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Blaine County Transportation Plan

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&

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CHAPTER 1
INTRODUCTION

In 2010 Blaine County received a grant from the Local Rural Highway Investment Program (LRHIP), administered by the Local Highway Technical Assistance Council (LHTAC), for the development of the county-wide Transportation Plan presented in this document. The area associated with this Transportation Plan includes all of Blaine County, excluding the areas within the city boundaries of Sun Valley, Ketchum, Hailey, Bellevue, and Carey.

This Transportation Plan presents an evaluation of the existing transportation system in Blaine County, based on an inventory of the existing roadway system. This evaluation included a study of recorded crash data for all roadways within the county, a review of Average Daily Traffic (ADT) data collected from traffic count data available from the Blaine County Road & Bridge Department and the Idaho Transportation Department (ITD), and structured discussions with Blaine County citizens and officials held to gain an understanding of problem areas within the transportation system and the challenges facing the Blaine County Road & Bridge Department in maintaining, and improving, the system. Collectively, this data provided the basis for maintenance and capital improvements proposed in this report.

DESCRIPTION OF BLAINE COUNTY

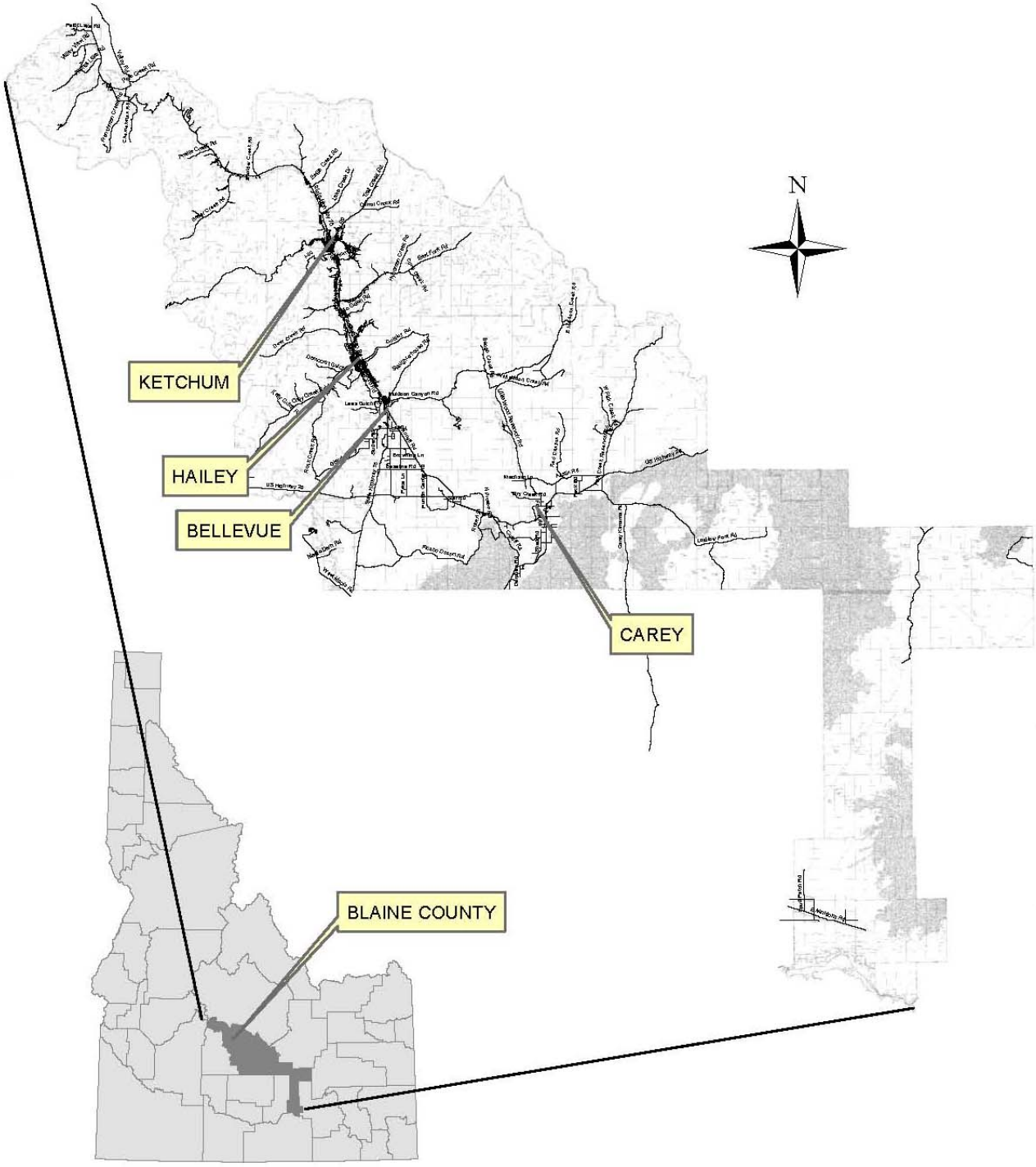
Blaine County is located in south-central Idaho, (see Figure 1.) The County has an area of approximately 2,645 square miles, bounded in an irregular shape by nine other counties. Almost 82% of Blaine County is in public lands. Based on 2010 census data, the cities of Sun Valley (population 1,406), Ketchum (2,689), Hailey (7,960), and Bellevue (2,287) make up the majority of the population. These cities are located in the west portion of the Blaine County along State Highway 75 in the Big Wood River Valley. Unincorporated towns in this portion of Blaine County include Picabo (approximately 125 people) located on Highway 20, Gannett (<50 people) located on Gannett Road south of Bellevue, and Triumph (<50 people) located on East Fork Road.

Schools in this area include the public schools managed by the Blaine County School District: Wood River High School in Hailey (approximately 820 students), Wood River Middle School in Hailey (680 students), Hailey Elementary (480 students), Hemingway Elementary in Ketchum (415 students), Woodside Elementary in Hailey (350 students), Bellevue Elementary (350 students, and Silver Creek High School (45 students); and several private schools including The Community School in Sun Valley (330 students), The Sage School in Hailey (25 students, The Mountain School in Bellevue, and the Montesorri School in Ketchum

The other population center of Blaine County is the City of Carey (population 538) located in the east portion of the county at the junction of U.S. Highway 93 and US. Highway 20/26. The Blaine County School District also manages the schools in Carey, which include Carey High

School (330 students), Carey Middle School, and Carey Elementary, all located on the same campus. The southeastern panhandle of Blaine County is sparsely populated.

Figure 1
Blaine County Transportation Plan
General Map of Blaine County / Relation to Idaho



SOCIAL-ECONOMIC CHARACTERISTICS OF BLAINE COUNTY

Table 1 summarizes the social-economic profile of Blaine County taken from U.S. Census data for the years 2000 and 2010. Other social-economic profile information for Blaine County presented here is extracted from American Community Survey data for 2006-2010.

Table 1
Blaine County Transportation Plan
Social-Economic Profile of Blaine County
2000 to 2010 Comparison

	Blaine County				
	2000 (U.S. Census)		2010 (U.S. Census)		% Change (2000 to 2010)
	Number	%	Number	%	
Population	**18,991**		**21,376**		**13%**
Preschool, less than 5 yrs.	1,120	6%	1,414	7%	26%
School Age, 5-19 yrs.	4,558	24%	4,142	19%	-9%
Adult, 20-64 yrs.	11,831	62%	13,339	62%	13%
Senior, over 64 yrs.	1,481	8%	2,476	12%	67%
Dwelling Units	**12,186**		**15,050**		**17%**
Occupied	7,780	64%	8,833	59%	14%
Vacant	4,406	36%	6,227	41%	41%
Housing Built in Last 10 yrs.	3,178	26%	1,356	10%	-57%
Residence Five Years Ago					
Same House	8,486	48%	17,784	83%	
Same County	3,980	22%	1,700	8%	
Outside County	4,670	26%	1,717	8%	
Employed Population - Occupation	**10,846**		**11,535**		
Management/Professional	3,857	36%	4,094	36%	
Service	1,939	18%	2,320	20%	
Sales and Office	2,709	25%	2,425	21%	
Farming, Fishing, Forestry	216	2%	284	2%	
Construction	1,481	14%	1,381	12%	
Production/Transportation	644	6%	1,031	9%	
Employment - Selected Industries					
Construction/Manufacturing	1,992	18%	2,215	19%	
Arts, Entertainment, Food Services	1,646	15%	1,770	15%	
Professional/Management	1,593	15%	1,669	14%	
Retail	1,305	12%	1,393	12%	
Real Estate, Finance, Insurance	792	7%	753	7%	
Education, Health, Social Services	1,418	13%	1,581	13%	

As seen in Table 1, the 2010 population of Blaine County was 21,376, an increase of 12.6% from 2000. The Census reports 15,050 total housing units. Of those 15,050 total units, 8,833 units are reported as occupied and 6,227 are reported as vacant housing units. The report also states that 1,356 houses were built between 2000 and 2010, which is down from the 3,178 houses built between 1990 and 2000. Only 68 housing units have been built since 2005.

Blaine County's economy relies heavily on the recreational and tourist industries associated with the area's outdoor activities, music, and arts. Historic farming and mining industries are still present, but not prominent. Construction activities related to residential land development and resort activities were significant prior to the nationwide economic downtown in 2008. Blaine County's economy relies heavily on the recreational and tourist industries associated with the area's outdoor activities, music, and arts. Historic farming and mining industries are still present, but not prominent. Construction activities related to residential land development and resort activities were significant prior to the nationwide economic downtown in 2008, but have decreased. The industries providing the main sources of employment in Blaine County are shown in Table 1; other industries (such as manufacturing; agriculture, fishing and hunting, and mining; information; and wholesale trade) each employ less than 5% of the work force.

Occupations in the above industries can be broken into the following categories: management and professionals (36%), sales and office (21%), service (20%), construction, extraction, maintenance and repair (12%), production, transportation, material moving (9%), and farming, fishing and forestry (2%).

Blaine County has over 11,500 employees. Approximately 71% of the workers in Blaine County are from the private sector, 15% are self-employed, 13% are government employees, and almost 1% are unpaid family workers. Approximately 2,540 people commute to work in Blaine County from outside of Blaine County.

CHAPTER 2
BLAINE COUNTY TRANSPORTATION SYSTEM

BLAINE COUNTY HIGHWAY SYSTEM

Blaine County is served by U.S. Route 93, U.S. Routes 20 and 26, and State Highway 75. See Figure 2 for a general road map of Blaine County.

The U.S. Route 93/26 overlap runs north-south on the eastern side of the county for approximately nine miles from the Lincoln County line to the City of Carey. The U.S. Route 93/26/20 overlap continues northeast from the City of Carey for approximately nineteen miles to the Butte County line.

U.S. Route 20 runs east-west across the southern portion of the county for approximately 31 miles from the Camas County line on the west to the City of Carey on the east.

State Highway 75 runs north-south through the center of the county for approximately 79 miles from the Lincoln County line on the south to the Custer County line on the north. State Highway 75 provides the main service route to the major population centers and recreational areas of Blaine County.

BLAINE COUNTY ROAD SYSTEM

County Roads

The county road system, as agreed upon by the state and county, is comprised of "grade and drain, or better" roads, the roads that don't meet this standard, and "gated" roads. Presently, Blaine County has approximately 449 miles of "grade and drain" roads. Another 74 miles of county roads fail to meet this standard, and about 16.6 miles of county roads are "gated." The number of miles by surface type is shown in Table 2, and illustrated in Figures 3A, 3B, and 3C.

Table 2
Blaine County Transportation Plan
Roadway Miles by Surface Type (2010)

Surface Type	Miles	Percent
Blaine County		
Asphalt	129.72	29%
Thin Bitumen	18.36	4%
Graded & Drained Gravel	280.26	62%
Graded & Drained Earth	20.76	5%
Total Miles – Blaine County	449.10	
Total Miles US/State Hwys,	138.02	
Total Roadway Miles	587.12	

Source: Blaine County GIS Database (2011)

FIGURE 2
BLAINE COUNTY
GENERAL ROAD MAP

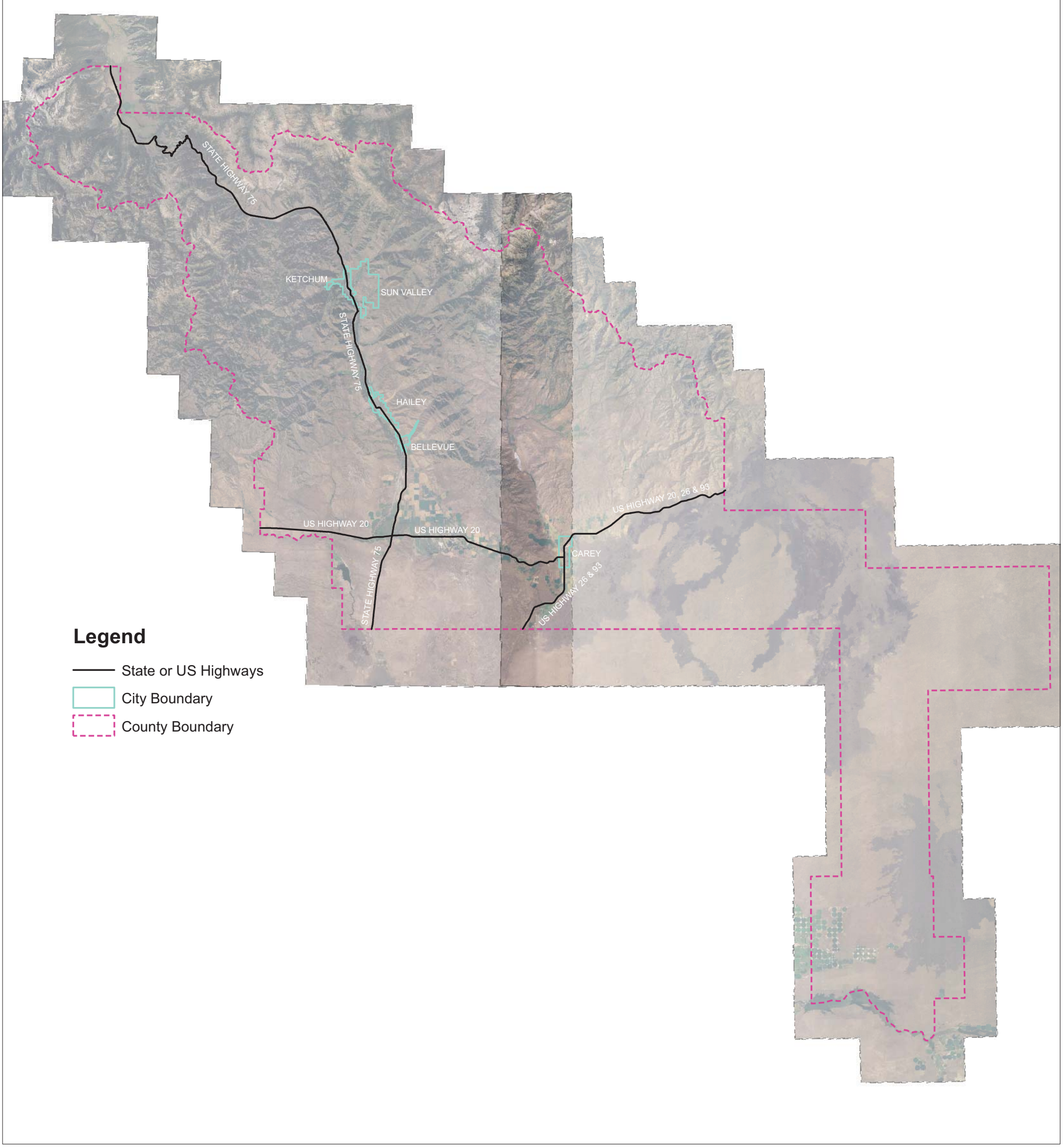


FIGURE 3A
ROADWAY SURFACE AND ADT
BLAINE COUNTY OVERVIEW

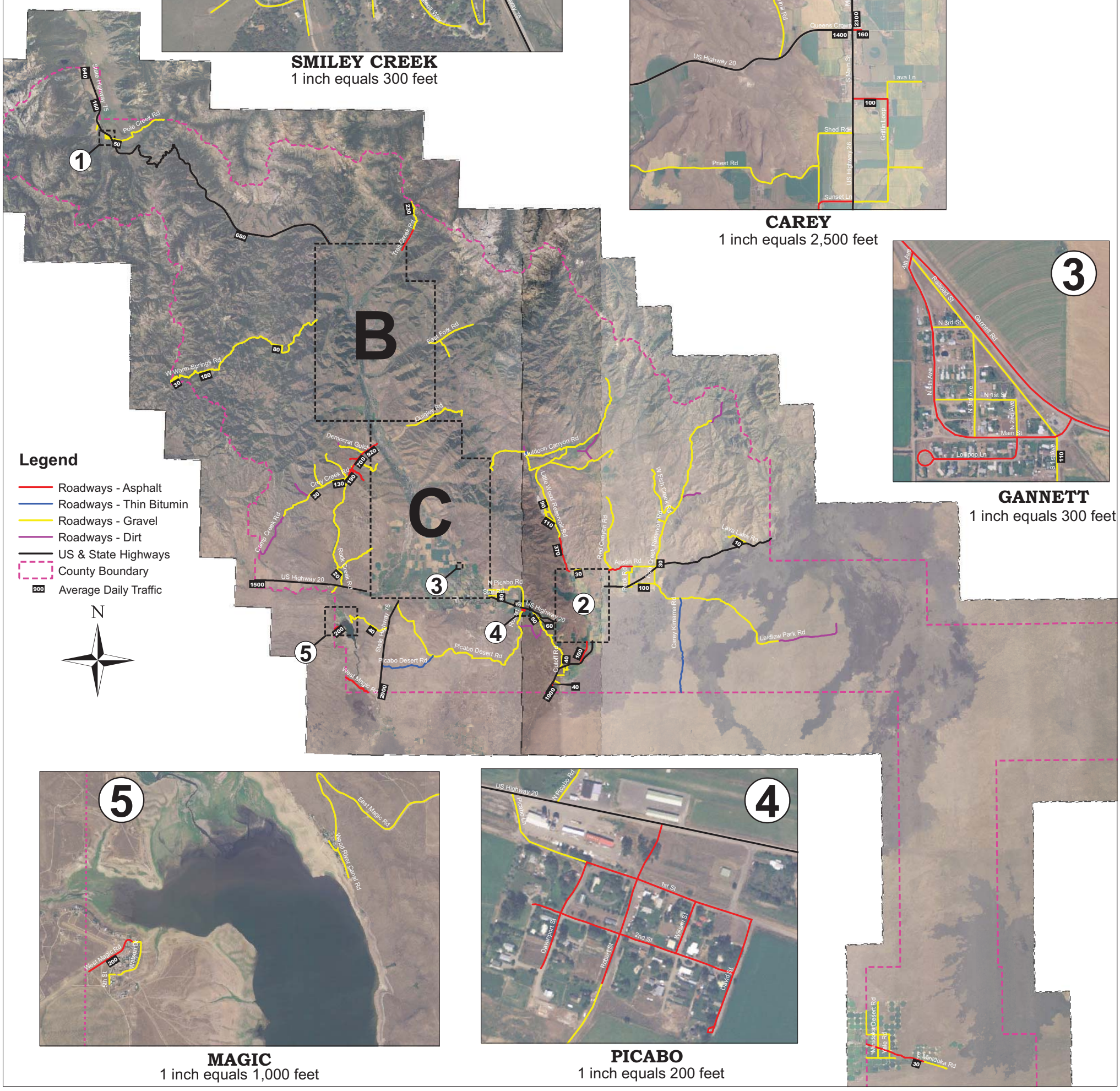


FIGURE 3B
ROADWAY SURFACE AND ADT
WOOD RIVER VALLEY NORTH

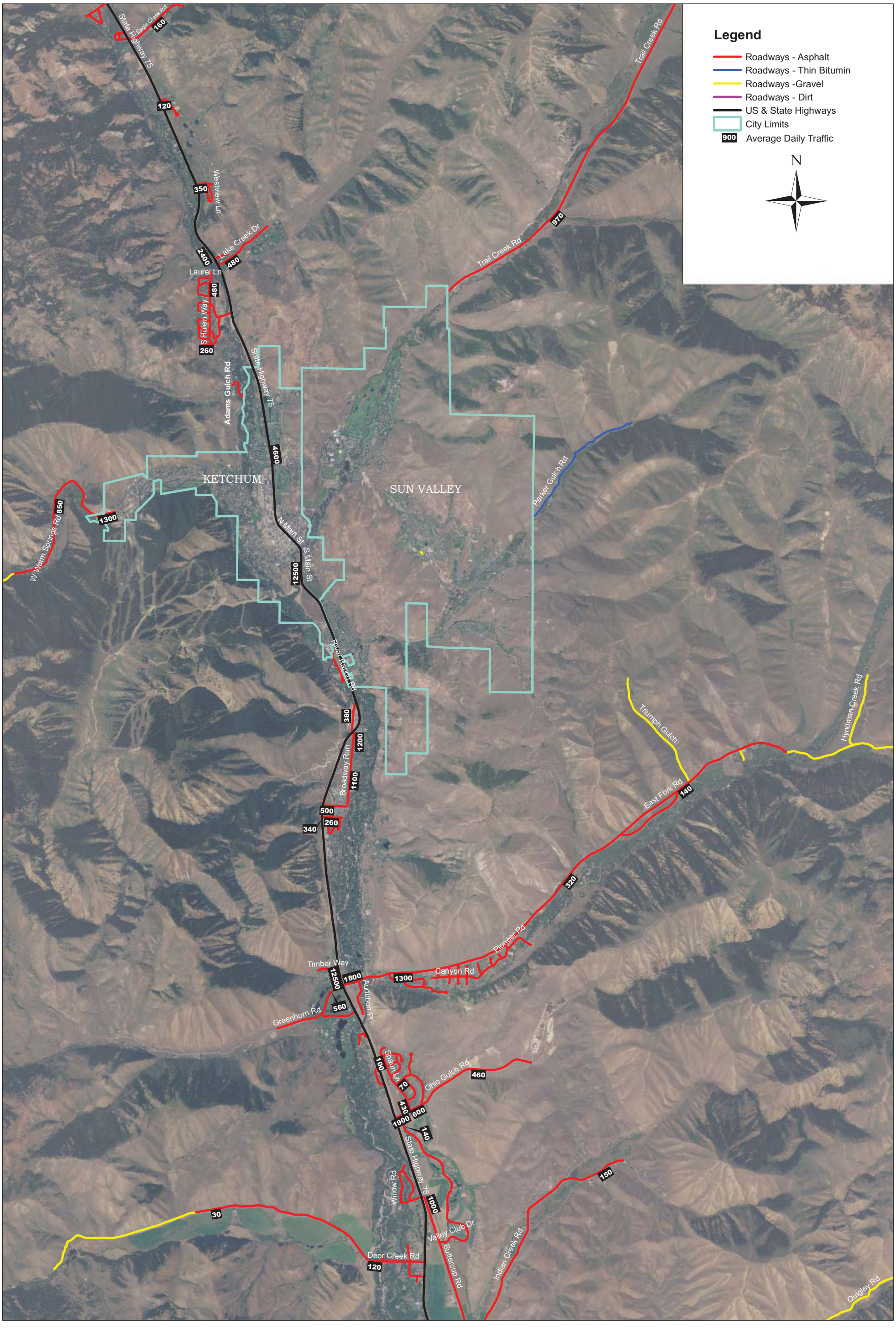
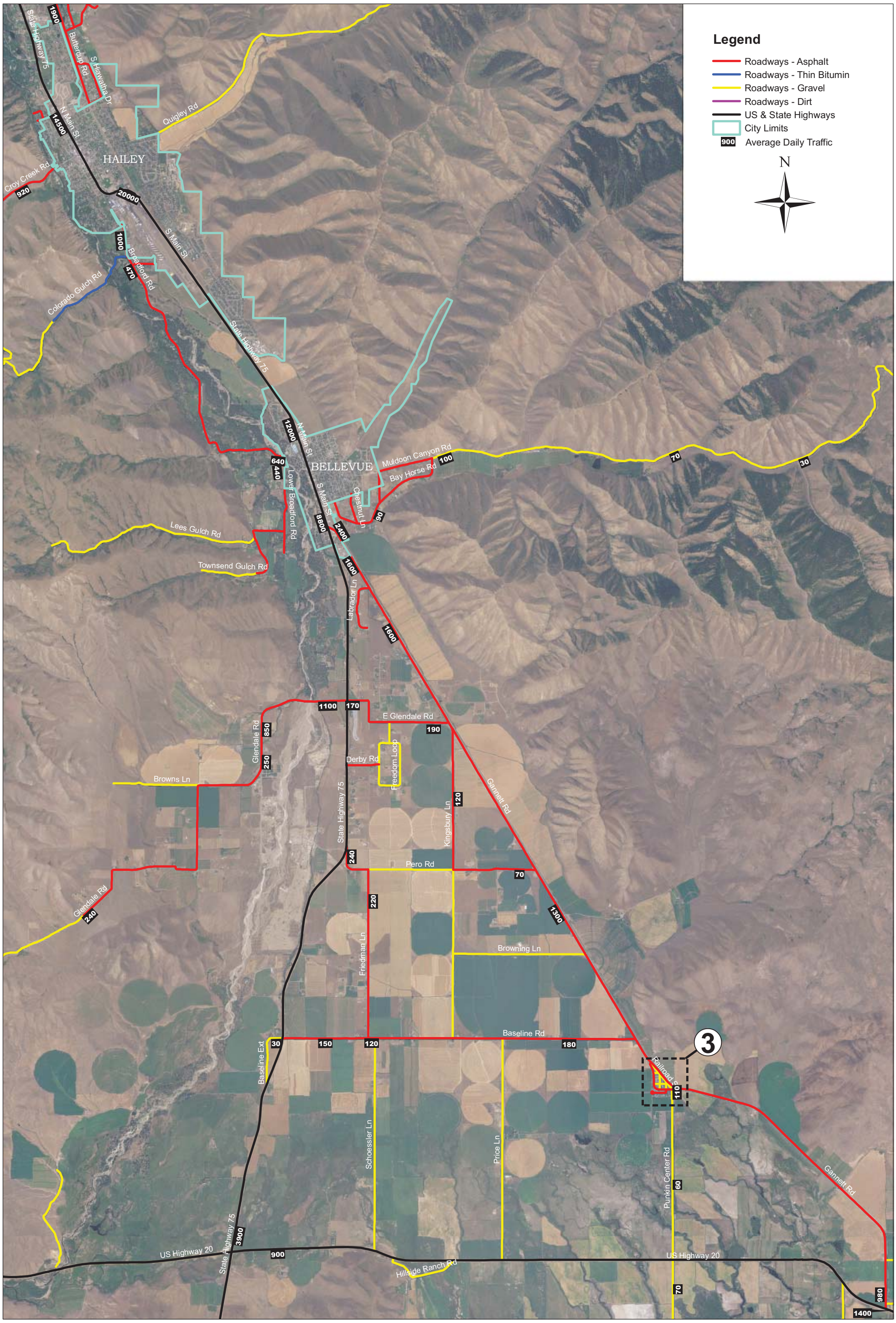


FIGURE 3C
ROADWAY SURFACE TYPE AND ADT
WOOD RIVER VALLEY SOUTH



Blaine County topography consists of many valleys separated by mountainous terrain. Typical roadways in Blaine County (beyond the highways) consist of a main road in a valley floor with a few roads extending from the valley into or through the mountains. Blaine County does not have any roadways outside of State Highway 75 and U.S. 93/26 that provide continuous north-south connections beyond Blaine County. Blaine County has only a few roadways outside of U.S. Route 20/93/96 that provide east-west connections beyond Blaine County. These roads include:

- Croy Creek Road, which extends west from the City of Hailey, providing an alternate route to U.S. 20 at the Camas/Blaine County line;
- Trail Creek Road, extending northeast from the City of Sun Valley into Custer County and ultimately connecting to US 93; and
- East Fork Road, extending east from State Highway 75 to the town of Triumph and into Custer County.

