Kittitas County
Long Range Transportation Plan

Department of Public Works

June 3, 2008

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Chapter 1 – Plan Overview

Transportation Needs in a Growing County

Kittitas County is the third fastest growing county in the state and this growth is placing greater demands on the transportation system. The County has also seen recreational traffic increase partly because the county is easily reached by our state's major urban areas and many of these people are drawn to its mountainous landscape and numerous recreational opportunities. Freight movement continues to grow, such as container trucks taking timothy hay to the Seattle and Tacoma international ports. All of this growth requires investments in our transportation system to:

- Maintain the existing system.
- Promote safe and efficient travel.
- Add capacity needed for planned growth.

This is a twenty-year transportation plan that provides strategies and guidance for the County's investments in roads, public transportation, air, rail, bicycle/pedestrian facilities, and recreational access. The overall goal of this plan is to:

Provide a balanced and well-maintained transportation system for the safe and efficient movement of people, goods and services.

Kittitas County Vicinity Map

What are we planning to do?

- Preserve and maintain Kittitas County's 565 miles of arterial roads and bridges.
- Improve roads that do not meet design standards according to the County's priority system and as funds become available.
- Improve roads with high accident rates and target road deficiencies that affect safety according to the County's priority system and as funds become available.
- Preserve right of way for additional routes to establish a better grid system of roads, especially in areas that have only one way in and one way out and in areas experiencing a large amount of new development.
- Maintain roadway capacity at an acceptable level of service by monitoring and forecasting development growth and identifying infrastructure improvements needed to address expected growth in the next 20 years.
- Continue supporting programs that provide essential public transportation services for the county's senior, disabled and low-income population.
- Implement strategies as funding becomes available to encourage people to travel in carpools, vanpools, or buses such as establishing park and ride lots or expanding existing shuttle services to nearby county residents.
- Program improvements needed to connect travelers and freight to airports and rail services.
- Include construction of pedestrian paths and bike routes with major reconstruction projects when they are within the non-motorized system plan and develop inter-agency partnerships to seek grants for paths and bike routes.
- Coordinate with US Forest Service and Washington State Parks and Recreation to establish off-road parking facilities to provide access to the over 500 miles of snowmobile and dirt bike trails in the county.
- Identify roads that are needed to access the county's recreational lands and develop partnerships with other jurisdictional agencies to seek funding to improve or construct these roads.

How is this Plan organized?

Chapters 2 through 11 provide details for each of the subjects described above. Then Chapter 12 indicates the phased implementation strategy and finance component.

The supporting documentation for the recommendations described in the plan is provided in appendices. These appendices include existing conditions, hazardous elimination program, forecasting model documentation, existing and future conditions, coordination with local agencies, transportation grant sources available, and locations of existing snowmobile trails. Finally, there are two companion reports that provide the data and model documentation for this planning document:

1. Technical Report and Technical Appendix - feature the engineering analysis that went into developing this Transportation Plan. All traffic counting, level-of-service, accident, safety, functional classification, new road prioritizations and related engineering methodologies and findings are presented here.
2. Model Documentation – provides more detail on the transportation modeling process and methodology.

Chapter 2 – Preservation and Maintenance

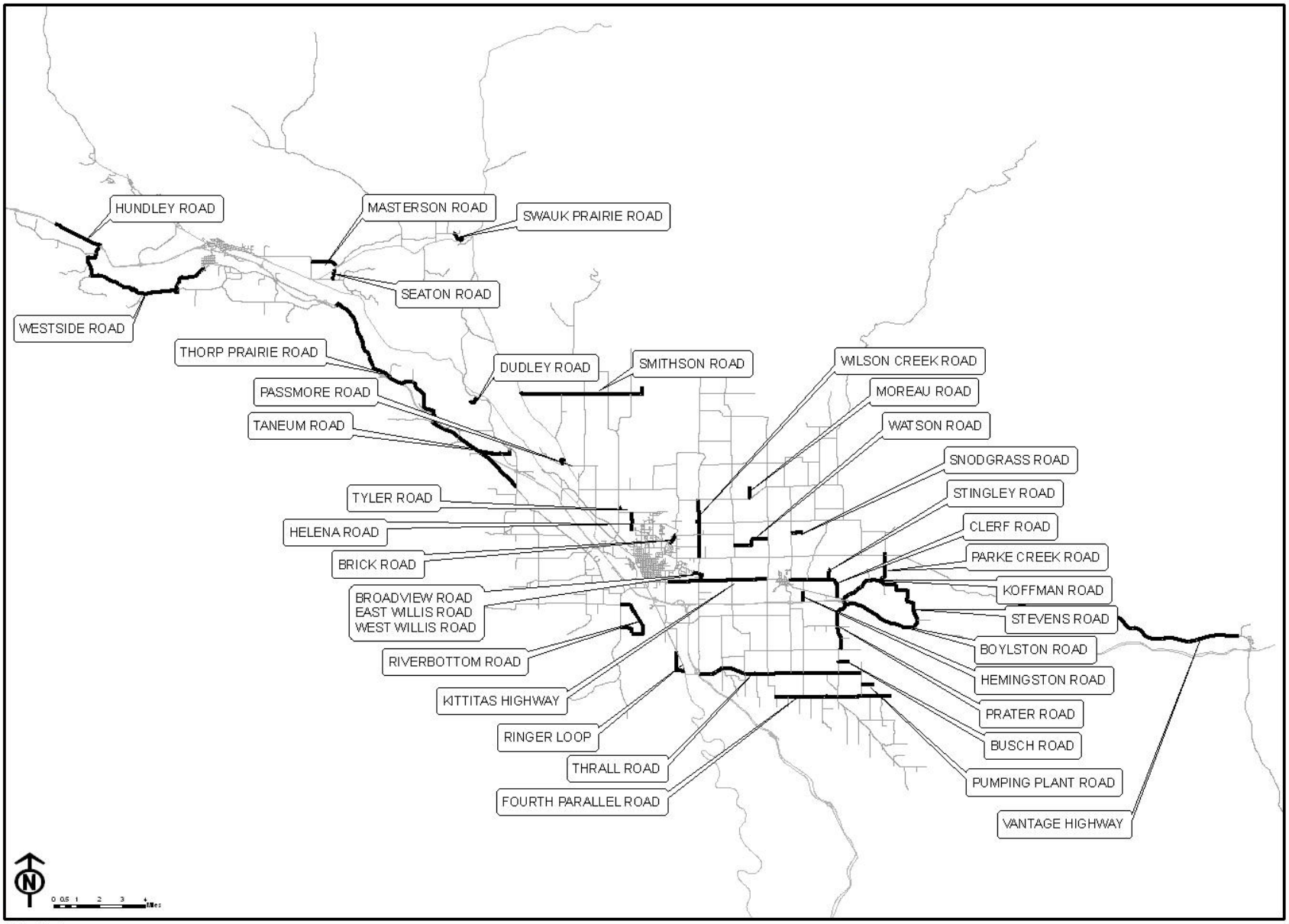
Preservation and Maintenance Activities

Kittitas County's goal is to provide sufficient amount of preservation and maintenance funds to keep the 565 centerline miles (1,025 lane miles) of roads and bridges in good working order. The Public Works Department determines the optimal use of these funds by evaluating each road's life cycle and then either scheduling the resurfacing of these roads right before the end of their life cycle or prolonging their life cycle by addressing maintenance needs such as patching pot holes and building up shoulders.

The preservation program identifies the year that the county roads need to be resurfaced according to roadway surface type, traffic impacts, and if the road is scheduled for major reconstruction or widening. County roads that have a Bituminous Surface Treatment (BST) are chip sealed at least once every seven years. The County chip seals approximately 75 centerline miles of road each year. A plan for chip sealing roads during a typical year is shown in the figure on the following page.

Kittitas County Transportation Plan

2007 SEALCOAT SCHEDULE



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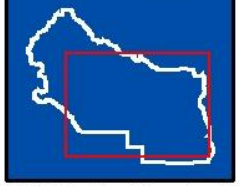
ROADS

2007 SEAL COAT



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Other maintenance activities that support the preservation of the county road system and help maintain access throughout the year include:

- Brooming (sand cleanup and after roads are chip sealed).
- Pot hole patching and asphalt blade patching.
- Seal coating, crack sealing, and fog sealing.
- Gravel road maintenance.
- Shoulder maintenance and shoulder restoration.
- Storm drainage and irrigation maintenance.
- Sidewalk, path, and livestock crossing maintenance.
- Street lighting and traffic control devices.
- Snow and ice removal.
- Roadside maintenance including vegetation control, litter pick-up, and fence repair.

Snow Plowing Procedures

During winter conditions, the Public Works Department will snow plow county roads in a prioritized order with the highest priority applied to major roads having school bus routes and postal service routes. Some roads have very limited or no winter maintenance and persons are cautioned to proceed at their own risk.

Kittitas County includes mountainous terrain with high elevations and heavy snowfall. Roads in these areas can be challenging to snow plow, causing difficulties for emergency vehicle access.

If an emergency incident were to occur during snow conditions, the Public Works Department attempts to respond as quickly as possible to clear a path for emergency vehicle access. However, general snow removal is not considered an emergency response task and roads are normally plowed according to their prioritized order.

Striping Procedures

Some roads require centerline striping, edge line striping, passing lane striping, bike lane striping, and turn pocket striping. Roads that receive center line striping include all major and minor collector routes, local access roads with a traffic volume greater than 500 ADT, a continuation of a connecting collector route, and other roads as directed by the County Engineer for safety issues. Roads that receive edge line striping include all major collector routes and minor collector routes with a pavement width of 22 feet or greater and a traffic volume greater than 500 ADT. Edge line markings are recommended but not required for paved, two-way travel ways that are a continuation of a connecting roadway section with edge line markings. The County Engineer evaluates whether roads should be striped that do not meet the above criteria based on accident history, speed limit, sight distance, horizontal curves, and vertical curves.

Goals-Policies-Objectives, Costs, and Funding

2-1 GPO: Kittitas County shall provide scheduled preservation and maintenance of its valuable roadway assets. Additional finance options for sustaining a high level of care and maintenance shall be explored.

Estimated Cost:	Arterial Asphalt Overlay Program:	$ 300,000 / year
	Chip Seal Program:	$1,200,000 / year
	Striping Program:	$ 130,000 / year

Funding Sources: CAPP and Local Funds

Chapter 3 – Road Standard Deficiencies

What is a Deficient Road?

County roads that do not meet design standards are considered deficient. Design standards are found in the Kittitas County Road Standards (KCRS) and must also be in accordance with Washington State Department of Transportation (WSDOT) and American Association of State Highway and Transportation Officials (AASHTO) standards. The following tables indicate the major components of KCRS county road design standards and access spacing requirements:

Table 3-1
Rural Area Public Roadway Design Standards

Average Daily Traffic	*Functional Classification*	*Right of Way*	*Lane Width (BST/HMA)*	*Shoulder Width (BST/HMA)*	*Total Pavement Width*	*Side Slope*	*Cut Slope or Fill Slope*
0-399	Local	60′	11′	1′	24′	4:1	2:1
400-749	Local or Collector	60′	11′	2′	26′	4:1	2:1
750 +	Local or Collector	60′	11′	3′	28′	4:1	2:1

Table 3-2 Access Spacing Requirements		
Road Classification	*Posted Speed Limit*	*Access Spacing*
Rural Local Access or All Urban Classifications	35 mph or less	100′
	Greater than 35 mph	100′
Rural Minor Collector (parcel access should be to a local if possible)	35 mph or less	150′
	Greater than 35 mph	300′
Rural Major Collector (parcel access should be to a local if possible)	35 mph or less	500′
	Greater than 35 mph	1,000′

The KCRS also requires that county roads be designed as follows:

- Minimum design speed of 25 mph.
- Bridge clear width shall accommodate the full width of the traveled lanes and shoulders of approach roads.
- Roads shall intersect no more than 10 degrees from a right angle.

Road standard variances may be granted by the Road Variance Committee. The composition of this committee is defined in the KCRS. Variances are considered on a case-by-case basis and the committee considers whether the granting of a variance is in the public interest and meets safety, function, fire protection, appearance, and maintainability.

Deficient County Roads

Twenty percent of the county's roads (approximately 207 miles) do not meet KCRS. Fortunately, 89% of these roads have daily traffic volumes of less than 1,000, which reduce their negative impact on the system. Conversely, their low volumes artificially diminish their standing and need for improvement. Appendix A provides a summary of the roadway analysis showing the road segments that do not meet road standards.

The County has programmed about one-mile of improvements each year to widen shoulders and improve the pavement structure of roads. In addition to this dedicated local funding source, state and federal funding sources are sought to improve road deficiencies. The County has been successful in securing state funding for major reconstruction projects such as the Nelson Siding Road to be constructed in 2009 and the Westside Road to be constructed in 2012.

Bridges Not Meeting Sufficiency Ratings

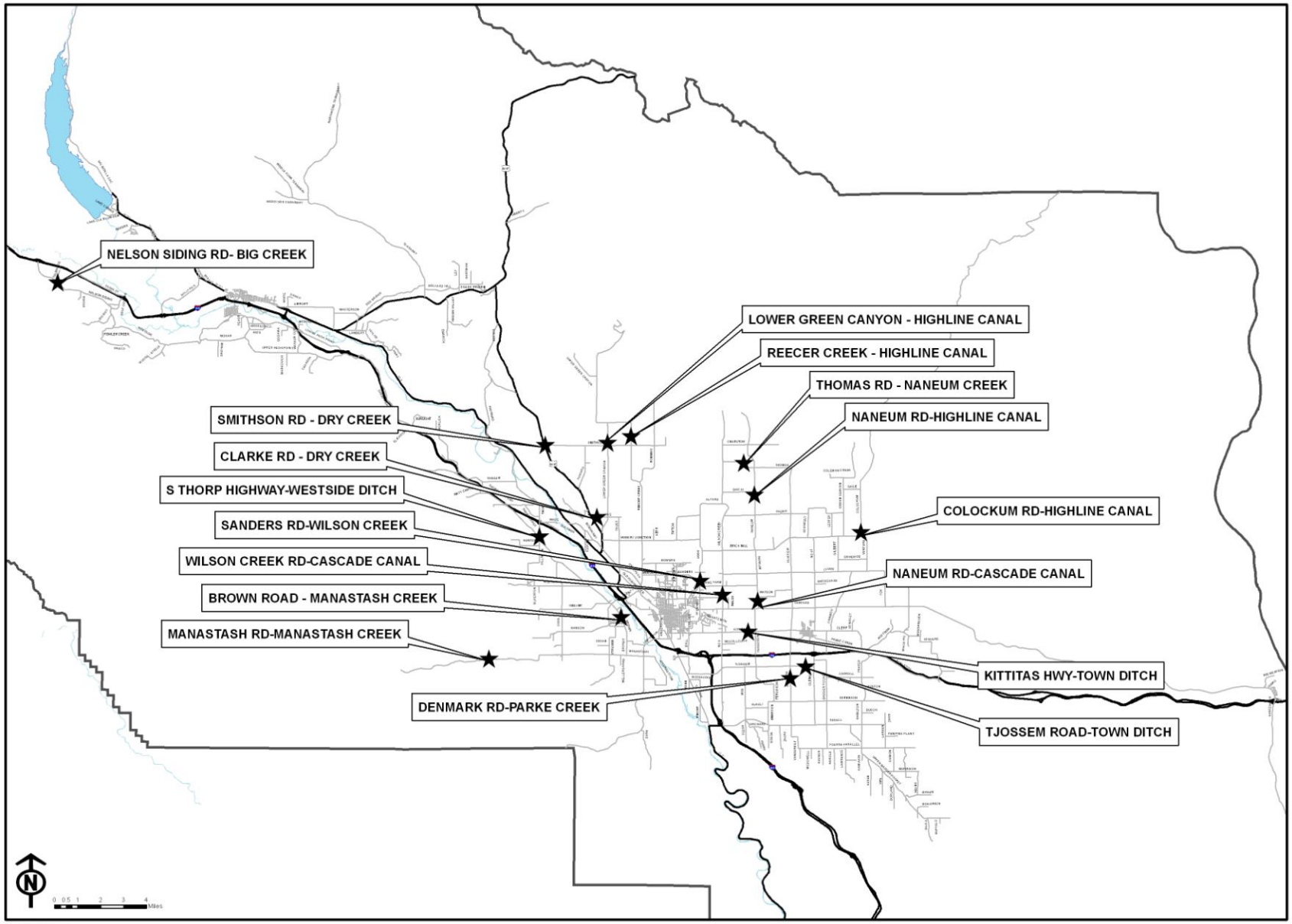
The County road system includes 267 bridges and structures - 112 of these structures are 20 feet or greater in width. The Federal Bridge Replacement Advisory Committee (BRAC) classifies structures 20 feet or greater in width as bridges. Bridges are eligible for replacement funding from BRAC when their sufficiency rating is lower than 50 and the bridge is structurally deficient or functionally obsolete. Bridges qualify for rehabilitation funding from BRAC when the sufficiency rating is 80 or lower and the bridge is structurally deficient or functionally obsolete. BRAC will not fund the replacement or rehabilitation of any structures less than 20 feet wide.

All of the County's bridges are inspected at least once every two years. The inspector identifies potential problems and maintenance issues so that corrective measures can be taken.

Bridges that have sufficiency ratings below 80 and structures less than 20 feet wide with sufficiency ratings below 60 are shown in the figures on the following pages, and detailed information is provided in Tables 3-3 and 3-4.

Kittitas County Transportation Plan

Bridges Over 20 ft Needing Replacement



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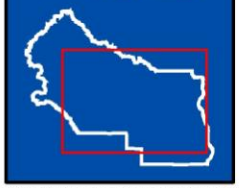
- BRIDGES
- ROADS
- WSDOT ROADS



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Bridges Under 20 Feet Needing Replacement

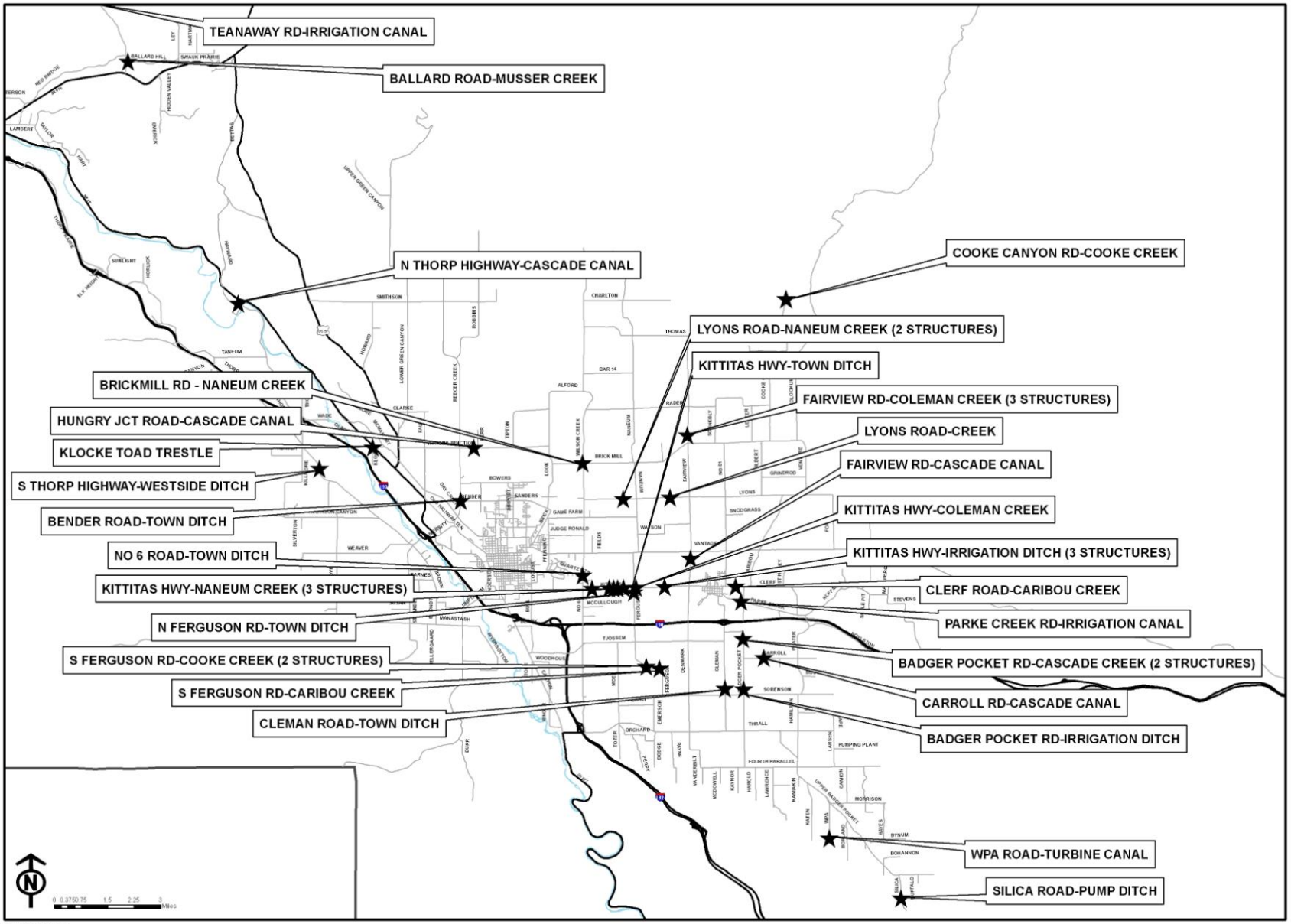

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Table 3-3 **Kittitas County Bridges** Below Sufficiency Rating 80 (width => 20 feet)			
Bridge #	*Bridge Name*	*Sufficiency Rating*	*Year Rated*
77141	Manastash Road over Manastash Creek	46.26	2005
89321	Wilson Creek Road over Cascade Canal	52.62	2005
89301	Sanders Road over Wilson Creek	58.10	2006
79042	Kittitas Highway over Town Ditch	60.60	2006
80171	Colockum Road over Highline Canal	61.05	2006
98271	Reecer Creek Road over Highline Canal	61.13	2006
87131	South Thorp Highway over Westside Ditch	61.95	2006
89091	Naneum Road over Highline Canal	64.10	2006
89331	Naneum Road over Cascade Canal	64.20	2006
04291	Nelson Siding Road over Big Creek	66.00	2005
88082	Clarke Road over Dry Creek	66.50	2006
99325	Thomas Road over Naneum Creek	67.30	2006
79144	Denmark Road over Parke Creek	67.30	2006
78041	Brown Road over Manastash Creek	67.30	2005
98281	Lower Green Canyon Rd over Highline Canal	68.20	2006
97251	Smithson Road over Dry Creek	71.90	2006
79141	Tjossem Road over Town Ditch	79.90	2006

Table 3-4 Kittitas County Bridge Structures Below Sufficiency Rating 80 (width < 20 feet)			
Bridge #	*Bridge Name*	*Sufficiency Rating*	*Year Rated*
9301-OB	Cooke Canyon Road over Cooke Creek	29.85	2006
70182-OB	Carroll Road over Cascade Canal	43.02	2005
79241-OB	Badger Pocket Road over irrigation ditch	43.78	2006
79091-OB	North Ferguson Road over Town Ditch	46.95	2006
79211-OB	South Ferguson Road over Cooke Creek	46.95	2006
79251-OB	Cleman Road over Town Ditch	48.31	2006
60221-OB	Silica Road over Pump Ditch	48.76	2005
89211-OB	Brick Mill Road over Naneum Creek	48.77	2006
79041-OB	Kittitas Highway over Coleman Creek	48.96	2006
88274-OB	Bender Road over Town Ditch	49.18	2005
87244-OB	S. Thorp Highway over Westside Ditch	49.31	2005
79051-OB	Number 6 Road over Town Ditch	49.47	2006
89142-OB	Fairview Road over Coleman Creek	49.78	2005
89281-OB	Lyons Road over Naneum Creek	49.89	2006
89272-OB	Lyons Road over creek	49.89	2006
89272-OB	Lyons Road over Naneum Creek	49.92	2005
60082-OB	WPA Road over Turbine Canal	49.97	2005
79221-OB	S. Ferguson Road over Caribou Creek	49.98	2006
88202-OB	Klocke Road Trestle	50.39	2005
88154-OB	Hungry Junction Road over Cascade Canal	51.26	2005
06091-OB	Teanaway Road over irrigation canal	53.31	2003
79044-OB	Kittitas Highway over Naneum Creek	54.51	2005
79052-OB	Kittitas Highway over irrigation canal	54.51	2006
79031-OB	Kittitas Highway over irrigation canal	55.26	2005
79021-OB	Fairview Road over Cascade Canal	56.38	2005

Table 3-4 Continued Kittitas County Bridge Structures Below Sufficiency Rating 80 (width < 20 feet)			
Bridge #	*Bridge Name*	*Sufficiency Rating*	*Year Rated*
79043-OB	Kittitas Highway over irrigation canal	56.45	2006
79362-OB	Badger Pocket Road over Cascade Creek	56.74	unknown
79013-OB	Clerf Road over Caribou Creek	56.79	2005
80342-OB	Parke Creek Road over irrigation canal	56.83	2005
97331-OB	N. Thorp Highway over Cascade Canal	57.22	2006
79055-OB	Kittitas Highway over Naneum Creek	58.13	2005
79053-OB	Kittitas Highway over Naneum Creek	58.13	2003
79211-OB	S. Ferguson Road over Cooke Creek	58.98	2006
89141-OB	Fairview Road over Coleman Creek	59.83	2005
89144-OB	Fairview Road over Coleman Creek	59.83	2005
07301-OB	Ballard Road over Musser Creek	60.94	2005

Bridges and Structures Not Meeting Sufficiency Ratings

Load ratings were also identified for all county bridges in 1994. Two bridges were identified as having inadequate load ratings and therefore not able to handle normal truck traffic and permitted overweight loads. These bridges have been posted and are funded and scheduled for replacement. They include:

- West Fork Teanaway Road Bridge over the Teanaway River.
- Naneum Road Bridge over Naneum Creek.

Hard-Surfacing Gravel Roads

There are 53 miles of gravel roads in Kittitas County on a total of 69 different roads. The County has a ranking system for prioritizing hard-surfacing improvements needed for gravel

roads. The priority system uses the following criteria to rank roads for funding improvements:

- Number of residential structures on road.
- Average daily traffic volume on road.
- Speed limit of road.
- Whether it is a school bus or mail route.
- Economic feasibility to construct improvements.
- Federal Functional Classification of the road.
- Whether it is a through-route or dead-end road.
- The reduction of maintenance expenditures that would result from these improvements.
- Whether it provides recreational access.

The County has programmed about one-mile of improvements each year for hard-surfacing gravel roads so they meet design standards.

Turn-Arounds Needed

There are eighty-seven dead-end roads without turn-arounds in Kittitas County. The County has a ranking system for prioritizing the construction of turn-arounds with the following criteria:

- Surface type of road.
- Average daily traffic volume on road.
- Speed limit of road.
- Whether a school bus needs to turn around.
- Federal Functional Classification of road.
- Pavement Condition Index rate of road.
- Safety considerations for vehicles and maintenance equipment (snow plows).

The County programs for the construction of one turn-around each year.

Goals-Policies-Objectives, Costs, and Funding

3-1 GPO: Kittitas County shall seek and program funds to improve deficient roads to meet Kittitas County Road Standards.

Estimated Cost:	Improving Deficient Roads Program:	$ 150,000 / year
	Major Reconstruction Program:	$2,000,000 / year
	Bridge Reconstruction Program:	$ 100,000 / year
	Hard-surface Gravel Roads Program:	$ 120,000 / year
	Turn-around Program:	$ 10,000 / year
	Total:	$2,380,000 / year

Funding Sources: RAP, STP, BRAC, TIB, Forest & Highway, Sales & Use Tax, and Local Funds

Chapter 4 – Road Safety Improvements

How safe is The County's Transportation System?

In Washington State, there are 600 transportation-related fatalities each year. In Kittitas County, there were 12 fatal collisions in 2004, 10 fatal collisions in 2005, and 7 fatal collisions in 2006. Although these fatalities did not occur on county roadways, there were many injury related accidents that occurred on county roads. High accident locations and roads that have safety related deficiencies are identified below as areas that need improving.

Public Works has implemented a hazard elimination program that targets safety related road deficiencies such as inadequate clear zone, narrow shoulders, and sub-standard road alignment. Additionally, Public Works has been working with the WSDOT Safety Corridor Program to implement safety features that target high accident locations. Examples of safety improvements being implemented include installing guardrail where warranted, improving the turning radius of tight intersections, constructing safety pull-outs, and adding rumble strips to alert drivers that they are drifting out of the lane.

High Accident Locations

The following corridors and intersections had three or more accidents during the 2004-2006 analysis period:

- *Vantage Highway:* 43 accidents with 14 involving an injury. More details are provided in the description of the Safety Corridor program below.
- *Kittitas Highway:* 38 accidents with 14 involving an injury. More details are provided in the description of the Safety Corridor program below.
- *Bullfrog Road*: 9 accidents.
- *Westside Road:* 13 accidents with 4 involving an injury.
- *Thorp Prairie Road – Elk Heights Interchange vicinity:* 3 accidents.
- *Manastash Road – Cove Road intersection vicinity: 4* accidents.
- *Umptanum Road:* 10 accidents with 2 involving an injury.
- *S. Thorp Highway from I-90 to Robinson Canyon Road:* 6 accidents with 1 involving an injury.

