TO ACCOMMODATE THE BICYCLE LANE.

R/W WIDTHS MAY BE REDUCED WHERE THE COUNTY ENGINEER HAS DETERMINED THAT ADEQUATE PROVISIONS HAVE BEEN MADE FOR THE PRIMATE MAINTENANCE OF WALKWAYS, TRAILS, BIKEWAYS AND SWALES.

IN HILL SECTIONS, THE COUNTY ENGINEER MAY REQUIRE A THICKENED EDGE TO CONTROL EROSION.

FULL DEPTH PAVED SHOULDERS MAY BE REQUIRED ON CURVES AND WHERE ADDITIONAL LANES ARE, OR WILL BE, REQUIRED.

ADDITIONAL R/W MAY BE REQUIRED TO ACCOMMODATE ADDITIONAL LANES. CLEAR ZONE REQUIREMENTS AS OUTLINED IN THE LOCAL AGENCY GUIDELINES AND APPENDIX B-7 SHALL BE COMPLIED WITH.

STRUCTURAL ROADWAY SECTION TO BE DESIGNED BY A PROFESSIONAL ENGINEER REGISTERED IN WASHINGTON.

THE USE OF ROADSIDE SWALES FOR STORMWATER TREATMENT. BIO-FILTRATION, MAY REQUIRE ADDITIONAL R/W WIDTH.

FILE: ROAD

Exhibit F

III. TRANSIT SERVICE

Intercity Transit (IT) is the public transit operator for Thurston County. The agency was formed as a municipal corporation in 1980 as the Thurston County Public Transportation Benefit Area (PTBA).

Voters initially approved in 1980 collecting a 3/10ths of 1% in local sales tax for the newly formed transit system. Service under the new authority began January 1, 1981. In 1992 voters approved the expansion of the PTBA to include all of Thurston County. In 1999 however, the loss of Motor Vehicle Excise Tax revenue required significant reductions in service that ensued over the next few years. In early 2002 local elected officials also approved the reduction in the size of the service area. The resized district was implemented in the Fall of 2002. The new service district includes the urbanized areas (GMA) of Olympia, Lacey, Tumwater, and Yelm, and certain contiguous County areas. In September 2002 voters also approved an increase in local sales tax to 0.6% within the PTBA. Since 2003 Intercity Transit has begun a planned rebuilding of the services and system elements that were impacted or altered from the previous loss of revenues.

IT is currently governed by an eight member Authority made up of the following members: one Thurston County Board of Commissioner; one Council member each from Olympia, Lacey, Tumwater, and Yelm; one member chosen from the Councils of Tenino, Rainier and Bucoda; and three citizen representatives appointed by the Authority.

A. Service Types Provided:

IT provides a wide range of transportation services including fixed route, ridesharing, and paratransit services. A Village van program provides assistance with welfare reform and work training efforts in the region. IT's ridesharing service matches people with carpool partners and coordinates vanpool formation and operation by providing training, technical assistance and vehicles for vanpool groups.

All IT buses and paratransit vans are wheelchair accessible, and are lift-equipped for persons who use wheelchairs or have difficulty boarding the bus. Dial-A-Lift is a special van service offered for people with disabilities who are unable to ride our regular buses. IT also has one accessible vanpool.

The agency also actively participates in and provides assistance to many local employers regarding Commute Trip Reduction efforts and works with local jurisdictions responsible for overseeing these requirements. In addition, coordination of local land use and transportation issues is continually worked on in coordination with these same jurisdictions.

Transit service is operated 7 days a week with federally mandated comparable paratransit service. The Ridesharing program matches people to carpool and

vanpool vehicles. The program maintains a fleet of vans for monthly lease to groups of 8 – 15 commuters as well as coordinating vanpool formation and operation of the service by providing safety, training, and technical assistance for the groups.

All Intercity Transit buses and paratransit vans (“Dial-A-Lift”) are wheelchair accessible, and are lift-equipped for persons who use wheelchairs or have difficulty boarding a bus. Dial-A-Lift van service is provided to ADA qualified citizens whose disabilities make it impossible or difficult for them to utilize regular fixed routed bus service.