Federal Roads

While not many new roads are being constructed in the county, Blaine County is receiving some pressure to maintain more roadways. U.S. Forest Service and BLM roads providing access to isolated seasonal residence areas are typically not maintained during the winter season in Blaine County. However, permanent residences are replacing what historically have been summer occupancies in these areas. An example of such an area is Warm Springs Canyon. The County is receiving increased pressure to keep these roads open year-round, and there is precedent for accepting such responsibility (e.g. the Lower Board Ranch area of Warm Springs Canyon was accepted as Blaine County maintenance responsibility in 1974).

Private Roads

Non-federal roads which provide access to public lands across private land are common in Blaine County. Public use of such roads is legally defined by historic use and public improvement. However, conflicts have arisen due to threatened road closures by private owners. Blaine County is concerned about preserving, and restoring, public access to public lands. Some examples where such situations have occurred are Lee's Gulch (on-going), Parker Gulch, Minnie Moore Mine Gulch, Democrat Gulch, and Baugh Creek Road. For this reason, the current Blaine County subdivision policy requires that roads leading to public lands be dedicated for public use.

TRAVEL PATTERNS

Most of the county's original roads serviced the first settlers' farms or accessed mines. These roads primarily followed section lines dividing farms and ranches, or ran up the side canyons of the Big Wood River drainage. Several of the roads from Bellevue, Hailey, and Ketchum were constructed as toll roads for access from the old mines to the railroad. Many of these roads were improved with Federal Aid Secondary System Funds.

The primary function of most Blaine County roads is local circulation between the population centers, supply of goods and materials into and out of Blaine County, and tourism to the Wood River Valley. The majority of retail, service, and commercial opportunities are located in Ketchum, Hailey, and Bellevue, with Ketchum being the internal focus of Blaine County travel. Residents also travel to shopping and employment opportunities outside of Blaine County. Employment commuter trips are predominantly to and from the south, and shopping trips are often to Twin Falls and Boise. In either case, most of this travel is on State Highway 75 and U.S. Route 20. State Highway 75 serves as the "backbone" of travel up and down the Wood River Valley, with average daily traffic volumes increasing steadily from the southern county line to the City of Ketchum. State Highway 75 traffic counts drop significantly north of Ketchum.

County roadways south of Bellevue, in what is commonly referred to as "The Triangle," provide access to present-day small farms and ranches, and other rural residential development. Light industrial activities are accessed west of State Highway 75 on Glendale Road. Blaine County's agricultural industry is largely serviced by State Highway 20/26, and the roadways in the Carey area in the eastern portion of the county.

Rural residential development and recreational activities are the primary use of significantly improved county roads accessing the side canyons of the Wood River Valley. Magic Reservoir and Little Wood Reservoir are also recreational areas accessed by improved county roads.

EXISTING TRAFFIC VOLUMES

Historical traffic counts were obtained from the Idaho Transportation Department and the Blaine County Road & Bridge Department. Count data from 134 locations throughout the county from 2003 through 2010 were analyzed. Count data were not available at all locations for any given year; however, many of the locations had counts for multiple years. The estimated 2010 counts are shown on Figures 3A, 3B, and 3C.

State Highway 75 has been the subject of a significant improvement analysis study (completed by ITD in 2008) that considered the State Highway 75 corridor from Timmerman Hill (U.S. 20) to Ketchum. That study is referenced here; though maintenance and improvements to State Highway 75 are not part of the scope of this Blaine County Transportation Plan, that corridor is critical to travel in Blaine County. As a result of that study, improvements to State Highway 75, beginning just south of Ketchum, are scheduled to commence in 2014.

As would be expected, the highest traffic volumes in Blaine County occur on the state highway system. Table 3 provides traffic data for the state highway system.

Table 3
Blaine County Transportation Plan
Daily Traffic Volumes on State Highways in Blaine County

Highway Segment	**Average vehicle/day**
SH-75:	
at Lincoln-Blaine County Line	2,900
at U.S. 20 Junction (blinking light)	3,900
at Gannett-Picabo Road, S. Bellevue	8,800
at Spruce Street, N. Bellevue	12,000
at Fox Acres Road, S. Hailey	20,000
at Myrtle Street, N. Hailey	14,500
at East Fork Road, mid-valley	12,500
at Garnet Street, S. Ketchum	12,500
at Saddle Road, N. Ketchum	4,600
at Lake Creek Drive	2,400
at Baker Creek Road	680
at Pettit Lake Road	640
Highway Segment	**Average vehicle/day**
US-93:	
at Lincoln-Blaine County Line	1,000
at US-20 Junction, S. Carey	2,300
at Little Wood Reservoir Rd, N. Carey	1,600
at Austin Road, E. Carey	1,300
US-20:	
at Camas-Blaine County Line	1,500
at SH-75 Junction, blinking light	900
at Gannett-Picabo Road	1,400
at US-93 Junction, Carey	1,400

Source: ITD and Traffic Counts (2010)

Available counts on Blaine County roads indicate the maximum observed daily traffic on asphalt roads is approximately 2,100 vehicles per day. Similarly, on gravel roads the maximum observed daily traffic is approximately 240 vehicles per day. Table 4 summarizes traffic volumes for various segments of the most heavily traveled county roads.

Table 4
Blaine County Transportation Plan
Most Heavily Traveled Blaine County Roads

Blaine County Roadway	Average vehicle/day
Gannett-Picabo Road	1,600 to 980
East Fork Road	2,100 to 140
Ohio Gulch Road	1,900 to 460
Buttercup Road	1,900 to 1,000
Hospital Road	1,200 to 380
Glendale Road	1,100 to 170
Broadway Run	1,100 to 490
Broadford Road	1,100 to 470
Trail Creek Road	970 to 230
Croy Creek Road	920 to 30
Warm Springs Road	850 to 30

Source: ITD Traffic and County Counts (2010)

The maximum observed daily traffic is well within the accepted capacity of two-lane paved rural roadways (7,500 vehicles per day). Similarly, gravel roads typically are not considered for paving until at least 400 vehicles per day are observed. Roadways in the Blaine County road system are operating within acceptable capacities.

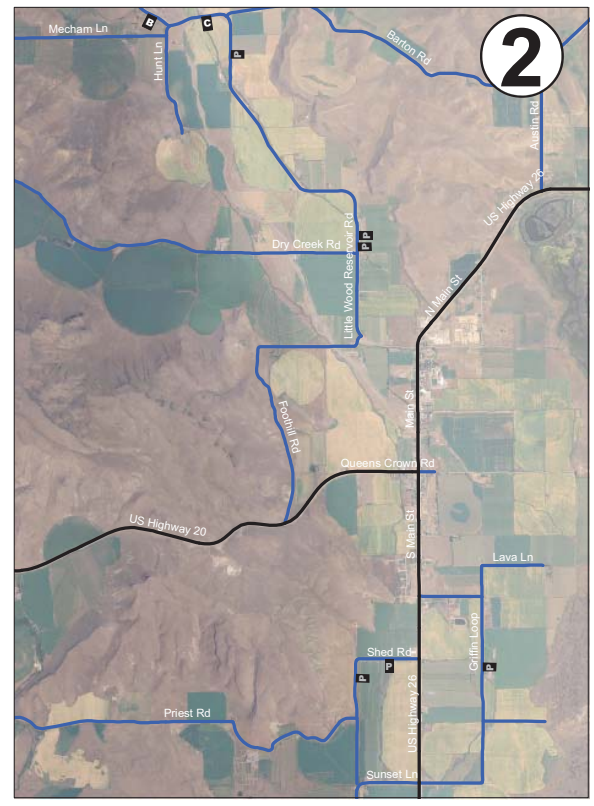
SAFETY EXPERIENCE

ITD collects data describing all accidents reported in Blaine County. This data is typically received from accident reports filed by Blaine County Sheriff's office and/or city police departments. ITD provided a listing of all crash data for the five-year period from 2006 through 2010, and the data was reviewed and sorted to reflect only those crashes reported on roadways under the jurisdiction of the Blaine County Road & Bridge Department.

Of a total of 133 crashes reported on Blaine County roads during the analysis period, 75% were single vehicle accidents, and only 14% were intersection related. In an effort to identify accident patterns that may indicate safety defects, the locations of the two largest categories of accidents (Ran off Road and Loss of Control) were examined for "clusters" or a grouping of accidents over a relatively short section of roadway. Table 5 shows the results of this analysis. Only one minor cluster of crashes (more than three crashes at any one location) was identified; these crashes were at the intersection of Gannett Road with State Highway 75. Thus, crashes throughout the county's roadway system are not focused into any notable patterns, and could not be associated with specific roadway deficiencies. Figures 4A, 4B, and 4C illustrate crash locations.

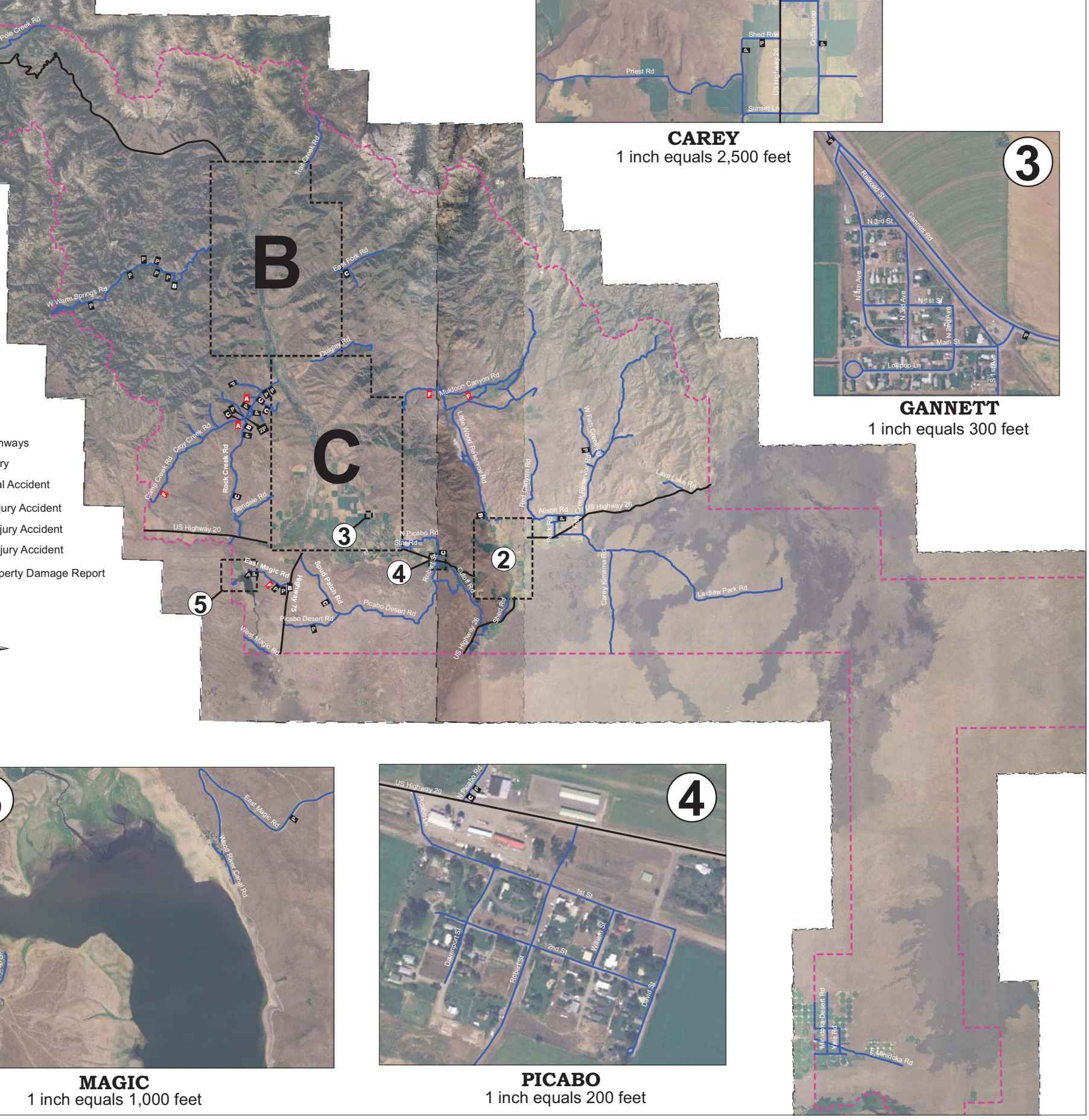
FIGURE 4A
CRASH LOCATIONS AND SEVERITY
BLAINE COUNTY OVERVIEW

SMILEY CREEK
1 inch equals 300 feet



CAREY
1 inch equals 2,500 feet

GANNETT
1 inch equals 300 feet



MAGIC
1 inch equals 1,000 feet

PICABO
1 inch equals 200 feet

FIGURE 4B
CRASH LOCATIONS AND SEVERITY
WOOD RIVER VALLEY NORTH

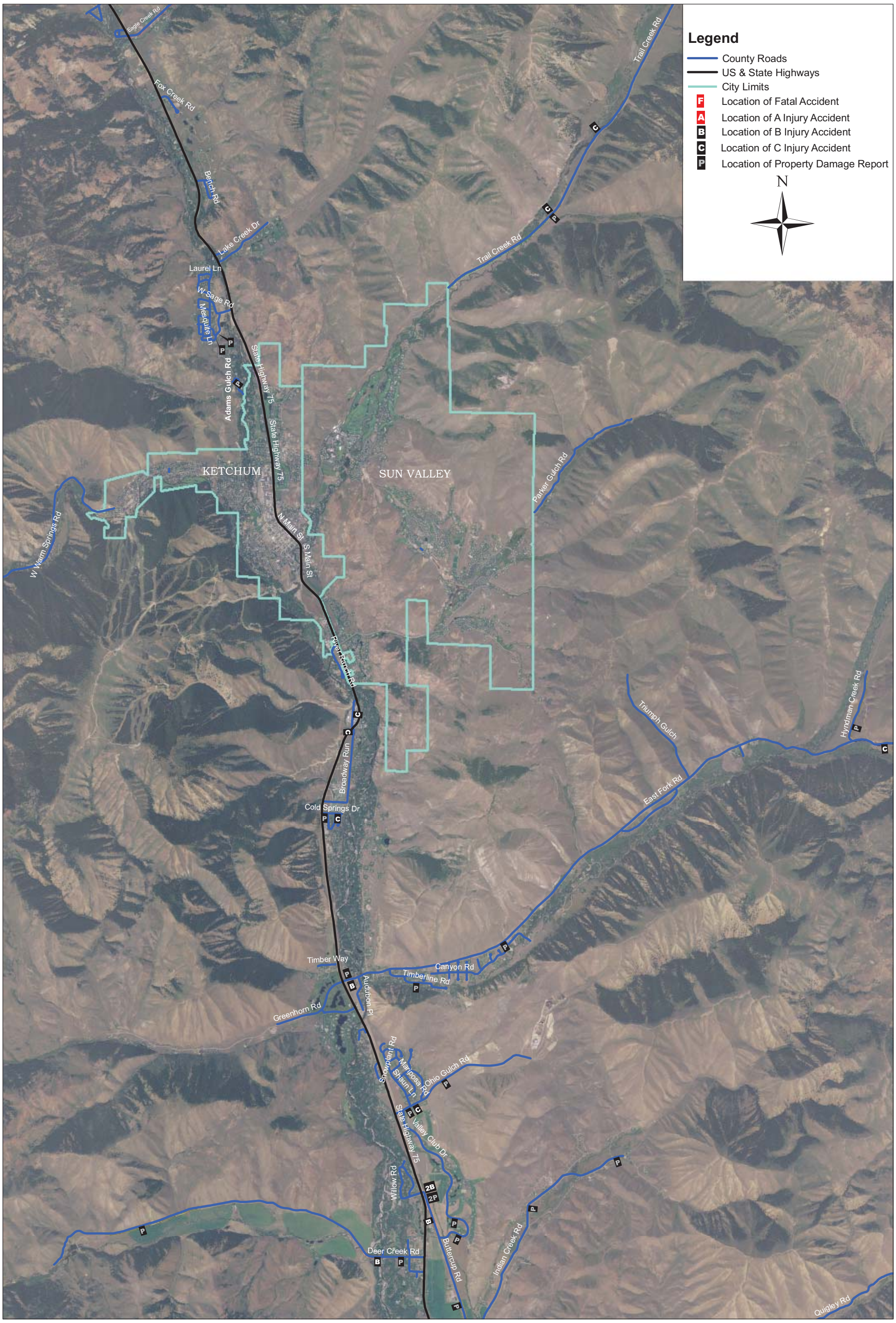
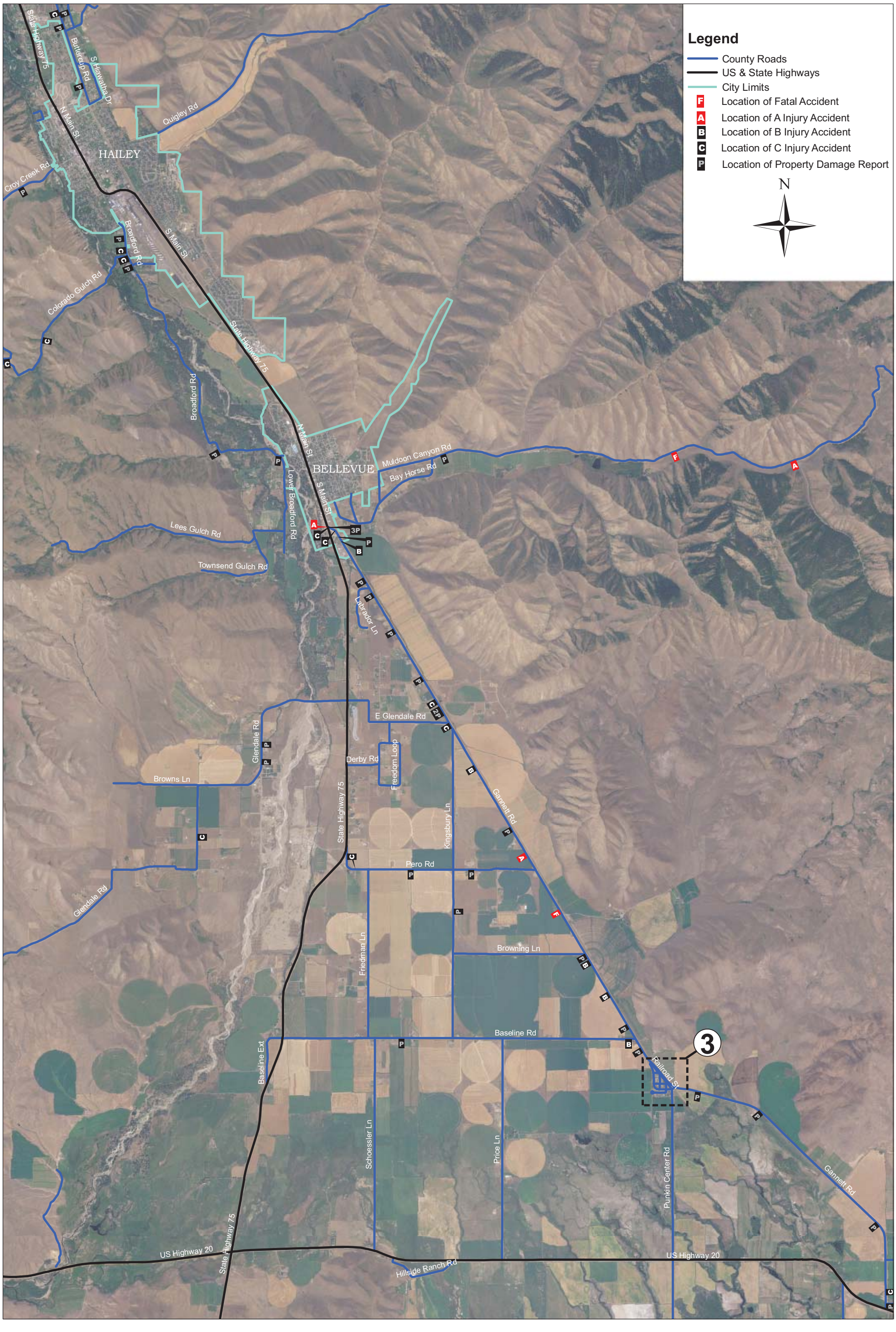


FIGURE 4C
CRASH LOCATIONS AND SEVERITY
WOOD RIVER VALLEY SOUTH



Such data are interesting to note, as they indicate that the majority of crashes occurring on Blaine County roadways are not site-specific, or roadway safety design specific, or even multiple vehicle crashes at intersections. Instead, the most common crash is simply a single vehicle leaving a roadway and either colliding with a roadside object or overturning in the roadside ditch.

Figure 5 summarizes the Blaine County roadway crash experience during this period, breaking down county accidents by severity, accident type and contributing conditions.

Figure 5
Blaine County Transportation Plan
Accident Summary 2006 through 2010

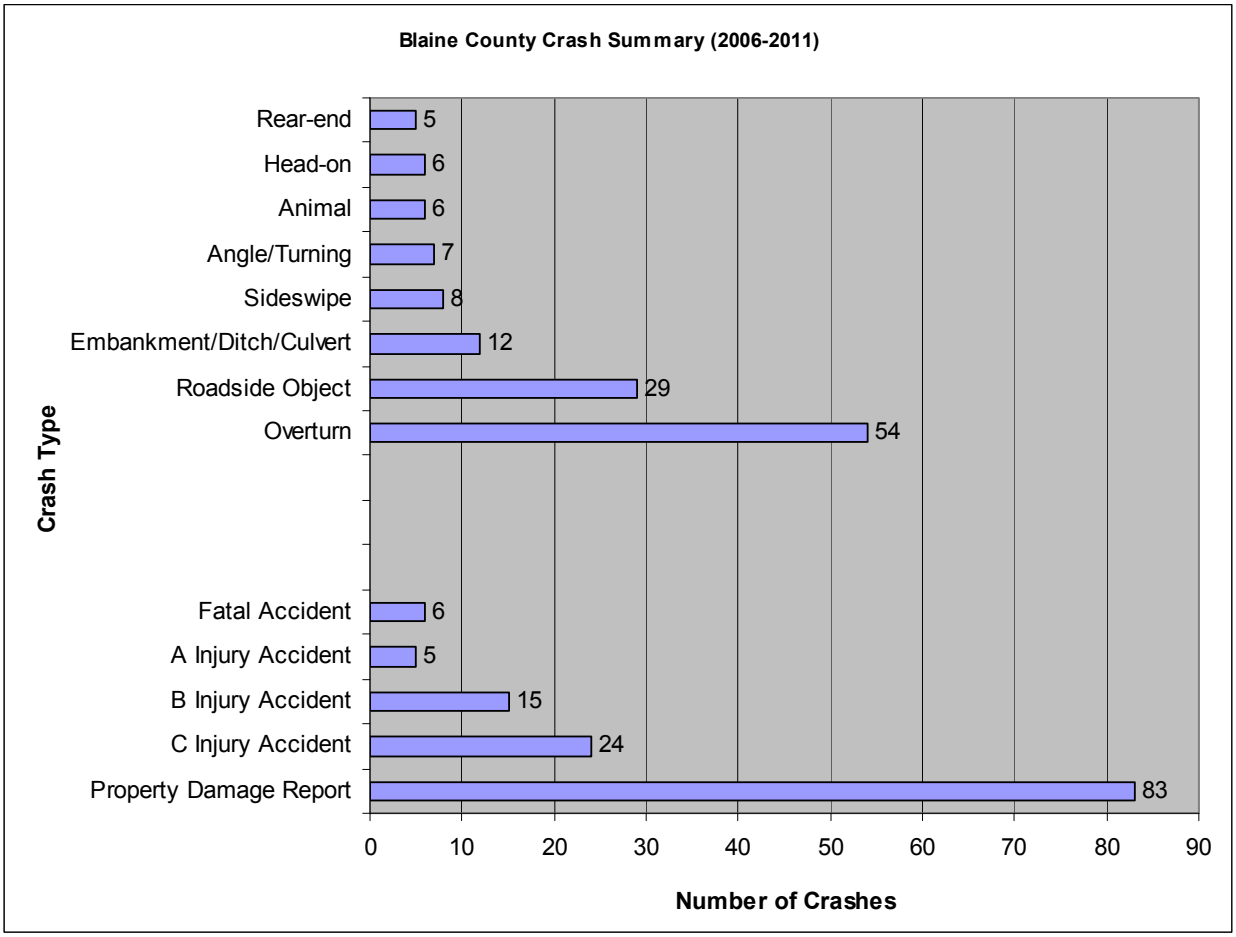


Table 5 lists the six roadways with the highest crash incidence. These six roadways accounted for half (67 of 133) of all the crashes in the analysis period. Aside from the number of incidents, no pattern of accident type was observed that would suggest specific improvements at any of these locations.