- *Reecer Creek Road – University Way – Old Highway Ten: 5* accidents with 1 involving an injury.
- *Look Road:* 13 accidents with 7 involving an injury.
- *Wilson Creek Road – Brick Mill Road:* 3 accidents with 2 involving an injury.
- *Wilson Creek Road – Game Farm Road: 6* accidents.
- *Brick Mill Rd from Wilson Creek Rd to Fairview Rd:* 7 accidents with 2 involving an injury.
- *Huntzinger Road:* 9 accidents with 6 involving an injury.

These high accident locations are shown on page 22 in the figure titled "Roads & Bridges Needing Safety Improvements."

Kittitas Highway and Vantage Highway: There has been a history of significant accidents on these two corridors, with 125 crashes occurring on Kittitas Highway and Vantage Highway from 1997 to 2002. A Safety Corridor program was established in 2003 for these two corridors to identify potential solutions to decrease this high rate of accidents. The Safety Corridor program established a task force that advocates physical improvements within the corridor as well as improved driver safety education and awareness to educate all users on roadway rules, promote responsible behavior, and save lives. Key findings of this program include:

- *Driver Inattention* - is the cause of crashes at a rate 304% higher than similar highways in the region.
- *Failure to Yield* – is the cause of crashes at a rate 14% higher than on similar highways in the state and 50% more often than on similar roadways in the area.
- *Improper Passing* – is the cause of crashes at a rate 91% higher than on similar roadways in the area.
- *Disregarding a Stop Sign* – is the cause of crashes at a rate 70% more often than on other roads in the area.

The Task Force implemented a safety education program and increased law enforcement along the two corridors. The Public Works Department has programmed minor improvements to improve safety on these two highways to be installed in 2008. These improvements include constructing centerline rumble strips and reflectors, installing reflective signs at intersections, providing reflective flexible markers on the pavement edge, installing flashing beacons on stop

signs at key intersections, and providing aerial enforcement striping.

Hazard Elimination Program

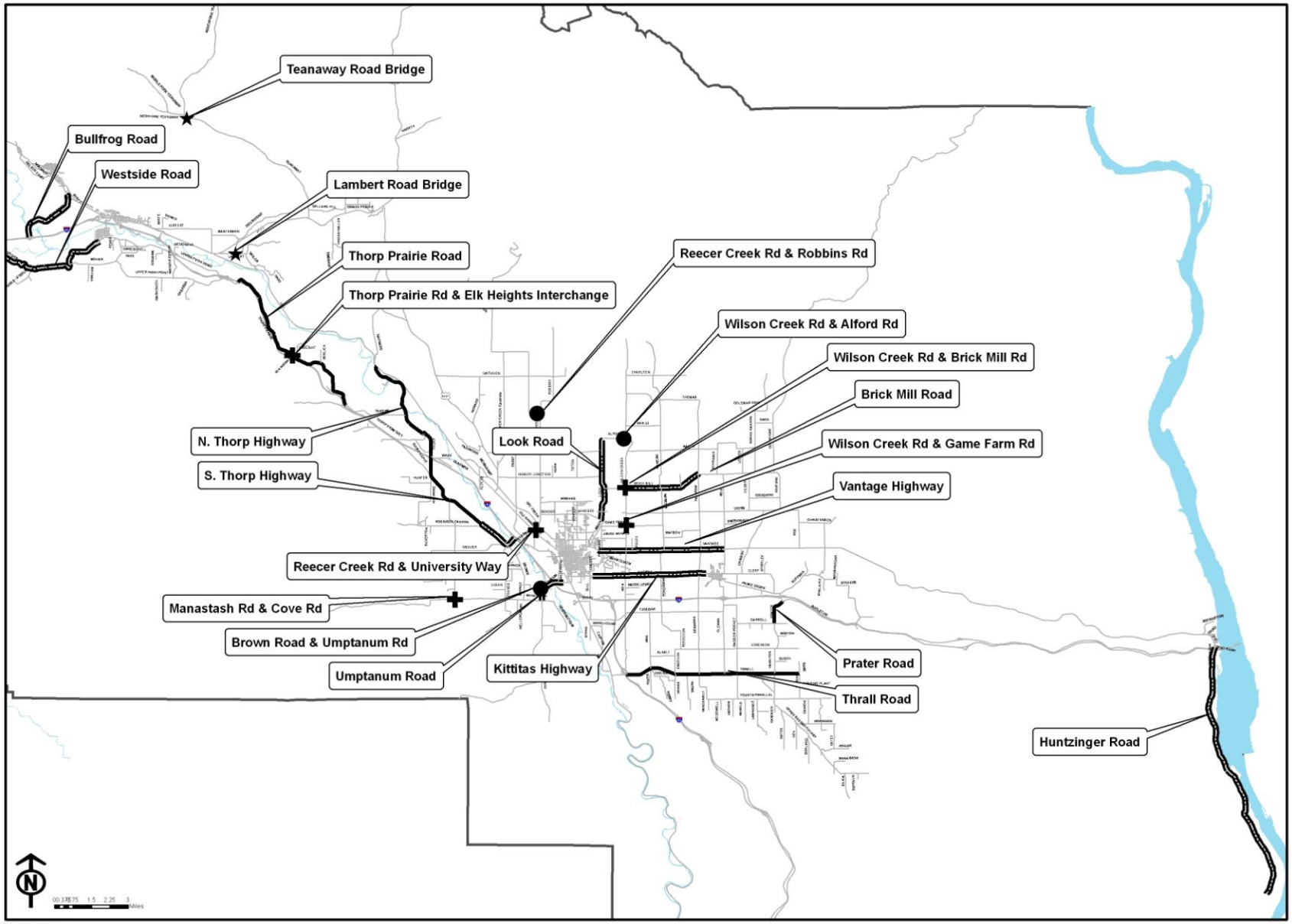
In 1999, Public Works identified hazardous conditions on roads throughout the county and improvements needed to mitigate these hazards. The identified hazards range from narrow roads and shoulders to reduced visibility and objects in the clear zone. This information was prioritized in the Public Works hazard elimination program for integration into the transportation improvement program. In 2006, there were 63 projects remaining in the hazard elimination program, which are listed in Appendix B. The higher priority projects are described in detail below.

Inadequate Clear Zone: A clear zone is the area on the side of a road where an errant vehicle that runs off the road is able to safely come to a stop. It is also referred to as a recovery zone. If this area is inadequate, guardrail may be warranted. Roads identified as needing guardrail or other clear zone improvements are listed below and shown in the figure on the following page.

- Thrall Road at bridges, canals, and fills (MP 0.00 to MP 5.30)
- Prater Road from Boylston Road (MP 0.33) for 0.5 miles (MP 0.83)
- Teanaway Road Bridge (MP 7.03 to MP 7.08)
- S. Thorp Highway at bridges, canals, overpasses, and fills (MP 0.00 to MP 5.44)
- N. Thorp Highway at bridges, canals, and fills (MP 5.56 to MP 10.43)
- Thorp Prairie Road at bridges, canals, slopes, and fills (MP 0.00 to MP 7.64)
- Lambert Road Bridge (MP 0.67 to MP 7.00)
- Intersection of Brown Road and Umptanum Road
- Intersection of Reecer Creek Road and Robbins Road
- Intersection of Wilson Creek Road and Alford Road

Kittitas County Transportation Plan

Roads & Bridges Needing Safety Improvements



Legend

- BRIDGES
- HIGH ACCIDENT INTERSECTION
- INADEQUATE CLEAR ZONE INTERSECTION
- ROADS
- HIGH ACCIDENT CORRIDORS
- INADEQUATE CLEAR ZONE CORRIDORS

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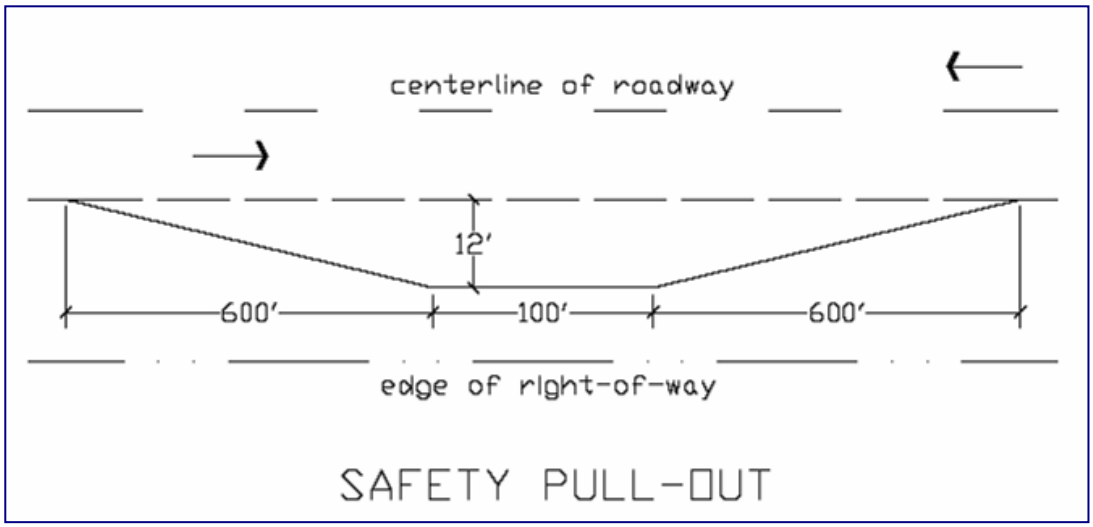
Narrow Shoulders: High volume roads with narrow shoulders are another safety concern. Roads need adequate shoulder width in order to help vehicles avoid accidents, to provide space for law enforcement activity, and to provide more room for large farm equipment to negotiate. One example is the Kittitas Highway. The Traffic Safety Corridor Project has recommended widened shoulders along this road to allow adequate space for enforcement activity.

There are 119 miles of county roadway that have substandard shoulders and speed limits greater than 35 mph. *Safety Pull-Outs* spaced in one-mile intervals could greatly improve the safety on these roads, especially on roadways with rolling or mountainous terrain where sight distance is limited. An illustration of a typical pull-out facility is shown below.



Sub-Standard Road Alignment: County roads that have sharp curves or intersections that are difficult to negotiate because of the cross-street's alignment can be a safety concern. Road alignment is more of an issue in Upper County due to the mountainous terrain county roads must negotiate here. Realigning the roads to bring them to design standards typically involves purchasing right of way and costly reconstruction.

An analysis of roads that need curve or intersection alignment improvements should be conducted. Current road improvement projects that include safety realignment are:

- Nelson Siding Road
- Westside Road
- Fowler Creek Road and Westside Road intersection

Goals-Policies-Objectives, Costs, and Funding

4-1 GPO: Kittitas County shall implement safety improvements in areas with high accident locations.

4-2 GPO: Kittitas County shall continue seeking and programming hazard elimination program funds to improve safety related road deficiencies so they meet county standards.

4-3 GPO: Kittitas County shall seek and program funds for widening narrow shoulders and for providing *Safety Pull-outs* along the most critical corridors. Priority shall be given to routes with high-volume school bus stops, public transportation stop locations, and traffic law enforcement.

Estimated Cost: Countywide Safety Enhancements Program: $140,000/year

Funding Sources: (Federal) STP Rural County 2-Lane Program and STP Intersection & Corridor Safety Program (only applies to roads that are established on the Federal Functional Classification as Major Collector or above)
(State) Rural Arterial Program (only applies to roads that are established on the Federal Functional Classification in rural areas as Minor Collector or above)
Local Funds

Chapter 5 – New Corridors

New Corridors for Better Access

Kittitas County's population and the volume of traffic resulting from the population growth are expected to grow by a multiplier of 1.43 to the year 2025. The most concentrated growth is expected to occur in the Cle Elum-Roslyn-Suncadia sub-area and surrounding the City of Ellensburg. New corridors are needed to accommodate this future growth. Also, new corridors are needed for improved road network connectivity and additional access for emergency service areas.

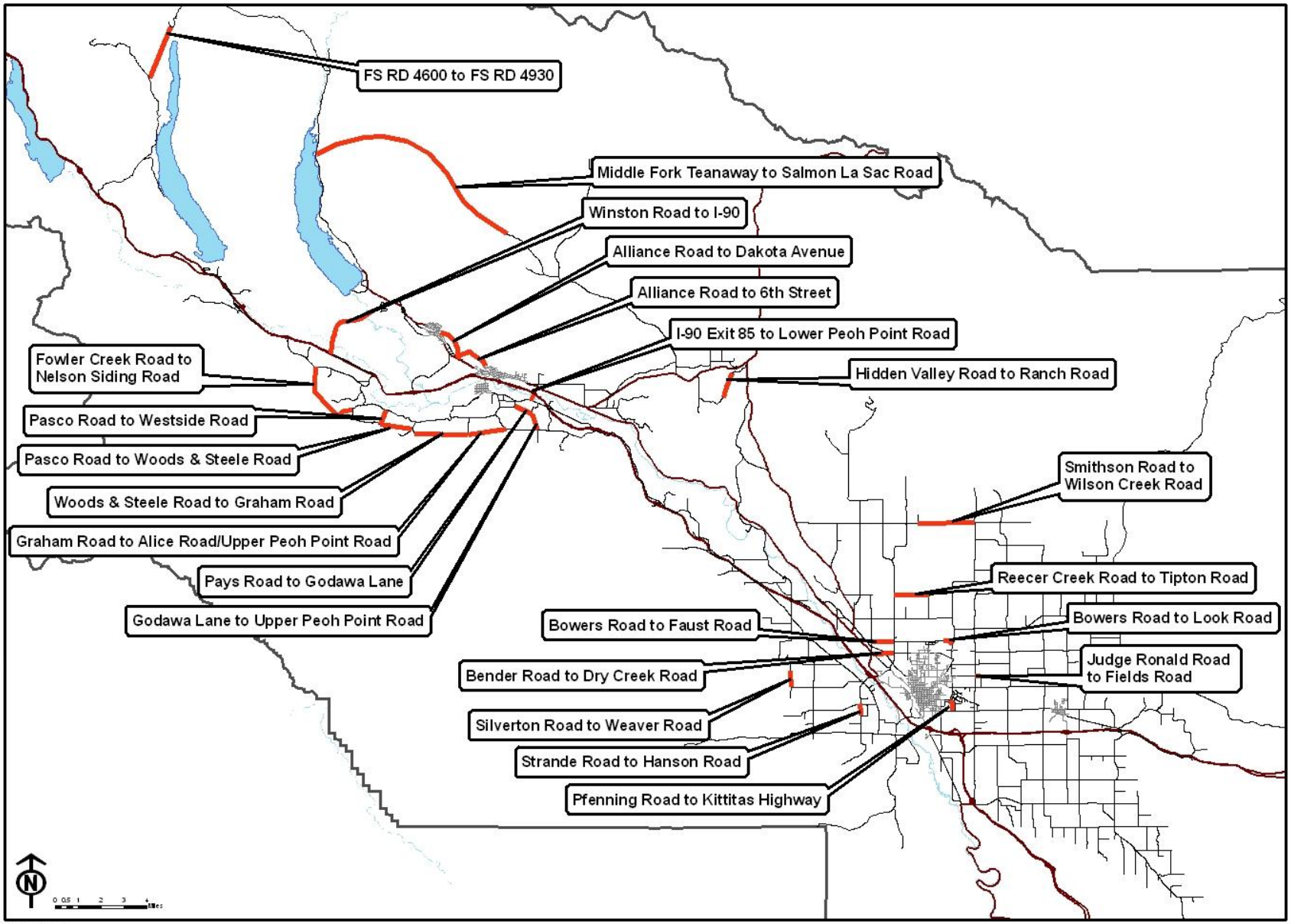
When new development projects occur in areas that this plan has identified as needing new corridors, the new facility would likely be for the benefit of new development. In these cases, developers (anyone subdividing land) will be required to build and dedicate the right of way for these roads to the County. These new corridors will be built to meet Kittitas County Road Standards for public roads. When land is subdivided, road improvements are generally required for a development to meet Kittitas County Road Standards. Other new corridors not directly related to new development projects will require federal or state grants with local matching funds.

New corridors were identified in locations that are experiencing increased development and in need of additional access and improved connectivity. These new corridors are conceptual and the specific alignment for these connections will be determined as future development occurs.

The new arterial corridors that have been identified are shown in the figure on the following page. Detailed information regarding the potential benefits of these projects and their estimated cost of construction are shown in Table 5-1. The costs were estimated for comparison purposes only, using the assumption that it cost $1.62 million per mile. Engineer design estimates have not been prepared.

Kittitas County Transportation Plan

New Corridors



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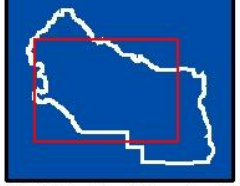
- ROAD CONNECTIONS
- COUNTY ROADS
- WSDOT ROADS
- CITY ROADS



2008 Kittitas County Department of Public Works

Table 5-1 Kittitas County New Corridors		
Project Description	***Benefits and Development Characteristics***	***Estimated Cost*** *(In Millions)*
Bowers Road to Look Road Connector	Improve access to Industrial Park, Airport, and I-90; providing economic growth with better access to jobs. Estimated 2,400 ADT in 2025, LOS A. Level terrain.	$1.4
Middle Fork Teanaway Rd to Salmon La Sac Rd. Connector	By-pass congested areas and access developable areas to provide economic growth. Estimated 900 ADT in 2025, LOS A. Rolling to mountainous terrain.	$10.0
Salmon La Sac Rd./Cooper Lake Rd./FS Rd 4600-000 to FS Rd 4930-000/Kachess Lake Rd. Connector	Coordinate with US Forest Service to connect Forest Service Roads for an emergency access that is open during the summer season. Rolling to mountainous terrain.	$5.0
Winston Road to I-90 Connector	Provide secondary access to Cle Elum Lake vicinity and by-pass congested areas. Improve transportation grid system in sub-area. Rolling terrain.	$5.0
Alliance Road to Dakota Road Connector	Provide improved connectivity between Alliance Road and Roslyn and by-pass congested areas of SR 903. Improve transportation grid system in Cle Elum-Roslyn area. Rolling terrain.	$2.0
Fowler Creek Road to Nelson Siding Road Connector	Provide secondary access parallel with Nelson Siding Road and Westside Road. Improve transportation grid system in sub-area and access to recreational areas. Rolling terrain.	$4.5
Pasco Road - Westside Road Connector	Provide secondary access parallel with Fowler Creek Road and Woods & Steele Road. Improve transportation grid system in sub-area. Rolling terrain.	$1.5

Table 5-1 Continued Kittitas County New Corridors		
Project Description	***Benefits and Development Characteristics***	***Estimated Cost*** *(In Millions)*
Pasco Road - Woods & Steele Road Connector	Provide secondary access parallel with Westside Road, ultimately connecting Pasco Road with Upper Peoh Point. Improve transportation grid system in sub-area. Estimated 1,500 ADT in 2025, LOS A. Rolling terrain.	$1.5
Woods & Steele Road to Graham Road Connector	Provide secondary access parallel with Westside Road, ultimately connecting Pasco Road with Upper Peoh Point (near BPA corridor). Provide improved transportation grid system in sub-area. Estimated 2,400 ADT in 2025, LOS A. Rolling terrain.	$1.5
Graham Road to Upper Peoh Point Rd Connector	Provide secondary access parallel with Westside Road, ultimately connecting Pasco Road with Upper Peoh Point. Improve transportation grid system in sub-area. Estimated 1,600 ADT in 2025, LOS A. Rolling terrain.	$4.0
Pays Road to Godawa Lane Connector	Provide improved connectivity between Lower Peoh Point and Upper Peoh Point. Improve transportation grid system in sub-area.	$2.0
Godawa Lane to Upper Peoh Point Road Connector	Provide improved connectivity between Lower Peoh Point and Upper Peoh Point. Improve transportation grid system in sub-area.	$2.0
Alliance Road to 6th Street Connector	Provide secondary access parallel with SR 903 and north and west of Cle Elum. Improve transportation grid system in sub-area.	$2.0
I90 Exit 85 (Sunset Hwy) to Lower Peoh Point Road (Yakima River Crossing) Connector	Provide second river crossing in Cle Elum. Improve transportation grid system in region. Provide economic growth with access to developable areas and jobs. Estimated 2,600 ADT in 2025, LOS A. Rolling terrain.	$1.5

Table 5-1 Continued Kittitas County New Corridors		
Project Description	***Benefits and Development Characteristics***	***Estimated Cost*** *(In Millions)*
Hidden Valley Road to Ranch Road / US 97 Connector	Improve transportation grid system in sub-area. Estimated 1,600 ADT in 2025, LOS A. Rolling to mountainous terrain.	$3.0
Silverton Road to Weaver Road Connector	Improve transportation grid system in sub-area. Improve access to developable areas and jobs. Flat to rolling terrain.	$1.0
Smithson Road to Wilson Creek Road Connector	Improve transportation grid system in region with improved east-west access north of Ellensburg. Improve access to developable areas. Estimated 800 ADT in 2025, LOS A. Rolling terrain.	$4.0
Reecer Creek Road to Tipton Road Connector	Provide improved east-west connectivity north of Ellensburg. Improve transportation grid system in sub-area.	$3.0
Bowers Road to Faust Road/ US 97 Connector	Provide improved east-west connectivity west of Ellensburg. Improve transportation grid system in sub-area.	$2.0
Bender Road to Dry Creek Road Connector	Provide improved east-west connectivity west of Ellensburg. Improve transportation grid system in sub-area.	$1.5
Judge Ronald Road Extension – Wilson Creek Road to Fields Road	Improve transportation grid system in sub-area that is expected to be congested. Flat terrain.	$2.5
Strande Road to Hanson Road Connector	Improve transportation grid system in sub-area that is expected to be congested. Flat terrain.	$2.5
Pfenning Road to Kittitas Highway Connector	Improve transportation grid system in urban area. Estimated 1,000 ADT in 2025, LOS A. Flat terrain.	$0.5

The County has also identified future roadway network needs that would greatly benefit county citizens but are under different jurisdictions, including WSDOT, Cle Elum, and Ellensburg. These are shown in Appendix E - Coordination with Local Agencies. The County will encourage and support efforts by these jurisdictions to provide these improvements.

Goals-Policies-Objectives, Costs, and Funding

5-1 GPO: Kittitas County shall strive to achieve a modern, state-of-the-art transportation service, which expands and grows with the needs of its growing population.

Estimated Cost. $1,000,000 - New Corridors annually (includes projects funded by the private sector)

Funding Sources[1]:

- (Federal) STP Regional Program
- (State) Rural Arterial Program (State) Transportation Improvement Board
- Private Sector: Developers needing access, would either construct all or a portion of the roads.
- Road Improvement District (RID)[2]

[1] Federal and state grants are generally only available for roads that are on the federal functional classification system.

[2] This is a method established by the State Legislature for improving county or private roads (RCW 36.88) that are paid by an assessment on the lots, tracts, or parcels specially benefited by the improvement. The RID process is usually initiated by a petition that is signed by the owners of a majority of the acreage within the proposed RID boundaries and by the owners of a majority of the front footage measured along both sides of all roads proposed for improvement. The Board of County Commissioners will then hold a hearing to decide whether to create the district, determine the period of time the assessment must be paid (typically 5 to 20 years), and set the assessment interest rate. RIDs shall include all property specially benefited by the proposed improvement, if possible. This includes ownerships served by easements from the improved roads if it is their principal access and ownerships abutting the improved roads even if they are served by another easement.

Chapter 6 – Operating Conditions

How Operating Conditions of County Roads are Defined

Operating conditions of County roads are depicted by the road's capacity and level of service. The capacity of a transportation facility is the maximum number of vehicles that can use the facility under specified conditions. A transportation facility will not generally operate at its capacity, but at a reduced level where traffic conditions range from free flow to stop-and-go conditions. The typical method of measuring these different operating conditions is referred to as level of service (LOS). Letters designate each level, from A to F, with LOS A representing the best operating conditions and LOS F the worst. Each LOS represents a range of operating conditions and the driver's perception of these conditions. Kittitas County adopted the LOS standard for rural areas at LOS C and for urban areas at LOS D. The County may consider changing the LOS standard on corridors that cross into Ellensburg and Cle Elum jurisdictions to be consistent with city LOS standards in a future update of the Comprehensive Plan.

What are Concurrency Requirements for Transportation Projects?

The Growth Management Act (GMA) requires that transportation improvements to accommodate development impacts must be made concurrently with land development. "Concurrency" means that any needed improvements are in place at the time of development or that a financial commitment exists to complete the improvements within six years. The concurrency goal, linking development approval and public infrastructure, was established in the 1990 GMA as follows:

> ***Public facilities and services.*** *Ensure that those 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 levels of service below locally established minimum standards [RCW 36.70A.020(12)].*

If concurrency cannot be demonstrated to maintain the County's adopted level of service standards, the GMA prohibits development approval unless transportation improvements or strategies to accommodate the impacts of development are made concurrent with the development.

Existing Operating Conditions of County Roads is Acceptable

In general, the existing transportation network is in good operating condition. Existing average daily traffic volumes on roadways range from less than 10 vehicles to 8,200 vehicles. These volumes are very low compared to daily traffic volumes on typical arterial roads statewide.

An intersection level of service analysis was conducted for all "arterial to arterial" (including collectors) intersections in the county – which included 77 intersections in Kittitas County's jurisdiction. This analysis shows that all intersections currently operate at an acceptable level of service and most intersections operate at the high level of service "A." The following table summarizes this analysis and Appendix B - Existing & Future Conditions provides additional detail.

Table 6-1
Existing Level of Service
Summary of Kittitas County's Major Intersections

LOS	*Number of intersections*	*% of intersections*
A	68	88%
B	8	11%
C	1	1%
D	0	0
E	0	0
F	0	0
TOTAL	77	100%

What will the Operating Conditions be in 2025?

Future traffic volumes on Kittitas County roadways are estimated to increase approximately 150% by the year 2025. These volumes are low compared to daily traffic volumes on a typical arterial roadway. PM peak hour volumes on County roadways will vary from 120 vehicles per

hour on Taneum Road at the Thorp Highway to 880 vehicles per hour on Vantage Highway at Wilson Creek Road.

LOS was calculated using *Synchro* 6.0 and the 2000 HCM methodologies. The results of the LOS analysis for future conditions at the arterial-to-arterial plus collector intersections are summarized below in Table 6-2 (see Appendix B - Existing & Future Conditions for further details). This analysis showed that in 2025 most intersections will continue to operate at a relatively high level-of-service as summarized below:

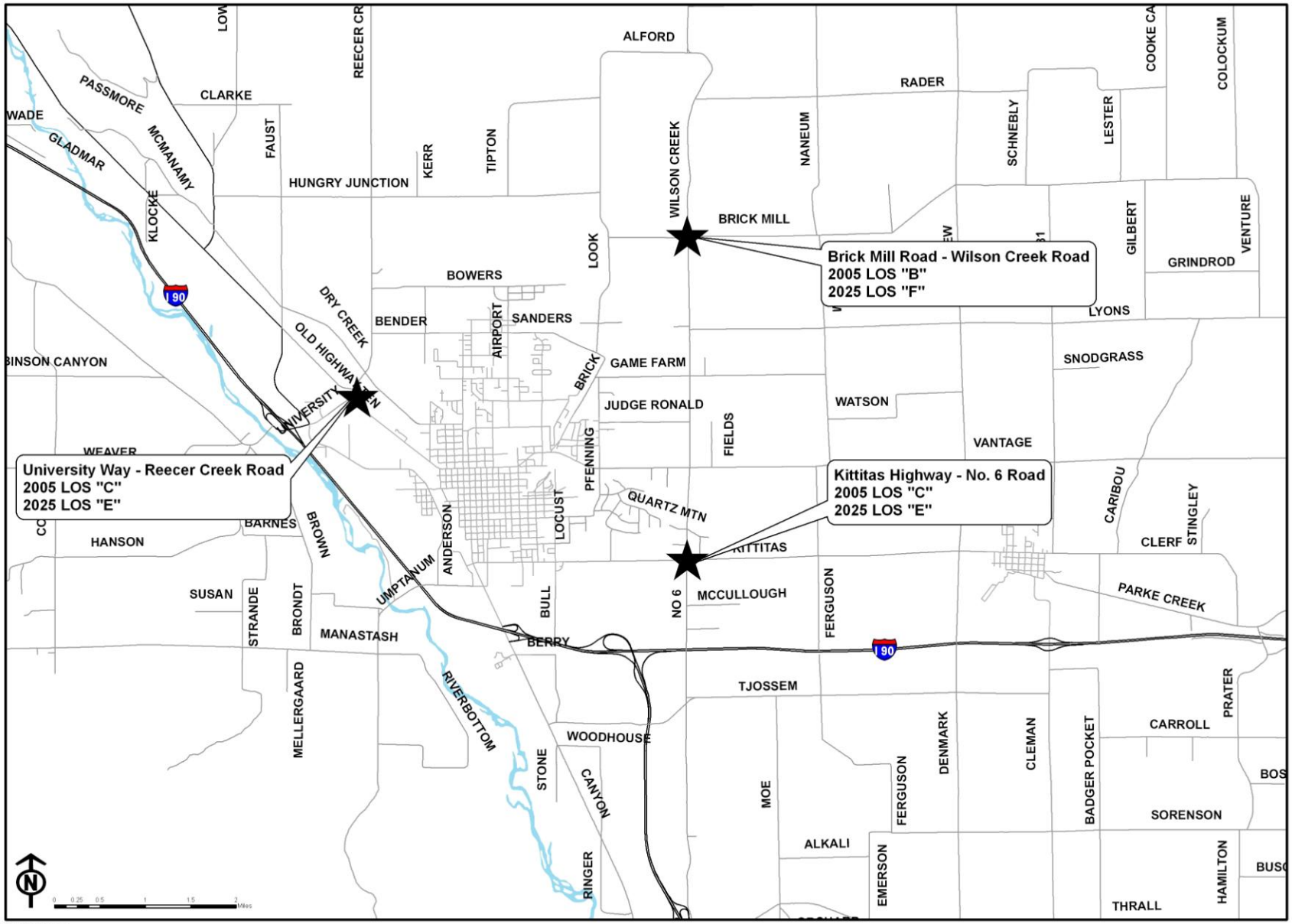
Table 6-2
Future Level of Service - 2025
Summary of Kittitas County's Major Intersections

LOS	*Number of intersections*	*% of intersections*
A	39	51%
B	27	35%
C	9	12%
D	0	0
E	2	2%
F	1	1%
TOTAL	77	100%

In Washington State, growth in travel demand has exceeded the capacity of the transportation system. In Kittitas County, the system is responsive today but may become sluggish in the future - primarily in areas just east of Ellensburg – if traffic flow is not addressed. The three intersections that are projected to be below level of service standards in 2025 are shown in the following figure and described below.