B. Service Area

The current service district includes the urbanized areas of Olympia, Lacey, Tumwater and Yelm.

Intercity Transit also makes regional transit connections with other local providers including Mason Transit, Grays Harbor Transit, Pierce Transit and Sound Transit bus service to King County. Regional and interstate connections are also provided with Grey Hound buses in Olympia, Amtrak passenger rail in Lacey and Sounder commuter service in Tacoma. Intercity Transit also operates with Pierce Transit express bus service between Olympia, Lacey, Lakewood and Tacoma.

C. The Future of Transit Services in Thurston County:

Increasing the use of our existing transit system and developing in a manner that supports easy access to transit are goals for Thurston County's future. Transit is an important element of a transportation system designed to meet the goals of growth management planning, the State Commute Trip Reduction Law (CTR) and the Regional Transportation Plan.

Public transportation in Thurston County offers many advantages. It provides commuting and daily circulation between the cities and unincorporated areas of the region, and offers connections with neighboring counties, including Grays Harbor, Mason, and Pierce Counties. It also provides connections to Sound Transit service into King County. One of the major benefits of a transit system based on buses is its ability to alter routes and schedules to meet changing demand. So as Thurston County changes, transit service can change along with it.

Thurston County will continue to see increasing demands in services for commuters. Major employers are operating programs to meet the requirements of CTR, and need to be able to direct employees to transportation alternatives. Intercity Transit considers new services as part of its Transit Development Plan (TDP), which is updated annually. The TDP is a six-year combined comprehensive and capital facilities plan for transit system, outlining programs and facilities that Intercity Transit is involved in or will be pursuing.

In partnership with Thurston Regional Planning Council, Intercity Transit developed a long-range system plan to set the direction for public transportation in Thurston County through 2020. The plan serves as a blueprint for implementing the transit component of the Regional Transportation Plan.

The long range system plan identifies critical issues that affect transportation services in Thurston County such as land uses; parking policies and facility needs; environmental impacts; travel behavior; community goals; and financing. The plan also provides long-range direction for coordinating possible high-capacity transportation services and the land-use changes necessary for a successful system.

Thurston County's Comprehensive Plan provides direction as to how the area should develop to improve the quality of life for its citizens. The transportation element, which includes transportation choices such as transit, is an important part of that plan. IT can assist the county in meeting the objectives of the Comprehensive Plan by providing high-quality transit service. Thurston County can help IT to make transit more attractive and efficient by ensuring that development accommodates pedestrians and bicyclists and can be easily served by transit. (Resolution 11589, 12/15/97)

IV. BICYCLES

A. Bikeway Classification:

The Washington State Department of Transportation has set standards for bikeways funded with state and federal monies. Exhibits H through K illustrate four urban classes of bikeway prepared by the Thurston Regional Planning Council, which are consistent with state bikeway standards and which will be used in county Urban Growth Areas. In rural areas paved shoulders will serve as bikeways (see Exhibit D and E Rural Area Roadway Design Standards for Shoulder Widths. Classes of bikeways include:

Class I Bike Path:	Separated path, not on roadway.
Class II Bike Lane:	4-5 foot, paved and striped lane marked specifically for bicycles
Class III Bike Route:	Shared, wide curb lane, signposted for bicycling.
Class IV Bike Route:	Shared vehicle travel lane, typically connecting links between facilities.

CLASS I BIKE PATH



EXHIBIT G

CLASS II BIKE LANE



EXHIBIT H

CLASS III BIKE ROUTE



EXHIBIT I

CLASS IV BIKE ROUTE



EXHIBIT J

B. Current Network:

Various individual bikeways exist within metropolitan and rural Thurston County. Bikeways are located in the cities of Lacey, Olympia and Tumwater, and radiate out into the county and to rural cities and towns. Refer to Map M-35 for existing and future bike facilities in the county. As rural arterial and collector roads are upgraded to county standards they will include paved shoulders (see Exhibit D and E for County road shoulder requirements). Paved shoulders have a number of uses including safety, bikeways, pedestrian usage, improved drainage, emergency pull off, better support of the pavement for the driving lane and others. Because of the multiple usage of paved shoulders, particularly roads with higher traffic volumes, some roads may warrant shoulder paving even if they are not on a recognized future bikeway.