Table 5
Blaine County Transportation Plan
Six Roadways with Highest Crash Incidence Accounting for Half of Total Crashes, 2006-2010

Roadway	Nos. of Accidents	% of Total Crashes
Gannett-Picabo Road	30	22.6%
Buttercup Road	10	7.5%
Croy Creek Road	9	6.8%
Warm Springs Road	7	5.3%
Broadford Road	6	4.5%
Muldoon Canyon Road	5	3.7%

Table 6 identifies the primary circumstances contributing to the crashes studied.

Table 6
Blaine County Transportation Plan
Primary Circumstance Contributing to Crashes in Blaine County, 2006-2010

Primary Contributing Circumstance	Vehicle 1	Vehicle 2	Vehicle 3
None	165	64	1
Speed Too Fast For Conditions	39	0	0
Inattention	29	7	0
Other	18	2	0
Overcorrected	17	0	0
Drove Left of Center	15	1	0
Alcohol Impaired	17	0	0
Distracted IN or ON Vehicle	7	1	0
Exceeded Posted Speed	6	0	0
Improper Turn	4	1	0
Asleep, Drowsy, Fatigued	4	0	0
Vision Obstruction	3	2	0
Failed to Yield	4	3	0
Improper Overtaking	1	1	0
Failed to Obey Stop Sign	1	0	0
Tire Defect	1	0	0
Sick	1	0	0
Other Vehicle Defect	1	0	0
Improper Backing	0	1	0
Drug Impaired	1	0	0

OTHER MOBILITY SERVICES

Blaine County benefits from a multitude of mobility options ranging from public transportation systems to private, state and federally funded programs serving various groups with specific needs. I-Way is a statewide program supported by the Idaho Transportation Department's commitment to local and statewide mobility programs. Each ITD District has an "Idaho Local Mobility Management Network Mobility Plan".

The Mobility Plan for Network 4A which includes Blaine County was updated in 2011. The following information was obtained from that document.

- Blaine County is home to Mountain Rides, an organization that provides fixed route services between Ketchum, Hailey, and Bellevue; community routes in Ketchum/Sun Valley and Hailey; ADA Para transit service within Ketchum/Sun Valley, and a vanpool organization between Ketchum/Sun Valley/Hailey and Twin Falls/Shoshone.
- There are eleven Human Service Agency Transportation Providers available within Blaine County.
- Two Rideshare Programs are available to Blaine County residents.
- Services from nine other private providers ranging from taxis to inter-city coach service are available in Blaine County.

Excerpts from the Idaho Local Mobility Management Network 4A Mobility Plan, 2011 Revision, I-Way are included as Appendix A. Highlights of the excerpts include Goals and Strategies to enhance mobility within the multi-county area, and an inventory of services currently available.

CHAPTER 3
CONDITION OF THE EXISTING ROADWAY SYSTEM

Under a separately funded grant for this transportation study, an inspection and inventory of the Blaine County roadway system was completed by iWorQ in October, 2010. This effort followed the format and requirements for the use with iWorQ Pavement Management software, an internet asset management application adopted by the Idaho Local Highway Technical Assistance Council (LHTAC) for use by local jurisdictions in Idaho. The program offers a simplified approach to condition evaluation and asset management forecasts associated with asphalt and gravel roadways.

PAVED ROADS INVENTORY

Bituminous surfaced roads under the jurisdiction of Blaine County were inventoried by iWorQ. No concrete roads are noted within the county. State highways are not included in this study. The inventory for paved roads included rating of the various surface conditions and defects as required by the iWorQ software to determine the remaining service life (RSL) of the roadway. The observed characteristics included occurrences of:

- Fatigue cracking
- Longitudinal cracking
- Transverse cracking
- Block cracking
- Edge cracking
- Patching and potholes
- Rutting
- Roughness
- Drainage defects

If any of the above defects were observed, they were assigned one of three levels of severity and one of three levels of extent – resulting in a rating of 1 to 9 (with 0 indicating no defects). Appendix B illustrates the criteria used in determining the condition rating of each type of defect.

PAVED ROADS –SUMMARY OF OBSERVED CONDITIONS

Blaine County has a total of approximately 130 miles of bituminous surfaced roads under its jurisdiction. Governing Distress (the dominant defect) for each roadway segment was evaluated from the conditions inventory. Based on the condition information obtained in the iWorQ inventory, the iWorQ software identifies two key elements for each roadway segment. These are the Remaining Service Life and a Suggested Treatment. A detailed review of each of these elements for Blaine County's paved roads is described in following sections.

Governing Distress

No distresses were observed in 14.2 miles of roadway (11%). The largest category of dominant defect noted is transverse cracking (63.9 miles, 49%), followed by edge cracking (39.0 miles, 30%). Other dominant distresses noted were patches and potholes (4.8 miles, 4%), fatigue (4.2

miles, 3%), and longitudinal cracking (2.2 miles, 2%). Although much of the roadway system was found to exhibit some defect, surfaces exhibiting some stress in the form of cracking is normal. However, the severity and extent of asphalt cracking are critical indicators of roadway defects, with severity providing more influence relative to the type of treatment needed. Examining the individual defect ratings finds most of the governing distress observations are between "low" and "medium" severity, with about half of those observations associated with a "low" extent and the other half split evenly between "medium" or "high" extent. Very few observations indicate 'high" severity or extent. The implications of these observations on the types of maintenance treatments needed for each asphalt segment observed are discussed in the next section on Remaining Service Life.

Remaining Service Life

A value for Remaining Service Life (RSL) for each segment was determined based on the type and severity of defects observed for each asphalt roadway segment. Remaining Service Life can range from a maximum of 20 years for new pavement and base, to 0 years for badly deteriorated roadways.

The distribution of RSL of the Blaine County asphalt roadways based on conditions observed in October, 2010 is shown in Figure 6. Approximately 11 percent of the roadways have an RSL of 16 years of more, 26 percent of the system has an RSL of 9 to 15 years, and 11 percent were rated with RSLs between 7 and 9 years. Asphalt pavements with RSLs in these categories typically respond well to routine and preventative maintenance treatments, and are not in need of immediate attention. Approximately 14 percent of the asphalt roadways were rated with RSLs from 5 to 6 years, and 1 percent were rated with RSLs from 0 to 4 years. These categories of RSLs represent asphalt pavements that either need immediate attention, or attention within the next couple years. Overall, the average RSL for the entire Blaine County asphalt roadways is 9.5 years. This overall RSL average, and the significant percentage of the asphalt roadway mileage with an RSL from 5 to 9 years indicates a growing need for capital expenditure to avoid more expensive treatments and reconstruction later. Figures 7A, 7B, and 7C illustrate RSL estimates for individual road segments.

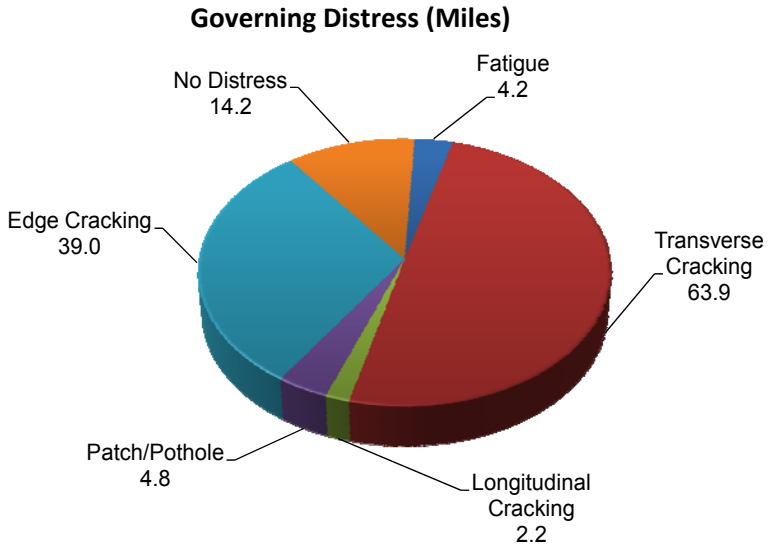
Suggested Treatments

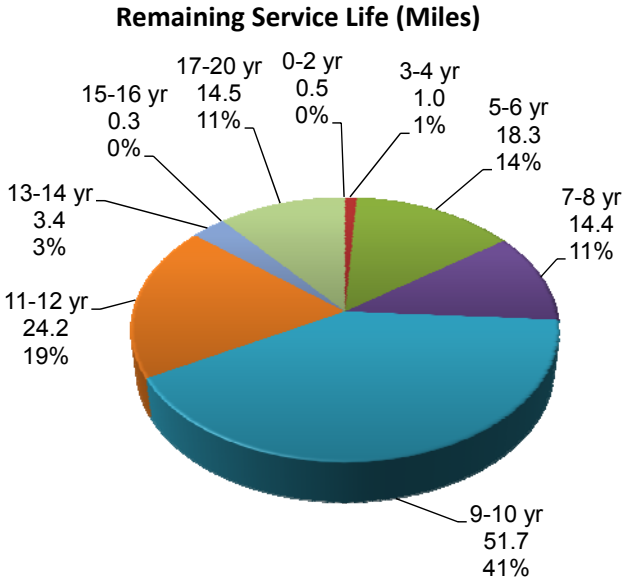
Based on the observed conditions of each roadway segment, treatment actions for each of the roadway segments are determined. Figure 6 also summarizes the observed conditions and the recommended treatment actions for paved roads in Blaine County. About 47 percent of the asphalt road segments are recommended for "No Maintenance"; these pavement segments are either in good condition, or their distress does not warrant immediate action. "Routine Maintenance" (cold patch, crack seal, dig out/hot patch, and chip seal) is recommended for 49 percent of the pavement segments; these pavement segments make up the majority of the portion of Blaine County's asphalt roadway that need immediate maintenance to avoid more costly repairs in the next three to four years. Various forms of overlays are recommended for 2.5 percent of the system, and 1 percent warrants full reconstruction; these pavement segments are considered at the end of their useful life and in need of immediate treatment.

Figure 6

Blaine County Transportation Plan

Summary of Paved Roadway Conditions - Blaine County





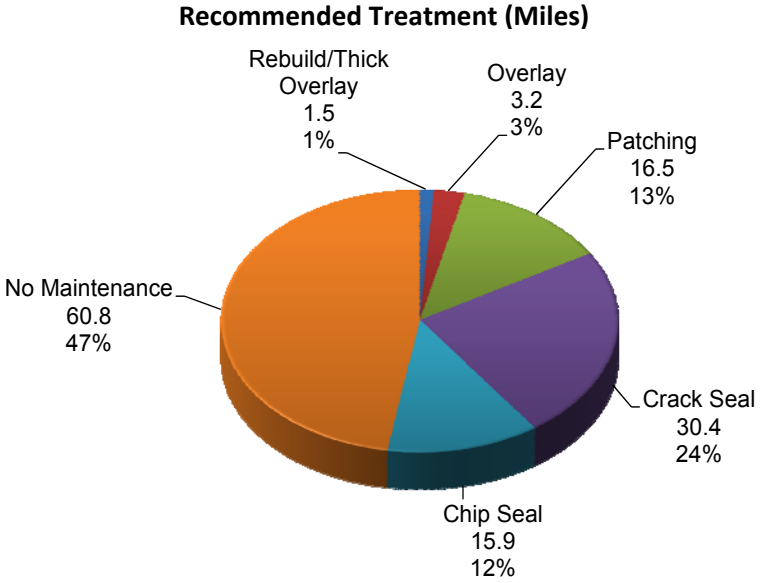


FIGURE 7A
REMAINING SERVICE LIFE BY SEGMENT
BLAINE COUNTY OVERVIEW

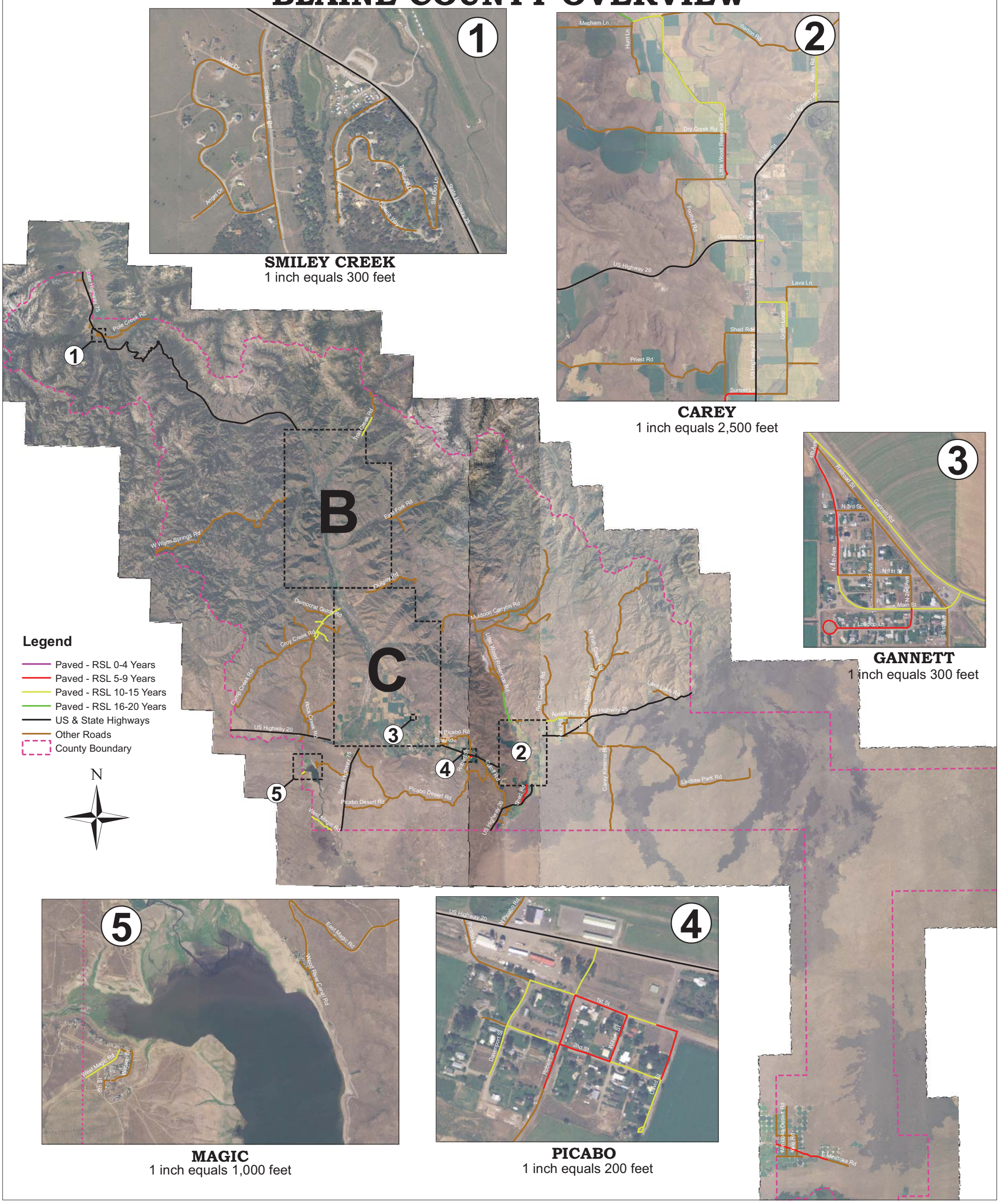


FIGURE 7B
REMAINING SERVICE LIFE BY SEGMENT
WOOD RIVER VALLEY NORTH

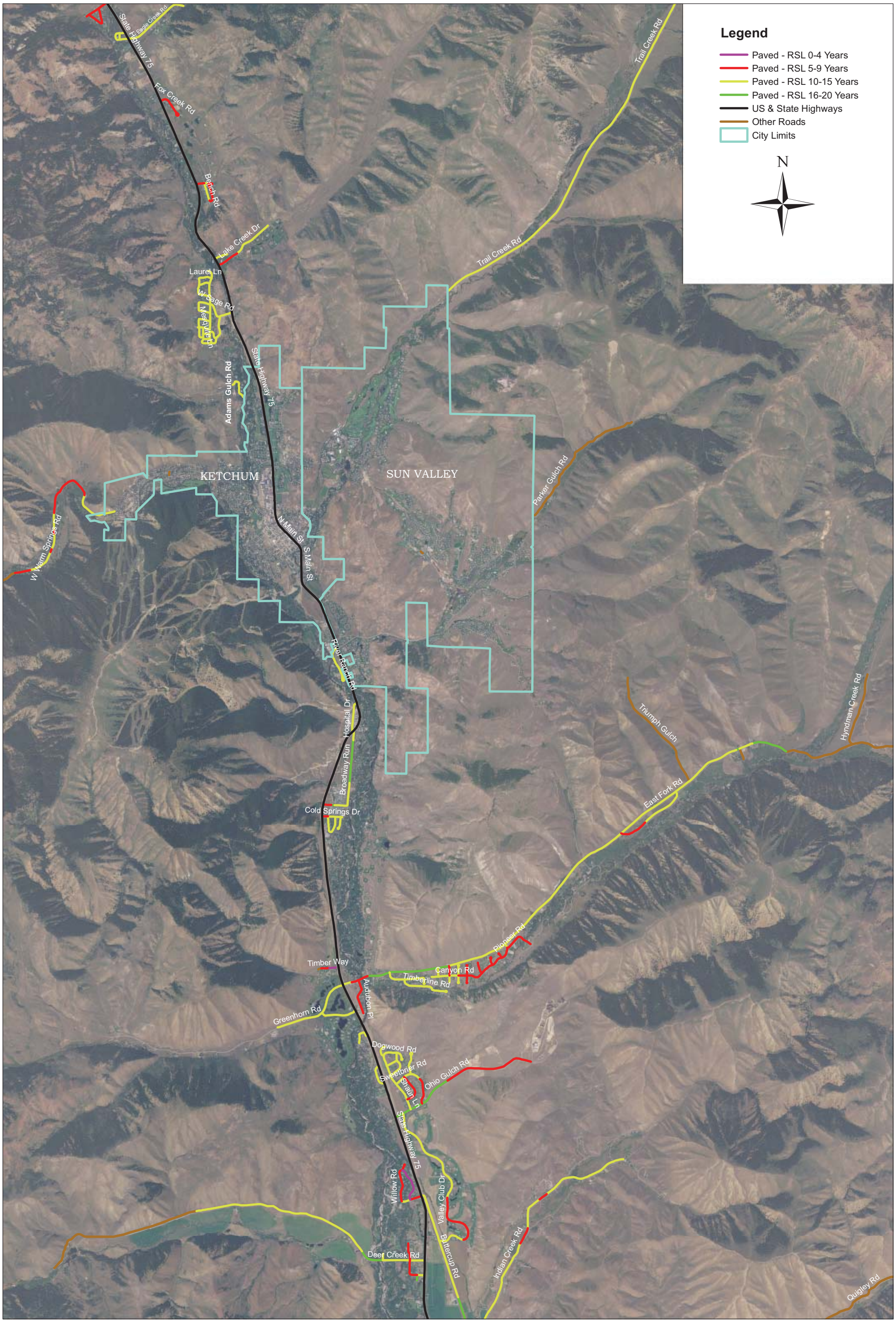
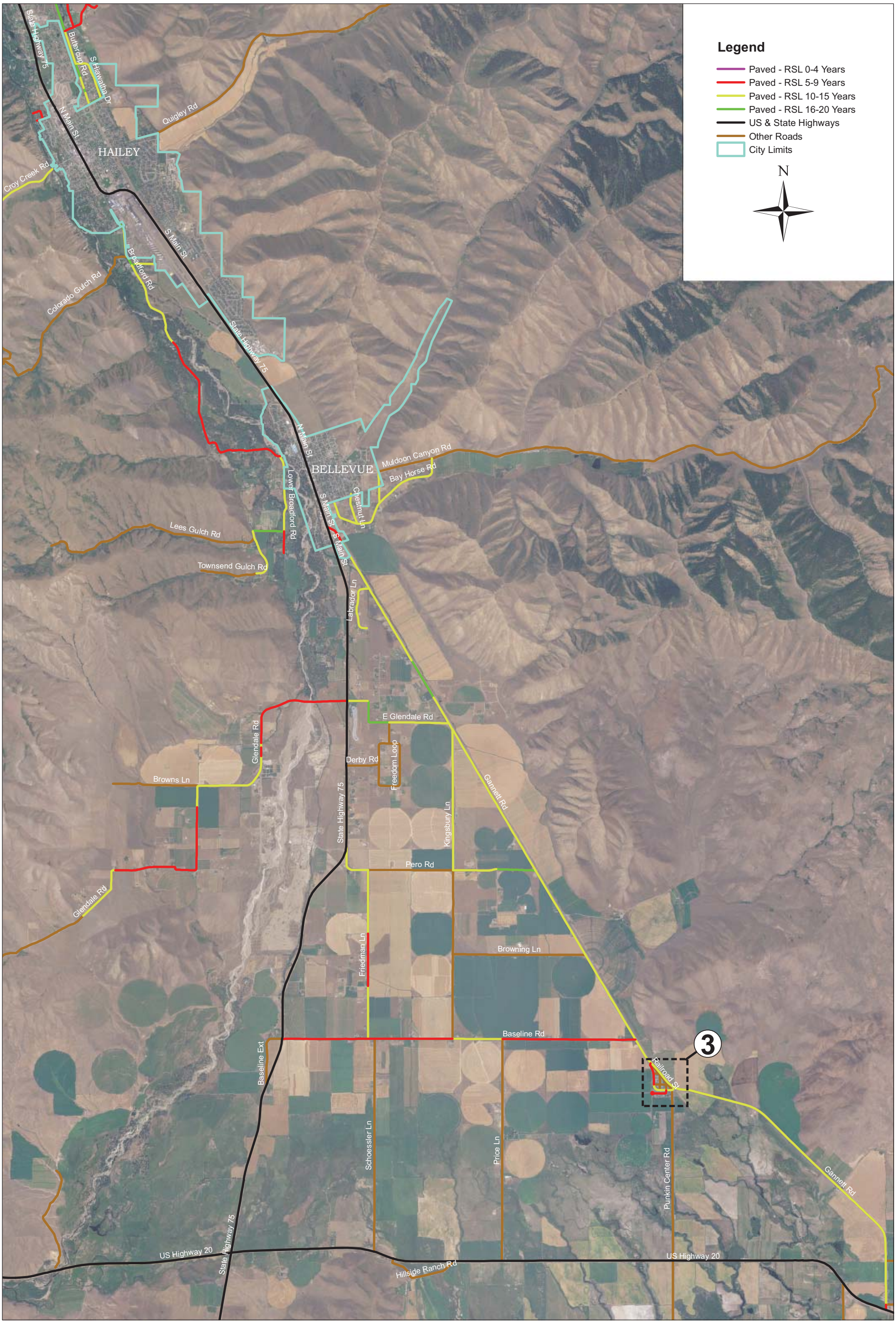


FIGURE 7C
REMAINING SERVICE LIFE BY SEGMENT
WOOD RIVER VALLEY SOUTH



These recommendations should be interpreted as prioritization type information, only valid for a short time after the roadway observations were made. Maintenance treatments may have been applied on some pavement segments since the observations were made.

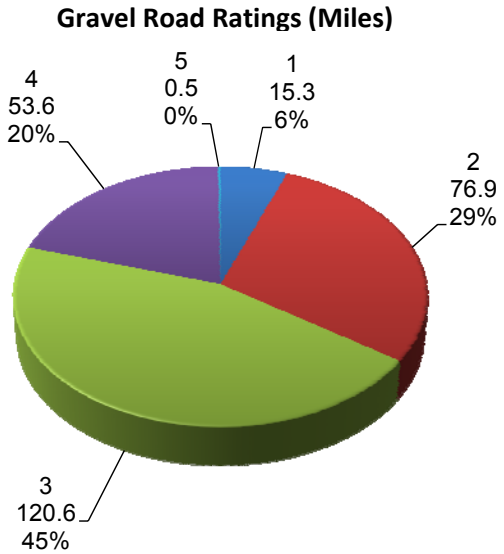
GRAVEL ROADS –SUMMARY OF OBSERVED CONDITIONS

All roads were visually inspected for condition in October of 2010 and the results of this inspection entered into the iWorQ files for gravel roads. In total, approximately 267 miles of gravel roads were inspected.

Each gravel road segment is assigned a rating based on the PASER gravel road rating system. This system evaluates five common characteristics of gravel roads and then assigns a single rating (1 through 5) to the gravel road segment. The characteristics evaluated include surface defects such as loose aggregate and dust; surface deformations such as washboarding, potholes, and rutting; and the condition of materials, drainage, and crown.

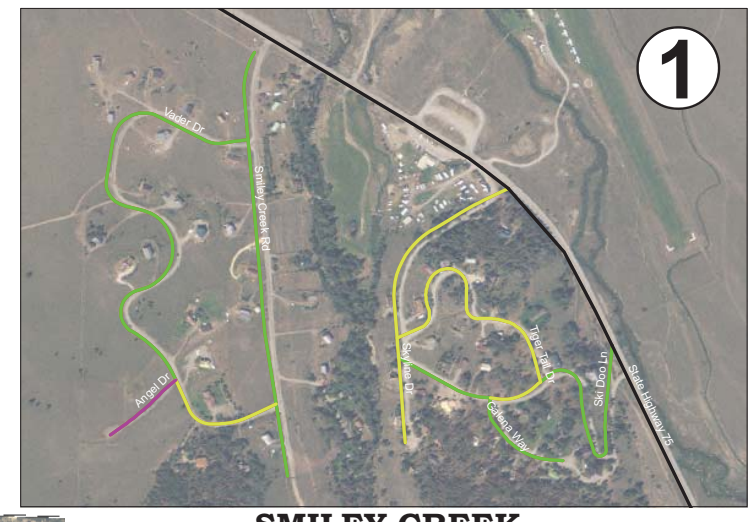
A rating of 5 indicates an "excellent" road segment, with little or no maintenance required. A rating of 4 indicates a "good" road segment, typically recently regarded, with only routine maintenance needed, such as dust control and regrading. A rating of 3 indicates a "fair" road segment where moderate distresses from traffic effects, such as isolated potholes, slight rutting, or aggregate loss, are observed and spot repair work is likely needed. A rating of 2 indicates a "poor" segment, where traffic is slowed due to road conditions and repairs such as improving crown, clearing road ditches and drainage structures, and replacing aggregate are needed. A rating of 1 indicates a failed road segment which requires a complete rebuild. These results are summarized in Figure 8. Figures 9A, 9B, and 9C illustrate gravel road ratings for individual road segments.