Kittitas County Transportation Plan

Insections Below LOS Standards in 2025



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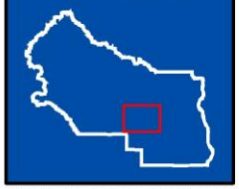
ROADS

WSDOT ROADS



2007 Kittitas County Department of Public Works

1. **Kittitas Highway-No 6 Road.** This intersection is estimated to operate at LOS "C" in the current PM peak hour. With the anticipated growth in traffic volume, the intersection is projected to degrade to LOS "E" in the 2025 time horizon. It currently operates as a two-way stop sign-controlled intersection with a single lane on each approach. The stop signs are supplemented with a four-way flashing beacon mounted over the center of the intersection. The posted speed on Kittitas Highway is 50 miles per hour. The Kittitas County standard for this intersection is LOS "C."

   This intersection's future LOS "E" can be improved to LOS "B" if it is converted to a four-way stop sign-controlled intersection. Special advance signing will be required to install stop signs on Kittitas Highway with the existing 50-mph posted speed. The four-way stop can be supplemented with a flashing red beacon by converting the existing yellow flashing beacon at this location.

   Estimated Cost: $1,000.

2. **Brick Mill Road-Wilson Creek Road.** This intersection is estimated to operate at LOS "B" in the current PM peak hour. With the anticipated growth in traffic volume, the intersection is projected to degrade to LOS "F" in the 2025 time horizon. It currently operates as a two-way stop sign-controlled intersection with a single lane on each approach. The posted speed on Wilson Creek Road is 50 miles per hour. The County standard for the intersection is LOS "C."

   This intersection's future LOS "F" can be improved to LOS "B" if it is converted to a four-way stop sign-controlled intersection. Special advance signing will be required to install stop signs on Wilson Creek Road with the existing 50-mph posted speed. The four-way stop can be supplemented with a flashing red beacon to enhance the posted signs and enable approaching vehicles better visibility of the stop condition.

   Estimated Costs: $500 - stop signs. $20,000 - flashing beacon.

3. **University Way – Reecer Creek Road.** This intersection is estimated to operate at LOS "C" in the current PM peak hour. With the anticipated growth in traffic volume, the intersection is projected to degrade to LOS "E" in the 2025 time horizon. It currently operates as a T-

intersection with a stop sign controlling southbound traffic. The posted speed on University Way is 40 miles per hour and on Reecer Creek Road is 50 miles per hour. The County standard for the intersection is LOS "C."

This intersection's future LOS "E" can be improved to LOS "B" if a traffic signal is installed at this intersection. Special advance signing will be required on University Way.

Estimated Costs: $200,000.

Although the above intersections just east and west of Ellensburg are the only significant county road intersections identified as having a LOS below standard, there are three other locations outside of the County's jurisdiction that will fall below the LOS standard of LOS C (rural) and LOS D (urban) in 2025:

- I90 EB ramps / Bullfrog Road (Exit 80) west of Cle Elum
- Canyon Road / I90 EB ramps in Ellensburg
- Alder Street / 14th Avenue in Ellensburg

Another area of emerging concern for increasing traffic levels is the Cle Elum-Roslyn-Suncadia sub-area. The Suncadia Master Planned Resort, at build out, will add 3,785 new residential units and will have a ripple effect on the population growth in the cities of Cle Elum and Roslyn. The County should carefully monitor the traffic impacts on County roads in this sub-area as growth occurs.

Operating conditions of intersections throughout the county will continue to be monitored and addressed as needed.

Goals-Policies-Objectives, Costs, and Funding

6-1 GPO: Kittitas County roads shall be well maintained and operate efficiently. The level-of-service (LOS) standard for roadways in rural areas shall be LOS"C." The LOS standard for roadways in urban areas shall be LOS "D."

6-2 GPO: Kittitas County shall ensure that intersections and roads that are projected to decrease below a LOS "D" in urban areas and below a LOS "C" in rural areas shall be improved to maintain the LOS standard or proposed development that would utilize those facilities shall not be approved.

Estimated Costs: $21,500 – combined costs for 2 locations.

Funding Sources[3]: (Federal) Intersection and Corridor Safety Program, Rural County Two-Lane Roadway Program, STP Regional Program

(State)Rural Arterial Program

Local Funds

[3] Federal and state grants are generally only available for roads that are on the federal functional classification system.

Chapter 7 – Essential Access Needs

Who Has Essential Access Needs in Kittitas County?

Kittitas County is home to many persons who are unable to drive or do not have a personal automobile. These non-drivers tend to be older adults, youth, persons who have disabilities, and individuals with low incomes. Although they are unable to transport themselves, they still have basic transportation needs such as accessing essential services, employment, and other daily activities. Persons needing transportation assistance in Kittitas County identified the following top three destinations: grocery shopping, medical appointments, and the pharmacy[4].

Aging Population: The 2000 US Census determined that Kittitas County's aging population (65-years and older) was 11.6% of the county's overall population. The 65-years and older population group is expected to increase from 4,146 persons in 2005 to 7,499 persons in 2025 – an 81% increase during the twenty year period[5]. The aging population group needs transportation services for health care, social services, nutrition, shopping, banking, social events, religious services, and visitations to friends and family.[6]

Persons with Disabilities: The proportion of persons with disabilities to the overall county population is 18.3% – higher than Washington State's average of 16%. The areas with the highest concentration of persons with disabilities are in the Upper Kittitas County areas of Cle Elum, Ronald, Thorp, and South Cle Elum – peaking with 42.7% of Ronald's population having individuals with disabilities. Persons with disabilities often need transportation services to access employment, health care, social services, recreation, and social events.[7]

Youth Population: The youth enrolled in our schools was 4,841 in 2005 (Cle Elum/Roslyn-1,022; Easton-115; Ellensburg-2,939; Kittitas-591; and Thorp-175). Most youth are unable to drive and

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[4] Coordinated Public Transit – Human Services Transportation Plan, Quadco – Kittitas, Lincoln, Grant and Adams

[5] Source: Office of Financial Management

[6] Transportation Needs Survey, Coordinated Public Transit – Human Services Transportation Plan, Quadco

[7] Transportation Needs Survey, Coordinated Public Transit – Human Services Transportation Plan, Quadco

need transportation for after school activities, summer activities, recreation, child care, alternative schools, and post-secondary education.[8]

Low-Income Individuals: Of the overall county population, 19.4% are persons living below the poverty threshold and 31% are persons receiving assistance from the Department of Social and Health Services (DSHS). Kittitas County had the sixth lowest median household income in 1999 in Washington State, up from the fourth lowest county in 1989. Low income individuals often need transportation services to social services, health care, job search, education, training opportunities, employment, shift-work, and child care.

General Public: There are economic and social benefits from public transportation services for the general public as well. Public transportation provides an alternative transportation source to jobs, retail businesses, and community events.

How Accessible are Major Employers and Services?

The top destinations for Kittitas County residents who are unable to drive are generally located in Ellensburg such as the DSHS Community Service Office, the hospital, and many major employers. Table 7-1 indicates the major employers in Kittitas County and Table 7-2 indicates the distance persons must travel to access major destinations from communities throughout the County.

Table 7-1
Major Employers in Kittitas County

Major Employers	*Location*	*# of Employees*
Central Washington University	Ellensburg	1,330
Ellensburg School District	Ellensburg	364
Kittitas County	Ellensburg	339
Kittitas Community Hospital	Ellensburg	315
Anderson Hay and Grain	Ellensburg	280

[8] Transportation Needs Survey, Coordinated Public Transit – Human Services Transportation Plan, Quadco

Table 7-1 Continued Major Employers in Kittitas County		
Major Employers	*Location*	*# of Employees*
Fred Meyer	Ellensburg	205
City of Ellensburg	Ellensburg	180
Shoemaker Manufacturing	Cle Elum	180
Twin City Foods	Ellensburg	105
Super 1 Foods	Ellensburg	100
Cle Elum/Roslyn School District	Cle Elum/Roslyn	100
Suncadia Resort	Roslyn	95

Table 7-2 Distance to Major Service Providers (miles)									
Major Service Providers	*Cle Elum*	*Easton*	*Ellensburg*	*Kittitas*	*Ronald*	*Roslyn*	*S. Cle Elum*	*Thorp*	*Vantage*
Hospital , DSHS, WorkSource, Courthouse	25	37	0	9	30	29	26	9	29
Senior Center, Community Action Agency	0	12	0	9	5	4	1	9	29
Social Security Office	60	72	36	39	65	64	61	45	59

Public Transportation Availability

Transportation services are provided by HopeSource for persons with disabilities and special needs, Central Washington University's shuttle, Greyhound, Northwestern Trailways, Airporter Shuttle, volunteer organizations, and a taxi provider.

HopeSource provides low cost transportation service to all citizens of Kittitas County. It operates its door-to-door service, Monday through Friday from 7:00 a.m. to 6:00 p.m. Rides must be scheduled 24 hours in advance. Service to Yakima is provided twice a month. HopeSource services have been funded by a Washington State Department of Transportation grant that expires June 30, 2009. HopeSource provides:

- 25,000 annual rides on dial-a-ride and deviated service
- 15,000 annual rides for seniors and low-income individuals
- 10,500 annual rides for seniors accessing social, health care, nutrition, and shopping
- 3,500 annual rides for Cle Elum, Roslyn, and Ronald seniors
- Central Transit fixed route service in Ellensburg
- Medicaid eligible non-emergency medical transportation

HopeSource is working closely with People For People to identify transportation coordination across county lines. They are also working with Elmview, the City of Ellensburg, and Central Washington University to identify resources for a fixed route that would provide additional service to downtown Ellensburg.

People For People coordinates transportation services for non-emergency medical visits for Medicaid eligible clients. They coordinate volunteer drivers, fuel vouchers, and collaborations with other transit services. People For People brokered 5,823 rides for residents of Kittitas County with a total transportation cost of $175,880 (from July 1, 2005 to June 30, 2006).

Central Transit is a general public transportation fixed route system operating with support from CWU students, Elmview Central Washington Disability Resources, and the City of Ellensburg. It is operated by HopeSource. It includes bus stops, operates on a schedule, and does not require advance scheduling. There were over 32,000 rides provided in 2006. That represented a 49% increase over the previous year. Service and hours have expanded in 2007.

Greyhound and Northwestern Trailways provide limited access interstate and interregional transportation service. Both of these bus lines have only one stop in Kittitas County at the Pilot Travel Center on US 97 in Ellensburg. Greyhound Bus Line provides service on its east-west line along the I-90 corridor and the I-82 corridor. Northwestern Trailways provides service on

its north-south line from Omak to Ellensburg.

Airporter Shuttle provides four trips daily between Yakima, Ellensburg, Cle Elum, and Seattle. In Ellensburg, the Airporter Shuttle pick-up and drop-off sites are at the Ellensburg Inn and Central Washington University. Seattle sites are at the SeaTac Airport and Amtrak Station in downtown Seattle.

Volunteer Chore Services (VCS) offers volunteer drivers for low-income seniors and adults with disabilities. Service is limited and contingent upon the VCS office having a volunteer to match the need of the client.

Elmview is a non-profit agency located in Ellensburg that provides services to disabled individuals to assist program participants to gain independence and self-reliance. Elmview provides program participants with transportation to access employment, training, social services, and to meet the individual's primary needs. With limited resources, Elmview has not been able to meet all the transportation needs of the program participants.

Hospice Friends, located in Ellensburg, provides transportation for anyone living in Kittitas County with a life threatening illness. The primary focus is transportation to chemotherapy/radiation treatments in Yakima. Hospice Friends train volunteers to provide individualized transportation. In 2005, Hospice Friends provided 69 rides. Service is very limited and depends upon the availability of volunteers.

Central Washington Comprehensive Mental Health (CWCMH) provides individualized transportation for CWCMH Kittitas County clients that are receiving mental health services. CWCMH Case Managers provide some limited transportation for clients to access medical appointments, shopping, and bill paying.

Rodeo Town Taxi is the only taxi service in Kittitas County, operating out of Ellensburg.

Future Public Transportation Demand

According to the 2000 Census, 0.5% of the trips made from home to work are by public transportation in Kittitas County. Demand for public transportation service is expected to grow in areas of concentrated growth and land patterns. Moreover, it may be assumed that the County's special needs populations - low-income, disabled and elderly - will continue to grow

proportionate to the forecasted growth of the general population. Finding solutions for meeting their mobility needs will continue into the future.

Considering the increasing aging population, persons with disabilities, youth population, and low-income individuals in Kittitas County, it is estimated the future public transportation demand in 2025 is 5.0% of the total trips. This estimate also assumes that public transportation services would be made available for both the special needs population and the general public. This percent of trips translates into approximately 1,270 peak hour trips. Using the transportation planning model, the locations of where these public transportation trips started and ended were determined and the model indicated that approximately 90 trips would be made on I-90 in each direction and the highest demand for trips would be concentrated within Ellensburg and in the Cle Elum / Suncadia / Roslyn sub-area.

School District Transportation

There are five school districts in Kittitas County with a total of 4,841 students enrolled in 2005. Each of the districts provides transportation services to students with their own equipment, driver training, maintenance, and operations. School districts also provide some transportation for after-school activities and for extracurricular events. The state allocates funds to each school district based on a formula that identifies the number of students and miles from school that students are transported. This allocation doesn't represent the total expense for transportation. School districts must supplement their transportation allocation with local funds – which often results in a shortage of funds to provide transportation for after-school activities. A study conducted in 2006 indicated that school districts in Kittitas County provide transportation for 1,985 students or 714,600 passenger trips during a school year and receive an average state reimbursement of $1.67 per trip.[9]

The County coordinates with the school districts to identify school safety zones, no-parking zones adjacent to schools, and improvements needed for bus stops or bus turnarounds.

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[9] Coordinated Public Transit – Human Services Transportation Plan; 2006; QUADCO – Kittitas, Lincoln, Grant, and Adams.

The County prioritizes roads that need a turn-around based partly on whether a school bus operates at that location. This is an element of the County's project prioritization process. One turn-around is programmed for construction each year.

Public Works plans to incorporate needed improvements at high volume bus stop locations into the County's project prioritization process. This will include a list of high volume bus stop locations and a priority system for constructing improvements needed at these locations such as signage, wider shoulders, pedestrian/bicycle trails, sidewalks, or crosswalks. The project prioritization process will also have added criteria for rating roads that experience a high volume of public transportation or school bus travel but have significant geometric deficiencies. The Ellensburg School District has identified the following roads as being of concern:

- Upper Green Canyon Road
- Upper Cooke Canyon Road
- Charlton Road
- Rustic Lane north of Thomas Road (not a county maintained road)

County Transportation Authority and Public Transportation Benefit Area

Counties have the authority to establish an unincorporated PTBA under RCW 36.57.100 or a County Transportation Authority (CTA) under RCW 36.57.020. The CTA includes the entire county and all incorporated areas within the county while the unincorporated PTBA includes only unincorporated areas.

The establishment of a Public Transportation Benefit Area (PTBA) for Kittitas County was considered in 1993. A nine member Board of elected officials was formed to develop a county transit plan and present a ballot initiative to consider increasing the retail sales tax to provide operating revenue for a countywide transit system. The ballot failed and the public transportation system was not established.

In 2004, a Special Needs PTBA was formed and included the Board of County Commissioners and designees from the City Councils of Ellensburg, Cle Elum, South Cle Elum, Roslyn, and Kittitas. This Board began preparing a draft plan for special needs public transportation in the Kittitas County. The Special Needs PTBA has not received voter approval to fund services.

Goals-Policies-Objectives, Costs, and Funding

7-1 GPO: Kittitas County shall support efforts to provide access to transportation that strengthens communities and promotes self-sufficiency and general welfare of special needs populations.

7-2 GPO: Kittitas County shall support efforts to provide public transportation services to the general population.

7-3 GPO: Kittitas County shall work together with public transportation providers and School Districts to identify roadway locations where improvements are needed for safe public vehicle operations.

7-4 GPO: Kittitas County shall continue exploring different resources for providing public transportation services in Kittitas County as the demand for public transportation services grow.

Estimated Costs: $10,000 annually for improvements related to school travel

Funding Sources:

- (Federal) Section 5311(f) – Intercity Bus Grant Program, Safe-Route-to-School Program, Intersection and Corridor Safety Program, Transportation Enhancements Program, Walking and Biking Program
- (State) ParaTransit / Special Needs Grant Program, Rural Mobility Grant Program, Transportation Partnership Program, Pedestrian Safety and Mobility Program, Pedestrian and Bicycle Safety Program, Safe Routes to School Program, School Zone Safety Program, School Zone Enforcement – Performance based Grant Program
- (County) Turn Around / Bus Turnaround Program

Chapter 8 – Alternatives to Driving Alone

Commuting Patterns

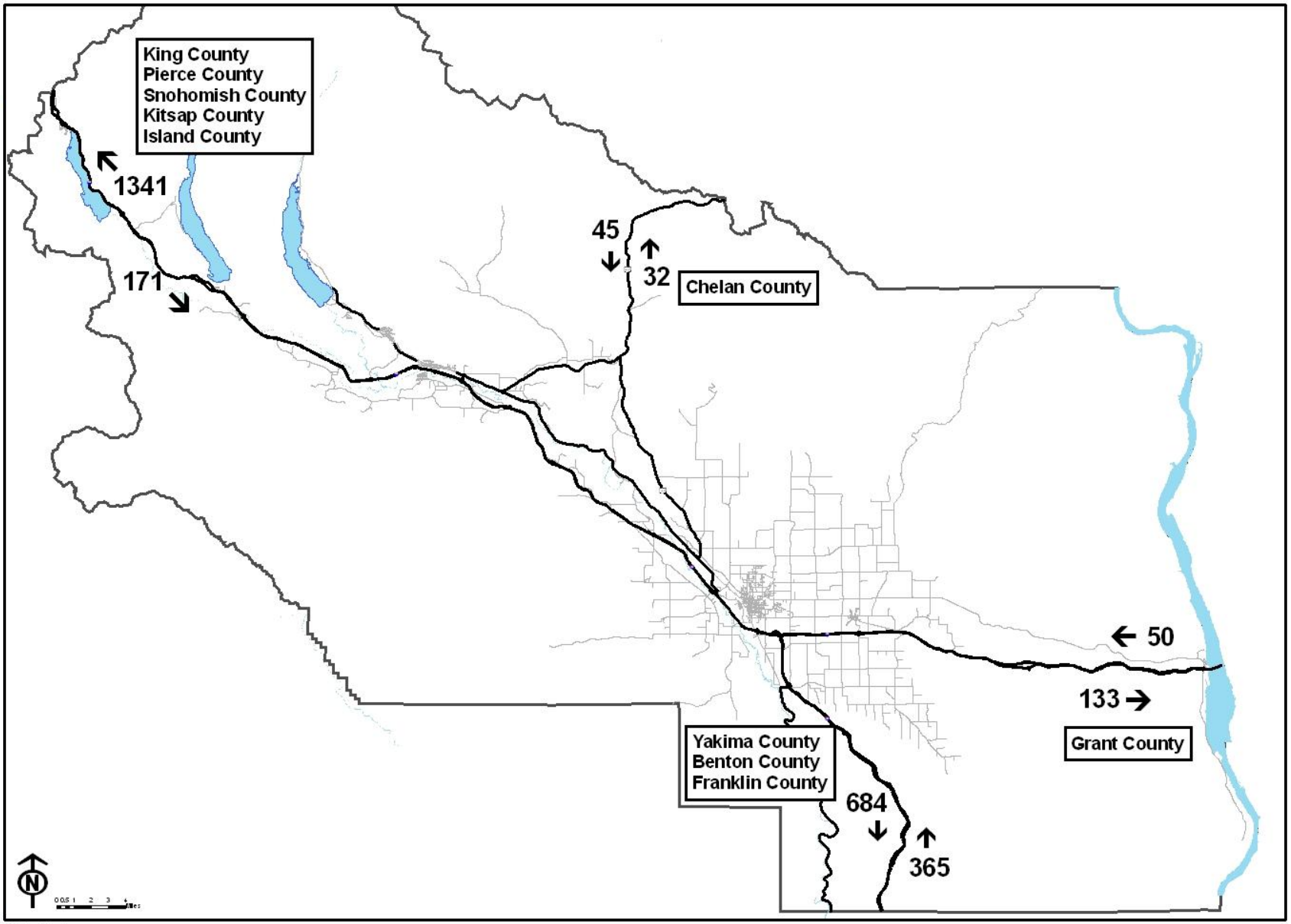
Kittitas County is centrally located, easily accessible and within commuting distance to several regional employment centers. The 2000 Census found that 15,209 workers resided in Kittitas County and traveled to work. Of these Kittitas County residents, 2,451 traveled across county boundaries to work in other counties. Additionally, 13,518 persons worked in Kittitas County, with 760 of these workers residing outside of Kittitas County. The following table and figure provides information on the number of workers commuting between nearby counties:

Table 8-1
2000 Census
Kittitas County Commuting Patterns

Area of Residence	*Area of Work Place*	*Number of Workers*
Kittitas Co	Kittitas Co	12,758
Kittitas Co	King Co, Pierce Co, Snohomish Co, Kitsap Co, and Island Co	1,341
Kittitas Co	Yakima Co, Benton Co, Franklin Co	684
Kittitas Co	Grant Co	133
Kittitas Co	Chelan Co	32
Yakima Co, Benton Co, Franklin Co	Kittitas Co	365
King Co, Pierce Co, Snohomish Co, Kitsap Co, and Island Co	Kittitas Co	171
Grant Co	Kittitas Co	50
Chelan Co	Kittitas Co	45

Kittitas County Transportation Plan

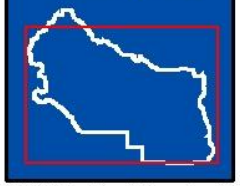
2000 Census Commuting Data



Legend

ROADS

WSDOT ROADS



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Commuters primarily choose to drive alone, especially when there are no other alternatives available to them. If more commuters choose to ride in buses, vans, carpools, or other high-occupancy modes, there would be fewer vehicles on our roads and highways – effectively increasing the capacity of the transportation system. A higher proportion of trips made in high-occupancy vehicles means reduced delay for everyone traveling.

Transportation Demand Management

Transportation Demand Management (TDM) is a term used when government agencies administer programs that encourage people to travel in high-occupancy vehicles or not drive at all. Although the availability of these programs is limited in Kittitas County, there are opportunities to encourage carpools and vanpools by encouraging the formation of park and ride lots. Washington State Department of Transportation (WSDOT) has considered locating a park and ride lot in the I-90 corridor and the County should encourage WSDOT's efforts.

Goals-Policies-Objectives, Costs, and Funding

8-1 GPO:	Kittitas County shall encourage efforts by WSDOT or other agencies that encourage alternatives to driving alone such as carpooling and vanpooling.
Estimated Costs:	unknown
Funding Sources:	WSDOT Regional Mobility Grant

Chapter 9 – Freight Transportation by Road, Air, and Rail

Moving Freight

Freight and goods move throughout Kittitas County's transportation system on trucks, railcars, and airplanes. The efficiency of this movement is dependent on the how well the transportation system operates.

Freight Trucks

On an average day, freight trucks carry 10,739 tons of goods valued at $11.7 million to and from the County. Their most common routes are state highways, including Interstate 90 (I-90) the primary east-west freight facility in Washington State. I-90 traverses Kittitas County from its most northwesterly point to its most easterly point. Regional container traffic relies on I-90 and the transportation system approaching I-90 to transport hay and other agricultural products to Puget Sound seaports. To preserve the corridor's carrying capacity and improve its performance, the Washington State Legislature has allocated nearly $400 million for the Interstate 90 – Snoqualmie Pass East Improvement Project. The complete length of this project is within Kittitas County.

Freight Rail

Freight rail is represented by Burlington Northern and Santa Fe's Stampede Pass rail line, which traverses the County from the northwest end to the south end. It is a major State rail corridor. The Stampede Pass rail line traverses Kittitas County but the County has limited involvement. The freight line today operates at bare minimum capacity - 2 to 6 trains per day, due to tunnel limitations.

In addition to freight rail, Kittitas County voters approved a countywide rail district proposal in 2007. This proposal was initiated by the Kittitas County Rail Political Action Committee, formed in 2001. The District allows for the committee to apply for funding to further evaluate the feasibility of having passenger rail service to Kittitas County.

Freight Air

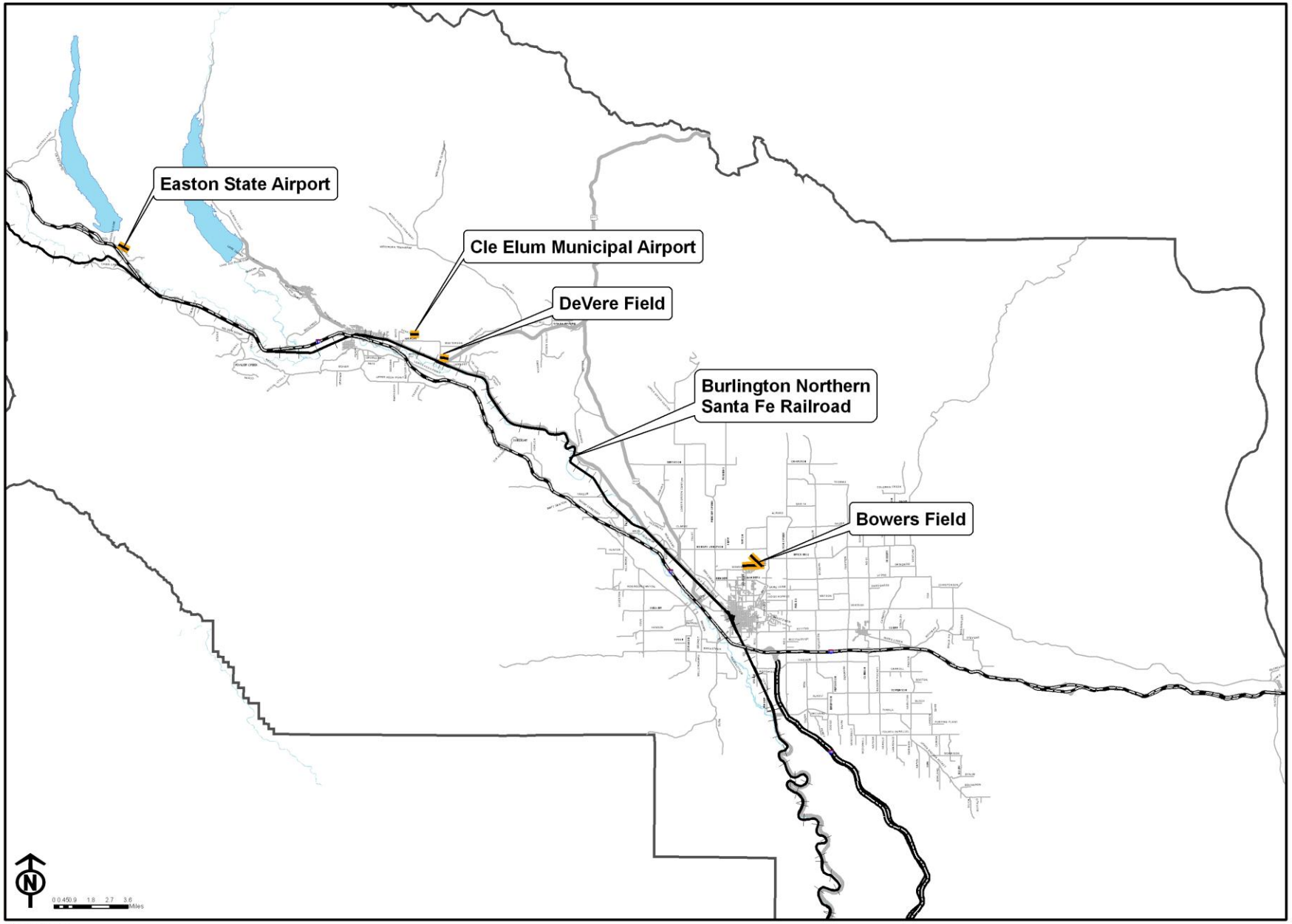
The Bowers Field Airport is owned by Kittitas County. It accommodates one ton of *airfreight* annually and generates 97.1 jobs (direct, indirect and induced), $1.7 million in labor earnings and $4.8 million in economic activity. The second airport of note in the County – the Cle Elum Municipal Airport – generates 11.9 jobs (direct, indirect and induced), $195,891 in labor earnings and $734,027 in economic activity. The County is engaged now in expanding business park operations at Bowers Field. This expansion will increase economic activity and airfreight tonnage at Bowers Field.

The County could consider creating a "Port" or "Free Trade Zone" designation. Under RCW 53, counties may create Public Ports as special purpose districts. Public Ports are defined as corporations for economic development. Eligible activities include economic, infrastructure and industrial planning and development. The Free Trade Zone or "FTZ" designation is often pursued to remove or relax tariffs, taxes and bureaucratic requirements. The purpose is to attract a higher volume of commerce, freight and trade. There are 76 public port districts in 33 of the State's 39 counties. Ten are in neighboring Grant County. Kittitas County is one of the few counties without a Public Port District.