C. Future Network:

Bicycling has become very popular in Thurston County, both as a form of recreation and exercise and as a means of transportation. As the number of bicyclists has increased, conflicts and the potential for conflicts with automobiles have risen. In response to this situation, the Comprehensive Plan contains policies intended to improve bikeways in the county. These policies recommend that all jurisdictions and major activity centers in Thurston County be connected by continuous and safe bike lanes. In addition, a trail system is being developed by preserving out-of-use rail corridors. These trails will provide additional bike connections.

Bicycle improvements will be part of roadway improvements when possible since adding these as part of roadway work is the most cost effective. Recommendations included in the Regional Transportation Plan emphasize the Class I bike paths that serve as the backbone of the region's non-motorized system. Class II and Class III facilities are best identified at the local level, with coordination between agencies to ensure seamless connections at jurisdictional boundaries, and at critical junctions with the Class I network. The vision is for all jurisdictions to be interconnected with an unbroken network of bicycle facilities, to which neighborhoods and activity centers in every jurisdiction are connected by safe and convenient on-street facilities. In this way most residents will be able to choose bicycling as a viable travel alternative. Map M-35 illustrates the regionally-significant projects included in the 2025 Regional Transportation Plan.

V. RAIL AND AIR TRANSPORTATION SYSTEM**A. Rail Transportation:**

Rail transportation in Thurston County includes both freight hauling and passenger services. Goods and materials move to, from and through Thurston County on Burlington Northern Santa Fe (both Amtrak and Union Pacific share use of these lines), Tacoma Rail Mountain Division, Puget Sound and Pacific (operating from Centralia through Thurston County to Grays Harbor), Yelm Prairie Line, and Union Pacific. Passengers can travel regionally and between States on AMTRAK coaches that serve the rail station on the Yelm Highway. Thurston County is served by a high speed regional rail system that carries passengers throughout the Western Washington Corridor and from Eugene to Vancouver B.C. Existing railroads, in Thurston County, and their ownerships are illustrated on Map M-41.

The Thurston County community wants more rail transportation services. The community may be faced with a number of problems and opportunities affecting rail transportation. These include:

Decline in local shipping by freight rail, which causes rail lines to be abandoned;

Passenger rail facilities that are nonexistent or need major improvements;

The need to identify and preserve critical right-of-way so Thurston County can participate in regional passenger rail;

Land use densities and types that are needed to support rail transportation services;

Timely preservation and acquisition of right-of-way that railroad companies are disposing of, after rail services are stopped;

Decisions as to what uses are appropriate and environmentally sound on railroad right-of-way that is acquired by public entities (e.g., nature trails, bikeways, historical/cultural activities, future roadway connections, future rail); and

Intergovernmental coordination in enhancing and planning for more rail transportation services throughout the State of Washington.

A substantial amount of work has been done to enhance rail transportation services and to address the specific issues and impacts on the Thurston County community.

This Comprehensive Plan contains policies to guide preservation and enhancement of rail transportation services (Goal 5, Objectives B, C, D, and E). In addition to these guiding policies, Thurston County, Thurston Regional Planning Council, and

other jurisdictions are working cooperatively to identify a regional vision for rail and a proactive strategy for keeping rail a viable and thriving option in the region. The Regional Transportation Plan called for development of a regional rail strategy that will define what role rail should play in the region in moving people and goods within the region and in connecting Thurston County to the greater Puget Sound region and beyond. Such a strategy will be essential in identifying and preserving corridors, planning for compatible land use and siting of facilities, and in coordinating with the diverse array of public and private partners that will be required if rail is to play a larger role in this region. While the Railroad Right-of-Way strategy is a valuable tool for acquiring rail lines as they become abandoned, the Regional Rail Strategy, when complete, will help ensure that fewer of those lines are ever threatened with abandonment.