Figure 8
Blaine County Transportation Plan
Gravel Road Deficiencies

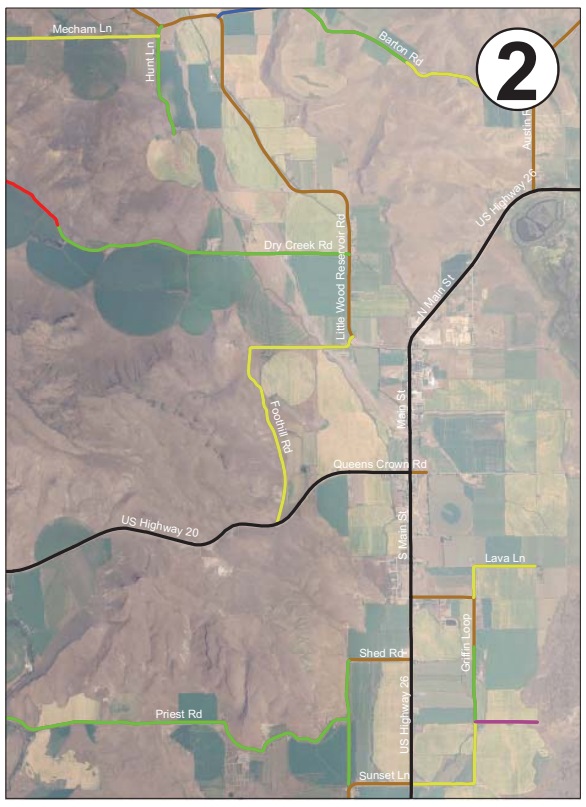


Gravel road conditions are constantly changing from traffic effects, environmental effects, and maintenance activities. However, reviewing the complete gravel road system at any given time can provide a good indicator of the effort needed to maintain this system. Based on the "snapshot" assessment of the gravel roads completed in October of 2010, 22 percent of Blaine County's gravel roads are in good condition; 45 percent of the gravel roads are in need moderate improvements; and, 37 percent of the gravel roads in Blaine County are in need of major improvements.

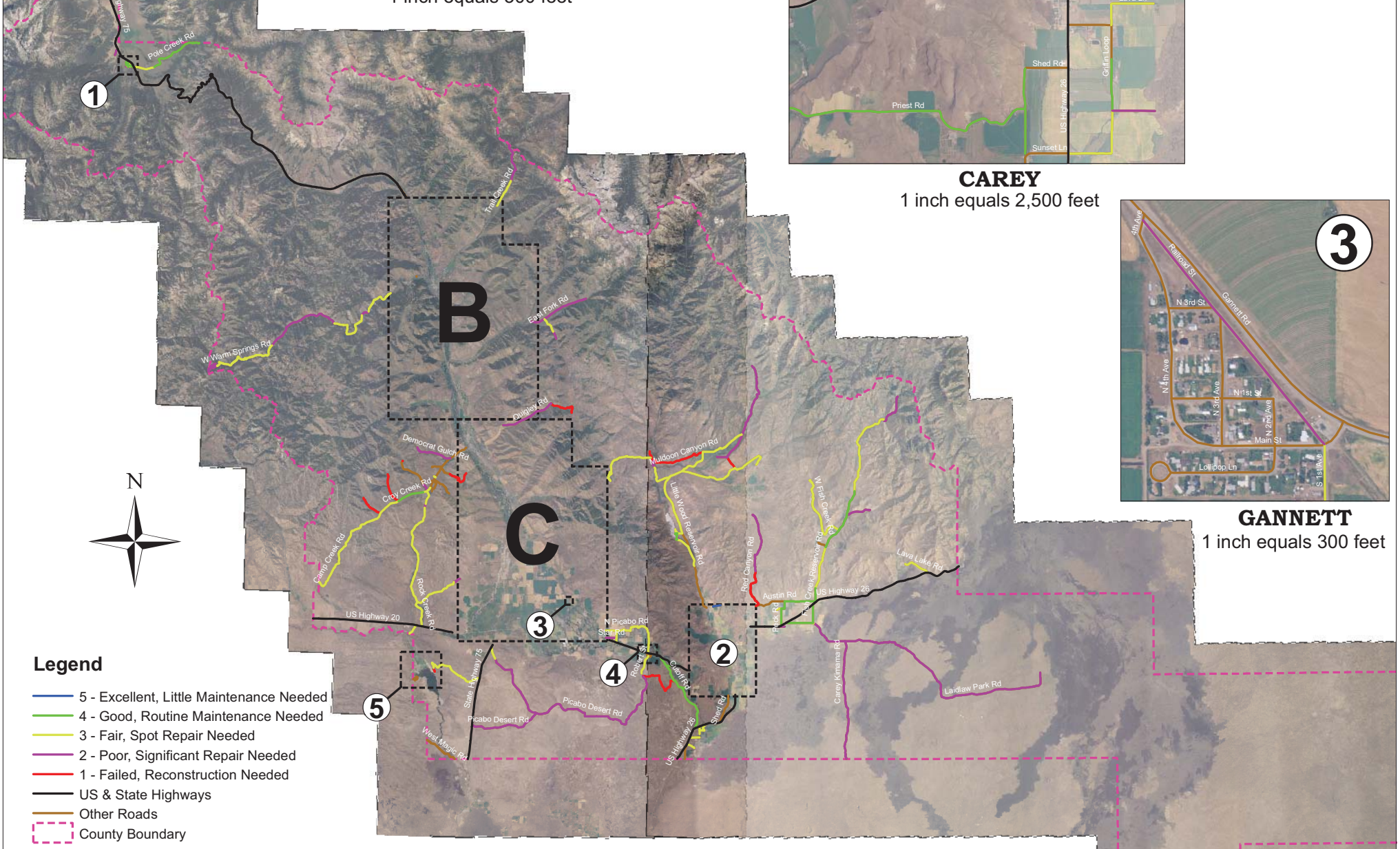
FIGURE 9A
GRAVEL ROAD SEGMENT RATINGS
BLAINE COUNTY OVERVIEW



SMILEY CREEK
1 inch equals 300 feet



CAREY
1 inch equals 2,500 feet



GANNETT
1 inch equals 300 feet

MAGIC
1 inch equals 1,000 feet

PICABO
1 inch equals 200 feet

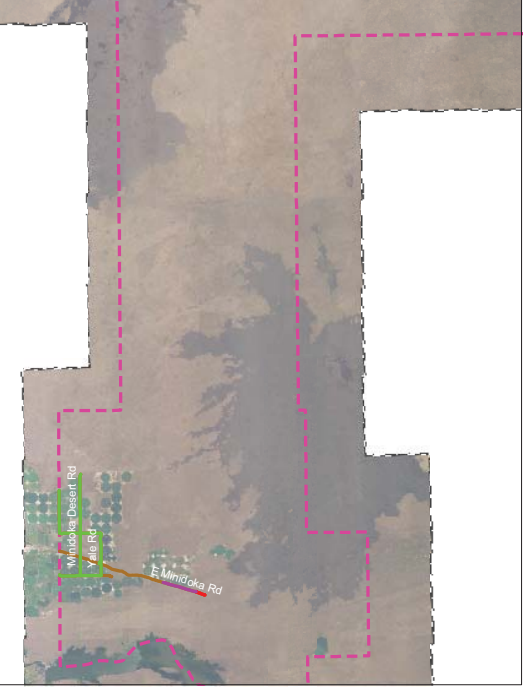


FIGURE 9B
GRAVEL ROAD SEGMENT RATINGS
WOOD RIVER VALLEY NORTH

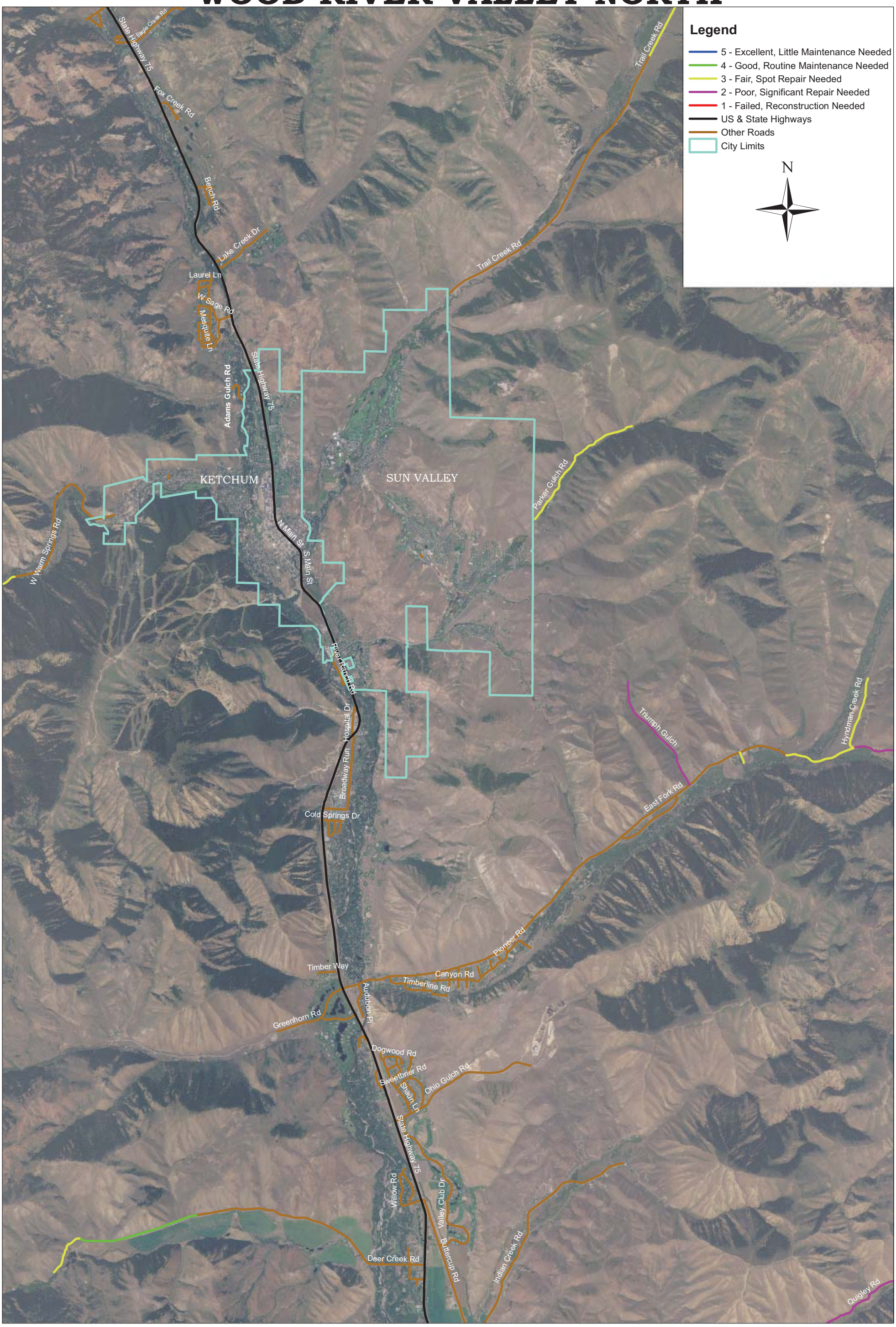
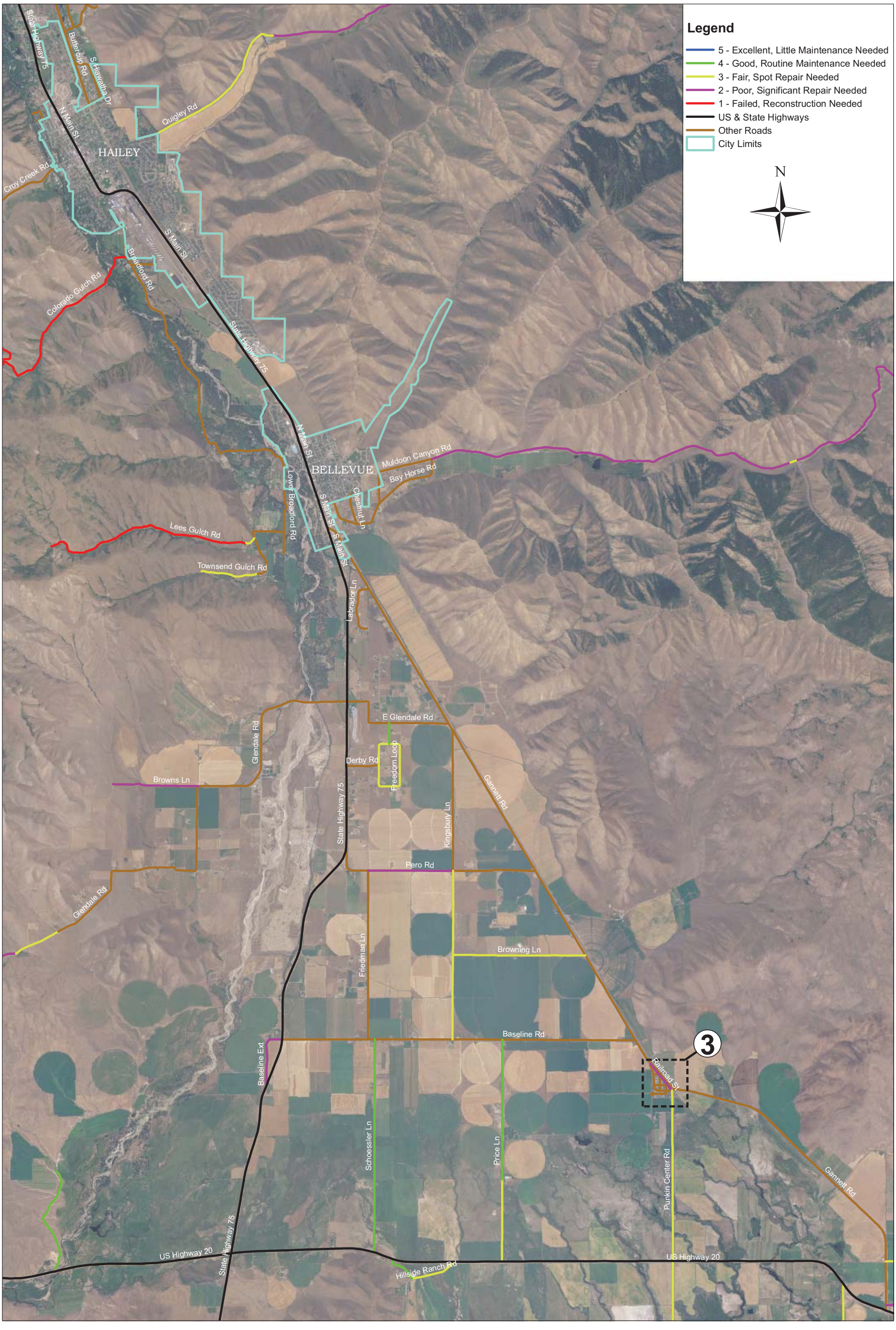


FIGURE 9C
GRAVEL ROAD SEGMENT RATINGS
WOOD RIVER VALLEY SOUTH



CHAPTER 4
EVALUATION OF NEEDS

There are four elements that will contribute to the future needs of the roadway system in Blaine County:

- Preservation of the existing system including maintenance efforts ranging from routine to complete rebuilding
- Improvements to the roadway system based on currently identifiable need
- Improvements to the roadway system based on expected future need
- Improvements that encourage and enhance use by alternate modes

PRESERVATION OF THE EXISTING SYSTEM

This category of need represents the largest ongoing effort. Maintaining the existing system is important and perhaps the primary function of the Blaine County Road & Bridge Department. It has long been recognized that, over time, a defined maintenance program is far more cost-effective than a routine of "emergency maintenance" and ultimate reconstruction of a roadway. A desirable roadway preservation program balances maintenance, rehabilitation and replacement efforts over many years to minimize overall system costs. The pavement inventory data from October 2010 was evaluated to develop such an approach. These elements are discussed below for paved roadways, followed by recommendations for gravel roadways.

Paved Roads

Blaine County has the responsibility for maintaining approximately 130 miles of bituminous asphalt paved roads. The County currently spends about $ 600,000 annually for asphalt road maintenance. According to the roadway inventory, this has so far produced a system average Remaining Service Life (RSL) of 9.52 years. An evaluation was completed to determine what level of maintenance funding is needed to sustain and improve the paved roadway system. This is described below.

Analysis Methodology

The following are key elements of the analysis methodology used to evaluate the county paved roadway system:

- The percent of the paved roadway system having RSLs ranging from 0 to 19 years was obtained from the roadway inventory data. Initial inspection data was "aged" by one year and updated to reflect improvements made during 2011, thus bringing the base year to 2012.
- If no improvements are made to roadway segments, the analysis will age the roadway segment yearly until the entire system has 0 remaining service life.

- Improvements that have the effect of increasing remaining service life are entered into the analysis. The costs of these improvements are estimated so that budget consequences are recognized.
- The effectiveness of inexpensive maintenance treatments diminishes as the RSL of the roadway decreases. Early, less expensive preservation work reduces the later need for expensive rehabilitation and replacement.
- A caution to understanding this analysis. It is based on percentages of the system in various RSL groups, not discrete segments. Thus, the results are valid as an overall strategy of resource allocation over future years. Strategies derived from this analysis must then be used as a guide for describing physical improvement projects to specific roads within annual budget constraints.

Table 7 shows the changes in RSL resulting from various types of improvements when applied to roadways with differing existing remaining service life. For example, crack sealing will add three years RSL to roadway segments with a current remaining service life of 16 to 18 years, but will not increase RSL for roadways with less than 10 years of RSL. The maximum service life obtainable is 20 years, assuming full reconstruction.

Table 7

Blaine County Transportation Plan

Effect of Various Improvement Types on Remaining Service Life

		Years Service Life Added for a Given Remaining Service Life							
		Remaining Service Life							
Treatment_Type	Cost / Sq. Yd.	None	1 to 3 Yrs	4 to 6 Yrs	7 to 9 Yrs	10 to 12 Yrs	13 to 15 Yrs	16 to 18 Yrs	19 to 20 Yrs
Routine Maintenance									
Crack Seal	$0.25	0	0	0	0	1	2	3	2
Cold Patch	$0.30	0	0	0	0	0	0	0	0
Digout and Hot Patch	$0.30	0	0	0	0	0	0	0	0
High Perf. Cold Patch	$0.60	0	0	0	0	0	0	0	0
Fog Coat	$0.30	0	0	0	1	1	2	2	2
Preventative Maintenance									
Sand Seal	$0.54	0	0	0	1	2	2	2	2
Scrub Seal	$0.90	0	1	3	5	5	5	5	5
Single Chip Seal	$0.90	0	1	3	5	5	5	5	5
Slurry Seal	$0.90	0	1	3	5	5	5	5	5
Microsurfacing	$1.44	0	2	3	5	7	7	7	7
Rehabilitation									
Plant Mix Seal	$1.91	0	3	4	5	7	7	7	7
Thin Hot Mix Overlay (<2 in)	$3.60	0	4	6	7	7	7	7	7
HMA (leveling) & Overlay (<2 in.)	$4.00	0	4	6	8	8	8	8	8
Hot Surface Recycling	$4.95	0	3	5	7	8	8	8	8
Rotomill & Overlay (<2 in)	$3.80	0	4	7	8	8	8	8	8
Reconstruction		For the Following Treatments - Remaining Service Life Fixed at Years Shown Below							
Thick Overlay (3 in.)	$3.75	12	12	12	12	12	12	12	12
Rotomill & Thick Overlay (3 in.)	$5.55	12	12	12	12	12	12	12	12
Base Repair\Pavement Replacement	$7.50	16	16	16	16	16	16	16	16
Cold Recycling & Overlay (3 in.)	$6.20	14	14	14	14	14	14	14	14
Base/Pavement Replacement	$10.00	20	20	20	20	20	20	20	20

Maintenance Plan Goals

The evaluation methodology was employed to develop roadway improvement strategies satisfying the following overall goals:

- Improve and maintain the roadway system to achieve a minimum system-wide average RSL of over 10 years.
- Keep the percentage of the system with 0 - 3 years RSL under 3 percent.
- Achieve a relatively stable equilibrium between the level and mix of roadway treatments, RSL, and annual cost.
- Identify the minimum uniform amount of annual funding that will achieve the above goals over a period of 10 years.

In practice, the range of solutions is large in terms of percent of the system to be treated with any one of twenty different improvements (see Table 7). Trial and error is necessary to focus on rational improvement strategies. This task was made manageable by limiting the types of improvements to be applied to those most commonly employed in Blaine County. The improvements evaluated in this study were limited to the following:

- Crack Sealing – very cost-effective in maintaining higher levels of RSL and strongly recommended.
- Cold Patching – included as a necessary element for budgeting purposes (usually 10 percent of the roadway system) although no additional service life is obtained.
- Chip Seal – the most common method of roadway improvement used in Blaine County.
- 3-Inch Overlay – less than desirable, but least expensive means of "reconstructing" roadways with three years or less RSL.
- Base Repair \ Pavement Replacement – used for reconstruction with 25 percent less cost than full base/pavement replacement.

Analysis Results

Trial and error iterations were made to determine the components and costs of a 10-year maintenance strategy that would achieve the previously stated goals. Figure 10 shows the percentage of the system to be improved in any one year, the types of improvements used, and the resulting change in RSL for the system.

Based on the beginning system average RSL 9.52 years, the minimum annual amount spent on maintenance was found through trial and error to be $1.4 million dollars per year. Amounts less than that were not able to achieve an upward trajectory for the system average RSL.

Figure 10

Blaine County Transportation Study

Paved Roadway System Improvements, Remaining Service Life, and Cost

Minimum Uniform Funding to Maintain Roadway System

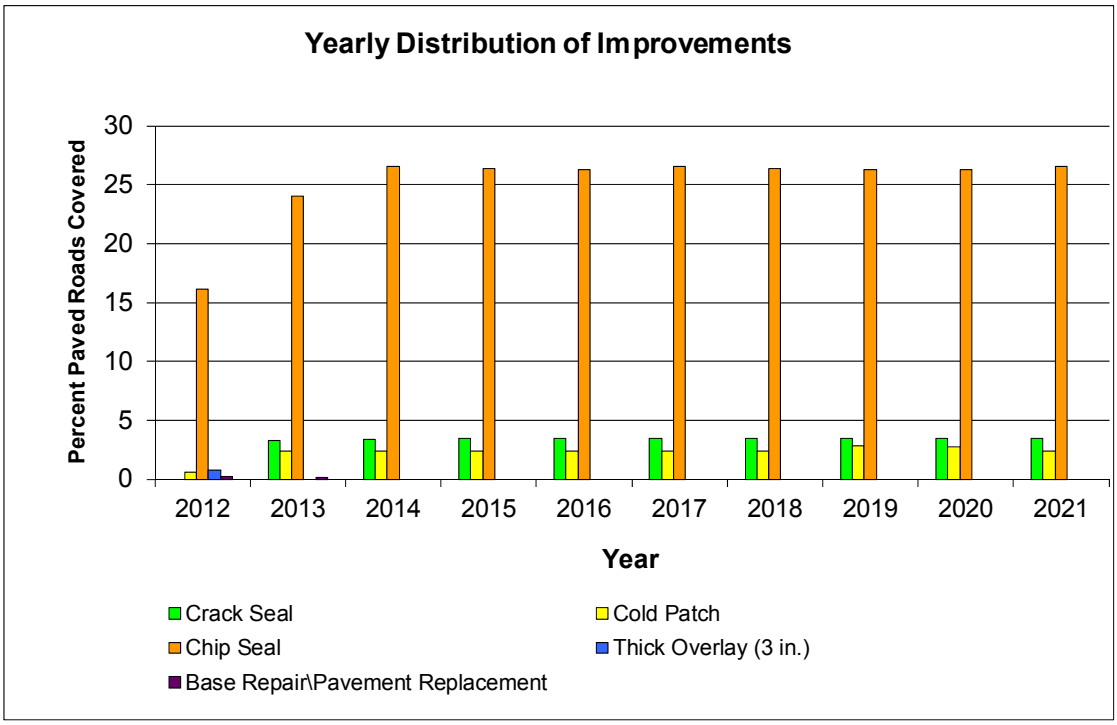


Chart Data	Year									
	Percent of Paved Roads Covered									
Maintenance Action	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021
Crack Seal		3.3	3.4	3.5	3.5	3.5	3.5	3.5	3.5	3.5
Cold Patch	0.6	2.4	2.4	2.4	2.4	2.4	2.4	2.8	2.7	2.4
Chip Seal	16.1	24	26.5	26.4	26.3	26.5	26.4	26.3	26.3	26.5
Thick Overlay (3 in.)	0.8									
Base Repair\Pavement Replacement	0.2	0.1								

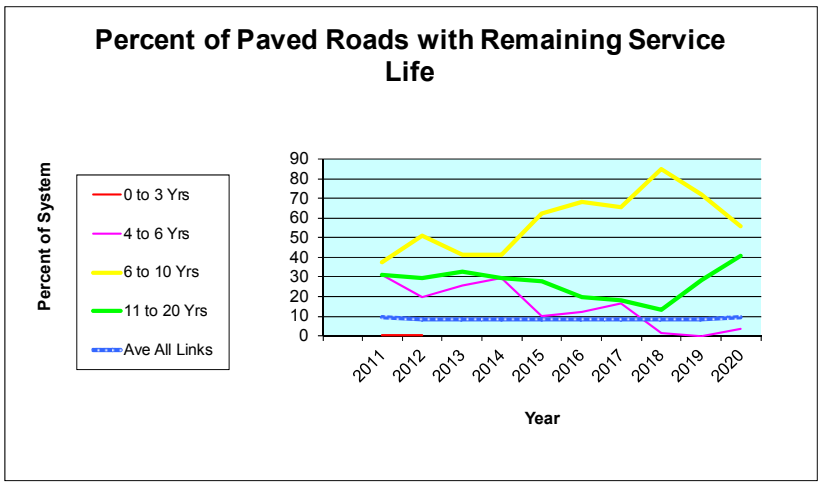


Chart Data		Average
Year	Cost $1,000's	Remaining Life
2011		9.52
2012	$1,398	9.10
2013	$1,402	8.96
2014	$1,403	8.81
2015	$1,396	8.64
2016	$1,396	8.79
2017	$1,403	8.93
2018	$1,400	8.93
2019	$1,399	9.25
2020	$1,397	9.59
2021	$1,403	9.88
	$13,997 ($1,000's)	

The cost estimate includes approximately $50,000 per year for crack sealing and pothole repair on 3.5 and 2.4 percent of the system, respectively. These efforts are not specific to any group of segments, and have little effect on RSL.