The air, rail, and road surface transportation systems for freight in Kittitas County are shown on the following figure.

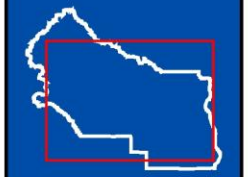
Kittitas County Transportation Plan

Air, Rail and Surface Transportation



Legend

- ROADS
- WSDOT HIGHWAY
- AIRSTRIPS
- I-82
- I-90



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Goals-Policies-Objectives, Costs, and Funding

9-1 GPO: Kittitas County shall work closely with its local, regional and State partners to monitor freight activity and ensure that the County's priorities, preferences, and interests are represented and factored into emerging State and County policies and programs.

Estimated Costs: Unknown

Funding Sources: (Federal) Intersection and Corridor Safety Program, Rural County Two-Lane Roadway Program, STP Regional Program only applies to roads that are established on the Federal Functional Classification as Major Collector or above)

(State)Rural Arterial Program(only applies to roads that are established on the Federal Functional Classification in rural areas as Minor Collector or above)

Local Funds

Chapter 10 – Non-Motorized Transportation

Background

Transportation systems affect human health and the environment. Systems that enable safe methods of non-motorized transportation, for both recreation and transportation enable healthier communities. For many residents of Kittitas County, biking or walking is an important form of transportation.

Existing System

County: There are few established bike routes in Kittitas County, but many unofficial routes used by cyclists throughout the county. County roads are generally narrow with deep ditches and small shoulders. The most common bikes routes follow roads that are safer for cyclists with wide shoulders and smoother pavement. The most commonly used county roads are shown in the figure on the following page.

The County and communities in Upper County manage their own trail facility – the Coal Mines Trail. It is 4.7 miles in length, has a north-south orientation and is close to but does not connect to the John Wayne Trail. It begins in Cle Elum and extends though Roslyn to Ronald, generally paralleling SR 903.

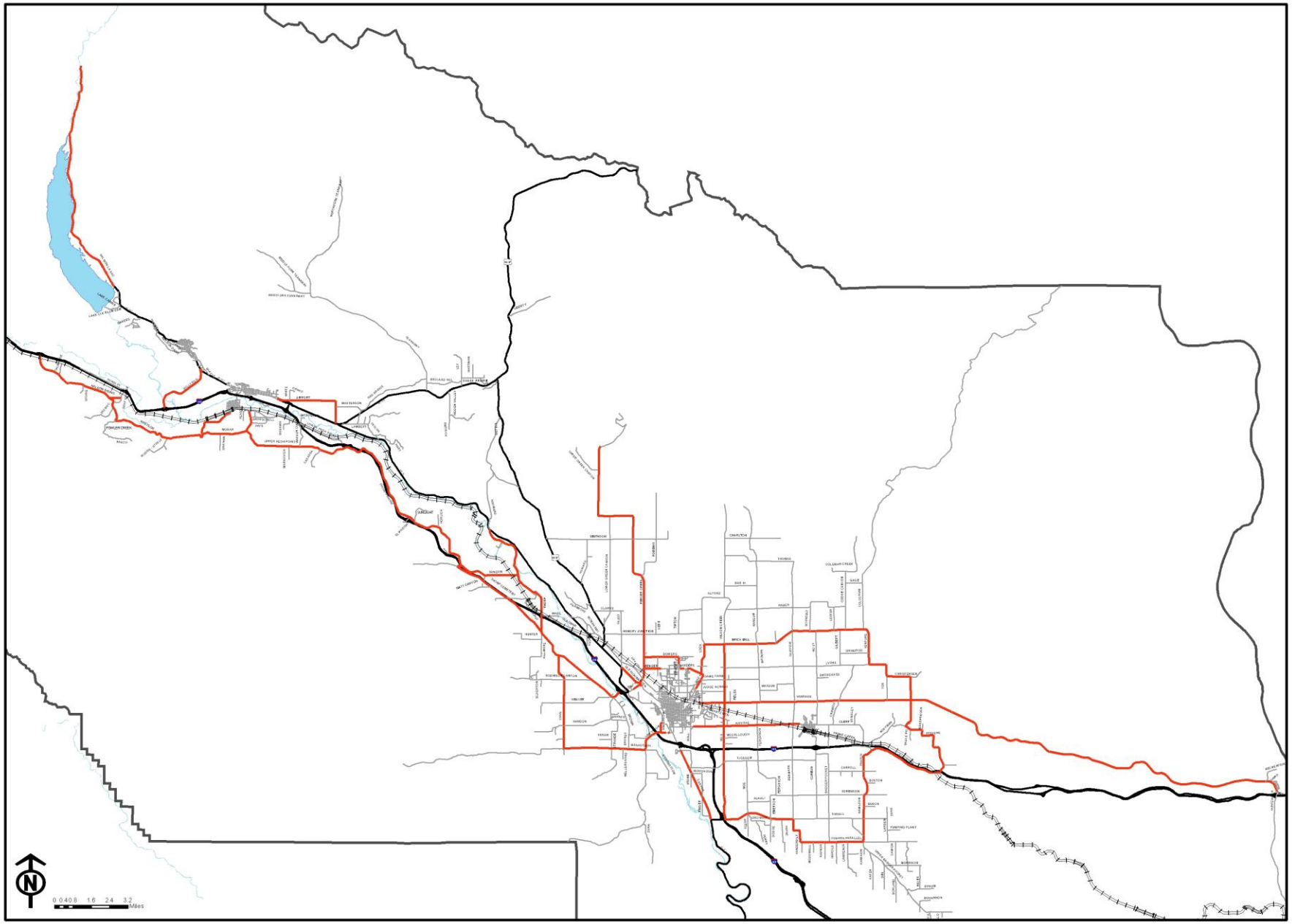
State: SR 10, 821, 970, and 903 and US 97 are popular routes for cyclists and are designated bike routes by the Washington State Department of Transportation. Additionally, Washington State Parks Department maintains and manages the John Wayne Pioneer Trail and Iron Horse State Park. This trail runs east and west throughout the County, from the Columbia River to Snoqualmie and beyond, and provides connections to Kittitas, Ellensburg, Thorp, South Cle Elum, and Easton.

Kittitas County Transportation Plan

Bike Routes

Legend

- COUNTY ROADS
- BIKE ROUTES
- WSDOT ROADS
- JOHN WAYNE TRAIL



2007 Kittitas County Department of Public Works

UGA Jurisdictional Agreements

The City of Ellensburg and Kittitas County work jointly to review projects located within the UGA. The City has designated bike routes in their Comprehensive Plan that are on County roads within the UGA. When frontage improvements are required in the UGA, bike lanes and sidewalks should be included, or additional right of way provided in the improvements. City of Ellensburg Street Standards requires an additional 10′ of roadway and 10′ of right of way for bike lanes.

Proposed/Future System

Ellensburg: The City of Ellensburg has identified future multipurpose trails throughout lower Kittitas County. Within the County, the City has identified a route for the John Wayne Trail Bypass for trail users who do not want to follow the existing trail through the city, which currently is a route along city streets and through CWU's campus. The bypass route follows along a portion of Bowers Road. The City is planning to construct a trail along Reecer Creek Road from I-90 to the John Wayne Trail. The City has also identified a Yakima River Trail. A portion of this trail currently exists, with access from Irene Reinhart Riverfront Park. The proposed trail route will follow the Yakima River from the Thorp Mill to Helen McCabe State Park, located at SR 821 and Thrall Road.

Roslyn: The City of Roslyn has been actively pursuing non-motorized improvements leading to and from the city. City leaders envision their Central Business District as a hub, providing a resting place, parking, and connections to trails leading in all directions. The Coal Mines Trail passes through downtown Roslyn, and new signs have been added in 2007 to direct users along the route. The River Trail provides public access to the Cle Elum River through Suncadia property, but is not fully developed or easily accessible from downtown. Over time, these trails will be improved within the City and provide residents and visitors easy access to all areas outside of Roslyn.

The Coal Mines Trail currently extends to Ronald. A trail or lane leading north towards Salmon la Sac from Ronald is planned. Developments along SR 903 and Salmon la Sac Road can provide additional right of way or trail space for this project.

Many schoolchildren from Roslyn walk to school along the south side of SR 903. There are no sidewalks or trail facilities on this section of the highway. Roslyn's city leaders are currently seeking funding to construct a sidewalk or trail to the school from Roslyn.

Suncadia: The resort community Suncadia is developing an internal trail system for the use of residents and the public. Paved trails leading to Roslyn, the Cle Elum River, and within the community are planned.

Needs

Trail Connections: The John Wayne Trail and Coal Mines Trail do not connect, but do come very close to each other. Two potential connection points have been identified. One connection is from the Coal Mines Trail Park in Cle Elum to the John Wayne Trailhead in South Cle Elum. The second connection begins in Roslyn and crosses through Suncadia property to Bullfrog Road and across I-90 to the trail.

Over time, the Coal Mines Trail, with its north-south orientation, could perform a function similar to that of the east-west State Trail. An extension of the Coal Mines Trail both to the south to connect with the John Wayne Trail and to the north to connect with the Salmon la Sac corridor area would greatly improve the overall trail system. It could be the second connection on the "spine" of the Upper County recreational trail network.

Pedestrian / Equestrian Crossings: Two pedestrian crossings over I-90 have been identified due to safety concerns. One crossing would create an alternate route across I-90 at University Way in Ellensburg. The existing bridge is narrow with no sidewalks and very heavy traffic. The second crossing is over I-90 at Bullfrog Road. Because of equestrian activity near Bullfrog Road, a pedestrian and equestrian underpass has been proposed to

allow horses to cross under I-90 and connect to the John Wayne Trail and the proposed equestrian park in Cle Elum.

School Routes: Kittitas County's rural schools lack safe routes for kids to walk and bike to school. Most of the schools are located on busy roads that lack sidewalks. Safe routes need to be identified, or the safety improved on routes currently in use. Schools that have been identified as needing safer routes are Thorp, Kittitas, Easton, Damman, Ellensburg High School, and Valley View Elementary in Ellensburg. The Cle Elum School needs a safe route to Roslyn, although this route would follow State Route 903 and not a county road. Local citizens have suggested several improvements for school routes such as a pathway on Vantage Highway and Pfenning Road (with a traffic signal at this intersection) to connect the Radio Hill residential area to Valley View Elementary and Ellensburg High School, a pathway on Thorp Highway from the Thorp School to the Thorp Mill, and a pathway on No. 81 Road from Kittitas residential areas to the sidewalks on Kittitas Highway that access the schools.

UGA Development Agreement: The Cities of Ellensburg, Cle Elum, Roslyn, and South Cle Elum have identified non-motorized goals in the City's Comprehensive Plans. For projects located within the UGA, joint review between the County and City should take place. The County should support the city's non-motorized transportation plan by requiring improvements that will enhance the current system or provide for the future system.

Road Improvements: The best bike routes are on roads with shoulders. New construction and road improvements on designated bike routes should provide a wider shoulder and additional right-of-way if needed. Shoulders on bike routes should also be swept as part of the regular road maintenance.

Goals-Policies-Objectives, Costs, and Funding

<u>10-1 GPO:</u> Kittitas County encourages the use of non-motorized transportation.

10-2 GPO: Kittitas County shall design reconstructed roads or future corridors identified as a bike or pedestrian paths to be constructed with extra shoulder.

10-3 GPO: To develop and maintain a safe, efficient, and environmentally sound non-motorized transportation system.

10-4 GPO: During joint city-county review of development proposals in a UGA, non-motorized transportation improvements shall be required according to city or county standards and policies.

10-5 GPO: Non-motorized travel between communities shall be encouraged by providing a safe and convenient trail system.

Estimated Costs: $10,000 annually for paths and trails

Funding Sources:

- (Federal) STP Transportation Enhancements Program, Safe Routes to School Program
- (State) Safe Routes to School Program
- (County) County Paths & Trails funds

Chapter 11 – Recreational Access

Why are Recreational Activities Important in Kittitas County?

For many residents of Kittitas County, close proximity to outdoor recreation is one of the best reasons to live here. Within minutes, depending on the direction, one can be in the desert or the mountains, fishing, hiking, snowmobiling, biking, hunting, camping, skiing, bird watching, or enjoying one of many other outdoor activities.

Tourism in Kittitas County has increased over the years as more and more people discover the recreational opportunities in the County. Most visitors come from the Puget Sound area for day or weekend trips, but many visitors are beginning to travel from farther locations and many are buying second homes in both urban and rural areas of the County.

Although many businesses that profit from recreation are specialized, visitors also buy basic supplies, such as food and gas. The Ellensburg Chamber of Commerce estimates that the average visitor spends $110 a day when staying overnight.

Existing Recreational Activities in Kittitas County

Kittitas County has significant recreational opportunities throughout the year. Although most recreational areas are located on public land, most areas are accessed by County roads. Kittitas County provides access to parking areas for snowmobiling, trailheads, and a boat launch at Vantage for access to the Columbia River.

The growth in tourism is good economically for the County; however the growth in tourism has also brought an increase in traffic on county roads. Additionally, many second homes in remote areas that have been historically used for summer cabins are now accessed year round. These trends have put additional pressure on winter road maintenance and snow removal.

Specific recreational sites and their unique transportation related characteristics are discussed below.

Gladmar Park: is located in Thorp and owned by Kittitas County. In 1996, flooding created a new river channel, which cut off access to the park. A recent 50-year lease agreement with Central Washington University will bring improvements and access to the park, opening it for the public and student research and education. In exchange for low lease payments, CWU will improve the park by installing parking, restrooms, and footbridges. State Parks will be involved in the improvements so the site can serve as an access point to the John Wayne Trail, which runs adjacent to the park.

Suncadia: An assessment of traffic generated by recreational activities was conducted by Suncadia during the 2006 Memorial Day weekend in the Cle Elum / Roslyn / Suncadia area. Memorial Day was assumed to have traffic volumes that would represent a high average summer weekend or a low summer holiday weekend.

Bullfrog Road is a major route leading from the Puget Sound area to Upper County. Traffic counts collected by Suncadia indicate Bullfrog Road weekday ADT has increased by 10.4 – 11.7% a year since 2000. Weekend traffic has increased by 2.4 – 3.0% a year since 2000.

Kittitas County traffic counts indicate that Bullfrog Road ADT has increased over 50% in the past four years. Suncadia will continue to monitor traffic levels and impacts related to the Suncadia resort area as required by its Development Agreement with the County.

County Sno-Parks: The County is responsible for keeping several roads and official Sno-Parks plowed and accessible. Designated county road shoulders are used for winter recreation parking on Lake Kachess Road, Salmon La Sac Road, Teanaway Road, and Reecer Creek Road. Concerns over safety have been raised by the use of county road shoulders as Sno-Parks on these roads due to the reduction of roadway width when snow is stored on the sides of the road and the intermingling of vehicular traffic with snowmobiles, snowshoers, cross-country skiers, and other winter recreation users. The county should replace the on-street parking with off-street parking lots for recreational activities, especially

winter sports. The County should also verify that the existing snowmobile trails are not obstructed by new development and access to the trails is from safe parking areas. The figure on the following page shows the locations of these Sno-Parks and Appendix G shows snow mobile trails within the County.

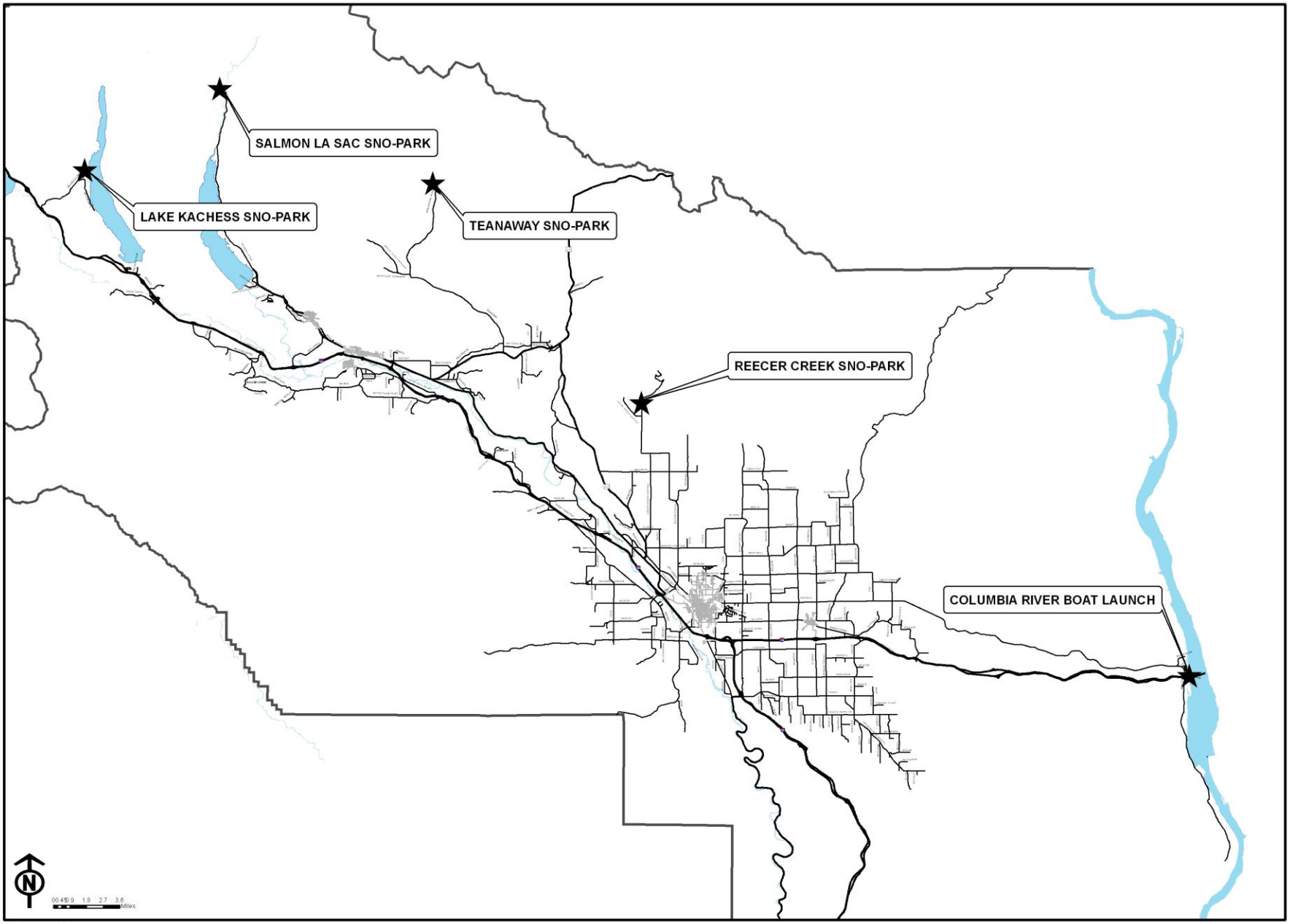
Columbia River Boat Launch: Kittitas County and Grant County have an agreement to operate and maintain the Columbia River boat launch north of Interstate 90 in Vantage that is owned by Grant County. Additional parking and improvements are needed at this location for improved access to the Columbia River. The location of this boat launch is shown in the figure below.

State and Federal Government Public Lands: The state and federal government own a large percentage of land in Kittitas County, most of which is open to recreational use. Kittitas County is a destination point for motorized, non-motorized, passive and active recreation. There are areas designated for ORV, snowmobile, and dirt bike use, and areas designated for non-motorized winter and summer recreation, such as cross country skiing, sled dogging, hiking, and mountain biking. Kittitas County has access to lakes and rivers, for both fishing and recreation, lakes closed to motors that are popular with canoeist and kayakers, and lakes accessible only by four-wheel drive vehicles or by foot. The County also has areas popular for horseback riding.

The County roads that lead to these recreational areas must be evaluated to determine needed improvements.

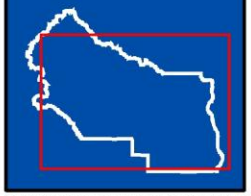
Kittitas County Transportation Plan

COUNTY MAINTAINED SNO-PARKS AND BOAT LAUNCH



Legend

- COUNTY ROADS
- WSDOT ROADS
- CITY ROADS



2007 Kittitas County Department of Public Works

Goals-Policies-Objectives, Costs, and Funding

11-1 GPO: Kittitas County shall promote and support recreational activities throughout the county.

11-2 GPO: Kittitas County shall work with other local, state, and federal agencies to provide improvements to transportation systems that promote safe access for recreational activities throughout the County.

11-3 GPO: Additional Sno-Park parking shall be provided to replace on-street parking of winter recreation users and improve safety for recreational users and county road travelers.

Estimated Cost: $25,000 for off-site Sno-Park

Funding Sources: (Federal) Forest & Highway Program
Local Funds

Chapter 12 – Financial Support

Reporting Requirements for Funding Projects

This Transportation Plan offers a diverse multi-modal program of projects over a twenty-year period, from 2005 to 2025. The goal is to provide a balanced and well-maintained transportation system for the safe and efficient movement of people, goods and services.

The State Growth Management Act (RCW 36.70A.070(6) requires a finance strategy be developed and discussed in long-range transportation plans. The Act requires: "An analysis of funding capacity to judge against probable funding resources; a multi-year financing plan based on the needs identified in the Comprehensive Plan, the appropriate parts of which shall serve as the basis of the six-year street, road or transit program required by RCW 36.81.121 for counties....; if probable funding falls short of meeting identified needs, a discussion of how funding will be raised or how land use assumptions will be reassessed to ensure that level of service standards will be met."

This chapter satisfies the GMA requirement with discussion on the County's ability to pay for the twenty-year transportation program. Funding revenues available to the County are estimated with supporting documentation on possible grant sources in Appendix E. Then a comparison of estimated known costs of the Plan with the funding capability for the County is provided in a balanced budget.

Anticipated Revenues

The County's anticipated revenue is based on what was received from 2000 to 2004, as shown in Table 12-1.

Table 12-1						
County Road Revenues Received 2000 to 2004						
(in thousands of dollars)						
Funding Source	***2000***	***2001***	***2002***	***2003***	***2004***	***Average***
Beginning Fund Balance	*3,545*	*3,522*	*5,117*	*4,276*	*4,477*	*4,187*
Federal Program (STP)	2,678	1,247	2,116	3,070	5,461	2,914
Gas Tax	1,711	1,713	1,741	1,737	1,721	1,725
TIB (state grant)	196	0	0	522	434	230
RAP	2,416	678	982	2,372	2,282	1,746
CAPP	325	350	670	320	319	397
Property taxes	2,276	2,364	2,486	2,614	2,860	2,520
Timber taxes	200	100	100	150	0	110
Other taxes	8	10	10	10	0	8
Federal Lands	275	150	150	250	250	215
Reimburse	145	119	77	78	70	98
Other	190	163	251	169	1,395	434
Total Available Revenue	13,965	10,416	13,700	15,568	19,269	14,584
TOTAL NEW REVENUE (minus the beginning fund balance)	**10,420**	**6,894**	**8,583**	**11,292**	**14,792**	**10,396**
Anticipated Annual Revenues: $10.4 mill. - $4.4 mill. (set aside fund) = $6 million						

Source: County Road Administration Board.

Kittitas County Public Works receives an average of $10,396,000 annually in transportation-related revenue. However, this revenue amount fluctuates from year to year. Several of the revenue accounts, for example, represent competitive grants that are not constant annually. Other factors that affect balance fluctuations are State gas tax distributions, federal authorizations and grants, County property tax rates and assessments, and County annexations. Expenses associated with salaries, equipment, and overhead to administer Public Works programs are paid for with these revenues, reducing the amount available for transportation improvements by approximately $2.5 million. Moreover, "rainy day" funds, which must be prudently set aside for unexpected emergencies and needs, are not accounted for in the balance. Given this, it is estimated that Public Works has an annual estimated funding capability of **$6.0** Million for transportation improvements in this Transportation Plan.

Estimated Costs

The estimated known costs of the Plan for the different transportation programs described in the previous chapters are compared and balanced with the estimated funding capability for the County in Table 12-2. The estimated funding capability for the total years in this plan (to 2025) is $108 million ($6 million annually). The County's total estimated *known* cost of the Plan is $98 million through the year 2025. This results in an average annual remaining balance of $556,000. These values are averaged and should not be interpreted as actual fund levels that occur yearly and will occur routinely into the future. There are several projects with *unknown* costs that cannot be estimated at this time. To address this, it is recommended that the Plan be reviewed annually and updated as needed to revise anticipated expenditures and funding strategies as warranted.

Table 12-2
County Road Anticipated Expenditures 2008 to 2025
(in thousands of dollars)

Program/Project	*Chapter Reference*	*Funding Source(s)*	*Annual Expenditures*	*Costs Estimated through 2025*	*Revenue Available through 2025*
Arterial Asphalt Overlay Program	2	CAPP (preservation gas tax)	$ 300	$ 5,400	$ 5,400
Chip Seal Program	2	Motor vehicle fuel tax	$1,500	$27,000	$27,000
Striping Program	2	CAPP, local	$ 130	$ 2,340	$ 2,340
Widening Deficient Roads Program	3	Property taxes, RAP, STP, TIB	$ 150	$ 2,700	$ 2,700
Major Reconst-ruction Program	3	RAP, CAP (paving part), Sales & use taxes	$2,000	$36,000	$36,000
Bridge Reconst-ruction Program	3	Federal Grants (BRAC)	$ 100	$ 1,800	$ 1,800
Hard-Surface Gravel Roads	3	Motor vehicle fuel tax	$ 120	$ 2,160	$ 2,160

Table 12-2 Continued County Road Anticipated Expenditures 2008 to 2025 (in thousands of dollars)					
Program/Project	*Chapter Reference*	*Funding Source(s)*	*Annual Expenditures*	*Costs Estimated through 2025*	*Revenue Available through 2025*
Turn-Around Program	3	Motor vehicle fuel tax	$ 10	$ 180	$ 180
Safety Enhance-ments Program	4	RAP, STP (R), STP (S), Property taxes	$ 140	$ 2,520	$ 2,520
New Corridors	5	Private developers, Property taxes, Federal Grants (STP, Approp.)	$1,000	$18,000	$18,000
LOS Improvements	6	Property Taxes, Federal (STP, Approp.)	$ 22	$ 22	$ 22
Public & School Transportation Improvements	7	Property Taxes, Motor vehicle fuel tax, Federal - STP (E)	$ 10	$ 180	$ 180
Non-Motorized Improvements	10	MVET (bike routes & trails), Fed. - STP (E)	$ 10	$ 180	$ 180
Recreational Access Improvements	11	Forest and Highway, Local	$ 25	$ 25	$ 25
TOTAL EXPENDITURES:			***$5,517,000***	***$98,507,000***	***$98,507,000***

Appendix A – Roadway Conditions

Definitions Used in Roadway Analysis

Roadway Surface Type:

Gravel: Crushed Rock Surface (This occurred only once during the course of this study)

BST: Bituminous surface treatment (typical for the majority of the roads studied)

ACP: Asphalt Concrete Pavement (used mainly along high traffic roads)

Design Clear Zone:

Substandard: This indicates that the clear zone is not to the standard of Kittitas County; i.e. brush, trees, drainage ditches, structures, cut slopes or steep drop-offs prevent the ability of vehicles to safely park along the side of the road, without encroaching onto the traveled way of the road.

Adequate: This indicates that there is acceptable room for vehicles to safely park outside the traveled way of the road. There may be a few isolated instances where there is not an adequate clear area, but that is not the trend.

Pavement Assessment:

New Condition: Indicates that the roadway studied had been recently resurfaced.

Good Condition**:** The roadway surface is in good overall condition and is not in any need of repair in the near future.

Fair/Good Condition: The roadway is generally in good condition, but with occasional cracks in the driving lane and chipping of the edge of the paved surface in places.

Fair/Poor Condition: The roadway is a generally poor driving surface in a majority of places and is in need of repair or resurfacing.

Shoulder width varies: The shoulder is paved, but is not of a uniform width. This refers only to the paved portion of the usable shoulder.

Gravel Shoulder: This indicates that there is no paved shoulder outside the travel lane. The usable shoulder may still be of adequate width.

Overall Roadway Assessment

Road cross-section meets/exceeds design: This indicates that the roadway cross-section has lanes, shoulders, and clear zones that meet the new design standard adopted by the County. There may be isolated instances where the where one or more elements of the roadway cross-section may fall below standard, but this is not the trend.

Shoulder substandard in places: This note indicates that the paved shoulder is of proper design width in a majority of places, but is not wide enough in the rest.

Clear zone with substandard in places: This note is similar in description to the previous: clear zones are acceptable in a majority of places, but need to be increased in the rest.

Lane width substandard in places: This note indicates that the traveled way lane width is generally acceptable, but has some places that fall below the design standard; it is most likely associated with a substandard shoulder.

Shoulder substandard: This indicates that, overall, the paved shoulder falls below what the new County standard requires.

Clear zone substandard: This indicates that a substantial portion of the roadway has poor clear zones that do not safely allow a vehicle to park beside the travel lane.

Road cross-section not to design standard: This note indicates that the entire roadway cross-section (lane, shoulder, clear zone width, right of way, or combinations of such) fall far below the design criteria set forth in the new County standards.