B. Air Transportation:

Air transportation in Thurston County includes both the small public airport owned and operated by the Port of Olympia and some private air strips. An analysis undertaken by the Port of Olympia shows that the Olympia Airport has adequate capacity to meet future aviation demand for the next 20 years. Refer to the Olympia Airport Master Plan for more information. Thurston County should continue to coordinate with other jurisdictions and the Port of Olympia to determine future plans for the Olympia Airport that will affect adjacent land uses. Land uses in the airport area should be compatible with these plans and adequate arterial access to the airport should be maintained. Land Use and development standards in the airport area should protect the safety of residents and the operation of the airport (see Section V, Chapter Two, for more information).

The addition of small airfields and landing strips should be discouraged because of their impacts on adjacent uses. Private landing strips should meet FAA standards, cumulative impacts should be analyzed and mitigated, and landing strips should be placed to minimize hazard and nuisance. Table 5-2 lists existing private airports located within the county. Table 5-2A lists existing public use airports located within the county.

Table 5-2
Private Airports - Thurston County

	Airport	Location	Based Aircraft			
			1978	1988	1997	2004
1	R&K Sky ranch	Rochester	9	6	8	13
2	Flying Carpet	Lacey	4	5	5	N/A
3	Yelm (Western Airpark)	Yelm	15	56	56	56
4	Cougar Mountain	Yelm	3	10	10	10
5	Aero Plaza	Olympia	0	7	9	7
6	Gower Field & Seaplane Base	Olympia	4	1	1	0
7	Cricket Field	Littlerock	-	2	4	6
8	Blade, Rotary & Wing	Littlerock	-	2	2	N/A
9	Sorrell	Tenino	-	1	2	5
10	Wisslers	Tenino	-	1	0	N/A
11	NW Helicopters	Tumwater	-	2	5	6
12	Kari Field	Olympia	-	2	2	N/A
13	Flying "B"	Yelm	-	10	10	N/A
TOTAL			35	105	114	103

N/A – Information Not Available

Source: Port of Olympia, 2004.

**Table 5-2A
Public Use Airports**

Airport	Location	Runway Lengths (ft)	Surface
Olympia Regional Airport	Tumwater (City)	4,177 and 5,419	Asphalt
R & K Skyranch	Rochester (Thurston County)	2,480	Turf
Yelm (Western Airpark)	Nr. Yelm (Thurston County)	2,845	Asphalt

VI. GOALS, OBJECTIVES AND POLICIES

GOAL 1: PROVIDE TRANSPORTATION SYSTEMS THAT ENHANCE THE HEALTH, SAFETY AND WELFARE OF THURSTON COUNTY CITIZENS.

OBJECTIVE A: To develop programs for identifying and mitigating roadway hazards which result in accidents and threats to public safety.

POLICIES:

1. The county should design and maintain highways and roadways consistent with geometric and structural standards that reduce the risk of serious injuries and fatalities in the event of accident.
2. The county should provide safe and effective traffic control or grade separation at railroad crossings where practicable.
3. The county should provide sufficient travel lane capacity to meet the demand for safe vehicular travel in major corridors, consistent with the road width and community scale limits identified in the Regional Transportation Plan (four to five lanes).
4. The county should utilize state-of-the-art traffic control devices, signalization and signing, consistent with professionally accepted warrants to improve the safety and operation of county roadways.

OBJECTIVE B: To coordinate with the state to prepare procedures to monitor and control the movement of vehicles carrying hazardous cargos or materials on transportation facilities within the county.

POLICIES:

1. The county should assist in enforcement of federal and state regulations for transportation of hazardous materials.
2. The county should develop and implement policies minimize the transport of hazardous cargo or materials through population and activity centers by restrictive routing where practical.
3. The county should conduct a study to inventory hazardous materials being transported through and to Thurston County and identify procedures to handle spills or other accidents.

GOAL 2: PROVIDE TRANSPORTATION SYSTEMS THAT SUPPORT AND COMPLEMENT THE LAND USE ELEMENT OF THE THURSTON COUNTY COMPREHENSIVE PLAN, AND ARE CONSISTENT WITH, AND WORK TO MEET THE GOALS OF THE REGIONAL TRANSPORTATION PLAN.

OBJECTIVE A: To prepare long-range plans for future arterial and collector roadways that stress safety and maintenance; meet county and regional goals to decrease the rapid growth of traffic congestion; provide adequate rights-of-way that consider existing and future development; implement Transportation Demand Management and Transportation System Management Programs; are coordinated with the Regional Transportation Plan and adjacent jurisdiction plans; and meet concurrency requirements of the State Growth Management Act.