- After the rehabilitation and reconstruction work in the first two years, the analysis calls for a near uniform amount of chip sealing of 26 percent of the system per year.
- Under the assumption of a minimum uniform expenditure, it will take until year 5 before the system average RSL begins to increase (after reaching a low of 8.64 in year 4).
- By years 7 and 8, roadway segment RSLs can be improved to the point where the efficiencies of timely maintenance begin to accelerate the rate of increase of the system average RSL. As an example, the expected increase in service life resulting from a chip seal is three years when applied to roadways with RSLs less than seven years. A chip seal is considered to add five years of RSL when applied to roadways with RSLs of seven years or more – a 66 percent increase in effectiveness. (See Table 7.)

As stated earlier, the analysis shown is based on a minimum uniform series of expenditures (without considering inflation). If more effort is made earlier, the total ten-year cost will go down. Spending less during the earlier years will result in a higher total cost. The starting condition for the Blaine County roadways has some very positive aspects:

- Over two-thirds of the system entered the analysis with nine years of remaining service life or more.
- Only 0.3 percent of the system was rated at three years or under.

On the other hand, 31 percent of the system with a beginning RSL of five years would need relatively quick attention to avoid falling to a level at which expensive reconstruction would be necessary. The approach illustrated was to fix the worst segments as soon as possible and let the RSL of the best fall – but not out of the range of routine maintenance (chip sealing). The approach used resulted in a clustering of conditions, first between 5 and 11 years of RSL and then moving upward to a range of 7 to 12 years.

Other paths could be taken. However, experience has shown that for a given amount of roadway in a given starting condition, there is an equilibrium amount of effort/cost below which improvement in overall system condition cannot be achieved. That point, given the conditions in Blaine County, is $1.4 million per year.

Recommendations – Paved Roads

It is clear from the preceding evaluation that the Blaine County maintenance efforts for paved roads are underfunded. Until a solution is found, the condition of the system will continue to deteriorate. This may not be noticed on roads given high maintenance priority. However, as funding shortfalls persist, an increasing number of roadways will deteriorate.

Additional perspective can be gained by comparing the level of chip seal maintenance planned by Blaine County for the years 2012 through 2018 with the levels included in the minimum annual funding evaluation cited above. Over the seven years called for in the County's plan, a total of 86 miles of roads will be chip sealed. This represents 64 percent of the 134-mile system. In the minimum annual funding analysis, a total of 172 percent of the system would be chip sealed in the first seven years. This difference is due to the fact that under the annual funding analysis plan, no paved roads are allowed to drop below four years of RSL (where they would not be responsive to chip seals). In addition, some roads that were treated at four and five years of RSL and gained only three years of RSL needed to be retreated during the seven-year time frame to keep the overall system improving.

In the meantime, it is suggested that Blaine County guide their paved road maintenance program toward maximum effectiveness by making use of the information in the pavement inventory. As an example, the current chip sealing program for the years 2012 through 2018 was evaluated for effectiveness using the RSL ratings from the inventory. The parameters for the evaluation were as follows:

- The County was already committed to the projects in the first two program years (2012 and 2013), which could not be changed.
- Each year chip sealing was not performed reduced the RSL rating by one year.
- The goal was to minimize the number of miles of roadway falling to and below an RSL of four years. Chip sealing provides little benefit to roads with RSLs equal to or less than four years.
- The adjusted plan would attempt to match the planned miles to be chip sealed in any one year as closely as possible. Thus the amount and timing of effort would be about the same. The only thing changed was the order in which roads were selected for improvement.

Table 8 shows the results of this evaluation. The roadways included in the analysis are listed in order established in the current plan. For each roadway in the analysis, Table 8 shows the proposed year of improvement and the RSL that will be reached at the year of improvement. Also shown are the adjusted year of improvement and the corresponding RSL. Finally, the number of miles of roadways at or below an RSL of four years is totaled for the proposed County plan and for the adjusted plan.

The evaluation shows that under the proposed county plan a total of 24 miles of roadway would fall to an RSL of four or less. About 28 percent of the planned chip sealing would be applied to roadways which had aged to the point where chip sealing (theoretically at least) added little or no additional service life. By reordering the roadways to be chip sealed in a given year, this number could be reduced by almost 50 percent – to 13 miles of roadway.

Table 8

Blaine County Transportation Study

Chip Seal Plan Adjusted to Improve Efficiency

	County Chip Seal Plan				Adjusted	
Road	**Improvemt Year**	**Length (miles)**	**2011 Ave RSL**	**RSL At Imp Yr**	**Improvemt Year**	**RSL At Imp Yr**
GANNETT RD	2012	12.0	10.1	9.1	2012	9.1
WEST MAGIC RD	2012	3.0	8.8	7.8	2012	7.8
BROADFORD RD	2013	4.7	8.9	6.9	2013	6.9
EAST GLENDALE RD	2013	1.4	14.3	12.3	2013	12.3
GLENDALE RD	2013	5.2	7.4	5.4	2013	5.4
OHIO GULCH RD	2013	2.8	10.5	8.5	2013	8.5
AUSTIN RD	2014	1.5	9.6	6.6	2015	5.6
EAGLE CREEK LOOP	2014	1.5	9.0	6.0	2015	5.0
LITTLE WOOD RESERVOIR RD	2014	3.0	14.0	11.0	2018	7.0
MINIDOKA RD	2014	5.0	5.0	**2.0**	2014	**2.0**
AUDUBON PL	2015	0.4	5.0	**1.0**	2014	**2.0**
BASELINE RD	2015	4.2	6.2	**2.2**	2014	**3.2**
COTTONWOOD DR	2015	0.2	9.0	5.0	2015	5.0
EAST FORK RD	2015	9.3	11.2	7.2	2016	6.2
LOLLIPOP LN	2015	0.3	5.0	**1.0**	2014	**2.0**
BLACK BEAR RD	2016	0.2	7.0	**2.0**	2014	**4.0**
BROADWAY RUN	2016	1.3	13.9	8.9	2017	7.9
FOX CREEK RD	2016	0.4	5.0	**0.0**	2014	**2.0**
GREENHORN RD	2016	0.6	9.9	4.9	2015	5.9
LAKE CREEK DR	2016	1.2	8.3	**3.3**	2015	4.3
LOWER BROADFORD RD	2016	1.0	10.1	5.1	2015	6.1
POLARIS RD	2016	0.2	7.0	**2.0**	2014	**4.0**
WARM SPRINGS RD	2016	2.1	7.4	**2.4**	2014	4.4
BUTTERCUP RD	2017	3.0	13.4	7.4	2017	7.4
CROY CREEK RD	2017	4.0	9.3	**3.3**	2015	5.3
DEER CREEK RD	2017	5.5	11.6	5.6	2017	5.6
OLD STATE HIGHWAY	2017	2.5	3.0	**-3.0**	2014	**0.0**
PERO RD	2018	1.5	12.8	5.8	2017	6.8
TOWNSEND GULCH RD	2018	1.5	13.8	6.8	2017	7.8
TRAIL CREEK RD	2018	6.5	10.7	**3.7**	2016	5.7
	Total	**86.0 (a)**				
	Total Miles with RSL of 4 or Less		**27.0**		**13.2**	

Note: The actual miles of roadway in the Blaine County Chip Seal Plan is 93. This analysis was performed using only 86 miles of roadway segments that could efficiently be matched with the roadway inventory file data using road names only.

It should be noted that the above analysis is based on the evaluation of inventory data and the implied condition of roadways as remaining service life goes down. It is meant as a guideline, not a substitute for the judgment of the County Road & Bridge engineer. Differences between the inventory data and evaluation will tend to be reduced over time by inventory updates and calibrating the benefits resulting from any maintenance function to more closely match the county's experience. In addition, there are reasons other than purely physical roadway conditions that affect maintenance priorities. Nevertheless, the above analysis suggests that there are efficiencies to be gained by use of the inventory data. Looking at the larger picture, it could be concluded that Blaine County cannot afford to prioritize paved roadway maintenance on anything but roadway pavement conditions.

Crack sealing is another economical method of preserving roadway condition, provided the roadway is in good condition to begin with. Ideally, once a road has been chip sealed, or even resurfaced, crack sealing should begin the next year. Under increasing budgetary stress, these efficient preventative maintenance actions are often postponed until they can no longer be effective.

The above recommendations have provided suggestions as to how to increase the efficiency of the existing program. However, there is no way to avoid the conclusion that paved road maintenance is underfunded in Blaine County and that simple efficiency gains will help, but not eliminate, the need for additional resources.

Gravel Roads

Blaine County maintains about 280 miles of gravel roads. As noted in Chapter 3, the condition of gravel roads was rated using a more general scale. Because the surface condition of gravel roads can change rapidly, and all gravel roads must be graded and shaped at least once a year, the concept of Remaining Service Life is less valid. The rating system used emphasizes the presence of defects that require more than just grading to maintain serviceability.

Methodology

Over time, gravel roads lose material and shape, until there is nothing left to regrade. Poor drainage conditions can cause failures regardless of the amount of material present. Routine regrading does not address replenishment of material, or significant ditch and roadway reshaping. For the purposes of evaluating the level of maintenance needs for Blaine County gravel roads, each of the five rating levels were equated to the need for various types of maintenance activities and their estimated costs. This is shown in Table 9 .

The weighted costs per square yard of gravel road improvements were computed as the additional costs to bring the roads up to good condition. Thus, there was no cost assigned to category 5 (Excellent) roads and very minimal costs associated with category 4 (No General Defects) roads. Costs applied to category 3 and 2 roads (In Need of Improvement) were a weighted average of various remedial actions appropriate to the category descriptions. Finally, all category 1 roads were assumed to need total reconstruction.

Maintenance Plan Goals

For this general determination of need, it was assumed that all gravel roads under county jurisdiction would be improved to a condition of no defects. It was also assumed that the effort required to achieve this condition would be completed over a five-year period. Although, under perfect conditions, a gravel road may have a useful life of up to 10 years (with routine maintenance); five years is a more realistic time frame, after which significant defects and improvement costs will likely begin to reappear.

Table 9
Blaine County Transportation Study
Maintenance Actions Required / Average Cost by Gravel Road Rating Category

			Percent of Treatment for Gravel Road Condition Rating of				
Description of Maintenance Action	**Maintenance Action Level**	**Cost per sq. yd.**	**5**	**4**	**3**	**2**	**1**
Routine Regrading	Routine	$0.12		100			
Ditch/Side Slope Repair	Preventative	$0.50		20			
Spot Re-gravel & Compact	Rehabilitation	$1.75			40		
Cut Washboards/ Re-est. Crown & Compact	Rehabilitation	$0.50			40		
Back/Side Slope & Ditch Repair	Rehabilitation	$0.60			10	20	
Re-const. Crown, Regravel, Compact	Rehabilitation	$3.00			10	100	
Reconstruct Roadbed, Side Slopes, Ditches, Re-gravel & Compact	Reconstruction	$4.00					100
		Weighted Cost per sq. yd.	**$0.00**	**$0.22**	**$1.26**	**$3.12**	**$4.00**

Gravel Road Category Descriptions

5 Excellent condition - little effort required.
4 Good crown and drainage - routine maintenance sufficient.
3 Roadway shows traffic effects. Needs regrading, minor ditch maintenance, and spot gravel application.
2 Road needs additional layer of aggregate, major drainage improvements.
1 Travel is difficult, slow. Road needs complete rebuilding.

Analysis Results

Table 10 shows the total area of gravel roadways with condition ratings 1 through 5, and the estimated costs of restoration. The total improvement costs are estimated to be $5.2 million, not including routine maintenance costs. Assuming a five-year improvement plan, the annual cost would be about $1.0 million for roadway improvements plus about $0.4 million for routine maintenance, or a total cost of $1.4 million per year. The current annual expenditures on gravel road maintenance are estimated to be $363,000.

Table 10
Blaine County Transportation Study
Average Annual Improvement Cost Estimate

Blaine County Gravel Roads – Five Year Plan

Gravel Rating	Maintenance Cost / yd^2	Area yd^2	Amount
5	$ -	6,700	$ -
4	$ 0.10	668,700	67,000
3	$ 1.26	1,400,500	1,765,000
2	$ 3.12	828,800	2,586,000
1	$ 4.00	192,900	$ 772,000
	Total	3,097,600	$ 5,190,000
		Over 5 Years	1,038,000
Routine Annual Maintenance			
	$ 0.12	3,097,600	$ 372,000
	Average Annual Maintenance		**$ 1,410,000**

Recommendations – Gravel Roads

In the face of the declining condition of gravel roads in Blaine County, the County has embarked on a seven-year plan to upgrade roadways within the system by doing more than routine maintenance. This includes replenishing gravel materials, reshaping roadsides and ditches, replacing culverts, and compacting and restoring the crown to the driving surface. According to the plan, this effort will extend through 2018.

Table 11 summarizes the planned improvements to the gravel road system and the inventory condition rating of the gravel roads included in the County Improvement Plan. The program is structured to improve 35 miles of gravel roadways, or 13 percent of the 266-mile inventoried gravel road system. The most obvious conclusion is that the extent of planned improvements is often far short of the need - even if only looking at the full length and condition rating of the roadways included in Table 11. The listed roadways represent approximately 55 percent of the inventoried system. Of the 45 percent of gravel roadways not included on the list, about a quarter (12 percent) are in need of extensive rehabilitation. Put another way, a total of 35 percent of the inventoried gravel roads are in need of major rehabilitation (maintenance types 1,2,or 3), and only 13 percent of the system is included in the current improvement plan.

As with paved roads, there are legitimate reasons for differences between the inventory conditions rating and the judgment of the County Road & Bridge Engineer. This is especially true of gravel roads because conditions can change rapidly. The important conclusion is that 22 percent of the system in need of more than routine maintenance is not addressed by the plan. Further, a “perfect” gravel road (with optimum materials, drainage, and continued moisture content, and routine maintenance) is thought to have a service life of up to 10 years. Thus, within the seven-year plan, many of the roadways rehabilitated early in the cycle could well be

eligible for remedial work before the plan ends. Again the conclusion is that more resources are needed.

Table 11
Blaine County Transportation Study
Evaluation of Gravel Road Improvement Plan

County Improvement Program			Roadway Inventory Data			
Planned Improvements 2012-2018			**Road**	**Surface Condition Category (a)**		
Road Name	**Length (mi)**	**Type (b)**	**Length (mi)**	**Ave**	**Min**	**Max**
Camp Creek Rd	4.5	1	No Inventory Data			
Croy Creek Rd	0.5	1	7.3	3.1	3	4
Cutoff Rd	2.0	5	6.3	4.0	4	4
East Fork Rd	0.4	1	3.2	2.5	2	3
Fish Creek Rd	2.0	3	14.9	3.8	3	4
Laidlaw Park Rd	1.8	3	10.3	2.8	2	4
Lava Lake Rd	0.5	4	1.9	3.0	3	3
Little Wood Res Rd	1.5	2, 3	15.4	2.7	2	3
Minidoka Rd	1.3	3	2.1	1.5	1	2
Muldoon Canyon Rd	2.0	3	18.7	2.1	1	3
N Picabo Rd	1.3	3	5.0	3.0	3	3
Picabo Desert Rd	0.5	3	11.6	2.0	2	2
Pumpkin Center Rd	1.0	1	1.9	3.0	3	3
Pyra Lane	0.5	4	No Inventory Data			
Rock Creek Rd	4.5	1	10.7	2.8	2	3
Spud Nut Rd	1.5	3	No Inventory Data			
Spud Patch Rd	1.0	3	6.2	2.5	2	3
Stocker Creek Rd	0.5	3	No Inventory Data			
Trail Creek Rd	4.0	1	2.8	2.0	2	2
W. Glendale Rd	0.3	1	No Inventory Data			
Warm Springs Rd	3.5	1	19.9	2.7	2	3
Total	35.1		138.3			

(a) Gravel Road Category Descriptions
5 - Excellent condition - little effort required.
4 - Good crown and drainage - routine maintenance sufficient.
3 - Some deterioration. Needs regrading, minor ditch maintenance, spot gravel application.
2 - Road needs additional layer of aggregate, major drainage improvements.
1 - Travel is difficult, slow. Road needs complete rebuilding.

(b) Planned Roadway Improvements
1 - Culverts, Ditches, Base course, Wear course, Grade-Reshape
2 - Ditches, Base course, Wear course, Grade-Reshape, Sign
3 - Base course, Wear course, Grade-Reshape
4 - Ditches, Grade-Reshape, Sign
5 - Wear Course, Grade-Reshape

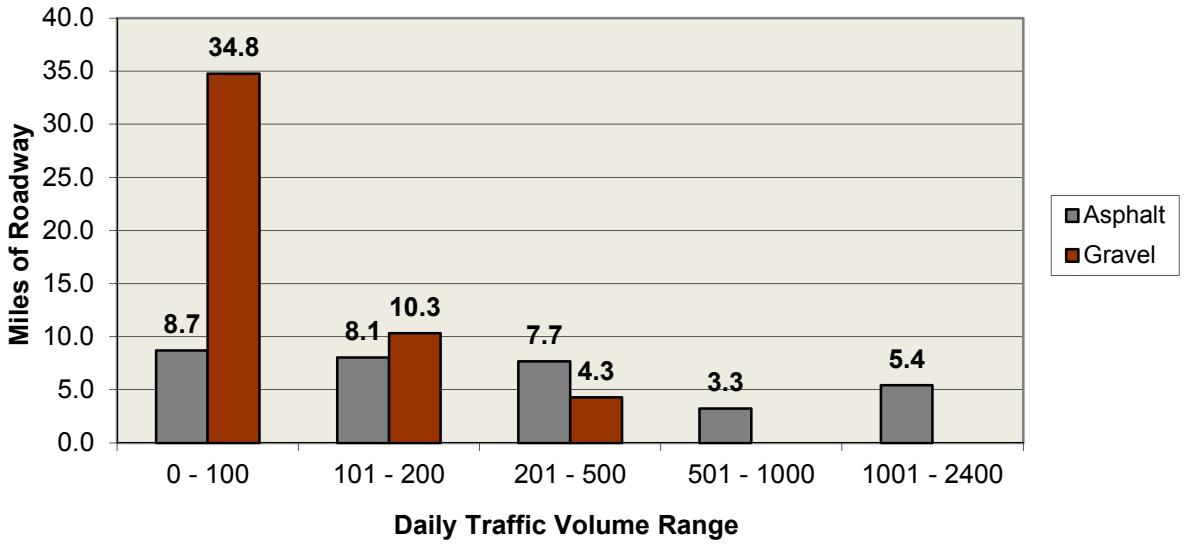
OTHER EXISTING IMPROVEMENT NEEDS

This category of improvements is intended to address non surface related improvement needs; generally falling into the categories of capacity and safety deficiencies.

Capacity Improvements

Figure 11 below shows the average daily traffic volumes by roadway surface type.

Figure 11
Blaine County Transportation Study
Average Daily Traffic by Roadway Type



There are two conclusions that can be drawn from Figure 11 regarding the need for other improvements based on traffic volumes.

- The maximum daily traffic volume that occurs on a paved county road is 2,400 vehicles per day (vpd). This occurs on Gannett Road. This is well below the 7500 vpd capacity of a two-lane paved road. It may thus be concluded that there is no current need to widen county roadways to increase capacity.
- The maximum daily traffic volume occurring on a gravel road, Triumph Gulch Road, is 240 vehicles per day. This volume is below the threshold for paving gravel roads, normally assumed to be between 300 and 400 vehicles per day. It may thus be concluded that there is no current need to pave county roadways due to traffic volumes.

Based on the above observations, there are no volume-related improvement necessary at this time. The potential effects of traffic growth are discussed in a following section.

Safety Improvements

As noted earlier, Gannett Road is the only roadway to experience a significant concentration of crashes. The first conclusion implicit in this is that, outside of Gannett Road, there are no other concentrations or patterns of crash experience on Blaine County roads that would suggest the need for specific physical improvements or other countermeasures. Hence, crash experience does not drive need for improvements.

On the other hand, 30 accidents (or 22 percent of all accidents on Blaine County Roads) occurred on Gannett Road, suggesting additional analysis to determine what type of improvements could improve safety on this road. Examination of the characteristics of the Gannett Road crashes reveals the following.

- About two-thirds of the crashes occurred under dry, clear conditions.
- Crashes were about evenly split between directions of travel.
- Crashes were about evenly split between daytime and dusk/dark/dawn conditions.
- The most prominent type of crash was that of a rollover. Almost three-fourths of all crashes could be related to roadway/shoulder width.

All of the above conditions are surprising, as the geometry of Gannett Road is essentially flat and straight. The County has tried to increase awareness of roadway limits by installing delineators. Many of the delineators were soon knocked down by farming implements, and the effort was abandoned. Consideration has been given to the use of rumble strips along the outside edge of pavement. However, the shoulders on Gannett Road are no more than two feet wide and placing rumble strips on the surface would conflict and directly impact use by bicyclists. It is reasonable to conclude that the only practical solution is to widen the shoulders on both sides. Because the Gannett Road alignment runs parallel to a railroad right-of-way, all of the widening would have to be to the west, resulting in a very expensive project.

IMPROVEMENT NEEDS BASED ON FUTURE TRAVEL DEMAND

A formal traffic growth projection was last made in Blaine County in 2002 as part of the SH 75 corridor environmental studies. Using 2000 as the base year, planners, citizens and professionals completed the process of forecasting future population and employment growth in the county through the year 2025. Existing and forecast population and employment were distributed within the County (using traffic analysis zones) for use in a traffic forecasting model.

A traffic forecast was not prepared within this study because:

- Growth that has occurred is reflected in traffic counts used in this study,
- To date, there is no reliable information on which to base a return to predictable growth patterns, and
- Existing traffic volumes on county roads are low enough that traffic could generally double or triple without significant issues.

However, an examination of the magnitude and location of the 2002 growth estimate remains valid as an indication of which county roads are likely to be affected when growth begins to accelerate.

Future Traffic Estimate

Table 12 below presents a summary of population and employment forecasts. The implied growth between 2000 and 2010 is also shown and compared to actual results obtained from comparisons of 2000 and 2010 Census data.

Table 12
Blaine County Transportation Study
2025 Population and Employment Forecast
Blaine County

Data	2000* Existing	2025* Forecast	Percent Increase '00 - '25	Compound Growth Rate	Expected 10 Year Growth	Actual 10 Year Growth
Population	18,991	29,382	55%	1.8 %/Yr.	19%	13%
Employment	16,760	27,400	63%	2.0 %/Yr.	22%	6%

* From "SH-75 Corridor 2025 Population and Employment Forecasts", February 14, 2002, Timmerman to Ketchum Environmental Analysis, Project No. STP-F_2392 (035), Key No. 3077, Agreement No. 4718

As can be seen in Table 12, the 25-year growth forecast was for 55 percent increase in population and a 64 percent increase in employment. Based on a uniform compound growth rate, the implied 10-year growth would be 19 percent for population and 22 percent for employment. Actual changes in population and employment were thirteen percent and six percent, respectively. Further, most of the population growth took place earlier in the decade, prior to the economic downturn which continues through the time of this writing.

Figures 12 A and B show forecast areas of population and employment growth that would most directly affect roads within the jurisdiction of Blaine County. The following should be noted:

- Figures 12 A and B only depict the Wood River Valley. At the time the 2002 forecast was made, over 90 percent of the population and employment within Blaine County was located within the Wood River Valley (north of US 20 – generally along SH 75).
- Little growth was expected to occur in areas outside of the Wood River Valley. Given the generally low traffic volumes on county roads throughout Blaine County, growth-related impacts to the county road system are not anticipated outside of the Wood River Valley.