Table A-1
Kittitas County's Roadway Conditions

Road Name	Road Number	FFC	BMP - EMP	Surface Type	Lane Width	Shoulder Width	Design Clear Zone	ROW Width	Center line	Fog Line	Pavement Assessment	Overall Roadway Assessment	Notes
Airport Road (Cle Elum)	23010	8	0.000 - 0.487	BST	10 ft.	0 - 1 ft.	Substandard	60 ft.	Yes	No	Fair/Good Condition, Shoulder Width Varies	Road cross-section not to design standard	Posted 35 mph
Airport Road (Cle Elum)	23010	8	0.487 - 2.708	BST	10 ft.	0 ft.	Adequate	60 ft.	Yes	No	Good Condition, Gravel Shoulder	Road cross-section not to design standard	Posted 35 mph
Airport Road (Ellensburg)	94026	16	0.940 - 0.977	BST	12 ft.	10 ft.	Adequate	60 ft.	Yes	Yes	Good Condition, Extra Wide Shoulder w/c&g	Road cross-section meets/exceeds design	Posted 35 mph
Airport Road (Ellensburg)	94026	16	0.977 - 1.305	BST	12 ft.	4 - 10 ft.	Adequate	60 ft.	Yes	Yes	Good Condition, Shoulder Width Varies	Road cross-section meets/exceeds design	Posted 35 mph
Alford Road	42271	8	0.000 - 1.043	BST	11 ft.	0 ft.	Substandard	60 ft.	Yes	No	Fair/Good Condition, Gravel Shoulder	Shoulder, clear zone widths substandard	Not Posted; assumed 35 mph
Anderson Road	60640	16	0.000 - 0.410	BST	11 ft.	3 ft.	Adequate	60 ft.	Yes	Yes	Good Condition, Wide Shoulder	Road cross-section meets/exceeds design	Posted 35 mph
Badger Pocket Road	68910	8	0.000 - 1.300	BST	10 ft.	0 ft.	Adequate	60 ft.	No	No	Good Condition, Gravel Shoulder	Road cross-section not to design standard	Not Posted; assumed 35 mph
Bender Road	93075	7	0.000 - 0.757	BST	11 ft.	2 ft.	Adequate	60 ft.	Yes	Yes	New Condition, Design Standard Width	Road cross-section meets/exceeds design	Posted 35 mph
Berry Road	69010	8	0.170 - 0.311	ACP	11 ft.	0 - 2 ft.	Adequate	60 ft.	No	No	Good Condition, Shoulder Width Varies	Shoulder width substandard in places	Not Posted; assumed 35 mph
Berry Road	69010	8	0.311 - 0.430	BST	10 - 11 ft.	0 ft.	Adequate	60 ft.	Yes	No	Fair/Good Condition, Gravel Shoulder	Road cross-section not to design standard	Not Posted; assumed 35 mph
Bowers Road	41010	17	0.000 - 0.420	BST	11 ft.	2 ft.	Adequate	60 ft.	Yes	Yes	Good Condition, Design Standard Width	Road cross-section meets/exceeds design	Posted 25 mph
Boylston Road	68930	8	0.000 - 3.291	BST	11 ft.	1 - 2 ft.	Substandard	60 ft.	Yes	No	Good Condition, Shoulder Width Varies	Shoulder, clear zone width substandard in places	Not Posted; assumed 35 mph
Brick Mill Road	41271	8	0.000 - 0.878	BST	10 - 11 ft.	0 - 1 ft.	Substandard	60 ft.	Yes	No	Fair/Good Condition, Shoulder Width Varies	Road cross-section not to design standard	Not Posted; assumed 50 mph

Table A-1 Continued
Kittitas County's Roadway Conditions

Road Name	Road Number	FFC	BMP - EMP	Surface Type	Lane Width	Shoulder Width	Design Clear Zone	ROW Width	Center line	Fog Line	Pavement Assessment	Overall Roadway Assessment	Notes
Brick Mill Road	41271	7	0.878 - 3.280	BST	11 ft.	0 - 1 ft.	Substandard	60 ft.	Yes	No	Fair/Good Condition, Shoulder Width Varies	Shoulder, clear zone widths substandard	50 mph w/Speed Zones
Brick Mill Road	41271	7	3.280 - 4.016	BST	10 - 11 ft.	0 ft.	Substandard	60 ft.	Yes	No	Fair/Good Condition, Gravel Shoulder	Road cross-section not to design standard	Posted 35 mph
Brick Mill Road	41271	7	4.016 - 5.056	BST	10 - 11 ft.	0 ft.	Substandard	60 ft.	Yes	No	Fair/Good Condition, Gravel Shoulder	Road cross-section not to design standard	Not Posted; assumed 35 mph
Brick Mill Road	41271	8	5.056 - 6.097	BST	11 ft.	0 - 1 ft.	Adequate	60 ft.	Yes	No	Fair/Good Condition, Shoulder Width Varies	Shoulder substandard	Not Posted; assumed 35 mph
Brick Mill Road	41271	8	6.097 - 6.682	BST	11 ft.	1 - 2 ft.	Adequate	60 ft.	Yes	No	Good Condition, Shoulder Width Varies	Shoulder substandard	Not Posted; assumed 35 mph
Brick Mill Road	41271	8	6.682 - 7.127	BST	11 ft.	2 - 4 ft.	Adequate	60 ft.	Yes	No	New Condition, Shoulder Width Varies	Road cross-section meets/exceeds design	Not Posted; assumed 50 mph
Brick Road	40600	8	0.550 - 0.624	BST	11 ft.	2 ft.	Adequate	60 ft.	Yes	No	Good Condition, Design Standard Width	Road cross-section meets/exceeds design	Not Posted; assumed 35 mph
Brick Road	40600	17	0.624 - 0.906	BST	11 ft.	1 - 2 ft.	Adequate	60 ft.	Yes	No	Good Condition, Shoulder Width Varies	Shoulder width substandard in places	Not Posted; assumed 35 mph
Brondt Road	95630	7	0.000 - 0.620	ACP	10 ft.	0 ft.	Substandard	50 ft.	Yes	No	Good Condition, Gravel Shoulder	Road cross-section not to design standard	Not Posted; assumed 50 mph
Brown Road	95611	7	0.000 - 1.141	BST	10 - 11 ft.	0 ft.	Adequate	60 ft.	Yes	No	New Condition, Gravel Shoulder	Road cross-section not to design standard	Posted 50 mph
Brown Road	95611	7	1.141 - 1.808	ACP	10 - 11 ft.	0 ft.	Substandard	60 ft.	Yes	No	Good Condition, Gravel Shoulder	Road cross-section not to design standard	Posted 50 mph
Brown Road	95611	7	1.808 - 2.726	BST	10 - 11 ft.	0 ft.	Substandard	50 ft.	Yes	No	Good Condition, Gravel Shoulder	Road cross-section not to design standard	Posted 50 mph
Bull Road	61261	8	0.261 - 0.979	BST	11 ft.	0 - 1 ft.	Substandard	60 ft.	No	No	New Condition, Shoulder Width Varies	Shoulder substandard, clear zone in places	Not Posted; assumed 35 mph
Bullfrog Road	92275	7	0.000 - 2.699	BST	12 ft.	2 - 4 ft.	Adequate	60 ft.	Yes	Yes	Good Condition, Shoulder Width Varies	Road cross-section meets/exceeds design	Posted 35 mph

Table A-1 Continued
Kittitas County's Roadway Conditions

Road Name	Road Number	FFC	BMP - EMP	Surface Type	Lane Width	Shoulder Width	Design Clear Zone	ROW Width	Center line	Fog Line	Pavement Assessment	Overall Roadway Assessment	Notes
Cabin Creek Road	13090	8	0.000 - 2.855	BST	11 ft.	2 - 4 ft.	Substandard	60 ft.	`	No	Good Condition, Shoulder Width Varies	Clear zone substandard in places	Posted 35 mph
Canyon Road	96076	7	2.170 - 2.313	ACP	12 ft.	6 - 8 ft.	Adequate	60 ft.	Yes	Yes	Good Condition, Shoulder Width Varies	Road cross-section meets/exceeds design	Not Posted; assumed 50 mph
Canyon Road	96076	7	2.313 - 2.617	CCP	11 ft.	2 - 4 ft.	Adequate	60 ft.	Yes	Yes	Fair/Poor Condition, ACP Shoulder	Road cross-section not to design standard	Not Posted; assumed 50 mph
Canyon Road	96076	7	2.617 - 2.884	ACP	11 ft.	2 - 4 ft.	Adequate	60 ft.	Yes	Yes	Fair/Good Condition, Shoulder Width Varies	Road cross-section meets/exceeds design	Not Posted; assumed 50 mph
Canyon Road	96076	7	2.884 - 5.423	CCP	12 ft.	2 - 4 ft.	Adequate	60 ft.	Yes	Yes	Fair/Poor Condition, ACP Shoulder	Road cross-section not to design standard	Not Posted; assumed 50 mph
Canyon Road	96076	7	5.423 - 6.992	BST	12 ft.	2 - 4 ft.	Adequate	60 ft.	Yes	Yes	Fair/Good Condition, Shoulder Width Varies	Road cross-section meets/exceeds design	Posted 45 mph
Carroll Road	68515	8	0.000 - 1.530	BST	10 - 11 ft.	0 - 1 ft.	Substandard	60 ft.	Yes	No	Fair/Good Condition, Gravel Shoulder	Road cross-section not to design standard	Not Posted; assumed 35 mph
Charlton Road	43512	8	0.074 - 1.100	BST	10 - 11 ft.	0 ft.	Substandard	60 ft.	Yes	No	Fair Condition, Gravel Shoulder	Road cross-section not to design standard	Not Posted; assumed 35 mph
Cleman Road	96400	7	1.400 - 1.883	BST	12 ft.	4 - 6 ft.	Adequate	60 ft.	Yes	Yes	Good Condition, Shoulder Width Varies	Road cross-section meets/exceeds design	Posted 50 mph
Cove Road	95501	7	0.000 - 0.214	ACP	11 ft.	2 - 4 ft.	Adequate	50 ft.	Yes	Yes	Good Condition, Shoulder Width Varies	Road cross-section meets/exceeds design	Not Posted; assumed 50 mph
Cove Road	95501	7	0.214 - 1.144	BST	11 ft.	0 ft.	Adequate	50 ft.	Yes	No	Good Condition, Gravel Shoulder	Shoulder substandard	Not Posted; assumed 50 mph
Cove Road	95501	7	1.144 - 2.278	BST	12 ft.	0 - 2 ft.	Adequate	60 ft.	Yes	Yes	Good Condition, Shoulder Width Varies	Shoulder width substandard in places	Posted 50 mph
Cove Road	95501	7	2.278 - 2.494	BST	12 ft.	2 - 4 ft.	Adequate	60 ft.	Yes	Yes	Good Condition, Shoulder Width Varies	Road cross-section meets/exceeds design	Posted 50 mph
Cove Road	95501	7	2.494 - 4.141	BST	12 ft.	0 - 2 ft.	Adequate	60 ft.	Yes	Yes	Good Condition, Shoulder Width Varies	Shoulder width substandard in places	Not Posted; assumed 50 mph

Table A-1 Continued
Kittitas County's Roadway Conditions

Road Name	Road Number	FFC	BMP - EMP	Surface Type	Lane Width	Shoulder Width	Design Clear Zone	ROW Width	Center line	Fog Line	Pavement Assessment	Overall Roadway Assessment	Notes
Denmark Road	63501	8	3.090 - 4.353	BST	10 ft.	0 ft.	Substandard	50 ft.	Yes	No	New Condition, Gravel Shoulder	Road cross-section not to design standard	Not Posted; assumed 35 mph
Dry Creek Road	93025	7	0.640 - 1.026	BST	12 ft.	4 - 6 ft.	Adequate	60 ft.	Yes	Yes	Good Condition, Shoulder Width Varies	Road cross-section meets/exceeds design	Not Posted; assumed 35 mph
Dry Creek Road	93025	7	1.026 - 1.209	ACP	12 ft.	4 - 6 ft.	Adequate	60 ft.	Yes	Yes	Good Condition, Shoulder Width Varies	Road cross-section meets/exceeds design	Posted 35 mph
Dry Creek Road	93025	7	1.209 - 1.798	BST	12 ft.	0 - 2 ft.	Adequate	60 ft.	Yes	Yes	Good Condition, Shoulder Width Varies	Shoulder width substandard in places	Not Posted; assumed 35 mph
Dry Creek Road	93025	7	1.798 - 2.342	BST	12 ft.	4 - 6 ft.	Adequate	60 ft.	Yes	Yes	Good Condition, Shoulder Width Varies	Shoulder width substandard in places	Not Posted; assumed 35 mph
Dry Creek Road	93025	7	2.342 - 3.461	BST	12 ft.	1 - 2 ft.	Adequate	60 ft.	Yes	Yes	Good Condition, Shoulder Width Varies	Shoulder width substandard in places	Not Posted; assumed 35 mph
Emerson Road	63003	8	0.000 - 1.015	BST	11 ft.	0 - 1 ft.	Adequate	60 - 50 ft.	No	No	New Condition, Shoulder Width Varies	Shoulder substandard	Not Posted; assumed 35 mph
Fairview Road	63500	8	1.976 - 5.047	BST	11 ft.	2 - 4 ft.	Adequate	60 ft.	Yes	No	Good Condition, Shoulder Width Varies	Road cross-section meets/exceeds design	Not Posted; assumed 50 mph
Faust Road	34761	7	0.000 - 0.230	BST	11 ft.	0 - 1 ft.	Adequate	60 ft.	Yes	No	Fair/Good Condition, Shoulder Width Varies	Shoulder substandard	Posted 35 mph
Ferguson Road South	62702	8	0.458 - 2.540	BST	11 ft.	0 - 1 ft.	Adequate	60 ft.	No	No	New Condition, Shoulder Width Varies	Shoulder substandard	Not Posted; assumed 35 mph
Fourth Parallel Road	67014	8	0.000 - 2.748	BST	10 ft.	0 ft.	Substandard	60 ft.	No	No	New Condition, Gravel Shoulder	Road cross-section not to design standard	Not Posted; assumed 35 mph
Fourth Parallel Road	67014	8	2.748 - 4.636	BST	10 ft.	0 ft.	Substandard	60 ft.	Yes	No	Good Condition, Gravel Shoulder	Road cross-section not to design standard	Not Posted; assumed 35 mph
Fox Road	44760	8	0.000 - 1.544	BST	11 ft.	1 - 3 ft.	Substandard	60 ft.	Yes	No	Fair/Good Condition, Shoulder Width Varies	Shoulder, clear zone width substandard in places	Not Posted; assumed 50 mph
Game Farm Road	94051	7	0.000 - 1.040	BST	10 - 11 ft.	0 - 2 ft.	Substandard	50 ft.	Yes	No	Fair/Good Condition, Shoulder Width Varies	Road cross-section not to design standard	Posted 35 mph

Table A-1 Continued
Kittitas County's Roadway Conditions

Road Name	Road Number	FFC	BMP - EMP	Surface Type	Lane Width	Shoulder Width	Design Clear Zone	ROW Width	Center line	Fog Line	Pavement Assessment	Overall Roadway Assessment	Notes
Golf Course Road	21900	8	0.000 - 0.790	ACP	11 ft.	2 - 4 ft.	Adequate	60 ft.	Yes	Yes	Good Condition, Shoulder Width Varies	Road cross-section meets/exceeds design	Posted 35 mph
Hamilton Road	65000	8	0.000 - 1.030	BST	9 - 10 ft.	0 ft.	Substandard	60 ft.	Yes	No	Good Condition, Gravel Shoulder	Road cross-section not to design standard	Not Posted; assumed 35 mph
Hamilton Road	65000	8	1.030 - 1.795	BST	11 ft.	0 - 1 ft.	Adequate	60 ft.	Yes	No	Good Condition, Shoulder Width Varies	Shoulder substandard	Not Posted; assumed 35 mph
Hanson Road	95600	7	0.000 - 0.031	BST	11 ft.	2 - 4 ft.	Adequate	60 ft.	Yes	Yes	Good Condition, Shoulder Width Varies	Road cross-section meets/exceeds design	Posted 50 mph
Hanson Road	95600	7	0.031 - 0.810	BST	11 ft.	0 - 2 ft.	Substandard	60 ft.	Yes	Yes	New Condition, Shoulder Width Varies	Shoulder, clear zone width substandard in places	Posted 50 mph
Hanson Road	95600	7	0.810 - 0.934	BST	11 ft.	2 - 4 ft.	Adequate	60 ft.	Yes	Yes	New Condition, Shoulder Width Varies	Road cross-section meets/exceeds design	Posted 50 mph
Hanson Road	95600	7	0.934 - 3.077	BST	12 ft.	2 - 8 ft.	Adequate	60 ft.	Yes	Yes	New Condition, Shoulder Width Varies	Road cross-section meets/exceeds design	Posted 50 mph
Hungry Junction Road	31510	8	0.000 - 1.711	BST	10 ft.	0 ft.	Adequate	60 ft.	Yes	No	Fair Condition, Gravel Shoulder	Road cross-section not to design standard	50 mph w/Speed Zones
Hungry Junction Road	31510	8	1.711 - 1.860	ACP	11 ft.	4 - 6 ft.	Adequate	60 ft.	Yes	Yes	Fair/Good Condition, Shoulder Width Varies	Road cross-section meets/exceeds design	Not Posted; controlled intersection
Hungry Junction Road	31510	8	1.860 - 3.251	BST	10 ft.	0 ft.	Adequate	60 ft.	Yes	No	Fair Condition, Gravel Shoulder	Road cross-section not to design standard	50 mph w/Speed Zones
Hungry Junction Road	31510	8	3.251 - 4.264	BST	11 ft.	1 - 2 ft.	Adequate	60 ft.	Yes	No	Fair Condition, Shoulder Width Varies	Shoulder width substandard in places	Posted 50 mph
Huntzinger Road	75040	8	0.000 - 4.150	BST	11 ft.	2 - 4 ft.	Adequate	60 ft.	Yes	No	Good Condition, Shoulder Width Varies	Road cross-section meets/exceeds design	Posted 50 mph
Huntzinger Road	75040	8	4.150 - 10.709	BST	11 ft.	0 - 2 ft.	Substandard	60 ft.	Yes	No	Good Condition, Shoulder Width Varies	Shoulder substandard, clear zone in places	Posted 50 mph w/Speed Zone
Kachess Lake Road	12650	8	0.000 - 3.419	BST	11 ft.	2 - 4 ft.	Substandard	60 ft.	Yes	No	Good Condition, Shoulder Width Varies	Clear zone substandard in places	Posted 35 mph

Table A-1 Continued
Kittitas County's Roadway Conditions

Road Name	Road Number	FFC	BMP - EMP	Surface Type	Lane Width	Shoulder Width	Design Clear Zone	ROW Width	Center line	Fog Line	Pavement Assessment	Overall Roadway Assessment	Notes
Killmore Road	54250	8	0.000 - 2.421	BST	10 ft.	0 ft.	Adequate	60 ft.	Yes	No	Fair Condition, Gravel Shoulder	Road cross-section not to design standard	Not Posted; assumed 35 mph
Kittitas Highway	96951	7	1.030 - 1.287	ACP	11 ft.	2 - 4 ft.	Adequate	60 ft.	Yes	Yes	Good Condition, Shoulder Width Varies	Road cross-section meets/exceeds design	Posted 35 mph
Kittitas Highway	96951	7	1.287 - 2.404	ACP	11 ft.	2 - 4 ft.	Adequate	60 ft.	Yes	Yes	Good Condition, Shoulder Width Varies	Road cross-section meets/exceeds design	Posted 50 mph
Kittitas Highway	96951	7	2.404 - 5.769	ACP	12 ft.	2 - 4 ft.	Adequate	60 ft.	Yes	Yes	Good Condition, Shoulder Width Varies	Road cross-section meets/exceeds design	Posted 50 mph
Kittitas Highway	96951	7	5.769 - 5.843	ACP	12 ft.	2 - 4 ft.	Adequate	60 ft.	Yes	Yes	Good Condition, Shoulder Width Varies	Road cross-section meets/exceeds design	Posted 25 mph
Liberty Road	38350	8	0.000 - 1.455	BST	11 ft.	0 - 1 ft.	Substandard	60 ft.	Yes	No	Fair/Good Condition, Shoulder Width Varies	Shoulder, clear zone widths substandard	Posted 35 mph
Liberty Road	38350	8	1.455 - 1.829	BST	11 ft.	0 - 1 ft.	Substandard	60 ft.	Yes	No	Fair/Good Condition, Shoulder Width Varies	Shoulder, clear zone widths substandard	Posted 25 mph
Liberty Road	38350	8	1.829 - 1.916	BST	9 ft.	0 ft.	Substandard	60 ft.	Yes	No	Fair/Good Condition, Gravel Shoulder	Road cross-section not to design standard	Posted 25 mph
Liberty Road	38350	8	1.916 - 2.101	Gravel	8 ft.	0 ft.	Substandard	60 ft.	No	No	Gravel Surface	Road cross-section not to design standard	Not Posted; assumed 25 mph
Look Road	40761	8	0.000 - 3.278	ACP	11 ft.	2 - 3 ft.	Adequate	60 ft.	Yes	Yes	Good Condition, Shoulder Width Varies	Road cross-section meets/exceeds design	Posted 50 mph
Lower Green Canyon Road	34383	8	3.880 - 4.879	BST	11 ft.	1 - 2 ft.	Adequate	60 ft.	Yes	No	New Condition, Shoulder Width Varies	Shoulder width substandard in places	Not Posted; assumed 50 mph
Lower Peoh Point Road	22770	8	0.340 - 2.909	BST	11 - 12 ft.	2 - 4 ft.	Adequate	60 ft.	Yes	Yes	New Condition, Shoulder Width Varies	Road cross-section meets/exceeds design	Posted 35 mph
Lyons Road	40772	8	0.000 - 1.487	BST	9 - 10 ft.	0 ft.	Substandard	60 ft.	Yes	No	Fair/Good Condition, Gravel Shoulder	Road cross-section not to design standard	Not Posted; assumed 50 mph
Lyons Road	40772	8	1.487 - 2.985	BST	9 - 10 ft.	0 ft.	Substandard	60 ft.	Yes	No	Fair/Good Condition, Gravel Shoulder	Road cross-section not to design standard	Not Posted; assumed 50 mph

Table A-1 Continued
Kittitas County's Roadway Conditions

Road Name	Road Number	FFC	BMP - EMP	Surface Type	Lane Width	Shoulder Width	Design Clear Zone	ROW Width	Center line	Fog Line	Pavement Assessment	Overall Roadway Assessment	Notes
Lyons Road	40772	8	2.985 - 4.000	BST	11 ft.	0 - 1 ft.	Adequate	60 ft.	Yes	No	Fair/Good Condition, Shoulder Width Varies	Shoulder substandard	Not Posted; assumed 50 mph
Lyons Road	40772	8	4.000 - 5.616	BST	11 ft.	0 - 1 ft.	Substandard	60 ft.	Yes	No	Fair/Good Condition, Shoulder Width Varies	Shoulder substandard, clear zone in places	Not Posted; assumed 50 mph
Lyons Road	40772	8	5.616 - 7.048	BST	11 ft.	0 - 1 ft.	Substandard	60 ft.	Yes	No	Fair/Good Condition, Shoulder Width Varies	Shoulder, clear zone widths substandard	Not Posted; assumed 50 mph
Manastash Road	95301	7	0.000 - 0.136	BST	11 ft.	4 - 6 ft.	Adequate	60 ft.	Yes	Yes	Good Condition, Shoulder Width Varies	Road cross-section meets/exceeds design	Not Posted; assumed 50 mph
Manastash Road	95301	7	0.136 - 0.745	BST	11 ft.	2 - 4 ft.	Substandard	60 ft.	Yes	Yes	Good Condition, Shoulder Width Varies	Clear zone width substandard in places	Posted 50 mph
Manastash Road	95301	7	0.745 - 3.560	BST	11 ft.	0 - 2 ft.	Substandard	60 ft.	Yes	Yes	Good Condition, Shoulder Width Varies	Shoulder, clear zone width substandard in places	Not Posted; assumed 50 mph
Manastash Road	95301	8	3.560 - 11.015	BST	10 - 11 ft.	0 - 2 ft.	Substandard	60 ft.	Yes	No	Fair/Good Condition, Shoulder Width Varies	Road cross-section not to design standard	Speed Zone; Posted 35 mph
Masterson Road	26510	8	0.000 - 1.163	BST	11 ft.	0 ft.	Adequate	60 ft.	Yes	No	New Condition, Gravel Shoulder	Shoulder substandard	Posted 35 mph
Middle Fork Teanaway Road	29510	8	0.000 - 0.995	BST	11 ft.	0 - 1 ft.	Substandard	60 ft.	Yes	No	Fair Condition, Shoulder Width Varies	Shoulder, clear zone width substandard in places	Not Posted; assumed 35 mph
Middle Fork Teanaway Road	29510	8	0.995 - 2.610	BST	11 ft.	0 - 1 ft.	Substandard	60 ft.	Yes	No	Fair Condition, Shoulder Width Varies	Shoulder, clear zone width substandard in places	Not Posted; assumed 35 mph
Mohar Road	22350	8	0.000 - 0.068	BST	11 ft.	2 - 4 ft.	Adequate	60 ft.	Yes	Yes	Good Condition, Shoulder Width Varies	Road cross-section meets/exceeds design	Posted 35 mph
Mohar Road	22350	8	0.068 - 2.009	BST	11 ft.	0 - 2 ft.	Substandard	60 ft.	Yes	No	New Condition, Shoulder Width Varies	Shoulder, clear zone width substandard in places	Posted 35 mph
Naneum Road	42000	8	0.000 - 0.493	BST	10 ft.	0 ft.	Substandard	60 ft.	Yes	No	Fair/Good Condition, Gravel Shoulder	Road cross-section not to design standard	Posted 35 mph

Table A-1 Continued
Kittitas County's Roadway Conditions

Road Name	Road Number	FFC	BMP - EMP	Surface Type	Lane Width	Shoulder Width	Design Clear Zone	ROW Width	Center line	Fog Line	Pavement Assessment	Overall Roadway Assessment	Notes
Naneum Road	42000	8	0.493 - 0.640	BST	10 ft.	0 ft.	Substandard	60 ft.	Yes	No	Fair/Good Condition, Gravel Shoulder	Road cross-section not to design standard	Posted 50 mph
Naneum Road	42000	8	0.640 - 0.744	ACP	11 ft.	1 - 2 ft.	Adequate	60 ft.	Yes	No	Good Condition, Shoulder Width Varies	Shoulder width substandard in places	Posted 50 mph
Naneum Road	42000	8	0.744 - 0.978	BST	10 ft.	0 ft.	Adequate	60 ft.	Yes	No	Fair/Good Condition, Gravel Shoulder	Road cross-section not to design standard	Posted 50 mph
Naneum Road	42000	8	0.978 - 7.303	BST	10 - 11 ft.	0 ft.	Adequate	60 ft.	Yes	No	Fair/Good Condition, Gravel Shoulder	Road cross-section not to design standard	Posted 50 mph
Naneum Road	42000	8	7.303 - 8.846	BST	11 ft.	1 - 2 ft.	Adequate	60 ft.	Yes	No	Fair/Good Condition, Gravel Shoulder	Shoulder width substandard in places	Posted 50 mph
Naneum Road	42000	8	8.846 - 8.898	BST	7 ft	0 ft.	Substandard	60 ft.	No	No	Fair Condition, Gravel Shoulder	Road cross-section not to design standard	Not Posted; Dead End
Nelson Siding Road	23030	8	0.000 - 0.491	BST	11 ft.	2 - 3 ft.	Substandard	60 ft.	Yes	No	Fair/Good Condition, Shoulder Width Varies	Clear zone widths substandard	Posted 50 mph
Nelson Siding Road	23030	8	0.491 - 1.820	BST	11 ft.	2 - 3 ft.	Substandard	60 ft.	Yes	No	Fair/Good Condition, Shoulder Width Varies	Clear zone widths substandard	Posted 50 mph
Nelson Siding Road	23030	8	1.820 - 3.040	BST	11 ft.	2 - 3 ft.	Substandard	60 ft.	Yes	No	Fair/Good Condition, Shoulder Width Varies	Clear zone widths substandard	Posted 50 mph
Nelson Siding Road	23030	8	3.040 - 4.368	BST	11 ft.	2 - 3 ft.	Substandard	60 ft.	Yes	No	Fair/Good Condition, Shoulder Width Varies	Clear zone widths substandard	Posted 50 mph
North Fork Teanaway Road	25880	8	0.000 - 5.832	BST	11 ft.	0 ft.	Substandard	60 ft.	Yes	No	Good Condition, Gravel Shoulder	Shoulder, clear zone width substandard in places	Posted 50 mph
Number 6 Road	96200	7	0.000 - 0.223	BST	11 ft.	0 - 2 ft.	Substandard	60 ft.	Yes	Yes	New Condition, Shoulder Width Varies	Shoulder, clear zone width substandard in places	Posted 50 mph
Number 6 Road	96200	7	0.223 - 1.024	BST	11 ft.	2 - 4 ft.	Substandard	60 ft.	Yes	Yes	New Condition, Shoulder Width Varies	Clear zone width substandard in places	Posted 50 mph