POLICIES:

1. The county should use future land use projections based on county and jurisdiction comprehensive plans to identify and provide for adequate safety, structural, rights-of-way and other possible improvements that support the vehicle transportation needs plus use alternative transportation modes as areas develop.
2. Transportation Demand Management programs should work to decrease auto dependence. These efforts should be consistent with Regional Transportation Plan goals, and coordinated through Intercity Transit with the cooperation of jurisdictions and the state.
3. The county should utilize land use decisions regarding types and levels of development intensity to determine the types and levels of transportation facilities to be provided within the unincorporated county. Land use and transportation goals and decisions should be integrated with one another and coordinated with adjacent jurisdictions and with the Regional Transportation Plan.
4. The county should ensure that all transportation projects within Thurston County that have an impact upon facilities or services identified as regional in the Regional Transportation Plan are consistent with the Regional Transportation Plan.

5. The county should designate areas where roadway construction or other transportation network improvements to serve designated land use intensities are not feasible as Strategy Corridors in local and regional plans. If strategies cannot be identified to resolve the problems then such land use designations or the level of service should be reviewed.
6. The county should deny the development of transportation facilities or levels of service which generate pressures for undesirable changes in the Land Use Chapter of this Comprehensive Plan.
7. To meet concurrency requirements of the State Growth Management Act, the county should ensure that adequate transportation facilities are available when the impacts of development occur, or a financial plan must be in place to assure that needed facilities are in place within six years. The County concurrency management ordinance assures that development within unincorporated areas will not occur that causes the level of service on a transportation facility to drop below the standards outlined in this Transportation Chapter or adopted joint plans.

OBJECTIVE B: To provide land development standards to ensure safe and efficient access to land while maintaining the integrity of the arterial roadway system.

POLICIES:

1. Wherever possible, newly created individual lots should not have direct access to present and planned future arterials; access should be by local or collector roadways connecting to arterials.
2. The county should ensure that all developments have adequate access and circulation for all public service vehicles.
3. The county should maintain compatible street and road standards among Thurston County jurisdictions.
4. The county should recognize the advantages and encourage the design of connected networks of arterial and collector roads in order to avoid additional lanes as much as possible. However, the county should ensure local residential streets are designed to discourage cut through traffic and high speeds.
5. Where new connections are identified, the county should work with appropriate partners to confirm the need for the connection, and identify right-of-way if appropriate.

OBJECTIVE C: To minimize environmental impacts of transportation systems according to the State Environmental Policy Act.

POLICIES:

1. The county should ensure that design of transportation facilities include mitigation of adverse impacts on water resources, drainage patterns and soil's profiles.
2. The county should ensure that the location of transportation facilities will minimize the disruption of natural habitat, floodplains, wetlands, geologically hazard areas, resource lands and other environmentally sensitive areas.
3. The county should consider the development of transportation systems that include aesthetic and visual values, if their costs, including maintenance and operation, can be justified.
4. The county should encourage alternative modes of travel to the single-occupant automobile in order to reach Regional Transportation Plan goals, reduce energy consumption, air pollution and noise levels.

GOAL 3: PROVIDE MOBILITY FOR ALL CITIZENS REGARDLESS OF AGE, HANDICAP OR INCOME.

OBJECTIVE A: In cooperation with Intercity Transit, assist in preparation of plans and programs for alternative transportation in Thurston County.

POLICIES:

1. The county should encourage cooperation between private and public agencies, schools and citizens in preparation of transit plans and programs.
2. The county should encourage development that accommodates pedestrians, bicycle riders, and transit riders (who are pedestrians at the beginning and end of each trip) wherever transit service is planned. Facility needs should be coordinated between the county and Intercity Transit.
3. The county should encourage Intercity Transit to continue providing fully-accessible buses for elderly and handicapped persons who can use the scheduled, fixed-route transit program.
4. The county should encourage Intercity Transit to ensure that viable paratransit options continue to provide mobility for those elderly or handicapped persons who cannot utilize the scheduled, fixed-route transit system.
5. The county should encourage public and private nonprofit agencies providing mass transportation to coordinate these services in order to maximize operating efficiency and level of service.