FIGURE 12A
PROJECTED POPULATION AND EMPLOYMENT
WOOD RIVER VALLEY NORTH

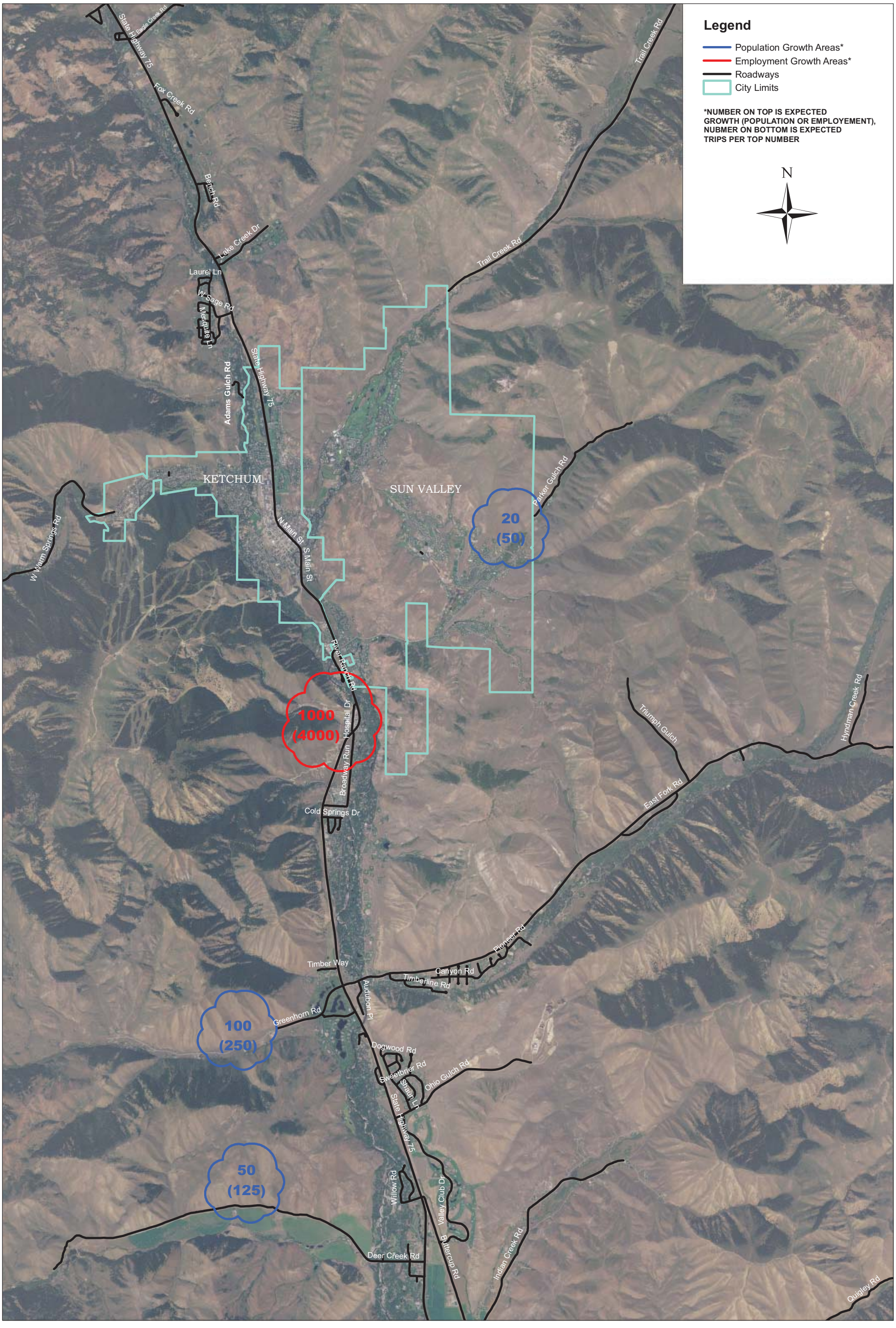
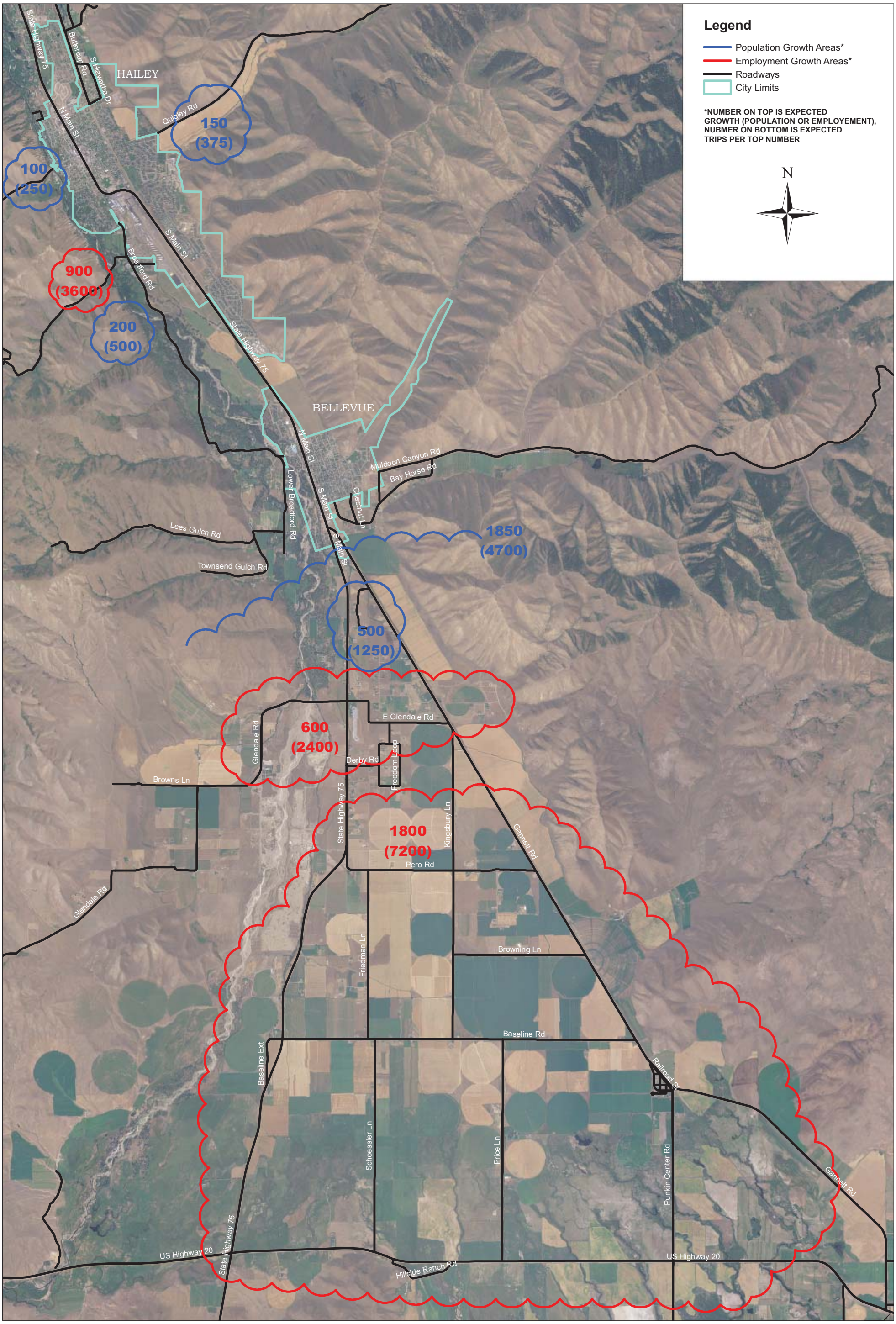


FIGURE 12B
PROJECTED POPULATION AND EMPLOYMENT
WOOD RIVER VALLEY SOUTH



- Most of the forecast growth is within the jurisdiction of the municipalities located in the Wood River Valley. Most trips between the municipalities are served by SH 75 and thus do not affect county jurisdiction roads. (Broadford Road is a notable exception. It is part of the county road system and can be used as a route independent of SH 75 for travel between Bellevue and Hailey.) Figures 12 A and B only depict forecasted population and employment growth occurring outside of the municipal boundaries.

Roadways Potentially Affected by Future Growth

By far, the area having the largest growth potential and possible effects to county roads is located south of Bellevue between SH 75 and Gannett Road.

- Based on the 2025 forecast, the combined effects of population and employment growth in this area could generate about 15,000 daily trips.
- Most of these trips would use either SH 75 or Gannett Road at some point. For perspective, SH 75 and Gannett Road currently have a combined ADT of about 10,000 vehicles per day.
- Over a third of the new trips could result from development between Bellevue and Glendale Road.
- As development increases, it is likely that Glendale Road will need improvement (east and west, already paved).
- As development pressures increase there will likely be a need to pave existing gravel roads serving the area, at least north of Baseline Road. This would include portions of Pero Road, Browning Lane, and Kingsbury Lane.

Another area of growth likely to directly affect a county road is development west and south of the Friedman Memorial Airport in Hailey. Population and employment growth in this area could generate about 4,000 daily trips. As noted earlier, Broadford Road provides a means of traveling between Bellevue and Hailey independent of SH 75. Furthermore, Broadford Road runs directly into the areas south and west of the airport where all of the anticipated development is to occur. Unfortunately, Broadford Road is currently a residential road with substandard roadway and clear zone width – incompatible with growing through traffic volume.

Areas of increased growth specific to certain county roads noted in the 2025 forecast report include:

- 250 additional trips on Croy Creek Road,
- 375 additional trips on Quigley Road
- 125 additional trips on Deer Creek Road
- 250 additional trips on Greenhorn Road
- 50 additional trips on Parker Gulch Road

Finally, Broadway Run is expected to see increased demand. The 2025 forecast included an increase of 1,000 medical industry employees in the vicinity of St. Luke's Hospital, potentially resulting in at least 4,000 daily trips. In addition, the County has identified the area between Broadway Run and SH 75 as part of the Community Housing Overlay District, which allows for significantly increased residential densities that could generate several hundred trips per day.

None of the above cited growth estimates are based on specific development plans. Given the current economic climate, the time frame and actual magnitude of growth is unknown. The information is presented as an indicator of likely patterns of location and relative magnitude – and thus more likely areas of county road impact – when a favorable growth climate is present.

Future Growth – Recommendations

It is recommended that no action be taken at this time based on the possible patterns of future growth presented here. The roads identified as likely to experience traffic growth have additional capacity. Thus immediate attention is not necessary. Furthermore, the pace of growth is too uncertain at this time, and funding too scarce, to make improvements based on a likely distribution of growth when conditions for growth improve.

There is, however, one area of concern that should be addressed as part of long-term planning. That is the additional traffic demand that is likely to be placed on Broadford Road due to the development of land south and west of the Friedman Memorial Airport. The airport property itself will redevelop after a new airport has been constructed. South of the airport vicinity, Broadford Road can be characterized as a relatively narrow rural residential road.

As it is, Broadford Road and adjacent land use is highly incompatible with the potential traffic demands resulting from development around the airport. There will also be a need for a high capacity circulation road through airport development. It is suggested that this be accomplished by rerouting the portion of Broadford Road north of the Wood River crossing southward along the east side of the Big Wood River. At some point the new alignment would turn eastward (possibly across existing airport property) to connect with SH 75 at one of the existing signalized intersection, either Woodside Boulevard or Countryside Boulevard. Existing Broadford Road coming northward from Bellevue would cross the Big Wood River and then end at an intersection with the new circulation loop. The section of Broadford Road south/west of the Big Wood River would be developed to discourage use by through traffic. However, it could continue to provide an alternative north-south connection between Bellevue and Hailey for use in case of emergencies.

Accomplishing the "Airport Development Circulator" will require cooperation between Blaine County and the City of Hailey because the extension would be within the City's jurisdiction. This is viewed as a potential solution to a long-term need, and an existing desire of residents along Broadford Road to shield themselves from commuter traffic. The County is encouraged to begin discussions with Hailey to make this recommendation part of both jurisdictions' long-term plans.

IMPROVEMENTS THAT ENCOURAGE AND ENHANCE USE BY ALTERNATE MODES

There are several travel activities that are directly affected by features and conditions present on county roads. They include public transportation, bicycling, and recreational use of mountain roads beginning in the valleys of Blaine County. Potential roadway needs supporting these activities are discussed below.

Public Transportation

As noted in Chapter 3, there are many forms of public transportation within Blaine County. Mountain Rides is a scheduled, fixed route service that operates along SH 75 between Ketchum, Hailey and Bellevue with additional routes extending into Ketchum and Sun Valley. Other services are provided by various agencies targeting disadvantaged groups and operate in an "on demand" mode. School bus service is present throughout Blaine County. None of the transit services operating in Blaine County place a general burden on the Blaine County roadway system. Mountain Rides operates virtually all of its service on state and municipal roadways that are out of the county jurisdiction. The remaining services rely on a well maintained county road system; which is addressed throughout this report. Thus, no specific improvements to the Blaine County roadway system based on public transportation needs have been identified in this study.

This study recognizes that goal of expanding public transportation services within Blaine County is reasonable and important within the context of a "County Transportation Plan". However, the funding and resulting scope of this plan does not allow for an effective evaluation of public transportation in Blaine County. Further, other funding sources are targeted for public transportation and other studies have been completed (see Appendix A).

Bicycle Use

Blaine County is home to a robust bicycling community, and bicycling is a point of attraction for tourists as well. The characteristics of county roads are directly related to the comfort and safety of riders using these roads. Through the public participation element of this study, one bicycle enthusiast submitted a letter which effectively and constructively expressed the interests of the cycling community. Excerpts from this letter are included below.

> I am very pleased to learn that Blaine County is developing a Transportation Plan and encouraging public comment. I recognize the financial constraints within which Blaine County operates and that the Road and Bridge budget does not adequately cover necessary expenses. However, as tourism is a major contributor to our local economy, coupled with the outdoor interests of the local residents, I urge the County to adopt a formal Bicycle/Pedestrian Friendly Policy and integrate it into the Blaine County Transportation Plan. Such a policy would guide maintenance and construction of County roads, particularly those that receive significant bicycle and/or pedestrian use.
>
> Those roads are the following but not limited to:

1. Trail Creek Road
2. East fork Road
3. Broadford Road
4. Croy Creek Road
5. Gannett Road

This policy would include recommendations for construction, maintenance, and repair of all roads maintained by Blaine County. The vast majority of county roads are rural. While, the goal should be to have designated bicycle lanes on all roads, it is impractical and expensive to propose 5' shoulders or formal bicycle lanes on all existing roads. However, providing even 18" of pavement from the fog line to the edge of the pavement will provide an area for road bikes or pedestrians. This will encourage users to stay out of travel lanes.

The goal of the policy would be to:

1. Provide a safer environment for bicyclists and pedestrians.
2. Reduce accidents between bicycles and vehicles and pedestrians.
3. Promote bicycle tourism.
4. Promote bicycles as an alternative form of transportation.

The proposal would encourage Blaine County to:

1. When constructing new roads or rebuilding existing roads, provide bicycle/pedestrian accommodations, including bicycle lanes whenever possible.
2. Include local and state bicycle organizations as recognized stakeholders in the design phase of any road improvements.
3. Work with local cities to provide seamless connection between local and county bicycle friendly roads.
4. Ensure that all connections from the Wood River Trails to county roads and bicycle lanes are seamless (e.g., connect the East Fork bike lanes to the Wood River Trail).
5. Not chip seal the portion of any road from the fog line to the edge of the pavement. Use alternative treatments for this area that will encourage riders to keep to the right of the fog line.
6. After resurfacing or construction, sweep any residual aggregate from the road edges and shoulders. It is necessary to do this at least twice, once

immediately after construction and again as more aggregate is loosened by vehicle travel.

7. Whenever possible, during re-striping, use "road diet" and traffic calming concepts to narrow travel lanes to provide an area for bicycles to ride.
8. Whenever possible, stripe all roads with a fog line.
9. Designate "Scenic Bicycle Routes" and post those routes with "Share the Road" signs.
10. Post similar signs on routes that may not be designated as "Scenic Bicycle Routes" but have significant use.

I urge the Blaine County Commissioners to include local bicycle/pedestrian stakeholders in drafting the Blaine County Transportation Plan and incorporate the above recommendations.

Recommendations – Bicycle Facilities

As has been made clear in preceding sections of this report, the County lacks funding necessary to commit to specific projects at this time. However, given these limitations, the County does endorse bicycle use of county roads and is open to making bicycle-related improvements as opportunities arise. To this end, it is recommended that Blaine County adopt a resolution of support for bicycle facilities on county roadways. Suggested wording to be included in such a resolution is as follows.

> It is the Policy of the Blaine County Board of Commissioners to encourage and facilitate the use of county roadways by bicyclists wherever such use does not expose either cyclists or the motoring public to undue safety risks. To implement this policy, the Board will actively coordinate roadway improvement projects to include bicycle enhancements where funding is available. Enhancements could include but not be limited to, widened pavement, separate paths within county right-of-way, signing or pavement markings.
>
> For bicycle enhancements to be included in any county project, it should be demonstrated by bicycle enthusiasts groups, county planners, or other interested parties that there is a user demand for such improvements or that the roadway in question is part of a Comprehensive County Bikeway Plan.
>
> Funding for bicycle related enhancements must come from sources other than county share of state-collected motor fuel taxes and vehicle licensing fees. The Board and County officials will be pro-active in working with bicycle enthusiasts groups in seeking grants specific to bicycle needs. Additionally, in cases where roadway improvement grants may include costs of bicycle enhancements, the Board will include such enhancements in the projects, provided local share funding for the incremental cost of the bicycle facilities can be found.

> As part of this policy, the Board will accept responsibility for additional effort necessary to maintain bicycle enhancements. The Board will also consider implementing various methods of surface maintenance that may be requested by bicycle enthusiasts, providing that alternate methods can be shown to be cost competitive with current practices.
>
> Finally, the Board reserves the right to complete necessary roadway improvements without bicycle-related enhancements if funding for such enhancements is unavailable at the time that roadway improvements are necessary and prudent.

Trail Heads

There are many roads in Blaine County that start in the valleys and continue up into the mountains. Some of these roads are heavily used for recreational purposes. Most of these roads end up as dead ends and were built primarily to serve timber and mining industries, long since passed. Thus the roadways were not built to high standards and are afforded very low maintenance levels. At some point there is an interface between roadways maintained as all-weather county roads for use by the general public, and the continuation of the said roads into the mountainous terrain and used for predominantly recreational purposes.

Use of these roads beyond the interface point for motorized or non-motorized activities (e.g. horseback riding, snowmobiling, four-wheeling, mountain biking, cross country skiing, jogging, or hiking) often involves a change of travel mode. This mode change gives rise to the concept of a trail head. Trail head needs include space for parking and possibly other amenities such as rest rooms or picnic areas. High use trailheads where parking is currently a problem include Chocolate Gulch Road and Croy Creek Road. Other mountain roads with high recreational use include Adams Gulch Road and Greenhorn Gulch Road.

Recommendations – Trail Head Facilities

As is the case for bicycle facilities, the County currently lacks funding necessary to commit to specific trail head projects at this time. In addition, Motor Fuel Tax funding received from ITD cannot be used for certain facilities included in trail head needs. Again, these conditions should not be taken to mean the County does not support trailhead activities and will do what it is able to improve trail head conditions. To this end, it is recommended that Blaine County adopt a resolution of support for improvements to trail head facilities within the limits of its jurisdiction. Suggested wording to be included in such a resolution is shown below.

> Due to the mountainous terrain in Blaine County, there are points of interface within the Blaine County roadway system between roadways maintained as all-weather county roads for use by the general public, and the continuation of the said roads into mountainous terrain and used for predominantly recreational purposes.
>
> Use of these roads beyond the interface point often involves a change of travel mode, as would be necessary for horseback riding, snowmobiling, four-wheeling, mountain biking, jogging, or hiking, etc. This mode change gives rise to the concept of a “trail head”.

Trail head needs include space for parking, and possibly other amenities such as rest rooms or picnic areas.

It is the Policy of the Blaine County Board of Commissioners to be supportive of recreational activities at trail heads within the limits of the Board's jurisdiction or authority to obligate funds. These limitations include the following:

- Jurisdictional limitations occur where county roadways enter federal or state-owned land, and
- State law restricts the use of roadway funds distributed to local jurisdictions to building and maintaining the roadway system within the jurisdiction. This may exclude trail head amenities.

This Policy expresses the Board's willingness to actively cooperate with other agencies or interest groups who may wish to plan and fund trail head improvement projects. This Policy also expresses the Board's commitment to considering recreational user needs at trail heads as it relates to planning for roadway improvements, maintenance needs, and winter snowplowing.

Bridges

Bridges with a span of 20 feet and greater are inspected through a national program administered by ITD. The visual inspection is intended to document surface and underwater structural conditions as well as provide a cost estimate for improvements. From these inspections a sufficiency rating is calculated. The sufficiency rating (range of 0 to 100) reflects the structural adequacy and condition, serviceability and functional obsolescence, compliance with current design standards, and importance for public use, and determines eligibility for federal bridge funds.

There are 33 bridges in Blaine County with a span of 20 feet and greater. These bridges are generally in fair to good condition with an average sufficiency rating of around 80. The complete list of bridges is located in Appendix C.

Functionally Obsolete Bridges

Based on available inspection report summaries, one county bridge is functionally obsolete (see Table 13). A functionally obsolete bridge is one that was built to standards that do not meet the minimum federal clearance requirements for a new bridge. These bridges are not automatically rated as structurally deficient, nor are they inherently unsafe. Functionally obsolete bridges include those that have sub-standard geometric features such as narrow lanes, narrow shoulders, poor approach alignment or inadequate vertical under clearance. The classification functionally obsolete (FO) is also a term used as a priority status for federal bridge replacement and rehabilitation funding eligibility.

Table 13
Blaine County Transportation Study
Bridge Structures and Sufficiency Ratings
Functionally Obsolete

Bridge Key	Milepost	Route	Deficiency	Sufficiency Rating
23765	4.17	STOCKER CREEK ROAD	FO	90.5

Structurally Deficient Bridges

Four county bridges are classified as Structurally Deficient (see Table 14). The classification Structurally Deficient (SD) is used to determine eligibility for federal bridge replacement and rehabilitation funding. Bridges are classified as structurally deficient if they have a general condition rating for the deck, superstructure, substructure or culvert of 4 or less, or if the road approaches regularly overtop due to flooding. A general condition rating of 4 means that the component rating is described as poor. Examples of poor condition include corrosion that has caused significant section loss of steel support members, movement of substructures, or advanced cracking and deterioration in concrete bridge decks. For bridge owners, the SD classification is a reminder that the bridge may need further analysis that may result in load posting, maintenance, rehabilitation, replacement or closure. The fact that a bridge is structurally deficient does not imply that it is unsafe. A structurally deficient bridge typically needs maintenance and repair and eventual rehabilitation or replacement to address deficiencies. To remain open to traffic, structurally deficient bridges are often posted with reduced weight limits that restrict the gross weight of vehicles using the bridges. If unsafe conditions are identified during a physical inspection, the structure will be closed.

Table 14
Blaine County Transportation Study
Bridge Structures and Sufficiency Ratings
Structurally Deficient

Bridge Key	Milepost	Route	Deficiency	Sufficiency Rating
23695	0.26	ADAMS GULCH ROAD	SD	26.0
23790	13.28	MULDOON CANYON ROAD	SD	29.7
19575	1.15	STC 2822 GLENDALE ROAD	SD	33.5
23785	13.00	LTL WOOD RESERVOIR ROAD	SD	53.8

Other Bridges

The remaining 28 bridge are neither functionally obsolete nor structurally deficient. Removing the structurally deficient and/or functionally obsolete bridges from the overall average, the remaining average rating for the bridges in the county is 86.0, with only three bridges falling below a rating of 70 sufficiency (see Appendix C).

Summary

Although the tables above do indicate the need to replace a few bridges within the next 10 years, generally the county bridges are in good condition. Of the three bridges in need of

rehabilitation or replacement: the Adams Gulch Road bridge (funded by an STP Grant) is currently in the State Transportation Improvement Program and is scheduled to be replaced in the next five years; the Muldoon Canyon Road bridge is scheduled to be replaced by county crews in the fall 2012; and it is anticipated that the Glendale Road bridge will be replaced as part of a larger road reconstruction project in the future.

The remaining bridges should be monitored and maintained based on the national inspection program administered by ITD.

CHAPTER 5
CAPITAL IMPROVEMENT PROGRAM / FUNDING

Chapter 4 discussed the fundamental improvement needs based on maintaining the existing roadway system, safety, operations and future growth. With the exception of ongoing maintenance, improvements to address specific issues generally involve one-time, often significantly large expenditures. Costs of this type are normally referred to as "Capital Improvements" which is the subject of this chapter.

Capital improvements usually change the functional character of the roadways being improved by adding width, safety clear zones, and/or accommodations for bicycles, or upgrading the surface type. Capital improvements may overlap with maintenance improvements at the lower end of pavement life, when full roadway pavement and/or subgrade reconstruction is necessary.

CAPITAL IMPROVEMENTS

Through their ongoing planning process, Blaine County has prepared a list of capital improvement projects. This list was used as a starting point for evaluation in this study.

During the conduct of this study, members of the public and Technical Advisory Committee (TAC) have provided valuable comments and feedback in regards to additional roadway concerns and need for improvement projects. Although many of the suggested improvements from the public and TAC overlap with the current county project list, the scope of the projects may need to be modified to incorporate their comments. Numerous comments included increasing the width of road or providing a bike lane on new capital improvement projects for Croy Creek, East Fork, Trail Creek, Gannett, and Broadford Roads. There were also multiple comments on the need to overhaul the gravel portions of Trail Creek Road and the end of Croy Creek Road. Emphasis was placed on these roads to improve safety while at the same time increase economic development by making them more recreation friendly. These projects/comments were incorporated with Blaine County's list of projects.

Warm Springs Road also received multiple comments on poor drainage, width of road and base material. Although much of this road belongs to the U.S. Forest Service (Ketchum District), Blaine County has teamed up with them to complete an upgrade project over the next several years. These improvements are included in the county's Capital Improvement Program. Other comments gathered that were either more general or isolated were not incorporated into the list.

In addition to the county and public projects, a few projects were added to this list based on study findings. All projects on the list were evaluated as to agreement with findings of this study and were subject to a priority ranking evaluation with input from the TAC. Table 15 shows the list of proposed capital improvement projects to be evaluated.

Table 15
Blaine County Transportation Plan
Proposed Capital Improvement Projects

Project	Start	End	Cost Estimate	Project Description
West Glendale	Hwy 75	Bus Turn	$3M	4" pavement overlay, improve vertical curves, widen intersection with HWY and replace canal culvert, provide 2' shoulders each side of road
Gannett	Hwy 75	Hwy 20	$5M	4" pavement overlay with new bike lane along shoulders
Broadford	Hailey	Bellevue	$3M	4" pavement overlay, improve horizontal curves and widen road for bike lanes, improve approach at bridge crossing the Big Wood River
Ohio Gulch	Hwy 75	Dump	$1.5M	4" pavement overlay with new bike lane along each shoulder
Buttercup	Hwy 75	Hailey	$1.5M	4" pavement overlay
Baseline	Hwy 75	Gannett Rd	$1.5M	4" pavement overlay
West Magic	Blaine County Line		$2.0M	4" pavement overlay
Little Wood	Carey	Reservoir	$4.5M	4" pavement overlay
Indian Creek	Buttercup	East End	$1.5M	4" pavement overlay with new bike lane along shoulders
Croy Creek	Hailey	Red Elephant Rd	$3M	4" pavement overlay with new bike lane along north shoulder
Broadway Run	Hwy 75	Meadows RV Park	$1.5M	4" pavement overlay
East Fork	Canyon Rd	Triumph	$3M	4" pavement overlay with new bike lane along shoulders, extending bike lane to triumph
Trail Creek	End Of Pavement	County Line		Improve gravel base and widen road, improve drainage
Muldoon Canyon Rd				Improve gravel road

A few items related to Table 15 are summarized below:

- Of the 14 roadways on the project list, 12 encompass major rehabilitation or reconstruction of asphalt roadways and have an estimated improvement cost of $31 million.
- Two of the roadways need improvements to gravel base, drainage and widening gravel road.
- Two of the projects do not have a cost associated with them, as these are roads in need of general improvements based on public comment and safety concerns. Improvements to these roads would likely need to be broken into segments.

To establish a perspective on funding need, if one were to envision addressing just the 12 projects with cost associated with them over a ten year period, the average annual cost would be about $3.1 million. This additional funding must be combined with the minimum annual maintenance costs of about $2.8 million ($1.4 million for asphalt and $1.4 million for gravel, refer to Chapter 4). Thus the needs identified in this study would require Blaine County to increase funding to $5.9 million per year for the foreseeable future. This is roughly four times the current total annual budget for the Road and Bridge Department ($1.6 million).