Table A-1 Continued
Kittitas County's Roadway Conditions

Road Name	Road Number	FFC	BMP - EMP	Surface Type	Lane Width	Shoulder Width	Design Clear Zone	ROW Width	Center line	Fog Line	Pavement Assessment	Overall Roadway Assessment	Notes
Number 6 Road	96200	7	1.024 - 1.524	BST	11 ft.	2 - 4 ft.	Adequate	60 ft.	Yes	Yes	New Condition, Shoulder Width Varies	Road cross-section meets/exceeds design	Posted 50 mph
Number 6 Road	96200	7	1.524 - 1.837	BST	11 ft.	0 - 2 ft.	Substandard	60 ft.	Yes	Yes	New Condition, Shoulder Width Varies	Clear zone width substandard in places	Posted 50 mph
Number 6 Road	96200	7	1.837 - 2.197	BST	11 ft.	4 - 6 ft.	Adequate	60 ft.	Yes	Yes	New Condition, Shoulder Width Varies	Road cross-section meets/exceeds design	Posted 50 mph
Number 6 Road	96200	7	2.197 - 2.604	BST	11 ft.	2 - 4 ft.	Adequate	60 ft.	Yes	Yes	New Condition, Shoulder Width Varies	Road cross-section meets/exceeds design	Not Posted; assumed 50 mph
Number 6 Road	96200	8	2.604 - 3.598	BST	10 - 11 ft.	0 ft.	Substandard	60 ft.	Yes	No	Fair/Good Condition, Gravel Shoulder	Road cross-section not to design standard	Not Posted; assumed 50 mph
Number 6 Road	96200	8	3.598 - 5.082	BST	11 ft.	0 - 2 ft.	Substandard	60 ft.	Yes	No	New Condition, Shoulder Width Varies	Shoulder, clear zone width substandard in places	Not Posted; assumed 50 mph
Number 81 Road	94326	7	0.000 - 1.005	BST	11 ft.	0 ft.	Adequate	60 ft.	Yes	Yes	Good Condition, Gravel Shoulder	Shoulder substandard	Posted 35 mph
Number 81 Road	94326	7	1.005 - 3.057	BST	11 ft.	0 - 2 ft.	Substandard	60 ft.	Yes	Yes	Good Condition, Shoulder Width Varies	Shoulder, clear zone width substandard in places	Not Posted; assumed 50 mph
Number 81 Road	94326	7	3.057 - 4.060	BST	11 ft.	2 - 4 ft.	Adequate	60 ft.	Yes	Yes	Good Condition, Shoulder Width Varies	Road cross-section meets/exceeds design	Not Posted; assumed 50 mph
Parke Creek Road	69370	8	0.280 - 2.594	ACP	10 - 11 ft.	0 ft.	Adequate	60 ft.	Yes	No	Fair/Poor Condition, Gravel Shoulder	Road cross-section not to design standard	Not Posted; assumed 50 mph
Parke Creek Road	69370	8	2.594 - 4.454	BST	11 ft.	0 ft.	Substandard	60 ft.	Yes	No	Good Condition, Gravel Shoulder	Shoulder substandard, clear zone in places	Not Posted; assumed 50 mph
Parke Creek Road	69370	8	4.454 - 5.689	BST	11 ft.	2 - 4 ft.	Adequate	60 ft.	Yes	No	Good Condition, Shoulder Width Varies	Road cross-section meets/exceeds design	Not Posted; assumed 50 mph
Pfenning Road	69760	7	0.160 - 0.960	BST	11 ft.	2 - 6 ft.	Adequate	80 - 60 ft.	Yes	Yes	Good Condition, Shoulder Width Varies	Road cross-section meets/exceeds design	Posted 25 mph
Pfenning Road	69760	7	0.960 - 1.963	BST	11 ft.	0 ft.	Substandard	60 ft.	Yes	No	Good Condition, Gravel Shoulder	Shoulder substandard, clear zone in places	Posted 35 mph

Table A-1 Continued
Kittitas County's Roadway Conditions

Road Name	Road Number	FFC	BMP - EMP	Surface Type	Lane Width	Shoulder Width	Design Clear Zone	ROW Width	Center line	Fog Line	Pavement Assessment	Overall Roadway Assessment	Notes
Prater Road	65002	8	0.000 - 1.410	BST	11 ft.	1 - 2 ft.	Substandard	60 ft.	Yes	No	Good Condition, Shoulder Width Varies	Shoulder, clear zone width substandard in places	Not Posted; assumed 35 mph
Prater Road	65002	8	1.410 - 2.471	BST	10 - 11 ft.	0 - 1 ft.	Substandard	60 ft.	Yes	No	Good Condition, Shoulder Width Varies	Road cross-section not to design standard	Not Posted; assumed 35 mph
Reecer Creek Road	93526	7	0.000 - 1.264	ACP	12 ft.	6 - 8 ft.	Adequate	60 ft.	Yes	Yes	Good Condition, Shoulder Width Varies	Road cross-section meets/exceeds design	Not Posted; assumed 50 mph
Reecer Creek Road	93526	8	1.264 - 2.282	ACP	12 ft.	4 - 6 ft.	Adequate	60 ft.	Yes	Yes	Good Condition, Shoulder Width Varies	Road cross-section meets/exceeds design	Not Posted; assumed 50 mph
Reecer Creek Road	93526	8	2.282 - 4.818	BST	11 ft.	2 - 4 ft.	Adequate	60 ft.	Yes	Yes	Good Condition, Shoulder Width Varies	Road cross-section meets/exceeds design	Not Posted; assumed 50 mph
Reecer Creek Road	93526	8	4.818 - 6.692	BST	11 ft.	0 ft.	Substandard	60 ft.	Yes	No	Good Condition, Gravel Shoulder	Shoulder substandard, clear zone in places	Not Posted; assumed 50 mph
Reecer Creek Road	93562	8	6.692 - 7.799	BST	10 - 11 ft.	0 ft.	Substandard	60 ft.	Yes	No	Good Condition, Gravel Shoulder	Road cross-section not to design standard	Not Posted; assumed 50 mph
Reecer Creek Road	93562	8	7.799 - 8.720	BST	10 ft.	0 ft.	Substandard	60 ft.	Yes	No	Good Condition, Gravel Shoulder	Road cross-section not to design standard	Not Posted; assumed 50 mph
Reecer Creek Road	93526	8	8.720 - 11.500	BST	11 ft.	0 ft.	Adequate	60 ft.	Yes	No	Good Condition, Gravel Shoulder	Shoulder substandard	Not Posted; assumed 50 mph
Robinson Canyon Road	54510	8	0.000 - 2.332	BST	10 - 11 ft.	0 ft.	Substandard	60 ft.	Yes	No	Fair/Good Condition, Gravel Shoulder	Road cross-section not to design standard	Not Posted; assumed 35 mph
Robinson Canyon Road	54510	8	2.332 - 2.644	BST	11 ft.	4 - 6 ft.	Adequate	60 ft.	Yes	No	Good Condition, Shoulder Width Varies	Left side Road cross-section substandard	Not Posted; assumed 35 mph
Robinson Canyon Road	54510	8	2.644 - 2.707	ACP	11 ft.	2 - 4 ft.	Adequate	60 ft.	Yes	No	Good Condition, Shoulder Width Varies	Road cross-section meets/exceeds design	Not Posted; assumed 35 mph
Salmon La Sac Road	21560	8	0.000 - 10.611	ACP	11 - 12 ft.	2 - 4 ft.	Adequate	60 ft.	Yes	Yes	Good Condition, Shoulder Width Varies	Road cross-section meets/exceeds design	Posted 35 mph
Sanders Road	40315	17	0.080 - 0.520	BST	9 - 10 ft.	0 ft.	Substandard	60 ft.	Yes	No	Good Condition, Gravel Shoulder	Road cross-section not to design standard	Not Posted; assumed 35 mph
Sanders Road	40315	17	0.520 - 1.300	BST	11 ft.	0 - 1 ft.	Substandard	60 ft.	Yes	No	Good Condition, Shoulder Width Varies	Shoulder, clear zone widths substandard	Not Posted; assumed 35 mph

Table A-1 Continued
Kittitas County's Roadway Conditions

Road Name	Road Number	FFC	BMP - EMP	Surface Type	Lane Width	Shoulder Width	Design Clear Zone	ROW Width	Center line	Fog Line	Pavement Assessment	Overall Roadway Assessment	Notes
Sanders Road	40315	17	1.300 - 1.381	BST	11 ft.	2 - 4 ft.	Adequate	60 ft.	Yes	No	Good Condition, Shoulder Width Varies	Road cross-section meets/exceeds design	Posted 35 mph
Smithson Road	33513	8	0.000 - 2.780	BST	10 ft.	0 ft.	Adequate	40 ft.	Yes	No	Fair Condition, Gravel Shoulder	Road cross-section not to design standard	Not Posted; assumed 50 mph
South Cle Elum Road	92430	7	0.280 - 0.559	ACP	12 ft.	4 - 6 ft.	Adequate	60 ft.	Yes	Yes	Good Condition, Shoulder Width Varies	Road cross-section meets/exceeds design	Not Posted; assumed 35 mph
Stevens Road	69460	8	0.000 - 3.461	BST	10 ft.	0 ft.	Substandard	40 ft.	Yes	No	Good Condition, Gravel Shoulder	Road cross-section not to design standard	Not Posted; assumed 50 mph
Taneum Road East	56770	8	0.000 - 1.004	BST	11 ft.	0 - 1 ft.	Adequate	40 ft.	Yes	No	New Condition, Shoulder Width Varies	Shoulder substandard	Posted 35 mph
Taneum Road East	56770	8	1.004 - 2.841	BST	11 ft.	1 - 2 ft.	Adequate	40 ft.	Yes	No	New Condition, Shoulder Width Varies	Shoulder width substandard in places	Posted 50 mph
Taneum Road West	56770	8	2.841 - 4.817	BST	10 - 11 ft.	0 - 1 ft.	Substandard	60 ft.	Yes	No	Fair/Good Condition, Shoulder Width Varies	Road cross-section not to design standard	Posted 35 mph
Teanaway Road	28500	8	0.000 - 0.978	BST	11 ft.	0 ft.	Adequate	60 ft.	Yes	No	Good Condition, Gravel Shoulder	Shoulder substandard	Posted 50 mph
Teanaway Road	28500	8	0.978 - 7.288	BST	11 ft.	1 - 3 ft.	Substandard	60 ft.	Yes	No	Good Condition, Shoulder Width Varies	Shoulder, clear zone width substandard in places	Posted 50 mph
Thorp Cemetery Road	55550	8	0.000 - 1.726	BST	11 ft.	1 - 2 ft.	Substandard	60 ft.	Yes	No	Fair/Good Condition, Shoulder Width Varies	Shoulder, clear zone width substandard in places	Not Posted; assumed 50 mph
Thorp Cemetery Road	55550	8	1.726 - 4.679	BST	11 ft.	2 - 4 ft.	Adequate	60 ft.	Yes	No	Fair/Good Condition, Shoulder Width Varies	Road cross-section meets/exceeds design	Not Posted; assumed 50 mph
Thorp Highway North	95417	7	5.469 - 5.753	BST	11 ft.	0 - 2 ft.	Substandard	60 ft.	Yes	Yes	Good Condition, Shoulder Width Varies	Shoulder, clear zone width substandard in places	Posted 35 mph
Thorp Highway North	95417	7	5.753 - 5.802	ACP	12 ft.	2 ft.	Adequate	60 ft.	Yes	Yes	Good Condition, Design Standard Width	Road cross-section meets/exceeds design	Posted 35 mph

Table A-1 Continued
Kittitas County's Roadway Conditions

Road Name	Road Number	FFC	BMP - EMP	Surface Type	Lane Width	Shoulder Width	Design Clear Zone	ROW Width	Center line	Fog Line	Pavement Assessment	Overall Roadway Assessment	Notes
Thorp Highway North	95417	7	5.802 - 6.245	BST	12 ft.	0 - 2 ft.	Adequate	60 ft.	Yes	Yes	Fair/Good Condition, Shoulder Width Varies	Shoulder width substandard in places	Posted 35 mph
Thorp Highway North	95417	7	6.245 - 7.005	BST	11 ft.	0 - 2 ft.	Adequate	60 ft.	Yes	No	Fair/Good Condition, Shoulder Width Varies	Shoulder width substandard in places	Speed Zone; Posted 25 mph
Thorp Highway North	95417	7	7.005 - 7.893	BST	10 - 11 ft.	0 ft.	Adequate	60 ft.	Yes	No	Fair/Good Condition, Gravel Shoulder	Road cross-section not to design standard	Posted 35 mph
Thorp Highway North	95417	7	7.893 - 8.378	BST	10 - 11 ft.	0 ft.	Substandard	60 ft.	Yes	No	Fair/Good Condition, Gravel Shoulder	Road cross-section not to design standard	Posted 50 mph
Thorp Highway North	95417	7	8.378 - 9.773	BST	11 ft.	2 - 4 ft.	Adequate	60 ft.	Yes	Yes	Good Condition, Shoulder Width Varies	Road cross-section meets/exceeds design	Posted 50 mph
Thorp Highway North	95417	7	9.773 - 10.586	BST	10 - 11 ft.	0 ft.	Adequate	60 ft.	Yes	No	Good Condition, Gravel Shoulder	Road cross-section not to design standard	Posted 50 mph
Thorp Highway South	95417	7	0.000 - 0.340	BST	11 ft.	2 - 4 ft.	Adequate	60 ft.	Yes	Yes	Good Condition, Shoulder Width Varies	Road cross-section meets/exceeds design	Posted 50 mph
Thorp Highway South	95417	7	0.340 - 3.365	ACP	11 ft.	0 - 2 ft.	Adequate	60 ft.	Yes	Yes	Good Condition, Shoulder Width Varies	Shoulder width substandard in places	Posted 50 mph
Thorp Highway South	95417	7	3.365 - 4.569	BST	11 ft.	0 - 2 ft.	Adequate	60 ft.	Yes	Yes	Good Condition, Shoulder Width Varies	Shoulder width substandard in places	Posted 50 mph
Thorp Highway South	95417	7	4.569 - 4.752	BST	11 ft.	4 - 6 ft.	Adequate	60 ft.	Yes	Yes	Good Condition, Shoulder Width Varies	Road cross-section meets/exceeds design	Posted 50 mph
Thorp Highway South	95417	7	4.752 - 5.315	BST	11 ft.	0 - 2 ft.	Adequate	60 ft.	Yes	Yes	Good Condition, Shoulder Width Varies	Shoulder width substandard in places	Speed Zone; Posted 35 mph
Thorp Highway South	95417	7	5.315 - 5.469	ACP	11 ft.	4 - 6 ft.	Adequate	60 ft.	Yes	Yes	Good Condition, Shoulder Width Varies	Road cross-section meets/exceeds design	Posted 35 mph
Thorp Prairie Road	52770	8	0.000 - 3.317	BST	11 ft.	2 - 4 ft.	Adequate	60 ft.	Yes	No	New Condition, Shoulder Width Varies	Road cross-section meets/exceeds design	Not Posted; assumed 50 mph
Thorp Prairie Road	52770	8	3.317 - 3.512	BST	11 ft.	0 - 1 ft.	Adequate	60 ft.	Yes	No	Good Condition, Shoulder Width Varies	Shoulder substandard	Not Posted; assumed 50 mph

Table A-1 Continued
Kittitas County's Roadway Conditions

Road Name	Road Number	FFC	BMP - EMP	Surface Type	Lane Width	Shoulder Width	Design Clear Zone	ROW Width	Center line	Fog Line	Pavement Assessment	Overall Roadway Assessment	Notes
Thorp Prairie Road	52770	8	3.512 - 7.202	BST	11 ft.	2 - 4 ft.	Substandard	60 ft.	Yes	No	New Condition, Shoulder Width Varies	Clear zone substandard in places	Not Posted; assumed 50 mph
Thorp Prairie Road	52770	8	7.202 - 7.641	BST	11 ft.	2 - 4 ft.	Adequate	60 ft.	Yes	No	New Condition, Shoulder Width Varies	Road cross-section meets/exceeds design	Speed Zone; Posted 35 mph
Thrall Road	96751	7	0.000 - 0.115	BST	12 ft.	4 - 6 ft.	Adequate	60 ft.	Yes	Yes	Good Condition, Shoulder Width Varies	Road cross-section meets/exceeds design	Posted 50 mph
Thrall Road	96751	7	0.115 - 1.339	BST	11 ft.	0 - 2 ft.	Substandard	60 ft.	Yes	Yes	Good Condition, Shoulder Width Varies	Shoulder, clear zone width substandard in places	Posted 50 mph
Thrall Road	96751	7	1.339 - 1.805	BST	11 ft.	2 - 4 ft.	Substandard	60 ft.	Yes	Yes	Good Condition, Shoulder Width Varies	Clear zone width substandard in places	Posted 50 mph
Thrall Road	96751	7	1.805 - 2.579	BST	12 ft.	0 - 2 ft.	Substandard	60 ft.	Yes	Yes	Good Condition, Shoulder Width Varies	Shoulder, clear zone width substandard in places	Posted 50 mph
Thrall Road	96751	7	2.579 - 3.145	BST	12 ft.	2 - 4 ft.	Substandard	60 ft.	Yes	Yes	Good Condition, Shoulder Width Varies	Clear zone width substandard in places	Posted 50 mph
Thrall Road	96751	7	3.145 - 3.973	BST	12 ft.	0 - 2 ft.	Substandard	60 ft.	Yes	Yes	Good Condition, Shoulder Width Varies	Shoulder, clear zone width substandard in places	Posted 50 mph
Thrall Road	96751	7	3.973 - 4.624	BST	12 ft.	0 - 2 ft.	Adequate	60 ft.	Yes	Yes	Good Condition, Shoulder Width Varies	Shoulder width substandard in places	Posted 50 mph
Thrall Road	96751	7	4.624 - 5.380	BST	11 ft.	0 - 2 ft.	Substandard	60 ft.	Yes	Yes	Good Condition, Shoulder Width Varies	Shoulder, clear zone width substandard in places	Posted 50 mph
Thrall Road	96751	7	5.380 - 5.621	BST	12 ft.	4 - 6 ft.	Adequate	60 ft.	Yes	Yes	Good Condition, Shoulder Width Varies	Road cross-section meets/exceeds design	Posted 50 mph
Thrall Road	96751	8	5.621 - 6.150	BST	10 - 11 ft.	0 - 2 ft.	Substandard	60 ft.	No	No	Good Condition, Shoulder Width Varies	Road cross-section not to design standard	Not Posted; assumed 50 mph
Tjossem Road	96865	7	0.000 - 5.627	BST	12 ft.	2 - 4 ft.	Adequate	60 ft.	Yes	Yes	Good Condition, Shoulder Width Varies	Road cross-section meets/exceeds design	Not Posted; assumed 50 mph

Table A-1 Continued
Kittitas County's Roadway Conditions

Road Name	Road Number	FFC	BMP - EMP	Surface Type	Lane Width	Shoulder Width	Design Clear Zone	ROW Width	Center line	Fog Line	Pavement Assessment	Overall Roadway Assessment	Notes
Umptanum Road	96937	17	0.121 - 0.229	BST	11 ft.	2 - 4 ft.	Adequate	60 ft.	Yes	Yes	Good Condition, Shoulder Width Varies	Road cross-section meets/exceeds design	Posted 50 mph
Umptanum Road	96937	7	0.229 - 1.123	BST	11 ft.	4 - 6 ft.	Adequate	60 ft.	Yes	Yes	Good Condition, Shoulder Width Varies	Road cross-section meets/exceeds design	Posted 50 mph
Umptanum Road	96937	7	1.123 - 1.642	BST	11 ft.	2 - 4 ft.	Adequate	60 ft.	Yes	Yes	Good Condition, Shoulder Width Varies	Road cross-section meets/exceeds design	Conditional Speed Zone - 20 mph
Umptanum Road	96937	8	1.642 - 3.152	BST	11 ft.	2 - 4 ft.	Substandard	60 ft.	No	No	New Condition, Shoulder Width Varies	Clear zone width substandard in places	Not Posted; assumed 50 mph
Umptanum Road	96937	8	3.152 - 5.141	BST	11 ft.	0 - 2 ft.	Substandard	60 ft.	Yes	No	New Condition, Shoulder Width Varies	Shoulder, clear zone width substandard in places	Not Posted; assumed 35 mph
Upper Badger Pocket Road	64756	8	0.000 - 1.253	BST	11 ft.	2 ft.	Adequate	60 ft.	Yes	Yes	Good Condition, Standard Width Shoulder	Road cross-section meets/exceeds design	Not Posted; assumed 50 mph
Upper Badger Pocket Road	64756	8	1.253 - 4.104	BST	11 ft.	1 - 2 ft.	Substandard	60 ft.	Yes	No	Good Condition, Shoulder Width Varies	Shoulder, clear zone width substandard in places	Not Posted; assumed 50 mph
Upper Badger Pocket Road	64756	8	4.104 - 5.029	BST	11 ft.	0 ft.	Substandard	60 ft.	Yes	No	Good Condition, Gravel Shoulder	Shoulder substandard, clear zone in places	Not Posted; assumed 50 mph
Upper Badger Pocket Road	64756	8	5.029 - 5.593	BST	11 ft.	2 ft.	Adequate	60 ft.	Yes	No	Good Condition, Standard Width Shoulder	Road cross-section meets/exceeds design	Not Posted; assumed 50 mph
Upper Peoh Point Road	24610	8	0.000 - 2.227	ACP	11 ft.	3 - 6 ft.	Adequate	60 ft.	Yes	Yes	Good Condition, Shoulder width Transitions	Road cross-section meets/exceeds design	Posted 35 mph
Upper Peoh Point Road	24610	8	2.227 - 4.520	ACP	12 ft	6 ft.	Adequate	60 ft.	Yes	Yes	Good Condition, Extra Wide Shoulder	Road cross-section meets/exceeds design	Posted 35 mph
Upper Peoh Point Road	24610	8	4.520 - 5.450	BST	12 ft	5 ft.	Adequate	60 ft.	Yes	Yes	New Condition, Extra Wide Shoulder	Road cross-section meets/exceeds design	Posted 35 mph
Upper Peoh Point Road	24610	8	5.450 - 6.485	BST	11 - 12 ft.	1 - 2 ft.	Adequate	60 ft.	Yes	Yes	New Condition, Shoulder Width Varies	Shoulder width substandard in places	Posted 35 mph
Vantage Highway	94001	6	1.280 - 1.528	ACP	13 ft.	2 - 4 ft.	Adequate	150 ft.	Yes	Yes	Good Condition, Shoulder Width Varies	Road cross-section meets/exceeds design	Posted 35 mph

Table A-1 Continued
Kittitas County's Roadway Conditions

Road Name	Road Number	FFC	BMP - EMP	Surface Type	Lane Width	Shoulder Width	Design Clear Zone	ROW Width	Center line	Fog Line	Pavement Assessment	Overall Roadway Assessment	Notes
Vantage Highway	94001	7	1.528 - 6.505	ACP	13 ft.	2 - 4 ft.	Adequate	150 ft.	Yes	Yes	Good Condition, Shoulder Width Varies	Road cross-section meets/exceeds design	Posted 50 mph
Vantage Highway	94001	8	6.505 - 11.021	BST	11 ft.	1 - 3 ft.	Adequate	100 ft.	Yes	Yes	Fair/Good Condition, Shoulder Width Varies	Shoulder width substandard in places	Posted 50 mph
Vantage Highway	94001	8	11.021 - 16.704	BST	12 ft.	2 - 6 ft.	Adequate	100 ft.	Yes	Yes	Good Condition, Shoulder Width Varies	Road cross-section meets/exceeds design	Posted 50 mph
Vantage Highway	94001	8	16.704 - 21.134	BST	12 ft.	2 - 4 ft.	Adequate	100 ft.	Yes	Yes	Good Condition, Shoulder Width Varies	Road cross-section meets/exceeds design	Posted 50 mph
Vantage Highway	94001	8	21.134 - 23.065	BST	12 ft.	2 - 4 ft.	Adequate	100 ft.	Yes	Yes	Good Condition, Shoulder Width Varies	Road cross-section meets/exceeds design	Posted 50 mph; passing lane WB
Vantage Highway	94001	8	23.065 - 27.657	BST	12 ft.	2 - 4 ft.	Substandard	100 ft.	Yes	Yes	Good Condition, Shoulder Width Varies	Clear zone width substandard in places	Posted 50 mph
Vantage Highway	94001	8	27.657 - 28.395	BST	12 ft.	4 - 6 ft.	Adequate	100 ft.	Yes	Yes	Good Condition, Shoulder Width Varies	Road cross-section meets/exceeds design	Speed Zone; Posted 35 mph
Venture Road	44381	8	0.000 - 0.570	BST	11 ft.	0 ft.	Substandard	50 ft.	Yes	No	Fair/Good Condition, Gravel Shoulder	Shoulder substandard, clear zone in places	Not Posted; assumed 50 mph
Venture Road	44381	8	0.507 - 1.140	BST	11 ft.	1 - 2 ft.	Adequate	50 ft.	Yes	No	Fair/Good Condition, Shoulder Width Varies	Shoulder width substandard in places	Not Posted; assumed 50 mph
Venture Road	44381	8	1.140 - 1.555	BST	11 ft.	0 - 1 ft.	Substandard	50 ft.	Yes	No	Fair/Good Condition, Shoulder Width Varies	Shoulder, clear zone widths substandard	Not Posted; assumed 50 mph
Venture Road	44381	8	1.555 - 1.693	BST	11 ft.	2 - 4 ft.	Substandard	50 ft.	Yes	No	New Condition, Shoulder Width Varies	Clear zone width substandard	Not Posted; assumed 50 mph
Watson Cutoff Road	25620	8	0.000 - 0.436	BST	11 ft.	1 - 2 ft.	Adequate	60 ft.	Yes	No	New Condition, Shoulder Width Varies	Shoulder width substandard in places	Posted 35 mph
Watson Cutoff Road	25620	8	0.436 - 1.028	BST	11 ft.	1 - 2 ft.	Substandard	60 ft.	Yes	No	New Condition, Shoulder Width Varies	Shoulder, clear zone width substandard in places	Posted 35 mph
Watson Cutoff Road	25620	8	1.028 - 1.110	BST	11 ft.	4 ft.	Substandard	60 ft.	Yes	No	Good Condition, Extra Wide Shoulder	Clear zone width substandard	Posted 35 mph

Table A-1 Continued
Kittitas County's Roadway Conditions

Road Name	Road Number	FFC	BMP - EMP	Surface Type	Lane Width	Shoulder Width	Design Clear Zone	ROW Width	Center line	Fog Line	Pavement Assessment	Overall Roadway Assessment	Notes
West Fork Teanaway Road	25480	8	0.000 - 0.680	BST	9 ft.	0 - 1 ft.	Adequate	60 ft.	Yes	No	Fair/Good Condition, Shoulder Width Varies	Road cross-section not to design standard	Not Posted; assumed 35 mph
Westside Road	22710	8	0.190 - 2.122	BST	11 - 12 ft.	6 ft.	Adequate	80 - 60 ft.	Yes	Yes	Good Condition, Extra Wide Shoulder	Road cross-section meets/exceeds design	Posted 35 mph
Westside Road	22710	8	2.122 - 4.055	BST	10 - 11 ft.	0 - 1 ft.	Substandard	60 ft.	Yes	No	Good Condition, Shoulder Width Varies	Road cross-section not to design standard	Posted 35 mph
Westside Road	22710	8	4.055 - 7.251	BST	11 ft.	1 - 3 ft.	Adequate	60 ft.	Yes	No	New Condition, Shoulder Width Varies	Shoulder widths substandard in places	Posted 35 mph
Wilson Creek Road	94126	7	0.000 - 1.005	BST	11 ft.	0 - 2 ft.	Substandard	60 ft.	Yes	No	Fair/Good Condition, Shoulder Width Varies	Shoulder substandard, clear zone in places	Posted 35 mph
Wilson Creek Road	94126	7	1.005 - 1.514	BST	11 ft.	2 - 4 ft.	Adequate	60 ft.	Yes	No	Fair/Good Condition, Shoulder Width Varies	Road cross-section meets/exceeds design	Posted 50 mph
Wilson Creek Road	94126	8	1.514 - 3.262	BST	11 ft.	2 - 4 ft.	Substandard	60 ft.	Yes	No	Fair/Good Condition, Shoulder Width Varies	Clear zone width substandard in places	Not Posted; assumed 50 mph
Wilson Creek Road	94126	8	3.262 - 5.229	BST	11 ft.	0 - 2 ft.	Substandard	60 ft.	Yes	No	Fair/Good Condition, Shoulder Width Varies	Shoulder, clear zone width substandard in places	Not Posted; assumed 50 mph
Wilson Creek Road	94126	8	5.229 - 5.688	BST	12 ft.	4 - 6 ft.	Adequate	60 ft.	Yes	Yes	Fair/Good Condition, Shoulder Width Varies	Road cross-section meets/exceeds design	Not Posted; assumed 50 mph
Wilson Creek Road	94126	8	5.688 - 7.391	BST	11 ft.	0 - 2 ft.	Adequate	60 ft.	Yes	No	Fair/Good Condition, Shoulder Width Varies	Shoulder width substandard in places	Not Posted; assumed 50 mph
Zrebeic Road	22790	8	0.000 - 1.288	BST	10 ft.	1 - 2 ft.	Substandard	60 ft.	No	No	Fair/Good Condition, Shoulder Width Varies	Road cross-section not to design standard	Posted 35 mph

Appendix B – Hazard Elimination Safety Program (2006)