OBJECTIVE B: To include identification of pedestrian paths and bikeways in transportation system plans.

POLICIES:

1. The county should ensure that continuous and/or direct bicycle lanes are provided between all jurisdictions and major activity centers.
2. The county should ensure that compatible bikeway standards are maintained among Thurston County jurisdictions.
3. The county should encourage Intercity Transit's efforts to provide interconnections between different modes of travel.
4. The county should encourage the provision of convenient and secure bicycle parking at commercial or other employment sites wherever possible.

The county should support the identification and improvement of recreation and scenic bicycle and walking routes to meet demand for both short and long trips.

6. The county should encourage pedestrian facilities in order to provide reasonable access between public facilities and residential areas and serve a public safety purpose.
7. The county should ensure a safe system of bicycle and pedestrian ways tying together schools, recreation areas, business areas and activity centers is provided.
8. The county should ensure that new construction of pedestrian facilities accommodates elderly and handicapped user needs.
9. County arterial and collector road standards should include paving shoulders that are needed for roadway safety and structural support so they can be used by bicyclists.

GOAL 4: EFFICIENTLY PROVIDE PUBLICLY ACCEPTED LEVELS OF SERVICE.

OBJECTIVE A: To prepare a Road Improvement Ordinance to equitably assign the costs of transportation improvements associated with new development to the developer and county.

POLICIES:

1. The county should ensure that proponents of development required to undergo Concurrency Review provide an assessment of traffic impacts on off-site road and highway facilities. Concurrency requirements do not apply to designated transportation facilities and services of statewide significance, per RCW 36.70A.070(6).
2. The county should use the average of the two hour p.m. peak period volumes (consistent with the Regional Transportation Plan) generated by such development as the primary measurement in establishing the proportionate share of street improvement which a proponent will be required to assure.

3. The county should require that each phase of such development be accompanied by a program to provide mitigation of off-site traffic impacts, with costs pro-rated among phases of the development and beneficiaries of any improvements.
4. The county should give consideration to innovative transportation programs in impact determinations to help meet county and Regional Transportation Plan goals.
5. Multi-Modal Approach To Level of Service Goals - Strategy Corridors: The county should refer to roads with motor vehicle capacity deficiencies and various constraints that are not good candidates for adding travel lanes as strategy corridors. In the strategy corridors a multi-modal approach to level of service goals – a framework to evaluate alternatives to road widening – should be considered.

A multi-modal approach is a decision tree that would start by considering tradeoffs between improving vehicle capacity (e.g. road widening, new parallel roads, removal of on-street parking during peak hours) and improving other travel modes. Actions to reduce vehicle trips, such as adding bike lanes and sidewalks (in urban areas), improving transit services, and implementing travel demand management measures, should be considered to relieve traffic congestion in strategy corridors. Concurrency ordinances should be reviewed and updated as appropriate to implement multi-modal strategies identified for strategy corridors.

6. Roadways in unincorporated Thurston County outside the urban growth areas, except state highways of statewide significance, shall operate minimally at or above Level C (as defined by the current version of the Highway Capacity Manual). However, due to their unique circumstances, the following two roadways will be allowed to operate at Level of Service D, and for short periods, below D: (1) Mud Bay Road from the Urban Growth Area boundary west of the Olympia city limits to Highway 101, and (2) Yelm Highway from the Urban Growth Area boundary at the Burlington Northern railroad easement east to Fair Oaks Road SW.
7. Roadways in unincorporated Thurston County within the urban growth areas, except unincorporated Grand Mound, should use the level of service standards established in the joint plans. Level of Service D shall apply to county roads within the Grand Mound Urban Growth Area.
8. The county should continue to implement the concurrency management ordinance to assure that adopted levels of service will be maintained. When transportation facilities do not meet adopted levels of service, the county should consider selecting one of the following alternatives: (1) move a needed improvement on a transportation facility onto the Capital Facilities Plan or (2) lower the level of service, (3) increase revenues (bonds, new or increased user fees or taxes, regional cost sharing, developer financed improvements), (4) reprioritize projects to focus on those related to concurrency, (5) decrease the cost of the facility, (6) decrease the demand for the facility, or (7) revise the Comprehensive Plan's Land Use chapter.