Funding increases of this level are clearly unrealistic. There is no immediate answer; only the realization that a great need exists. Over time, solutions are found that cannot be foreseen by this study. The needs put forward in this plan were purposely not financially constrained. To do so would be to eliminate any sense of direction and vision from the proposed changes. However, this plan is based on a snapshot of needs and reasonable responses as seen at the time this study was written. It sets a pattern of improvements that leads to a comprehensive whole. It is a reference point against which future growth and needs can be evaluated. As reality diverges from the snapshot, the plan must be changed. This is an ongoing process.

To prioritize the list of projects in Table 15, a project rating system was developed with input from the TAC. Eight different criteria were used to rank each project. The rating criteria were placed in order of importance to determine the criteria weighting factors. For example, "surface condition" is the number two project rating criteria with a weighting factor of five, while "future population" is the eighth project rating criteria with a weighting factor of one.

Table 16, on the following page, contains the rating criteria, weighting factor and scoring criteria used for prioritizing capital improvements projects.

Table 16
Blaine County Transportation Plan
Capital Improvements Technical Rating Criteria

Rating Criteria	Criteria Weighting Factor	Scoring Criteria
Safety Concerns	3	0-10, 0 for minimal safety concerns to 10 for high safety concerns based on relative crash experience and conflicts between pedestrian and bicycle modes.
Surface Condition	5	0-10, Gravel: Gravel Road Rating = 4,5 – 0; 3 – 5; 2 - 8; 1–10 (5 represents excellent condition, 1 poor/failed condition) 0-10, Paved: 0 for a 10 RSL to 10 for 0 RSL.
Shoulder Width	1	0-10, Less than 20 ft - 10; 20 Ft - 8; 24 Ft - 6; 26 ft - 4.
Traffic Volume	3	1-10, 1-3 for low traffic volumes (less than 50 ADT to 100 ADT), 4-7 moderate traffic volumes (100 to 500 ADT) and 8-10 for high traffic volumes (500 to over 1500 ADT).
Recreational Value	2	1-10, 1-3 for low recreational use, 4-7 for mid recreational use, and 8-10 for high recreational use.
Road Use	4	1-10; General/Household - 10, Commercial - 9, Rural/Low Volume - 8, Recreational Access - 5, Recreational (seasonal) - 3.
Existing Development	4	1-10, 1 for projects with small existing populations / minimal development and 10 for projects with very large existing populations and significant development.
Future Population / Employment Increases	1	1-10, 1-3 for project with a low potential development, 4-7 for projects with moderate development potential, 8-10 for projects with high potential development.

The priority score for each rating criterion is determined by applying the weighting factor to the score for the criterion. Table 17 (following) presents the prioritized list of all projects considered as capital improvements based on the above criteria.

Table 17
Blaine County Transportation Plan
Prioritized List of Capital Improvements Projects

Roadway	Total Priority Score	Rank	Safety Concerns	Surface Condition	Roadway Width	Traffic Volume	Recreational Value	Road Use	Existing Development	Future Population / Employment Increases
	Weighting Factor		3	5	1	3	2	4	4	1
West Glendale Rd	149	1	24	15	4	27	12	36	24	7
Gannett Rd	148	2	30	0	6	27	16	40	24	5
Croy Greek Rd	134	3	21	5	6	21	20	40	16	5
East Fork Rd	125	4	6	0	8	24	16	40	28	3
Buttercup Rd	111	5	15	0	6	27	4	36	20	3
Ohio Gulch Rd	107	6	3	0	4	21	4	40	32	3
Trail Creek Rd	106	7	9	40	10	12	18	12	4	1
Muldoon Rd	101	8	9	40	10	6	14	12	8	2
Broadway Run Rd	97	9	0	0	6	24	4	36	20	7
Broadford Rd	92	10	9	5	6	12	10	40	8	2
Baseline Rd	85	11	3	20	6	12	2	32	8	2
Indian Creek Rd	85	12	0	0	6	12	12	40	12	3
West Magic Rd	80	13	0	10	6	12	10	32	8	2
Little Wood Rd	69	14	3	0	6	15	8	32	4	1

CAPITAL IMPROVEMENT PLAN

Although Table 15 presents a seemingly unattainable list of improvement needs, it is necessary to start somewhere. To that end, Table 18 presents a list of actions or goals to be attained over the next five years – a Five-Year Capital Improvement Program.

Table 18
Blaine County Transportation Plan
Five-Year Capital Improvement Program

Capital Improvement Program
• Establish and initiate local funding
• Complete one project from County CIP list – West Glendale Road
• Double maintenance efforts
• Complete gravel roadway upgrade program
• Implement paved road maintenance program
• Complete joint maintenance effort of Warm Springs Road with USFS
• Reconstruct gravel portions of Croy Creek, Trail Creek and Muldoon Canyon Roads

With the funding shortfall, it is recommended that the County focus on establishing and implementing means for additional funding. Methods for increasing funding within the County's jurisdiction is discussed in more detail later in this chapter. As funding is increased, maintenance can be proactive instead of reactive and not merely a stopgap measure. Focusing on funding should remain the County's priority, as the possibility for completing one of the County's capital improvement projects during these five years will be limited.

POLICY ISSUES

ACCESS MANAGEMENT

Access management refers to the body of policy and design decisions that seek to balance the continuing desire for access to an adjoining roadway with the goal of preserving the efficiency of travel on that roadway. Put simply, a greater number of access points (intersections, driveways) on a given segment of roadway will increase roadway congestion and accidents. With the continued increase in automobile travel, and limited ability to create ever wider roadways, there is greater importance being placed on increasing the efficiency and safety of the roadways we have or will build.

The primary purpose of access management is to minimize interference to traffic flow from vehicles turning onto and off of the primary roadway. Since the early 1990's, a large body of research has emerged to substantiate the effectiveness of access management techniques in reducing the likelihood of congestion and accidents.

It is imperative that the function of US 93, 20/26 and SH 75, as the only connectors between various regions of the county, be preserved through constant attention to the principles of

access management. Although the above highways are not in Blaine County's jurisdiction, a strong alliance between the county and ITD approval processes regarding access management principles is important.

Over time, the issue of access management will be applicable to several county roads as well, particularly at the south end of the Wood River Valley. As development increases in the triangle south of Bellevue, all of the existing "mile-grid" roads will eventually function as major collectors. Gannett Road can already be considered an arterial. A mile-grid system of arterials and collectors will not have sufficient capacity to serve full development of the land within the grid squares without maximizing the efficiency of the grid roads using access management techniques. Although the need for added efficiencies is a long way off, it is a lot easier to apply access management principles as development progresses than try to rearrange access points after development has taken place. Other roads where access management may be important may include the northern sections of Broadford Road, Glendale Road, and Broadway Run.

MAINTAINING THE ROADWAY INVENTORY / ASSET MANAGEMENT DATABASE

The analyses and recommendations for pavement maintenance presented in this plan were based on roadway condition ratings reflecting roadways as of fall 2010. Based on the inventory data, the iWorQ's software determined remaining service life (RSL) for paved roads and a condition rating for gravel roads. This data was updated to reflect remedial maintenance efforts performed in 2011. Using this data, a spreadsheet process was used to forecast future year maintenance needs for paved roadways based on the aging of the pavement – one year at a time – starting with the initial RSL from the inventory.

It is important to update the roadway condition rating data on a frequent basis to maintain an accurate understanding of the condition of the system.

There are only two ways that RSL ratings are changed automatically within iWorQ software:

1. The condition of the roadway segments are resurveyed and the new condition data is entered into iWorQ, which then computes a new RSL and recommended treatment based on the new condition data.
   (Note that a new condition rating should not be completed immediately after a surface treatment is made. Rather, it is better to wait until the following season to make the next rating observations. A chip seal can make a roadway look perfect for a short time, but hide underlying conditions that a chip seal cannot improve.)
2. iWorQ allows the user to enter treatment data into the file when improvements are made. If iWorQ recognizes the treatment as one that adds to the RSL, the appropriate adjustment to the RSL is made. The additional years of life added for specific treatments can be user-specified.

It is important to understand that, unless one of the above two actions are taken, the RSL of a given roadway segment will remain unchanged. Thus a paved segment that was shown to have an RSL of 8 years at the time of the October, 2010 survey will still be shown to have an RSL of 8

years in a condition summary run in 2012. iWorQ does not automatically age the roadway segment as the calendar years pass. The only way to adjust for this is to manually update (edit) the RSL for all segments not changed by the above methods.

One of the more misleading effects of the above process is to show an artificially high system-wide average RSL over years of improvements if the segments are not re-rated. This is because the RSLs increase where the improvements are made, but the RSLs of all the unimproved segments stay the same. Thus, without regular system-wide updates to the roadway segment condition ratings, the average condition reported by iWorQ can only go up.

New field data will result in an updated RSL that could be:

- Lower than the previous value – expected if little or no maintenance has occurred
- Higher than the previous value – expected if improvements have been made
- Different from expected values based on past predictions and improvement actions.

iWorQ and our analysis employs a model for predicting RSL based on the most recent set of conditions. No model is perfect, thus the need to reset the base on which the predictions are made. Obtaining new condition data every several years insures the validity of the forecasts. After several iterations it may also be apparent that the model is either over- or under-estimating the rate of deterioration for various roadway conditions. The analyses spreadsheet used by Keller Associates enables the user to change the aging curves. Over time, the model can be adjusted to conform to the set of physical conditions affecting roadway life in Blaine County.

FUNDING

The analysis of roadway maintenance needs in Chapter 4 and the enumeration of the capital improvement program in this chapter present Blaine County with a need for an enormous increase in roadway funding. Increased funding is always difficult. However, there are a variety of sources or methods that may be employed. What follows is a discussion of various methods of funding and various assumptions necessary to put the additional funding needs in perspective over a 20-year time frame.

Existing Available Funding

Idaho Highway Users Revenue Fund is the primary source for ongoing roadway maintenance and rehabilitation. The funds are collected by the state in the form of motor fuel taxes and license fees. Funds are distributed annually to all governmental units responsible for roadway maintenance, based on a formula that considers population and the number of roadway miles in the jurisdiction. This amount varies from year to year and has actually decreased from one year to the next. To date, Blaine County has relied almost entirely on funding allocations from the Idaho Highway Users Revenue Fund. In 2011 Blaine County's share was $1,444,000 (down from its peak of $1.6 million in 2007). This fund amounted to 90% of the total county roadway funding of $1.59 million. The long-term trend of this funding source for Blaine County is likely

to be downward as increased vehicle fleet mileage tends to reduce the amount of gas taxes collected, and growth in other areas tends to erode the county's relative size in the funding pool.

This suggests that it may be unrealistic for Blaine County to continue to rely solely on Idaho Highway User Fund distributions to meet county roadway maintenance and upgrade needs.

Local Funding Methods

Given the trend discussed above, it may be time for Blaine County to consider a means of raising highway funds at the local (county) level. Four methods available to raise revenue at the local level are to: a) increase vehicle registration fees, b) levy a property tax, c) enact impact fees, and d) create Roadway Improvement Districts.

License Plate Fees

In 2011, Blaine County passenger car registration fees amounted to about $724,000. The average fee paid in 2011 was about $35. The Idaho Code allows counties to raise revenue by increasing vehicle licensing fees. Section 40-827 of the Idaho Code states that "the voters of any county may authorize the Board of County Commissioners to adopt an ordinance by majority vote of the Board of County Commissioners to implement and collect motor vehicle registration fee not to exceed two (2) times the amount established in section 49-402". Section 49-402 stipulates state licensing fees for all vehicles less than 8,000 pounds gross vehicle weight.

Thus, exercising this right would raise at least $724,000. (Since other vehicles are eligible, this represents a conservative amount of revenue that could be raised by raising registration fees.) However, the revenue from this method, although enacted by the County, must be shared with other cities receiving motor fuel tax funding. The split between the county and cities can be by agreement. Lacking an agreement, the default split is specified as 70 percent to the county, and 30 percent to the cities. Were the amount collected in 2011 to be split according the ratio of motor fuel tax funding received, the county's share would be 73 percent or $529,000.

Property Taxes

While raising taxes is never a popular issue, a substantial number of Idaho roadway funding jurisdictions are already contributing local funding to support roadway maintenance and improvements. Based on the financial reports submitted by 33 counties, 180 cities, and 58 highway districts in 2011:

- Only 10 jurisdictions did not have local funding in their road and bridge budgets,
- A total of 89 jurisdictions funded up to 30 percent of their road and bridge budgets locally,
- A total of 91 jurisdictions funded between 30 and 60 percent of their road and bridge budgets locally, and

- A total of 81 jurisdictions funded over 60 percent of their road and bridge budgets locally.

Property taxes are the primary means by which local governments raise money to provide services. They are also perhaps the most politically unpopular method. In 2011, Blaine County funded less than one percent of their road and bridge budget with $13,900 in local monies. The local monies consisted of reimbursement of time and materials for work with Camas County and the USFS, with none of this coming from property taxes. It is increasingly clear that all forms of funding (state and local) will need to be increased as roadway needs continue to grow.

Even if property taxes were to be raised for transportation purposes, state law limits the annual increases to property taxes to three percent total for the county taxing authority. One way around this limit is to create a separate highway district (matching the county jurisdiction). As a new taxing unit, the initial levy can be set to whatever value is considered prudent. Establishing a highway district is also thought by some to be a more acceptable way of operating in that the taxes collected by a highway district do not enter the county general fund, and thus cannot be diverted to uses other than transportation improvements.

Impact Fees

The number of county and city jurisdictions that are imposing impact fees on development is increasing. To establish an impact fee, it is necessary to determine the ultimate (build-out) improvement needs, the proportion related to new development, and a fee schedule based on a rational connection between development induced needs and fees. This can be an important source of revenue. However, rarely does this source of revenue pay for the full cost of constructing the roadway system, and fees are usually not applicable for maintenance functions.

Recreational Impact Fee

With the amount of recreational use within the county and the desire to make the roadway network friendly for all modes of transportation, the County may want to consider a voter-approved levy specifically for bicycle or trailhead-related improvements. This may be a small fee that accrues over several years to fund one project. This levy would not be intended to source the full cost of a roadway construction project, but rather help offset costs with signage, increased shoulder widths, bike lanes, and improved access to trailheads, etc. to make the County more recreationally accessible.

Outpost Development (Roadway Improvement Districts)

Because of its terrain, Blaine County has experienced what this report will refer to as “outpost” residential development. This development can be characterized as:

- Occurring outside of urbanized development on mountainous roads, mostly unpaved;

- Generally occurring as individual properties with a very small number of widely spaced lots in a particular area; and
- Occupied all year long.

The mountain roads on which these residences are located were not planned for year-round general use and are generally substandard in one or more of the following categories:

- Roadway width
- Pedestrian and bicyclist safety
- Roadway curvature
- Sight distance
- Surface drainage
- Surface crown and materials

As low volume, mostly recreational use roadways, these roads likely receive a lower level of maintenance than general use roads, and some are not plowed during winter months. Within this context, a relatively few number of residences can create a large burden of roadway improvement need.

A current example of this situation is Warm Springs Road. Paving on Warm Springs Road ends at the Ketchum city limits. Warm Springs Road is also popular with bicyclists, with a bicycle park and trail head located miles beyond the pavement. This development has resulted in heavy pressure to improve the roadway. Part of the pressure on the County stems from the fact that the majority of Warm Springs Road belongs to the U. S. Forest Service, which no longer wishes to maintain jurisdiction of the road.

To satisfy users, the Blaine County Road & Bridge Department has developed a seven-year improvement plan to widen the roadway, correct some geometric deficiencies and drainage issues, and stabilize the surface. The County intends to accomplish this with county forces so that no increase in the Road & Bridge budget is necessary.

Because of the multi-jurisdictional use, the feasibility of this plan is enhanced because the U. S. Forest Service will also provide equipment and crew to support the project. Thus far, the plan requires no additional funding (although both agencies will incur the "cost" of forgone effort on other county/agency needs). However, the project cannot be completed without the purchase of materials. In the current project description, the cost of materials is estimated to be $187,000. These costs are presented as "unfunded". Within the perspective of the current Blaine County Road & Bridge budget, this amount, represents about 30 percent of annual roadway maintenance expenditures.

In general terms, Blaine County does not have a way to cope with improvement needs stemming from a limited number of individual residences built along mountain roads. Even the most frugal approach (example above) requires a significant amount of cash outlay. The issue is

relevant, as outpost development could or is occurring on other roads (e.g. Croy Creek Road, Hulen Meadows). Although this may be looked upon as just another on a long list of reasons for the County to seek additional funding, the beneficiaries of this need are very narrow in focus and the improvements are very costly.

It is reasonable to suggest that the County establish a policy and supporting mechanism through which those property owners generating this need and directly benefitting from improvements participate in the cost of the improvements.

The policy/mechanism should incorporate the following key parameters:

A) The County should establish special "Roadway Improvement Districts" (RIDs) covering all areas of potential development. This should be done now to establish the framework for accruing specific roadway improvement fees. These districts may also remain dormant as long as requests for specific improvements beyond county actions described in parts B and C are not made by adjacent property owners.

B) As part of the RID, the County should assume responsibility for routine maintenance (pavement surface, snow plowing, etc) consistent with other general use roadways in the county.

C) As part of the RID, the County should stipulate the minimum "baseline" improvements it intends to accomplish to maintain the basic functionality of the roadway.

The intent of items A through C is to establish the RID and commit the County to a basic level of responsibility that is assumed for all county roads. Improvements beyond those stated in B and C are then deemed to be unique to those wishing to develop in a particular RID.

D) The RID document should include an estimate of the total potential (build-out) number of residences that could be located within the particular RID.

E) As part of the RID, the County should stipulate the minimum/prudent level of improvements necessary (beyond baseline maintenance and improvements) necessary to satisfy general use requirements implied by the level of development identified above. Stated another way, the County should describe a minimum long-term plan for the particular RID should development occur.

Items D and E are planning efforts establishing need for and cost of minimum improvements necessary to allow the County to proportion costs to individual parcels and begin advance funding accrual if so desired.

F) Establish RID funding mechanism. There are many logical approaches to this element. Some thoughts pertinent to this element follows:

- Determine the proportion of total costs to be funded by the property owners. In the case of the Warm Springs Road example, the cost of materials alone would amount to about $20,000 per residence.
- Compute minimum improvement share costs to apply to each proposed residence.
- As part of the building permit process, collect road improvement assessment to be held in escrow. This could be a lump sum, or an annualized amount collected with property taxes over a stipulated period of time based on when improvements are likely to be made. The time available for advance payments would necessarily diminish as more development occur – eventually reaching a "lump sum" condition. Financing the lump sum could possibly be accomplished by the County selling bonds based on the RID revenue stream at the time that improvements are made.
- All funds held in escrow should stay with the property. Individuals selling property would recoup their investment in future improvements through the selling price of the property.

G) By initiating advance funding accrual, the County commits itself to its share of the improvement effort at such time as improvements are requested and owner shares are in place.

H) The RID document should stipulate the proportion of owners necessary to initiate use of RID funding for improvements.

I) When an improvement project is initiated, there is no requirement to limit improvements to the initial (minimum) plan if support and funding for an enhanced project is present.

Elements G through I are intended to provide a framework for initiating improvement actions and protect the property owners in the form of a binding commitment from the County that improvement actions will take place as conditions warrant.

J) When a RID funded improvement project is completed, the RID should be dissolved unless a super majority of property owners wish to update the improvement plan and continue funding the RID for additional future improvements.

K) Should no improvements be made due to a lack of development, lack of interest (requests for improvement) from property owners, or lack of action on the part of the County, after a specified period of years the escrow account should be distributed back to the property owners of record and the RID dissolved.

Items J and K provide for the dissolution of the RID when its need has been fulfilled or is ultimately deemed unnecessary; thus providing a sun setting of this taxing instrument.

Despite the above shortcomings, a combination of increasing property taxes/car registration fees, impact fees and RID may be the most practical approach. There does not appear to be a means by which Blaine County can sustain the current roadway system without some amount of property tax increase. As onerous as this is, we believe that this action would bring another important benefit to Blaine County. This would be the positive impact of this local initiative on the likelihood of obtaining grant funding. There is perpetually more need than available funds. The effect of true local participation in both the planning process (identification of need) and responding to the need at the local level (raising local funds) would place Blaine County in a far more competitive position for grant approval. Grants are becoming increasingly competitive and difficult to obtain with ratings of the applications including components on the amount of local funds included in the jurisdiction's roadway budget.

State and Federal Funding

Table 19 following summarizes state and federal funding programs, use, and application requirements.

Table 19

Blaine County Transportation Plan

State and Federal Funding Programs

Funding Source	Project Requirements	Types of Projects	Application Submittal and Timing	Local Match Percentage	Misc. Notes
Local Rural Highway Investment Program (LRHIP)	- Cities under 5,000 in population - Counties w/ Road and Bridge Dept. - Highway Districts - Any type of construction or planning associated with public roads - Annual statewide application process.	- Paving roads - Replacing drainage structures - Transportation planning - Reconstruction of roads - Can be used as match for federal-aid projects Up to $100,000 for construction Up to $50,000 for transportation plans Up to $30,000 for signs	LHTAC September – November Contact: Jim Zier, LHTAC (208) 344-0565	No matching funds are required	$2.2 M Budget
Local Highway Safety Improvements Program (LHSIP)	- Analysis of statewide safety data determines eligible project locations and level of funding available - Top 5 most harmful events from the past 5 years of crash data identified for each ITD District. - Within each District's top 5 crash categories, the 5 jurisdictions with the highest occurances are eligible to apply for LHSIP project funds - Eligible jurisdictions are sent the application package for their consideration	- Projects that would have the largest favorable impact on the crash issues as identified. - Projects for 2014 that require Right of Way are not eligible.	LHTAC March - February	7.34 percent	$3.9 M Budget for 2014

Table 19

Blaine County Transportation Plan

State and Federal Funding Programs

Funding Source	Project Requirements	Types of Projects	Application Submittal and Timing	Local Match Percentage	Misc. Notes
Idaho ADA Pedestrian Ramps Program	- Available to local governments and federally recognized tribes - Annual statewide application process for state funds - Construction funds ONLY for ped ramps on the state highway system - ADA Transition Plan required if over 50 employees - Self Evaluation Required - Reference ITD ADA Transition Plan and the ramp upgrade priority list - $60,000 maximum award - **Reviews by MPO (if applicable) and ITD District required**	- Construction of new or alteration of existing ped ramps on the state highway system to meet the requirements of ADA	ITD Program Development Team April - March Contact: John Krause 208-337-8292 john.krause@itd.idaho.gov	Matching funds not required, but encouraged Engineering costs are not covered, and can be shown as matching in kind services.	$500 K annual
Surface Transportation Program (STP) Local Rural	Rural areas and cities with population below 5,000. Roadway must be rural major collector or higher (small percentage allowed for minor collector). Annual statewide application process. Federal-aid funds.	- New construction - Reconstruction - Rehabilitation - Transportation planning - Corridor studies - Purchase anti-icing material - Enhancement - Bridge or safety activities	LHTAC September - January Contact: Jerry Flatz, LHTAC (208) 344-0565	7.34 percent	$10 M Budget

Table 19

Blaine County Transportation Plan

State and Federal Funding Programs

Funding Source	Project Requirements	Types of Projects	Application Submittal and Timing	Local Match Percentage	Misc. Notes
Surface Transportation Program (STP) Local Urban	Urban areas with population greater than 5,000. Roadway must be urban collector or arterial. Annual statewide application process. Federal-aid funds.	- New construction - Reconstruction - Rehabilitation - Transportation planning - Corridor studies - Purchase anti-icing material - Enhancement - Bridge or safety activities	LHTAC November - January Contact: Jerry Flatz, LHTAC (208) 344-0565	7.34 percent	$10 M Budget Divided Among MPO's and Cities
Safe Routes to School (SR2S) Mini-Grants	ITD will fund nationally certified SR2S consultant(s) to work with the community to set up the SR2S program. Support letter from school, city, business, and law enforcement officials required.	- Establishment of SR2S program will increase the chances of receiving future SR2S and other program grants.	ITD SR2S Coordinator March 31, 2012 (but may be extended, depending on number of responses received) Contact: Jo O'Connor joconnor@itd.idaho.gov 208-334-4475	No Matching funds	

Table 19

Blaine County Transportation Plan

State and Federal Funding Programs

Funding Source	Project Requirements	Types of Projects	Application Submittal and Timing	Local Match Percentage	Misc. Notes
Safe Routes to School (SR2S) Non-Infrastructure Grants	Maximum $50,000 reimbursement grant Funding for 3 of the 5-E's - Educate - Encourage - Evaluate - Engineering funded by Infrastructure Grants - Enforcement not eligible for SR2S funding **Could also fund local program coordinator positions**	Funds project activities that meet the SR2S mission and plan Examples: - Encouragement Activities - Incentives - Outreach and Promotion Activities - Education Materials - Parent and Teacher Training - Student Training in Safe Walking and Safe Bicycling	ITD SR2S Coordinator April - March Contact: Jo O'Connor joconnor@itd.idaho.gov 208-334-4475	No match required	
Safe Routes to School (SR2S) Infrastructure Grants	Maximum $100,000 reimbursement grant Funds one of the 5-E's - Engineering Proposed projects must be located within a 2-mile radius of a K-8 school and must comply with ADA, federal and state laws, and reside on public rights of way. This may include projects on private land that have public access easements.	Infrastructure projects that directly support increased safety and convenience for kindergarten through middle school students who bicycle or walk to school.	ITD SR2S Coordinator April - March Contact: Jo O'Connor joconnor@itd.idaho.gov 208-334-4475	No match required	

Table 19
Blaine County Transportation Plan
State and Federal Funding Programs

Funding Source	Project Requirements	Types of Projects	Application Submittal and Timing	Local Match Percentage	Misc. Notes
STP Enhancement **Program is currently suspended**	Available to state, local, federal agencies, universities and Indian Tribes. $500,000 maximum cap on Federal Aid funds. Annual statewide application process. Federal-aid funds.	- Pedestrian and bike facilities - Safety and educational activities for pedestrians and bicycles - Acquisition of scenic easements and scenic or historic sites - Scenic or historic highway programs, including tourist or welcome centers - Landscaping or other scenic beautification - Historic preservation - Rehabilitation and operation of historic transportation buildings, structures or facilities - Preservation of abandoned railway corridors - Control and removal of outdoor advertising - Archaeological planning - Mitigation of water pollution due to highway runoff - Mitigation of wildlife mortality caused by vehicles - Establishment of Transportation Museums	ITD June - July Contact: ITD (208) 334-8272	7.34 percent	

Table 19

Blaine County Transportation Plan

State and Federal Funding Programs

Funding Source	Project Requirements	Types of Projects	Application Submittal and Timing	Local Match Percentage	Misc. Notes
Congestion Mitigation and Air Quality Improvement (CMAQ) **Program is Currently Suspended**	Funds available for reducing transportation related sources and emissions throughout all areas of the state. Targeted to communities with an air-quality problem. Annual statewide application process. Federal-aid funds.	- Projects, planning, and programs in air quality non-attainment and maintenance areas - Ozone, carbon monoxide and particulate matter reduction - For construction and non-construction type projects - Coordination with DEQ	ITD November -February Contact: Lisa Josleyn, ITD (208) 334-8489	7.34 percent	
STP Safety	Available for any state of local public road. Projects to reduce accidents at identified hazardous locations. Prioritized on a safety benefit to project cost ratio.	- Bicycle and pedestrian safety improvements including: ▪ On-road facilities ▪ Public trails ▪ Traffic calming activities - Motorist protection at railroad crossings	ITD Contact: Local ITD District Planner	7.34 percent	
Bridge	Bridge must be 20 feet or longer (face to face). Have a "sufficiency rating" of 50 or lower for replacement; between 75 to 5l for rehabilitation (preference given to replacement). Annual statewide application process. Classified as structurally deficient or functionally obsolete.	Bridge replacement and rehabilitation	ITD September - February Contact: Jerry Flatz, LHTAC (208) 344-0565	7.34 percent	

Blaine County Transportation Plan

Appendix A

Excerpts from the
Idaho Local Mobility Management
Network 4A Mobility Plan,
2011 Revision

IDAHO LOCAL MOBILITY MANAGEMENT NETWORK 4A MOBILITY PLAN

2011 Revision

Coordinated Partnerships, Community Solutions

www.i-way.org

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IDAHO LOCAL MOBILITY MANAGEMENT NETWORK 4A MOBILITY PLAN

INTRODUCTION

This plan is the latest iteration of the coordinated planning process in Local Mobility Management Network (LMMN) 4A. The goal of this effort is to encourage the implementation of activities that foster improved mobility in LMMN 4A.