Table B-1
Kittitas County Hazard Elimination Safety Program

Road Name	*Functional Classification*	*Hazard Type*	*Priority Rating*	*Proposed Work*
Ballard Hill Rd	Local	Reduction	23	Extend box culverts
Bettas Rd	Local	Reduction	23	Replace posts with flexible delineators or guardrail
Brick Mill Rd	Collector	Elimination	44	Mark T intersection and sharp curve with guardrail
Brondt Rd	Collector	Protection	15	Cut tree limbs for visibility
Cabin Creek	Minor Arterial	Elimination	39	Build up shoulders, add delineators & guardrail
Caribou Rd	Local	Elimination	49	Build up shoulders, add guardrail
Clarke Rd	Local	Reduction	21	Build up shoulders
Clerf Rd	Local	Reduction	31	Build up shoulders, add guardrail
Cooke Canyon	Local	Elimination	44	Build up shoulders, add guardrail
Cove Rd	Collector	Reduction	60	Build up shoulders, straighten curves
Denmark Rd	Local	Elimination	51	Widen road, build up shoulders, add guardrail
Dry Creek Rd	Collector	Reduction	23	Build up shoulders
E Sparks Rd	Local	Elimination	33	Build up shoulders, add guardrail
E. Taneum Rd	Collector	Reduction	31	Build up shoulders
Fairview Rd	Local	Elimination	47	Widen road, build up shoulders, extend culvert
Game Farm Rd	Minor Arterial	Reduction	24	Widen road, build up shoulders
Godawa Lane	Local	Reduction	23	Repair and replace pipe to extend it
Horvatt Rd	Local	Reduction	41	Realign intersection with improved approach angle
Howard Rd	Local	Elimination	39	Build up shoulders, add delineators, signage, and guardrail
Hundley Rd	Local	Elimination	47	Build up shoulders, add guardrail
Hungry Junction Rd	Collector	Reduction	21	Build up shoulders on both sides of culvert crossing
Judge Ronald Rd	Local	Elimination	34	Widen road, move utility poles, fences, mailboxes, from clear zone

Table B-1 Continued
Kittitas County Hazard Elimination Safety Program

Road Name	*Functional Classification*	*Hazard Type*	*Priority Rating*	*Proposed Work*
Kerr Rd	Local	Elimination	34	Widen road, add turnaround
Ley Rd	Local	Reduction	23	Build up shoulders, extend culvert
Liberty Rd	Minor Arterial	Elimination	34	Build up shoulders or add delineators, extend guardrail @ bridge end, relocate signs & mailboxes
Lower Green Canyon Rd	Local	Reduction	31	Widen road, build up shoulders, replace bridge
Lower Peoh Point Rd	Minor Arterial	Elimination	32	Extend box culverts, build up shoulder, widen road
Lyons Rd	Collector	Reduction	28	Widen box culverts, replace guardrail @ culverts
Manatash Rd	Collector	Elimination	63	Remove sharp curves, build up shoulders, add guardrail, add turnaround
McDonald Rd	Local	Elimination	39	Move power pole, build up shoulder
McManamy Rd	Local	Protection	15	Build turnaround
Middle Fork Teanaway	Minor Arterial	Reduction	31	Add delineators
Mohar Rd	Minor Arterial	Elimination	34	Add guardrail & signage
Moreau Rd	Local	Reduction	23	Build up shoulders, widen road, add turnaround
Naneum Rd	Collector	Elimination	39	Build up shoulders, add guardrail
Nelson Siding Rd	Minor Arterial	Elimination	40	Add guardrail off ends of bridge
N Fork Teanaway	Minor Arterial	Elimination	45	Add guardrail off ends of bridge
N Thorp Hwy	Collector	Reduction	34	Build up shoulders, add guardrail
Rader Rd	Local	Elimination	34	Build up shoulders, remove trees for visibility
Railroad St E.	Local	Reduction	23	Widen road, build up shoulders, add delineators
Red Bridge Rd	Local	Reduction	46	Improve sight distance

Table B-1 Continued
Kittitas County Hazard Elimination Safety Program

Road Name	*Functional Classification*	*Hazard Type*	*Priority Rating*	*Proposed Work*
Reecer Creek Rd	Collector	Elimination	60	Build up shoulders, add guardrail, widen shoulders, add larger culvert
Robbins Rd	Local	Elimination	55	Add guardrail
Sanders Rd	Collector	Reduction	34	Build up shoulders
Schnebly Rd	Local	Reduction	38	Build up shoulders, add guardrail, widen culvert
Seaton Rd	Local	Reduction	21	Improve sight distance
Sisters	Local	Reduction	21	Add turnaround
Smithson Rd	Minor Arterial	Elimination	41	Build up shoulders, widen road
S Thorp Hwy	Collector	Elimination	57	Build up shoulders, add guardrail
Stevens Rd	Collector	Elimination	44	Build up shoulders, add guardrail
Stingley Rd	Local	Reduction	23	Build up shoulders, widen road
Swauk Prairie Rd	Local	Reduction	21	Widen road, add delineators, remove trees for visibility, build up shoulders
Teanaway Rd	Minor Arterial	Elimination	72	Remove culvert, extend culverts, add guardrail, remove trees for visibility, build up shoulders
Thomas Rd	Local	Reduction	33	Add guardrail, move fence off county right of way
Thorp Prairie Rd	Minor Arterial	Elimination	41	Build up shoulders, add guardrail, remove trees for visibility, remove mailboxes & guy wire, fix bridge dip, straighten
Vantage Hwy	Collector	Reduction	39	Replace guardrail
Via Kachess Rd	Local	Elimination	39	Widen road, build up shoulders, remove trees for visibility, add delineators
Watson Cutoff	Minor Arterial	Elimination	34	Add guardrail, build up shoulders
Weaver	Local	Elimination	66	Extend guardrail around curve, build up shoulders, straighten curve

Table B-1 Continued
Kittitas County Hazard Elimination Safety Program

Road Name	*Functional Classification*	*Hazard Type*	*Priority Rating*	*Proposed Work*
W Fork Teanaway	Local	Reduction	32	Extend guardrail off ends of bridge
Westside Rd	Minor Arterial	Elimination	44	Extend guardrail off ends of bridge, extend culverts, add signage
W Taneum	Collector	Reduction	23	Build up shoulders, remove rock outcropping for visibility, add larger turnaround
Wilson Creek	Collector	Elimination	57	Build up shoulders, add guardrail

Appendix C – Forecasting Model Documentation (2005)

Constructing the Forecast Model

From the start, it must be noted that two events prevented the application of a more conventional method for forecasting County land use and transportation growth. Typically, one or several land use scenarios are determined in the first step of the transportation modeling process. The impacts of each are simulated on the model transportation network. From this, public preference on which land use option is best is based, in part, on its impacts to the network. When modeling for this County Transportation Plan, two planning processes were (and are) proceeding at their own pace and not coordinated with this process.

The first is the County's update of its twenty-year Comprehensive Plan. The process is underway but the future land use options have not been defined. In this, the transportation planning process is somewhat premature. Transportation impacts are derived from land use activity. It is difficult to predict (or forecast) future year transportation impacts when the cause of the impacts – future year land use and how it is zoned – are not known.

The second event is the City of Ellensburg's update of its Comprehensive Plan. The City is engaged now in evaluating possible future land use and zoning options. The work has just begun and, similar to the County, no definitive future population, employment or land use profiles have emerged. With Ellensburg being the largest municipality in the County and the County being "the county," the difficulty of projecting future system impacts, absent the City's or County's future land use plan, is daunting at best.

Existing Resources

To overcome these obstacles, an unconventional but practical approach was taken. A transportation forecast model, comprised of 217 internal and 5 external transportation analysis zones (TAZs), was constructed. This TAZ structure was based upon a structure previously developed by the County and then refined for use in this study. The new structure assimilates data compiled from three older TMODEL model files, one from Cle Elum, Ellensburg and Kittitas County. This approach was selected after initial attempts were made to compile data

from the County Assessor's database. The Assessor database was discarded because, although it included detail on ownership and value of parcels, it did not include the specificity required for the transportation forecast model which requires not only numbers of dwelling units but also levels of employment by type of employment.

The previous models for the cities of Cle Elum and Ellensburg and Kittitas County included this specificity of land use types but in different categories and in different traffic analysis zones. The previous models were not Geographic Information System (GIS) based and did not have usable polygons for the data collection. The older models were also in unique non-standard coordinate systems that needed to be registered before use as well. These were all first converted into a VISUM software platform so the data was consistent and could be referenced to the GIS system. A very brief description of each model used to construct the new 2005 County model is provided here. A companion Model Documentation report explains the process in greater detail and is available in the Public Works Department archives.

'Older' Kittitas County Model

The model's geographic area is all of Kittitas County. It includes approximately 500 nodes and 1,300 links. The model contains 37 internal zones and 7 external zones; not very detailed for such an expansive area. The land use variables in the model are Single Family Residential, Multi-Family Residential and Vacation / Cabin measured in dwelling units. Retail space is measured in square footage as is Office Space and Industrial. Schools are measured in students. Agricultural and Public Forest lands are measured in acres and Airports in number of employees. The model uses three trip purposes (Home-Based-Work, Home-Based Non-Work and Non-Home-Based) with simple trip generation factors for each land use variable and each trip purpose. The model was developed using TMODEL2 software. Its last year of update was 1999. Its forecast years are 2005 and 2020. It model periods are PM Peak hour weekday extrapolated to reflect ADT volumes.

Ellensburg Model

The model's geographic area is the City of Ellensburg as it was configured in 1994. The model includes approximately 400 nodes and 1,000 links, almost as many as the Kittitas County model. It includes roads classified as collector and above but also includes some links classified as local streets where they function as collectors. The model included definitions for links by functional classification and nodes by type of control. The model has 100 internal zones, with zones 77 through 100 reserved for future use and 17 external zones. Four land use variables were used. They are Residential measured in dwelling units, Industrial measured in employees, Retail/Commercial measured in employees and Service/Office measured in employees. This is less detailed than the Kittitas County model. Three trip purposes (Home-Based Work, Home-Based Non Work and Non Home Based) were used with simple trip generation factors for each land use variable and each purpose. The model uses TMODEL2 software. It was last updated in 1994. Its forecasts years are 1999 and 2013. The model periods are weekday PM peak hour with some results extrapolated to ADT.

Cle Elum Model

The geographic area for this model is Cle Elum, South Cle Elum, Roslyn and Ronald. It includes the new Suncadia area and the Cle Elum Urban Growth Area. The model has 360 nodes and 860 links. It includes roads classified as collector and above and some links classified as local streets where they function as collectors. The model includes definitions for links by functional classification and nodes by type of control. It includes 99 internal zones, including reserved zones. The zones are stratified for easy analysis of the UGA, Suncadia and the Cle Elum / Roslyn area. There are 7 external zones. Land use variables were established so the model would coincide with other concurrent studies. Trips were generated for four trip purposes, Home-Based-Work, Home-Based-Other, Recreation, and Non-Home-Based. These were generated for weekday PM peak hour and for a summer Sunday afternoon peak hour. Trip distribution was conducted with the gravity model for each trip purpose. The model used TMODEL2 software. It was last updated in 2000. Its forecast years are 2005, 2010 and 2030. It model periods are Peak Hour, PM weekday and summer Sunday peak hour. The model is well

calibrated.

Integration

Using and combining the features and structures of each traffic model discussed above, a new Kittitas County traffic forecast model was constructed with three polygon shapefiles in ArcGIS; one from each model, all with land use attributes. The data was visually checked for validity and edited for known issues. For example, it was noted that a large amount of office employment was present in the Range sub area. This extra land use was removed from the database. University students were missing from the database and these were added based on data obtained from the University. The base data was then divided into the three areas of Upper County, Lower County and Range for purposes of trip generation.

The new Kittitas County model was developed from the *Navteq* data file set for the County. This is a geographically accurate set of all roads updated annually by *Navteq*. It includes roadway type, lanes, name and other data. The roads classified as urban or rural collector or above were included in the model. The full dataset has a total of 3,389 nodes, 8,668 links and 223 zones. The dataset used for traffic assignment and modeling is reduced to the "classified" roads. This includes 1,301 nodes, 2,661 links and 223 zones. A rendering of the new Kittitas County traffic analysis zone (TAZ) structure is shown in Figure 5.

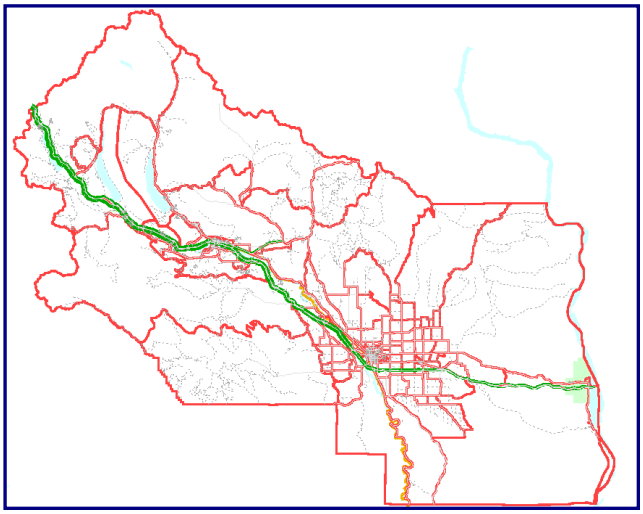


Figure 5: Traffic Analysis Zone Structure

Land Use Methodology

The basis used for assigning land use variables in all land use categories was number of dwelling units, employees, students and numbers of acres. The categories are:

LU1 **Single Family Residential** includes those lands occupied by a single family home, a manufactured home, or a duplex on a single lot. Measured in dwelling units.

LU2 **Multi-Family Residential** uses three or more residential units on a parcel of land. Also, this category includes mobile home parks, apartment buildings and condominiums. Measured in dwelling units.

LU3 **Hotel** includes motel rooms, hotels and camp areas. Measured in number of rooms or designated camp areas.

LU4 **Retail Trade** includes those uses identified in SIC categories: 52-59 and motels and hotels (SIC 70). Retail uses include a broad range of establishments which sell goods directly to the general public such as restaurants, automotive dealers, home furnishings, food stores or other products. Measured in employees.

LU5 **Wholesale Trade** facilities are described in SIC categories: 50-51 and include the storage of durable or

non-durable goods. Measured in employees.

LU6 **Industrial and Manufacturing** uses are included in SIC categories: 15-17, 20-49, within a broad range of general or specialty contractors: the production of food, textile, wood, furniture, paper, printing, metal, machinery, electrical and other products; and also includes Transportation, Communication and Public Utilities, such as railroads, trucking and warehouse, air transportation, pipelines, communication towers and electrical, gas and sanitary services. Measured in employees.

LU7 **Office** are those land uses which are owned, or operated by units of government and provide the administration of public programs, which are identified in SIC codes of 91-97. Also included are offices with minimal customer traffic. This includes the state patrol. Measured in employees.

LU8 **FIRES (Finance Insurance Real Estate and Services)** includes those uses in SIC categories: 60-67, 72-89. Services and offices include banks or other financial institutions, real estate and insurance offices, personal services, such as laundry or cleaning services, business services such as advertising, automotive repairs, amusements, churches, health care, medical, legal services and other assorted services. Measured in employees.

LU9 **Elementary and Middle Schools** are measured in numbers of students.

LU10 **High Schools** are measured in numbers of students.

LU11 **College and University** is measured in number of full time equivalent students.

LU12 **Agriculture/Forestry/Mining – Dry** are those uses included in SIC categories: 01-03, 07-14 and generally relate to agricultural production and services, timber tracts and products and mining extraction activities. Measured in acres.

Subsequent to the compilation of the data, the dwelling units for Single Family Residential and Multi-Family residential were disaggregated into each of the areas of Upper County, Lower County and Range. These were then given different trip generation rates because of the different level of activity due to spatial location, accessibility and part-time use. Similarly, the Agriculture / Forestry / Mining category was divided for the three areas so differentiation could be made for intensity of use and trip making.

Model Forecasts

The number of dwelling units for each subarea is presented in Table 13 below. Note that Upper County has some zones with large numbers. These include recreational and part time dwellings. By splitting the land use categories, as explained in the previous paragraph, this allowed the model to more appropriately generate trips for the recreational dwellings at a lower rate than the Lower County dwellings. A complete listing by zone is presented in the aforementioned Model Documentation report.

Table 13: Kittitas County Traffic Model
Number of Dwelling Units by Subarea and Growth
2005 -2025

District	2005	2025	Growth Multiplier
Upper County	11,300	16,300	1.44
Lower County	5,500	6,900	1.25
Range	1,800	2,000	1.10

Forecasts were made by again assimilating the forecasted land use for each of the previous models. For the forecasts, it was assumed that the Cle Elum-Roslyn- Suncadia sub-area would develop as proposed in the Cle Elum UGA study conducted by Shapiro and Associates. These forecasts were using Alternative 4 for a 30 year horizon.

One goal for the forecasts was that they be consistent with the Washington State Office of Financial Management (OFM) "high growth" scenario for Kittitas County. The OFM high forecasts show a multiplier of 1.43 for the County population. In the new traffic model, the number of residential units was used as a surrogate for population. After the growth in the Cle Elum-Roslyn-Suncadia sub area was included, the growth for the remaining zones was adjusted until the total growth of residential units equaled the 1.43 multiplier. All other land uses were similarly adjusted. The forecast number of dwelling units and their distribution is shown in Table 13.

Growth is isolated and shown at the same scale in Figure 6. As can be seen, most of the growth is occurring in the Upper County and Lower County with very little growth in the Range area.

The growth areas are the Suncadia and Cle Elum - Roslyn areas with additional growth occurring in and around Ellensburg. Employment growth follows a similar trend. A more complete discussion of growth by TAZ is provided in the aforementioned report.

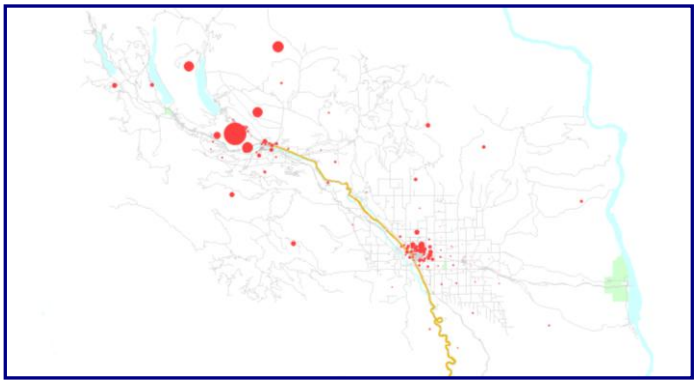


Figure 6: Forecasted Growth by Traffic Analysis Zone

Future Transportation Service

Modeling enables a "snap shot" of the performance of the County transportation network in 2025. This review of service includes all roadways under the jurisdiction of the County and the municipalities. It also includes the state highways and ramp facilities controlled by the Washington State Department of Transportation.

In general, it appears the transportation network will continue to function well in the future, assuming current levels of maintenance and investment continue. There are locations however that will need attention. This section discusses future traffic volumes, future level-of-service and future new roadway connections. A more detailed discussion is offered in the companion engineering document, Technical Report and Technical Appendix found in the Public Works Department archives.

Appendix D – Existing and Future Conditions

Countywide Traffic Volumes

Traffic volumes were collected on the County's arterials and collectors. These counts are included in the Kittitas County Transportation Plan Update 2005 Technical Reports, volumes I and II.

The purpose was to establish a baseline for existing average daily and PM peak hour volumes. The information was also used to evaluate intersection capacity and to develop accident rates. The counts were collected in May and June 2005 and encompassed seventeen 24-hour tube counts and 60 PM peak hour turning movement counts at selected locations. For the City of Ellensburg, data was collected prior to the end of the Central Washington University spring quarter. The County, the City of Ellensburg and the Suncadia Master Planned Resort assisted this effort by supplying prior year traffic counts.

The 24-hour machine counts were collected from May 20, 2005 through May 30, 2005 and included two weekends and the Memorial Day holiday. Three counts were taken in Upper County, 12 in Lower County (mainly Ellensburg), and two in the Range sub area. The PM peak hour turn movement counts were taken at 60 of the County's 159 arterial-to-arterial intersections. The count program results are summarized in Table 1.

Future Traffic Volumes

The future year 2025 volume forecast was based on the "high growth" forecast for Kittitas County. Overall, the forecast shows a growth factor of 1.43 between 2005 and 2025. Growth in external traffic was expected to increase by approximately 150% in the same time period. This factor however was modified by the available capacity of the impacted facilities. The initial model run included all suggested future roadway improvements, including the recommended new roadway links for the County and other jurisdictions.

Table 1 summarizes all 2025 intersection level of service forecasts.

Table D-1

Kittitas County 2025 PM Peak Hour Level-of-Service and 2005 Traffic Counts

Intersection	*Control*	*LOS Forecast*	*LOS Standard*	*PM Peak*	*Average Daily*
Kittitas County – Upper Co.					
Teanaway Rd/N Fork Teanaway Rd	(Est.)	C	C	(Est.)	(Est.)
U Peoh Pt Rd/L Peoh Pt Rd	Stop Sign	B	C	180	2,300
M Fork Teanaway Rd/W Fork Teanaway Rd	(Est.)	B	C	(Est.)	(Est.)
L Peoh Pt Rd/Watson Cutoff	Stop Sign	A	C	55	700
U Peoh Pt Rd/Watson Cutoff	Stop Sign	A	C	60	800
Airport Rd/Masterson Rd	(Est.)	A	C	(Est.)	(Est.)
Upper Peoh Pt Rd/Mohar Rd	(Est.)	A	C	(Est.)	(Est.)
Westside Rd/Mohar Rd	(Est.)	A	C	(Est.)	(Est.)
Westside Rd/Zrebeic Rd	(Est.)	A	C	(Est.)	(Est.)
Lake Kachess Rd/Via Kachess Rd	(Est.)	A	C	(Est.)	(Est.)
Westside Rd/E Nelson Siding Rd	(Est.)	A	C	(Est.)	(Est.)
Kittitas County – Lower Co.					
Brick Mill Rd/Wilson Creek Rd	**Stop Sign**	**F**	**C**	**160**	**2,000**
Kittitas Hwy/No 6 Rd	**Stop Sign**	**E**	**C**	**530**	**6,700**
University Way/Reecer Creek Rd	**Signal**	**E**	**C**	**845**	**3,800**
University Way/Pfenning Rd	(Est.)	C	D	(Est.)	(Est.)
Dry Creek Rd/Reecer Cr Rd	(Est.)	C	D	(Est.)	(Est.)
Reecer Cr Rd/Bender Rd	(Est.)	C	C	(Est.)	(Est.)
Lyons Rd/Wilson Cr Rd	(Est.)	C	C	(Est.)	(Est.)
Look Rd/Hungry Junction Rd	(Est.)	C	C	(Est.)	(Est.)
Upper Badger Pocket Rd/Thrall Rd	(Est.)	C	C	(Est.)	(Est.)
Tjossem Road/No 6 Rd	Stop Sign	B	C	210	2,600
Hungry Junction Rd/Reecer Creek Rd	Stop Sign	B	C	120	1,600
Manastash Rd/Umptanum Rd	Stop Sign	B	C	230	2,900
Vantage Hwy/Wilson Creek Rd	Stop Sign	B	C	450	5,000

Table D-1 Continued

Kittitas County 2025 PM Peak Hour Level-of-Service and 2005 Traffic Counts

Intersection	*Control*	*LOS Forecast*	*LOS Standard*	*PM Peak*	*Average Daily*
Kittitas County – Lower Co.					
Smithson Rd/Lower Green Cyn Rd	Stop Sign	B	C	30	400
Vantage Hwy/No 81 Rd	Stop Sign	B	C	240	2,700
U Badger Pocket Rd/4th Parallel Rd	Stop Sign	B	C	30	400
Canyon Rd/Tjossem Rd	(Est.)	B	C	(Est.)	(Est.)
Canyon Rd/Berry Rd	(Est.)	B	C	(Est.)	(Est.)
Game Farm Rd/Wilson Creek Rd	(Est.)	B	C	(Est.)	(Est.)
Brown Rd/Umptanum Rd	(Est.)	B	C	(Est.)	(Est.)
S Thorp Hwy/Hanson Rd	(Est.)	B	C	(Est.)	(Est.)
Look Rd/Brick Mill Rd	(Est.)	B	C	(Est.)	(Est.)
Look Rd/Sanders Rd	(Est.)	B	C	(Est.)	(Est.)
Boylston Rd/Stevens Rd	(Est.)	B	C	(Est.)	(Est.)
Stevens Rd/Parke Cr Rd	(Est.)	B	C	(Est.)	(Est.)
Parke Cr Rd/Prater Rd	(Est.)	B	C	(Est.)	(Est.)
Badger Pocket Rd/Cleman Rd	(Est.)	B	C	(Est.)	(Est.)
Cleman Rd/Thrall Rd	(Est.)	B	C	(Est.)	(Est.)
Brick Mill Rd/Naneum Rd	(Est.)	B	C	(Est.)	(Est.)
Naneum Rd/Vantage Hwy	(Est.)	B	C	(Est.)	(Est.)
Vantage Hwy/Fox Rd	(Est.)	B	C	(Est.)	(Est.)
Venture Rd/Lyons Rd	(Est.)	B	C	(Est.)	(Est.)
Tjossem Rd/Cleman Rd	(Est.)	B	C	(Est.)	(Est.)
E Taneum Rd/N Thorp Hwy	(Est.)	A	C	10	150
Thorp Hwy/Cove Road	Stop Sign	A	C	80	1,000
Brown Rd/Brondt Rd	(Est.)	A	C	(Est.)	(Est.)
Brondt Rd/Manastash Rd	(Est.)	A	C	(Est.)	(Est.)

Table D-1 Continued

Kittitas County 2025 PM Peak Hour Level-of-Service and 2005 Traffic Counts

Intersection	*Control*	*LOS Forecast*	*LOS Standard*	*PM Peak*	*Average Daily*
Kittitas County – Lower Co.					
Cove Rd/Manastash Rd	(Est.)	A	C	(Est.)	(Est.)
Cove Rd/Hanson Rd	(Est.)	A	C	(Est.)	(Est.)
Cove Rd/Robinson Canyon Rd	(Est.)	A	C	(Est.)	(Est.)
S Thorp Hwy/Robinson Canyon Rd	(Est.)	A	C	(Est.)	(Est.)
Alford Rd/Wilson Cr Rd	(Est.)	A	C	(Est.)	(Est.)
Charlton Rd/Wilson Cr Rd	(Est.)	A	C	(Est.)	(Est.)
Lower Green Rd/Reecer Cr Rd	(Est.)	A	C	(Est.)	(Est.)
Thorp Cemetery Rd/S Thorp Hwy	(Est.)	A	C	(Est.)	(Est.)
Dry Creek Rd/Faust Rd	(Est.)	A	C	(Est.)	(Est.)
Robinson Canyon Rd/Killmore Rd	(Est.)	A	C	(Est.)	(Est.)
Thorp Cemetery Rd/W Taneum Rd	(Est.)	A	C	(Est.)	(Est.)
Taneum Rd/Thorp Prairie Rd	(Est.)	A	C	(Est.)	(Est.)
Thorp Hwy/ I-90 Exit 106	(Est.)	A	C	(Est.)	(Est.)
Prater Rd/Boylston Rd	(Est.)	A	C	(Est.)	(Est.)
Prater Rd/Carroll Rd	(Est.)	A	C	(Est.)	(Est.)
Badger Pocket Rd/Carroll Rd	(Est.)	A	C	(Est.)	(Est.)
Emerson Rd/Thrall Rd	(Est.)	A	C	(Est.)	(Est.)
Tjossem Rd/S Ferguson Rd	(Est.)	A	C	(Est.)	(Est.)
No 6 Rd/Thrall Rd	(Est.)	A	C	(Est.)	(Est.)
South Ferguson Rd/Sorenson Rd	(Est.)	A	C	(Est.)	(Est.)
No 81 Rd/Brick Mill Rd	(Est.)	A	C	(Est.)	(Est.)
Fairview Rd/Brick Mill Rd	(Est.)	A	C	(Est.)	(Est.)
Fairview Rd/Lyons Rd	(Est.)	A	C	(Est.)	(Est.)
Lyons Rd/Naneum Rd	(Est.)	A	C	(Est.)	(Est.)