Refer to the Capital Facility Plan Goal 1, Objective C, Paying for Capital Facilities, Policy 9.

9. The county should review and update the concurrency ordinance, as appropriate, to implement multi-modal strategies identified for strategy corridors.

OBJECTIVE B: To participate in programs aimed at reducing peak period traffic congestion, discourage the use of single-occupant automobiles and increase use of alternative transportation.

POLICIES:

1. The county should encourage employers in the urbanized areas to offer staggered work hours or flextime and other Transportation Demand Management programs such as parking management, ride match services and preferential parking for carpools and vanpools, covered bike racks, lockers and showers at work sites.
2. The county should encourage transportation improvements that allow efficient provision of transportation services such as park-and-ride lots, park-and-pool lots, vanpools and carpools.
3. The county should continue to participate with state government and Intercity Transit in maintaining an ongoing regional program to promote and facilitate ridesharing by the general public and commuters.
4. The county should facilitate a parking management strategy in the urban area that provides incentives for ridesharing or other commute trip reduction alternatives. As part of this parking management strategy, the county should encourage Intercity Transit to provide bus services at park and ride lots located at the edge of the urban core to serve rural commuters.
5. The county should continue to support the Regional Transportation Plan and work towards meeting the requirements of the Commute Trip Reduction Act by promoting car/vanpools, working with Intercity Transit and other partners to site park and ride lots, and investigating parking management programs.

OBJECTIVE C: To prepare, in cooperation with Intercity Transit, level of service standards for public transportation facilities consistent with current county road standards and the land use policies of this Comprehensive Plan and coordinate the Transportation Demand Management and Transportation System Management with Intercity Transit. (See Map 34 for existing transit level of services.)

POLICIES:

1. The county should integrate public transportation planning into elements of land development and design and maintenance of public roads through coordination of county road plans with Intercity Transit service plans.

2. The county should encourage the extension of public transportation throughout the PTBA¹ as needs arise, resources become available, and the population base of urban growth areas increase.
3. The county should design roads anticipated to carry Intercity Transit services to accommodate the size of transit vehicles needed.
4. The county should coordinate county road plans with Intercity Transit service plans to work toward meeting anticipated transit vehicle needs.

OBJECTIVE D: To participate with Intercity Transit, inter-county bus operators and AMTRAK in establishing compatible schedules and terminal locations.

POLICIES:

1. The county should encourage interconnections and time coordination of public transportation modes (bus, coach and rail) to increase level of service and ridership.
2. The county should support and encourage the location of terminals and their design features to permit use by multiple mass transportation modes where practical.
3. The county should encourage schedule and fare coordination of public transportation service for Thurston, Grays Harbor, Pierce and Mason Counties.
4. The county should continue to work with Intercity Transit to provide public transportation to serve the AMTRAK terminal.

GOAL 5: ALLOW THE STATE-WIDE AND INTERSTATE MOVEMENT OF GOODS, SERVICES AND PASSENGERS.

OBJECTIVE A: To cooperate with other jurisdictions to ensure adequate services to and from major air and water transportation systems.

POLICIES:

1. The county should encourage sufficient airfield capacity to accommodate existing and future aviation demand.
2. The county should encourage sufficient berthing capacity, backup area, harbor and navigational improvements to accommodate the movement of waterborne cargo and loading and unloading operations.
3. The county should support noise abatement methods and procedures in new construction to reduce the impact of aircraft flyovers on the community .

¹PTBA--Public Transportation Benefit Area

4. The county should provide safe and efficient ground access to the major air and water transportation facilities on county arterials.
5. County building requirements should ensure that developments in the Olympia Airport approach area will not interfere with airborne aircraft due to structure height, visual distraction, electrical interference or other safety conflicts.
6. The county should maintain cooperative relationships with the Port, the cities of Olympia, Lacey and Tumwater, Intercity Transit, and the Thurston Regional Planning Council to determine solutions to needs as they are identified.

OBJECTIVE B: To encourage continued and enhanced freight rail transportation.