Table D-1 Continued

Kittitas County 2025 PM Peak Hour Level-of-Service and 2005 Traffic Counts

Intersection	*Control*	*LOS Forecast*	*LOS Standard*	*PM Peak*	*Average Daily*
Kittitas County – Lower Co.					
Charlton Rd/Naneum Rd	(Est.)	A	C	(Est.)	(Est.)
Lyons Rd/No 81 Rd	(Est.)	A	C	(Est.)	(Est.)
WSDOT Jurisdiction					
I-90 EB ramps/Bullfrog Rd Exit 80	**Stop Sign**	**F**	**C**	(Est.)	(Est.)
Canyon Road/ I-90 EB ramps	**Stop Sign**	**E**	**D**	**920**	
SR 970/ Teanaway Rd	Stop Sign	C	C	350	4,400
I-90 WB ramps/Bullfrog Rd Exit 80	Stop Sign	C	C	710	9,100
Airport Rd/SR 970	(Est.)	C	C	(Est.)	(Est.)
Masterson Rd/SR 970	(Est.)	C	C	(Est.)	(Est.)
SR 97/Hungry Junction Rd	(Est.)	C	C	(Est.)	(Est.)
SR 97/Smithson Rd	(Est.)	C	C	(Est.)	(Est.)
SR 97/Dry Creek Rd	(Est.)	C	C	(Est.)	(Est.)
SR 97/Faust Rd	(Est.)	C	C	(Est.)	(Est.)
Canyon Road/ I-90 WB ramps	Signal	B	D	1,320	
SR 10/SR 97	Stop Sign	B	C	430	5,600
SR 97/SR 970	Stop Sign	B	C	390	4,900
SR 903/Nevada Ave (ROS)	(Est.)	B	B	(Est.)	(Est.)
2nd St/Nevada Ave (SR 903) (ROS)	(Est.)	B	B	(Est.)	(Est.)
I-90 EB ramps/Elk Heights Road	Stop Sign	B	C	50	600
SR 970/SR 10	Stop Sign	B	C	410	5,300
Bullfrog Rd/SR 903	Round-about	A	C	540	7,000
I-90 WB ramps/Golf Course Road	Stop Sign	A	C	150	1,900
I-90 EB ramps/Golf Course Road	Stop Sign	A	C	150	1,900
I-90 WB ramps/Cabin Creek Road	Stop Sign	A	C	10	100

Table D-1 Continued

Kittitas County 2025 PM Peak Hour Level-of-Service and 2005 Traffic Counts

Intersection	*Control*	*LOS Forecast*	*LOS Standard*	*PM Peak*	*Average Daily*
WSDOT Jurisdiction					
I-90 EB ramps/Cabin Creek Road	Stop Sign	A	C	10	200
I-90 WB ramps/W Nelson Siding Road	Stop Sign	A	C	40	500
I-90 EB ramps/W Nelson Siding Road	Stop Sign	A	C	40	500
I-90 WB ramps/Elk Heights Road	Stop Sign	A	C	80	1,100
Canyon Rd/Thrall Rd (SR821)	(Est.)	A	C	(Est.)	(Est.)
N Thorp Hwy/SR 10	(Est.)	A	C	(Est.)	(Est.)
Ellensburg Jurisdiction (LOS					
University Way/Dolarway Rd	**Stop Sign**	**F**	**D**	**1,136**	
Alder St/14th Ave	**Stop Sign**	**F**	**D**	**1,040**	**11,600**
University Way/ Alder St	Signal	D	D	1,610	18,100
Water St/ University Way	Signal	D	D	1,580	17,700
D St/14th Ave	Stop Sign	D	D	1,150	13,000
Ruby St/ Manitoba Ave	Stop Sign	D	D	770	8,600
Main St/Mountain View Ave	Signal	D	D	1,920	21,400
Main St &Manitoba Ave	Signal	C	D	200	19,500
Ruby St &Mountain View Ave	Signal	C	D	1,110	1,240
Walnut St/Helena Ave	Stop Sign	C	D	440	5,000
Main St/5th Ave	Signal	C	D	1,470	16,500
Main St/University Way	Signal	C	D	1,900	21,300
University Way/D St	Signal	C	D	1,560	17,500
Walnut St/18th Ave	Stop Sign	C	D	930	10,500
Ruby St/3rd Ave	Stop Sign	C	C	1,020	11,400
Ruby St/ 5th Ave	Stop Sign	C	C	990	11,100
Railroad Ave/5th Ave	(Est.)	C	D	(Est.)	(Est.)

Table D-1 Continued

Kittitas County 2025 PM Peak Hour Level-of-Service and 2005 Traffic Counts

Intersection	*Control*	*LOS Forecast*	*LOS Standard*	*PM Peak*	*Average Daily*
Ellensburg Jurisdiction					
14th Ave/A St	(Est.)	C	D	(Est.)	(Est.)
Canyon Road/ Umptanum Road	Signal	B	D	670	8,300
D St/18th Ave	Stop Sign	B	D	730	8,200
Water St/5th Ave	Signal	B	D	1,140	12,800
Main St/Capitol Ave	Signal	B	D	1,440	16,100
Main St/3rd Ave	Signal	B	D	1,630	18,200
University Way/Ruby St	(Est.)	B	D	(Est.)	(Est.)
Bender Rd/Airport Rd	(Est.)	B	C	(Est.)	(Est.)
Main St/4th Ave	(Est.)	B	D	(Est.)	(Est.)
Water St/4th Ave	(Est.)	B	D	(Est.)	(Est.)
Ruby St/4th Ave	(Est.)	B	C	(Est.)	(Est.)
University Way/ Chestnut St	Signal	B	D	1,810	20,300
Anderson Rd/Umptanum Rd	(Est.)	B	D	(Est.)	(Est.)
Chestnut St/Capitol Ave	(Est.)	B	D	(Est.)	(Est.)
Chestnut St/5th Ave	(Est.)	B	D	(Est.)	(Est.)
Bull Rd/Mountain View Ave	(Est.)	B	D	(Est.)	(Est.)
14th Ave/Water St	(Est.)	B	D	(Est.)	(Est.)
Brick Rd/Game Farm Rd	(Est.)	B	C	(Est.)	(Est.)
Chestnut St/Mountain View Ave	Signal	A	D	580	6,500
Water St/Capitol Ave	Signal	A	D	930	10,400
Water St/3rd Ave	Signal	A	D	1,100	12,300
Water St/15th Ave	Stop Sign	A	D	400	4,600
Water St/Helena Ave	Stop Sign	A	D	530	6,000
Wenas St/University Way	Stop Sign	A	D	1,010	11,300

Table D-1 Continued

Kittitas County 2025 PM Peak Hour Level-of-Service and 2005 Traffic Counts

Intersection	*Control*	*LOS Forecast*	*LOS Standard*	*PM Peak*	*Average Daily*
Ellensburg Jurisdiction					
University Way/Walnut St	Signal	A	D	1,260	14,100
Water St/Manitoba Ave	(Est.)	A	D	(Est.)	(Est.)
Ruby St/Capitol Ave	(Est.)	A	D	(Est.)	(Est.)
Airport Rd/Bowers Rd	(Est.)	A	D	(Est.)	(Est.)
Willow St/Capitol Ave	(Est.)	A	D	(Est.)	(Est.)
18th Ave/Alder St	(Est.)	A	D	(Est.)	(Est.)
18th Ave/Brook Ln	(Est.)	A	C	(Est.)	(Est.)
Cle Elum Jurisdiction					
1st St/Oakes Ave	**Signal**	**F**	**B**	**1,140**	**14,600**
1st St/Stafford St	**Signal**	**F**	**B**	**1,010**	**13,000**
Roslyn Jurisdiction					
Pennsylvania Ave/2nd St (ROS)	(Est.)	B	B	(Est.)	(Est.)
South Cle Elum Jurisdiction					
S Cle Elum Way/Lower Peoh Pt Rd (SCL)	Stop Sign	B	B	(Est.)	(Est.)

Est. = Intersection LOS estimated from model generated v/c ratios

Bold = Intersection with unacceptable future LOS.

Appendix E – Coordination with Local Agencies

New corridors supported by the County under State or City Jurisdiction

Table E-1 Future Roadway Network Non County Jurisdictions
I90 - Umptanum Road Interchange – WSDOT jurisdiction
I90 Exit 83 (Oakes Ave) – S. Cle Elum (Broadway St -Yakima River Crossing) westbound Off and eastbound On ramps and S. Cle Elum second access – WSDOT jurisdiction
Anderson Road - West Manitoba Connector – Ellensburg jurisdiction
Dolarway Road - Anderson Road Connector – Ellensburg jurisdiction
I90 Interchange (T17-R22: Near Vantage, WA) – WSDOT jurisdiction

City of Ellensburg Coordination

The City of Ellensburg has identified future roadway corridors, truck routes, and non-motorized routes near city-county boundaries. The county will work toward preserving these corridors and routes in cooperation with the city. They include the following future roadway corridors:

Bowers Road from Reecer Creek Road to Look Road

Water Street from Helena Avenue to Bowers Road

Alder Street from Helena Avenue to Bowers Road

Road between Pfenning Road and Wilson Creek Road from Vantage Highway to Brick Mill Road

Judge Ronald Road from Pfenning Road to Wilson Creek Road

Helena Avenue from Reecer Creek Road to Brick Road

Mountain View Avenue from Main Street to Dolarway Road

Pfenning Road from Third Avenue to Kittitas Highway

Canyon Road by-pass from Ringer Loop to Umptanum Road

Stone Road from Canyon Road by-pass to Stone Road

Tjossem Road from Canyon Road eastward

Berry Road from Canyon Road to Bull Road

Road between Tjossem Road and Berry Road from Bull Road to Canyon Road

Berry Road from Canyon Road to Canyon Road by-pass

Umptanum Road from Canyon Road to Bull Road

Road between Umptanum and I-90 from Canyon road to Chestnut Street Extension

Chestnut Street Extension from Mountain View to Bull Road

Ellensburg identified the following proposed non-motorized routes and connections:

Bicycle Route on University Way to Dolarway to 5th Avenue to Irene Rinehart Park.

Equestrian Route from Alder northward, then westward north of Bender Road, then southward parallel with Hannah Road to University Way.

New Bicycle Route from Umptanum Road at Ruby Street to Bull Road.

Sidewalks on Pfenning Road from Vantage Highway to Capital Avenue.

Ellensburg identified the following truck routes:

University Way from I-90 to Vantage Highway

Wenas Street from 8th Avenue to 5th Avenue to 3rd Avenue

Dolarway Road from I-90 to 5th Avenue

5th Avenue from Dolarway Road to Wenas Street

3rd Avenue from Wenas Street to Water Street

Water Street from 3rd Avenue to Manitoba Avenue

Railroad Avenue from Dolarway Road to Anderson Road

Mountain View Avenue from Canyon Road to Kittitas Highway

Main Street from Capital Avenue to Canyon Road

Canyon Road from Main Street to I-90

Umptanum Road from City Limits to Canyon Road

Kittitas County's segment of the truck routes feeding into Ellensburg are:

Umptanum Road from City Limits to Anderson Road

Anderson Road from Umptanum Road to Railroad Avenue

Vantage Highway from University Way eastward

Kittitas Highway from Mountain View Avenue eastward

Canyon Road from I-90 to SR-821

Reecer Creek Road from University Way to Bowers Road

Bowers Road from Reecer Creek Road eastward

Forest Service Road Management and Preservation

The U.S. Forest Service - Cle Elum Regional District identified the following roads that are of concern due to increasing development in unincorporated areas:

- **FSR 3350** – (South Cle Elum Ridge road) from Mohar County road to the Forest Boundary, which includes sections 4, 9 and 8 of T19N, R15E, Willamette Meridian (W.M.).
- **FSR 4510** – from Woods and Steele Road to Forest Boundary through section 7 of T19N, R15E, W.M.
- **FSR 4517** – (Little Creek Road) from Fowler Creek county road to the Forest Boundary through section 3 of T19N, R14E, W.M.
- **FSR 4818** –(East Kachess) from Kachess Dam Road to Lake Kachess Summer Homes in section 27, T21N, R13E, W.M.
- **FSR 5400** – (Yakima Pass Road) from Stampede Pass Road to the junction with FSR 5480

The United States Forest Service (USFS) is not able to provide services to residential developments that are located in lands surrounding the Okanogan Wenatchee National Forest and access their developments using these Forest Service roads. Property owners frequently request the USFS to maintain and plow these roads, but it is not the USFS's mission and they do not have the funds or equipment to provide these services. The USFS has requested that the County take over ownership of these roads and provide these residences maintenance services. However, Kittitas County only accepts roads onto the County maintenance system when they meet road standards and can be owned fee simple by the County. The Forest Service roads listed above are easements and not owned fee simple by the United States. Consideration should be given to requiring development applications occurring on these roads to dedicate road right of way to the County and improve them to public road standards.

Appendix F – Transportation Grant Sources

FEDERAL and STATE TRANSPORTATION GRANT SOURCES

- **Federal Programs:** federal funds for projects on the functionally classified system. This includes grants through ISTEA (Intermodal Surface Transportation Efficiency Act) including the Surface Transportation Program (STP), the Enhancement program and bridge programs.
- **State Programs:** state funds for projects. This includes the WSDOT Regional Mobility Grant for public transportation services.
- **Fuel Tax – County Roads**: a portion of the State motor vehicle fuel tax allocated by formula.
- **Fuel Tax – TIB**: competitive grants from the Transportation Improvement Board.
- **Fuel Tax – RAP and CAPP**: the Rural Arterial Program and the County Arterial Preservation Program. RAP funds are competitive grants. CAPP funds are allocated by formula.
- **Property Tax**: real and personal property tax from unincorporated areas, targeted for public works programs.
- **Timber Tax:** tax from logging activities on private lands within County borders.
- **Other Taxes**: tax revenue from miscellaneous sources.
- **Federal Lands:** federal grants from the ISTEA Federal Lands Highway Program.
- **Reimbursement:** reimbursements from program fund sources, fees and programs.
- **Other:** an assortment of fees but usually management, impact, permit, developer and / or mitigation fees.

Appendix G – Snowmobile Trails

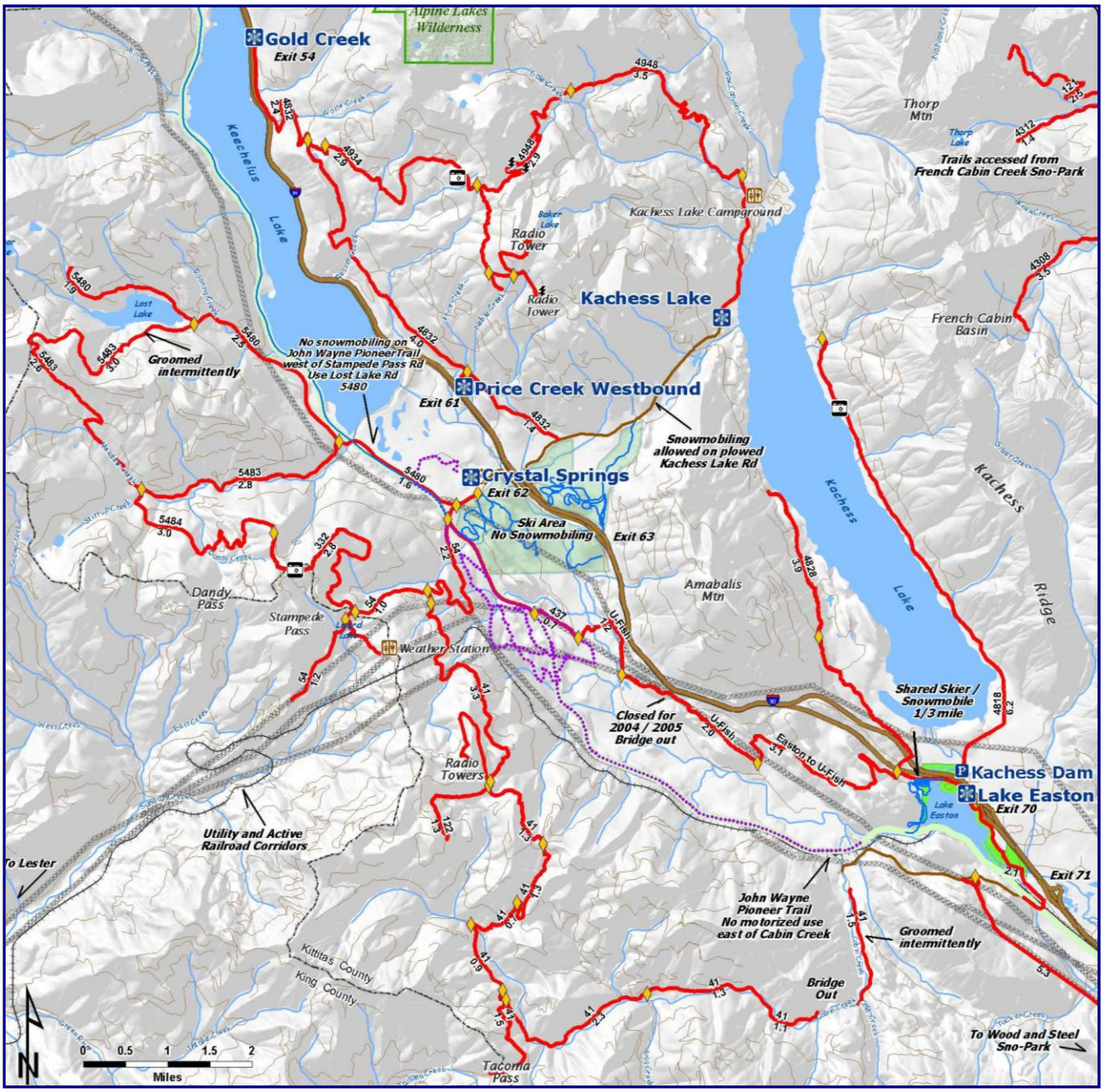
There are over 500 snowmobile trail miles in Kittitas County. The U.S. Forest Service and Washington State Parks jointly manage and maintain them. The trails connect to sno-parks, which serve as trailheads and enable vehicle parking. An inventory was conducted to identify the location, number and mileage of groomed trails within the Interstate 90 corridor in Kittitas County. A total of 207 miles of trails were identified. The inventory also identifies the sno-parks that serve them and the parking capacity of each.

Snoqualmie Pass has the highest concentration of groomed trails. There are five sno-parks connecting 90 miles of trails. The sno-parks from west to east are:

- **Gold Creek (200 spaces)** at Exit 54;
- **Price Creek Westbound (25 spaces)**, one mile west of Exit 62;
- **Kachess Lake (80 spaces)**, 4 miles north of Exit 62;
- **Crystal Springs (250 spaces)** at the westbound Interstate 90 – Exit 62; and
- **Lake Easton** at Exit 70.

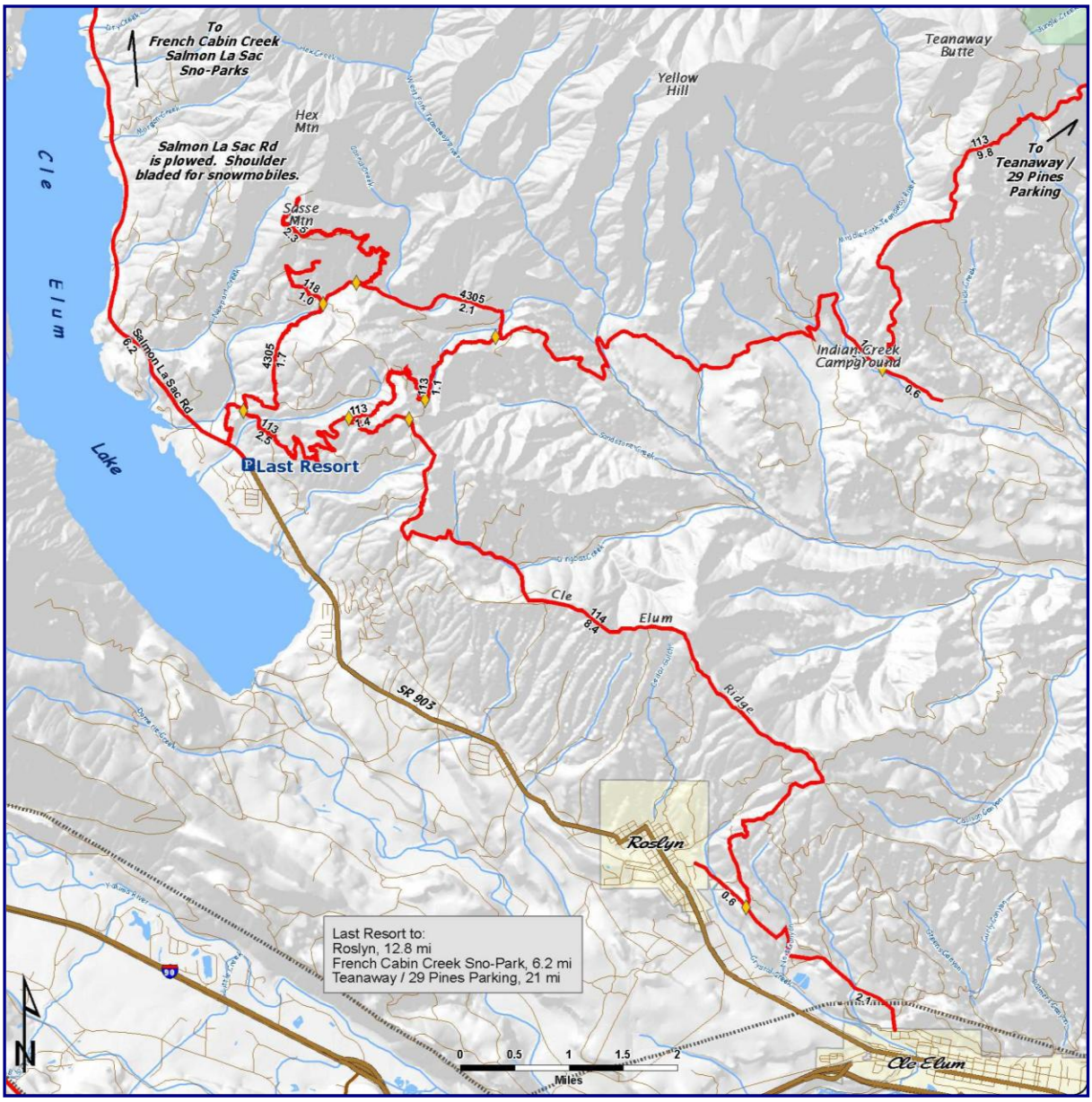
The snowmobile trails, served by these sno-parks, are shown in red in Figure 1. There are restricted connections to the John Wayne Pioneer Trail.

Figure 1: Snoqualmie Pass Snowmobile Trails



East of Cle Elum Lake, there is the **Last Resort Sno-Park (75 spaces)** and the **Salmon La Sac Sno-Park (50 spaces)** is further north. Trails to these sno-parks run along the Cle Elum Ridge past Roslyn. It has been reported that the trail to the Last Resort Sno-Park is increasingly difficult to access because of privatization at the Plum Creek Development. Access is enabled at Exits 80 or 83 on Interstate 90. Users may start at Coal Mines Trail in Cle Elum or drive north on State Route 903. The 31-mile trail network is shown in red in Figure 2 below.

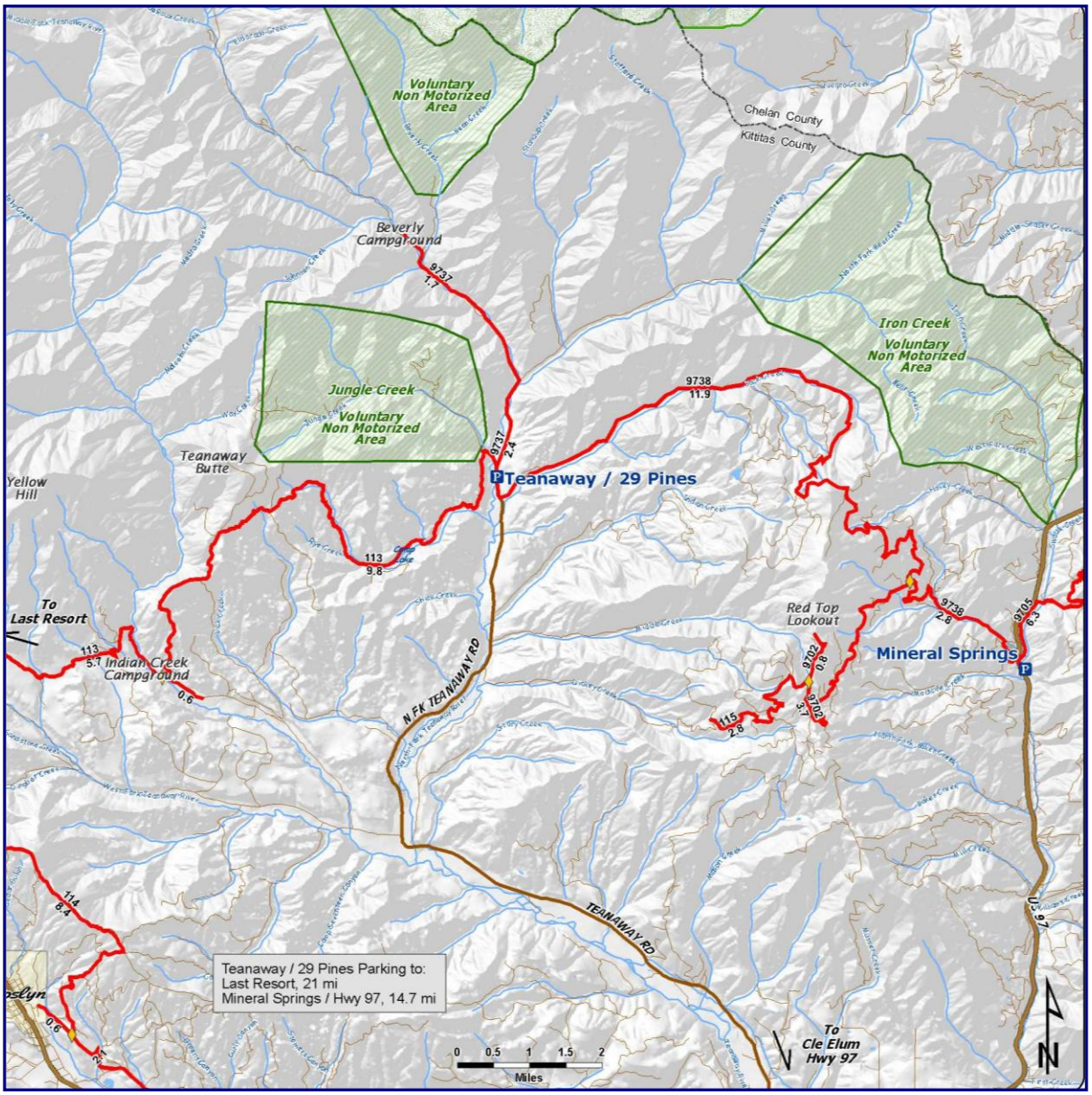
Figure 2: East of Cle Elum Lake Snowmobile Trails



Further east, there is the **Teanaway / 29 Pines Sno-Park (25 spaces)**, which connects 36 miles of groomed trails northeast of Roslyn. The system connects west to the **Last Resort Sno-Park** (previously discussed) and east to the **Mineral Springs Parking Lot**

(30 spaces) on State Route 97. Access is via Interstate 90 – Exit 85, then north on State Route 970. The groomed trail network is shown in red below.

Figure 3: Teanaway Snowmobile Trails



The final series of sno-parks closest to Interstate 90 are the **Reecer Creek Sno-Park (75 spaces)** and the **Blewett Pass Sno-Park (30 spaces)**. They connect 70-miles of groomed trails. Reecer Creek, 13 miles north of Ellensburg, is heavily used. Blewett Pass is farther north. Both are accessed at Interstate 90 - Exit 106, then north on State Route 97 or via Reecer Creek Road. The groomed trail network is shown in red below.

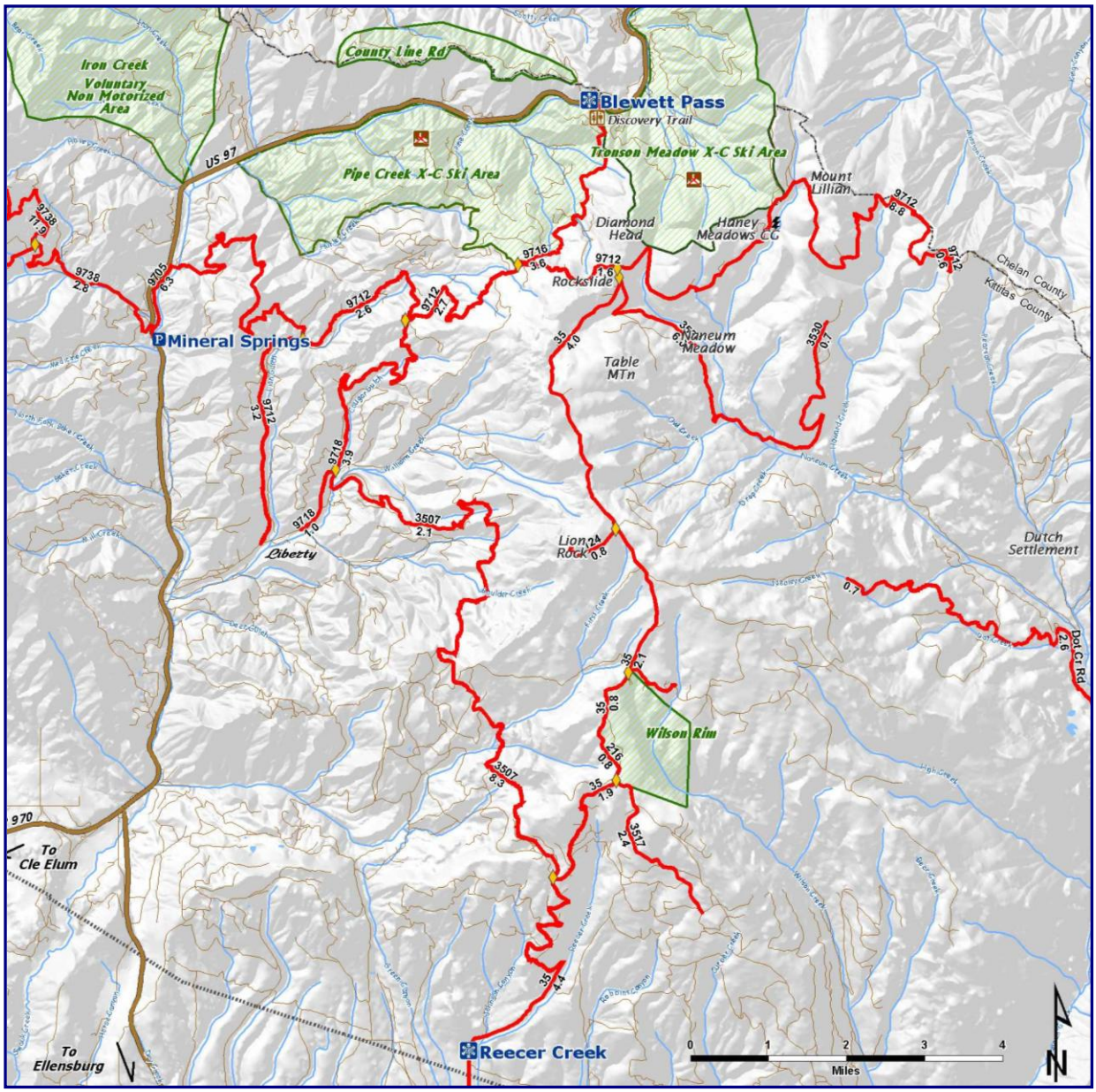



Figure 4: Mineral Springs – Blewett Pass Snowmobile Trails