POLICIES:

1. The county should encourage Railroad companies and shippers to maintain rail freight service on lines that if abandoned would have negative impact on the Thurston County economy.
2. The county should support the Thurston County Economic Development Council in its work to attract businesses that will increase use of freight rail services and discourage rail line abandonments.
3. The county should educate shippers as to the benefits of transporting their products by rail for long distance hauling.
4. The county should cooperate with the state in its effort to preserve essential rail freight service that offers long-term economic benefits.
5. The county should cooperate with Thurston Regional Planning Council and other jurisdictions in the development, update, and implementation of a regional rail strategy.

OBJECTIVE C: To encourage continued and enhanced passenger rail transportation.

POLICIES:

1. The county should cooperate with the State Department of Transportation Rail Office and AMTRAK to establish programs to upgrade interstate passenger rail service.
2. The county should assist rail transportation operators in improving the market for passenger rail travel by making improvements to speed, safety, station amenities, local connections by public transit to the urban area and parking.

OBJECTIVE D: To pursue balanced transportation programs and policies that directly enhance the operating and capital resources of freight and passenger rail transportation.

POLICIES:

1. The county should cooperate with the state and other jurisdictions in pursuing the preservation and acquisition of railroad rights-of-way for future rail use, economic development and interim trail use. State railroad right-of-way preservation funds should be pursued.
2. The county should encourage the building of linkages between local transportation services, regional rail and interstate rail services.
3. The county should participate with the state in rehabilitating and constructing new rail facilities that enable services to be maintained or enhanced.
4. The county should establish land use types and densities along rail corridors that support freight and passenger rail transportation.

OBJECTIVE E: To prepare plans for railroad rights-of-way when continued rail service is not practical and take action before official abandonment takes place to avoid breaking up property ownerships.

1. The county should support state or local acquisition of out of use railroad rights-of-way to preserve these resources as future transportation corridors, such as passenger rail lines, bikeways, pedestrian/equestrian trails and roadways.
2. The county should consider environmental and community impacts with regard to actions for preservation and use of out of use railroad right-of-way.
3. The county should work with the Port, the Economic Development Council, and the state to institute a program to educate shippers, passengers, and the general public as to the benefits of rail services and plan for the future freight, regional, and interstate rail.

GOAL 6: MAINTAIN COMPATIBLE RELATIONSHIPS BETWEEN AIRFIELDS AND LANDING STRIPS AND SURROUNDING LAND USES.

OBJECTIVE A: To Encourage location of new airfields and landing strips where they would minimize adverse impacts on existing surrounding land uses.

POLICIES:

1. The county should encourage small airfields serving rural uses and needs to locate where adequate roads, fire protection, and other necessary facilities and services are available.
2. The county should require mitigation for any potential adverse impacts to surrounding land uses related to new small.

3. The county should require landing strips for private use serving one aircraft in rural, residential or commercial areas to locate on sites meeting current FAA recommendations, providing adverse impacts can be mitigated.
4. The county should require that landing strips serving more than one aircraft, including those associated with residential development and resource uses, be regulated according to current FAA recommendations and analyzed for their cumulative impacts, with mitigation measures proposed.
5. The county should require that approach zones for small airfields and landing strips be oriented to minimize hazard and nuisance to present and potential adjoining land uses.
6. The county should discourage the proliferation of small airfields and landing strips due to their cumulative impacts on air traffic and nearby uses.
7. The county should notify nearby land owners about proposals for small airfields and landing strips.
8. The county should establish standards for small airfields and landing strips within the Special Use Chapter of the Zoning Ordinance

OBJECTIVE B: To allow existing small airfields and landing strips to continue operations.

POLICIES:

1. The county should not consider small airfields and landing strips which are originally developed compatibly with surrounding land uses as a nuisance to new land use developments in the area.
2. The county should designate land surrounding existing small airfields and landing strips for land uses which are compatible with aircraft activity. The county should use Federal Aviation Administration Regulations and Advisory Circulars information as a guide.
3. The county should establish guidelines for expansion of existing airfields and landing strips, to be subject to the same guidelines as new ones.
4. The county should inventory the current use of water for aircraft activity and explore the need for regulations (including storage of aviation fuel).