While this LMMN 4A Mobility Plan takes into account recent efforts, it was developed over the course of the years 2009 and 2010, with input from many interested stakeholders through an open planning process that included many public meetings. These meetings, the review of existing services, demographic and land use analysis and other details of the planning process are summarized in the beginning of this document. The public involvement process and the detailed analyses conducted over the two year period and updated for this plan are documented in the appendices that follow.

Mobility Defined

In the context of I-way, and this planning document, mobility is an umbrella term that defines choices to Single Occupant Vehicles. Mobility services can include public and human services transportation, bicycle/pedestrian services, vanpool, rideshare, and Park and Ride lots.

The focus of the plan itself is on the strategies and alternatives/options for each of the strategies. This is an action oriented plan that will help guide the I-way process in LMMN 4A. This plan continues to be a living document that must remain flexible, and it is recommended that stakeholders in LMMN 4A meet to review the document at least yearly to determine if any changes are necessary.

This update to the 2010 plan includes a revision of a number of strategies, consolidation of previous strategies and addition of new strategies. The most significant change is the separation of operating and capital acquisition into different strategies. This is to help support the newly adopted vehicle replacement program. In addition, all statewide strategy short titles have been included in this document.

STATEWIDE COMMITMENT TO REINVENTING MOBILITY OPTIONS: I-WAY

The Idaho Department of Transportation's (ITD) Division of Transportation Performance, formerly the Division of Public Transportation, (Division) has embraced the challenge of major change in order to enhance mobility and provide for a transparent planning process. ITD worked to assist local mobility stakeholders across the state in developing a structure and process to create the first generation of mobility planning documents. In 2010 the Division handed this planning program off to the Community Transportation Association of Idaho (CTAI) to provide vision, management, and oversight of the new I-way planning process.

Waiving all barriers and constraints associated with Idaho's existing public transportation paradigm, CTAI continues to work with mobility stakeholders and the public at-large to identify issues of concern, articulate desired future conditions, and to identify the opportunities and work needed to achieve that future. This effort is now being conducted at the local level by six Mobility Managers who are based in each transportation District and administer a number of coordination activities.

The next level of sophistication in identifying, strategizing and implementing solutions for mobility reflects the emergence of a new paradigm and the implementation of a system based on the fundamentals of true "Mobility Management." *Mobility Management is an institutional state of mind that emphasizes moving people instead of the mode of transportation.* The precept proves to be consistent with the Idaho Transportation Department's Long- Range Transportation Plan called *Idaho on the Move: A Long-Range Plan to Improve Safety, Mobility, and Economic Vitality,* which identifies improved mobility as one of its three long-range goals. The other two goals critical to the Idaho transportation system are improved safety and supporting the economy.

I-way: Idaho's Connected Travel

I-way is a growing statewide network that connects people in Idaho to an exciting mix of transportation options, giving Idaho an economic and quality-of-life advantage while helping keep our state clean and beautiful.

I-way continues to present Idaho's mobility management vision and scope within a new paradigm for working with and furthering comprehensive mobility management in Idaho. I-way describes how the State and its many stakeholders will restructure and refocus themselves to generate meaningful local, district, and statewide Mobility Plans. This plan emerges through a deliberate effort to meet customers' needs through the leadership, support, and coordination of local efforts; and it outlines how continuing to achieve mobility in Idaho can be pursued in the years to come.

PLANNING PROCESS: GOALS AND OBJECTIVES

The purposes of the mobility planning process are twofold. The first is to continue moving forward with implementation of I-way. I-way's approach to mobility and transportation choices calls for local planning and local decision-making based on sound planning activities.

The second purpose is to meet the Federal Transit Administration's (FTA) requirements regarding development of a coordinated transportation plan for any locale to receive a variety of funds from the FTA, a very important resource for funding. Brief information on these FTA funding programs, and on the required coordinated planning process, are provided in the following section and additional information is included in Appendix A.

ITD administers the Section 5310, 5311, 5311(f), Job Access Reverse Commute (JARC), New Freedom, and Rideshare Programs for the State. ITD's Division of Transportation Performance manages these funding programs and has developed an application process in accordance with Safe, Accountable, Flexible, Efficient Transportation Equity Act: A Legacy for Users (SAFETEA-LU's) requirements. The programs are described as follows:

- ***Section 5310 (Elderly Individuals and Individuals with Disabilities*) -** Financial assistance for purchasing capital equipment to be used to transport the elderly and persons with disabilities.

- ***Section 5311 (Non-Urbanized or Rural Area)*** - Financial assistance to enhance the access of people in non-urbanized (rural) areas for any needs and provide for the participation of private transportation providers in non-urbanized transportation (Section 5311(f)) to the maximum extent feasible.

- ***Section 5316 (JARC)*** - The JARC Program provides funding for developing new or expanded transportation services that connect low income persons to jobs and other employment-related services, and to transport residents of urbanized areas and non-urbanized areas to suburban employment opportunities.

- ***Section 5317 (New Freedom)*** - The New Freedom Program provides funding to assist individuals with disabilities to access and use transportation services, including transportation to and from jobs and employment support services. Projects funded through the New Freedom Program must be both new and go beyond the requirements of the Americans with Disabilities Act (ADA) of 1990.

- ***Rideshare*** - Rideshare promotes low cost transportation options and encourages the expanded use of carpools, vanpools, walking, biking, park and ride lots, and public transportation to reduce traffic congestion and protect the environment.

- ***Matching Funds for Section 5310, 5311, 5311(f), JARC, and New Freedom***

Programs **-** FTA guidance notes that matching share requirements are flexible to encourage coordination with other Federal programs. The required local match may be derived from other non-Department of Transportation Federal programs.

Coordinated Transportation Plan Elements

FTA guidance defines a coordinated public transit-human service transportation plan as one that identifies the transportation needs of individuals with disabilities, older adults, and people with low incomes; provides strategies for meeting those local needs; and prioritizes transportation services for funding and implementation.

LMMN Planning Process

The goal of the annual LMMN planning process is to guide this next generation of Local Mobility Plans towards a fully comprehensive "multi-modal" mobility planning document. This process builds the I-way goals and objectives that are based on four fundamental assumptions that emerged during stakeholder input and dialogue:

1. Current and potential users – whether they are daily commuters, transit dependent, tourists, vanpool or carpool users, walkers, cyclists, or others – are the primary customer for all mobility management efforts.

2. The mobility network starts at the local level and is led by local efforts. In this context, "local" is intended to be a collection of local leaders, stakeholders, and individuals working together within a meaningful service area (a network), as opposed to specific geographic boundaries.

3. The process of aggregating those networks generates opportunities for coordination and connectivity, to be supported and developed at the most appropriate level.

4. Public transportation is relevant in Idaho. Increased urbanization and traffic congestion in some parts of the state, coupled with a variety of geography and remote rural areas—and the diverse issues inherent to those different environments—challenge us to find the most appropriate solution possible to the service area demographic.

Additional background information on the LMMN planning process can be found in Appendix B. In addition, Appendix C includes values that were identified as core principles during previous planning activities, and Appendix D provides information on mobility customers as identified through previous planning efforts.

PLAN ADOPTION PROCESS

To qualify for FTA funding sources that require a coordinated human services transportation plan, FTA requires that these plans are locally derived, approved, and adopted. The plan adoption process for LMMN 4A is as follows:

- A draft mobility plan is prepared based on stakeholder input during the LMMN meetings.
- There is a public comment period on the draft mobility plan.
- The final draft is prepared based on comments received during the public comment period.
- The District Coordination Council adopts the plan on behalf of LMMN 4A. Letters of support from various community groups within LMMN 4A are encouraged.
- Adopted plans are posted on the I-way website, www.i-way.org.

DEMOGRAPHICS, LAND USES, AND TRAVEL PATTERNS

LMMN 4A covers the Counties of comprised of Blaine (with the exception of the southeastern-most portion), Camas, and Lincoln Counties. An integral part of the mobility planning process and coordination includes a demographics review and an assessment of needs. This review examines where people (including those most likely to have limited mobility options) live, where the major destinations are, and what the travel patterns are of residents of LMMN 4A. This assessment from 2010 along with a detailed understanding of the region's transportation needs is included in Appendix E (along with the methodology).

EXISTING MOBILITY SERVICES

Assessing existing transportation services helps to inform the stakeholders of future strategies to identify service gaps and needs in LMMN 4A. Appendix F provides detailed information on these services, as well as tables summarizing the transportation services provided in the LMMN 4A.

NEEDS AND GAPS

During mobility planning efforts in LMMN 4A, stakeholders identified a variety of needs and gaps in service in the community. Their comments are incorporated into the following needs statements shown in Table 1. Appendices C and D cover in detail the development of the values and needs for LMMN 4A

Table 1: LMMN 4A Needs Statements

Number	LMMN 4A Needs Statement
N4A.1	Connectivity between Twin Falls, Shoshone, and Blaine County.
N4A.2	More departure times for Valley bus between Bellevue/Hailey and Ketchum/Sun Valley.
N4A.3	Fixed-route bus serving Hailey.
N4A.4	Service between Wood River Valley and Carey and Fairfield to help ensure more east-west access.
N4A.5	Service for north of Ketchum to Sawtooth National Recreation Area (SNRA).
N4A.6	Park and Ride lots that support carpooling and vanpooling efforts.
N4A.7	Better connections between pathways that link a complete transportation route from neighborhoods to the downtown areas.
N4A.8	Improved infrastructure and programs to support bicycling activities.
N4A.9	Assessment of parking policies; particularly in regard to efforts to ensure areas are pedestrian friendly.
N4A.10	Connectivity between LMMN 4A and the Boise area.
N4A.11	More frequent connections to Boise Airport.
N4A.12	Better service from current SUN Airport to resort areas.
N4A.13	Connections to Fairfield resorts from region.
N4A.14	Coordinated Website that includes information on variety of transportation options in the network and in surrounding areas, as well as appropriate links (i.e. airline Websites).
N4A.15	Expanded marketing and outreach on available transportation services, particularly at entry points to region (i.e. information kiosk at airport).
N4A.16	Clear method to communicate assets in times of emergency.

Number	LMMN 4A Needs Statement
N4A.17	Improved connections to and between recreation and recreational trails.
N4A.18	Improved mechanisms for tourists to assist with their travels, especially in Ketchum.
N4A.19	Connect housing costs and needs with transportation services.
N4A.20	More consistent assessment of accessibility throughout LMMN 4A.
N4A.21	Improve signage / wayfinding to help residents and visitors locate trails, services, etc.
N4A.22	Establish and utilize performance measures to help monitor improvements to services.
N4A.23	Transfer point for transportation services (bus, bike, pedestrian, park and ride, etc.) in both the Sun Valley/Ketchum area and Bellevue area.
N4A.24	Long term planning efforts for the entire LMMN
N4A.25	Education of community and visitors about rules of the road (drivers, pedestrians and bicyclists) to help reduce conflicts between the groups
N4A.26	Diversified funding opportunities
N4A.27	Disasters can happen in any Idaho community. In order to best mitigate the consequences communities need to support each other in a time of a disaster, particularly when it comes to needs for transportation and evacuation

STRATEGIES

Previous versions of the LMMN 4A plan included strategies that offered a potential solution to identified mobility needs or gaps in services. These strategies were reviewed by local stakeholders as part of updating the plan, and their input included in the local strategies included in Table 2. Although many of the strategies are interrelated in their focus on improving mobility in the LMMN, they are categorized by:

- Strategies that involve mobility services;
- Strategies that involve infrastructure to support mobility services;
- Strategies that have a mobility management related function or focus.

Appendix F
Existing Mobility Services

INTRODUCTION

Assessing existing transportation services helps to inform the stakeholders of future strategies to identify service gaps and needs in LMMN 4A. This section identifies:

- Local public transit providers in the network
- Regional bus and intercity passenger rail
- Human service agencies that provide transportation services or funding to their program participants
- Rideshare and vanpool programs
- Park & ride lots
- Non-motorized transportation (bicycle/pedestrian)
- Taxi services
- Schools/education
- Aeronautic (air transportation)
- Other transportation providers

The source for logos are the respective provider's website.

LOCAL PUBLIC TRANSIT

Mountain Rides Transportation Authority

Mountain Rides is a mobility provider in Blaine County that offers a variety of services which include: the Down Valley Commuter Bus Service, serving Bellevue, Hailey, Ketchum, and Sun Valley; the Around Town Bus, a free fixed-route service that serves Ketchum, Sun Valley, Elkhorn, Warm Springs, and River Run; the Hailey Town Bus; and eight vanpool service routes that run from Twin Falls, Shoshone, Jerome and several other locations to Hailey and Ketchum.

In addition to these services, Mountain Rides facilitates ride-matching, offers an Emergency Ride Home program for alternative transportation users, manages and operates a county-wide Safe Routes to School program, organizes Bike to Work events, coordinates a summer-long Community Challenge incentive program, provides transportation consulting to employers about services and tax incentives, and provides ADA paratransit services on demand to people unable to use fixed route service because of a disability.

Mountain Rides operates under a Joint Powers Agreement comprised of the Cities of Ketchum, Sun Valley, Hailey, Bellevue, as well as Blaine County. All of these entities are represented on the Mountain Rides Board of Directors and all help fund the organization on an annual basis. In addition to this local funding, Mountain Rides receives FTA funding, including Section 5311, 5316, 5317 and Section 5309, Safe Routes to School SAFETEA-LU funding, as well as fare box revenues from the Down Valley and Vanpool services.

Fifteen buses serve the Down Valley and Around Town routes. Mountain Rides provides external accommodation for bikes on nearly all of its buses; one bus offers internal bike storage. All buses are active during the week and peak seasons. Mountain Rides Transportation Authority (MRTA) operates the following rural public transit services:

- Ketchum and Sun Valley Town Bus ("Around Town" Route) – Fixed-route service operating in Ketchum, Elkhorn, and Sun Valley Village. Three routes are operated year-round (Blue, Red, and Green) and three operate during the winter ski season only (Gold, Silver, and Bronze). Service is operated seven days a week during the following hours:

Route	Areas Served	Service Span During Peak Winter Season	Service Span During Rest of Year
Blue	Warm Springs, Ketchum, SV Village, Dollar, Elkhorn	Dec 17 – April 1: 7 :00 am-11:50 pm	7 :00 am-9:20 pm, hourly headways
Red	Elkhorn neighborhoods, River Run Lifts	7:55 am-5:25 pm	8:55 am-4:55 pm
Green	Ketchum, River Run, St. Luke's, Meadows	7:00 am - 9:00 pm	7:00-10:30 am and 2:00-5:40 pm
Gold	Elkhorn Springs, Dollar Lodge, SV Village, SV Club	Dec 17 – April 1: 9:05 am-3:05 pm	None
Silver	SV Village, Ketchum, River Run, Dollar to River Run Express	Nov 26 – Baldy closes: 8:15 am-5:45 pm	None
Bronze	Warm Springs from SV Village over Saddle Rd	Dec 17 – April 1: 8:30 am- 3:45 pm	None
Hailey	Downtown Hailey, Senior Connection, St. Luke's Clinic, Community Campus, Woodside	8:00 am- 12:00 pm and 1:00 pm – 5:00 pm	Same

During the peak Winter season (as indicated for each route), the Blue, Red, Gold, and Bronze routes each have 30-minute headways during (approximately) daylight hours. At other times and during the off-peak season (for year-round routes), these routes are operated on 60-minute

headways. The Green Route operates on 60-minute headways year-round. The Silver Route operates on 15-minute headways.

Used equally for shopping, recreation, and commuting, the Around Town bus operates at 50% utilization in the summer and higher utilization in winter, with peaks from mid-June to Labor Day and again from Christmas to late February or early March. Other than picking people directly up from hotels and resorts, the Around Town has been very successful in providing service to a park-and-ride facility at the YMCA parking lot for day skiers to Bald Mountain. Year-round usage includes youth and commuters, as well as seniors who don't have other transportation options.

The Town Bus routes are fare-free. A map of the Town Bus routes is located in Figure F-1.

- Hailey Town Bus - In April 2010, Mountain Rides implemented the Hailey Town Bus, a deviated fixed-route service. It operates Monday through Friday from 8:00 a.m. to 12:00 p.m. and from 1:00 p.m. to 5:00 p.m. on hourly headways during these times. With 24-hour advanced request, buses will deviate within City limits up to 3/4 of a mile off of the route to pick-up passengers that are unable to make it to a designated stop, limited to one pick-up per hour. There is no fare for this service. A map of the Hailey Town bus is located in Figure F-2.

- Valley Route ("Down Valley" Route) – Fixed route service connecting Bellevue, Hailey, Ketchum, and Sun Valley. This route operates Mon-Fri 6:00 a.m.-10:42 p.m., Sat 6:27 a.m.-8:15 p.m., and Sun 6:27 a.m.-5:53 p.m. This route operates on 30-minute headways during peak weekday morning and afternoon commute times, on 60-minute headways at other times during the weekday, and less frequently on weekends.

  The one-way general public cash fare for this service is $3.00 between Bellevue/Hailey and points north and free within the Ketchum/Sun Valley area.

  The Valley Route is used largely by those who live in Hailey or Bellevue and work in Ketchum or Sun Valley; however, the demographic has expanded to include youth using the service to access recreation and activities, as well as those who use it for shopping or getting to and from health and human services. A map of the Valley Route is located in Figure F-3.

Figure F-1

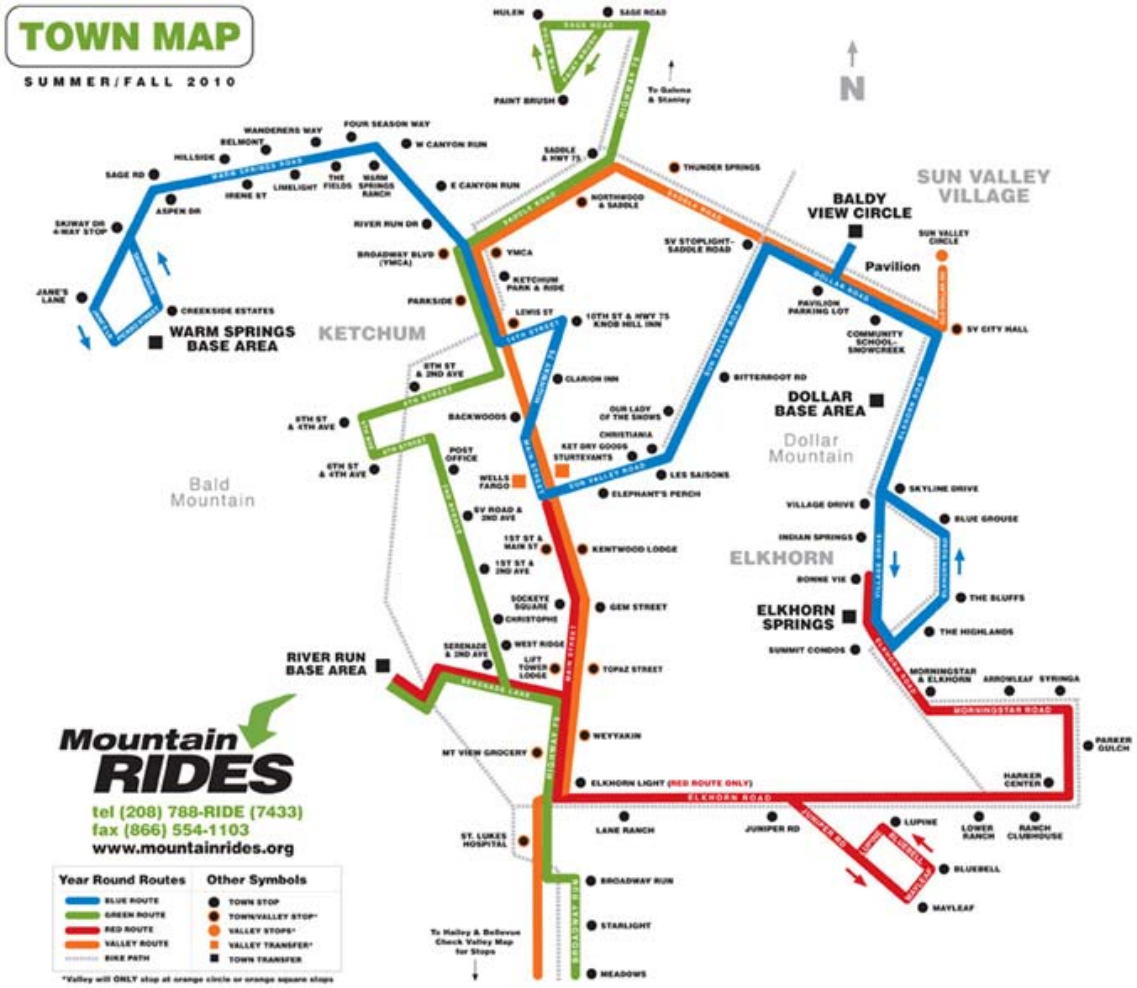

TOWN MAP
SUMMER/FALL 2010
N
HULEN
SAGE ROAD
PAINT BRUSH
To Galena & Stanley
WANDERERS WAY
FOUR SEASON WAY
BELMONT
HILLSIDE
W CANYON RUN
SAGE RD
ASPEN DR
IRENE ST
LIMELIGHT
THE FIELDS
WARM SPRINGS RANCH
E CANYON RUN
SADDLE & HWY 75
THUNDER SPRINGS
SUN VALLEY VILLAGE
BALDY VIEW CIRCLE
NORTHWOOD & SADDLE
SKIWAY DR 4-WAY STOP
RIVER RUN DR
SV STOPLIGHT-SADDLE ROAD
SUN VALLEY CIRCLE
Pavilion
BROADWAY BLVD (YMCA)
YMCA
KETCHUM PARK & RIDE
JANE'S LANE
CREEKSIDE ESTATES
PARKSIDE
LEWIS ST
10TH ST & HWY 75 KNOB HILL INN
PAVILION PARKING LOT
COMMUNITY SCHOOL-SNOWCREEK
SV CITY HALL
WARM SPRINGS BASE AREA
KETCHUM
6TH ST & 2ND AVE
CLARION INN
BITTERROOT RD
DOLLAR BASE AREA
6TH ST & 4TH AVE
BACKWOODS
OUR LADY OF THE SNOWS
CHRISTIANIA
KET DRY GOODS STURTEVANTS
Dollar Mountain
POST OFFICE
6TH ST & 4TH AVE
WELLS FARGO
LES SAISONS
ELEPHANT'S PERCH
Bald Mountain
SKYLINE DRIVE
SV ROAD & 2ND AVE
VILLAGE DRIVE
BLUE GROUSE
1ST ST & MAIN ST
KENTWOOD LODGE
INDIAN SPRINGS
ELKHORN
1ST ST & 2ND AVE
BONNE VIE
SOCKEYE SQUARE
GEM STREET
THE BLUFFS
ELKHORN SPRINGS
CHRISTOPHE
WEST RIDGE
THE HIGHLANDS
SERENADE & 2ND AVE
LIFT TOWER LODGE
SUMMIT CONDOS
RIVER RUN BASE AREA
TOPAZ STREET
MORNINGSTAR & ELKHORN
ARROWLEAF
SYRINGA
MORNINGSTAR ROAD
WEYYAKIN
PARKER GULCH
MT VIEW GROCERY
ELKHORN LIGHT (RED ROUTE ONLY)
HARKER CENTER
ELKHORN ROAD
LANE RANCH
JUNIPER RD
LUPINE
LOWER RANCH
RANCH CLUBHOUSE
ST. LUKES HOSPITAL
BLUEBELL
BROADWAY RUN
MAYLEAF
STARLIGHT
To Hailey & Bellevue Check Valley Map for Stops
MEADOWS
Mountain RIDES
tel (208) 788-RIDE (7433)
fax (866) 554-1103
www.mountainrides.org
Year Round Routes
BLUE ROUTE
GREEN ROUTE
RED ROUTE
VALLEY ROUTE
BIKE PATH
Other Symbols
TOWN STOP
TOWN/VALLEY STOP*
VALLEY STOPS*
VALLEY TRANSFER*
TOWN TRANSFER
*Valley will ONLY stop at orange circle or orange square stops

Figure F-2

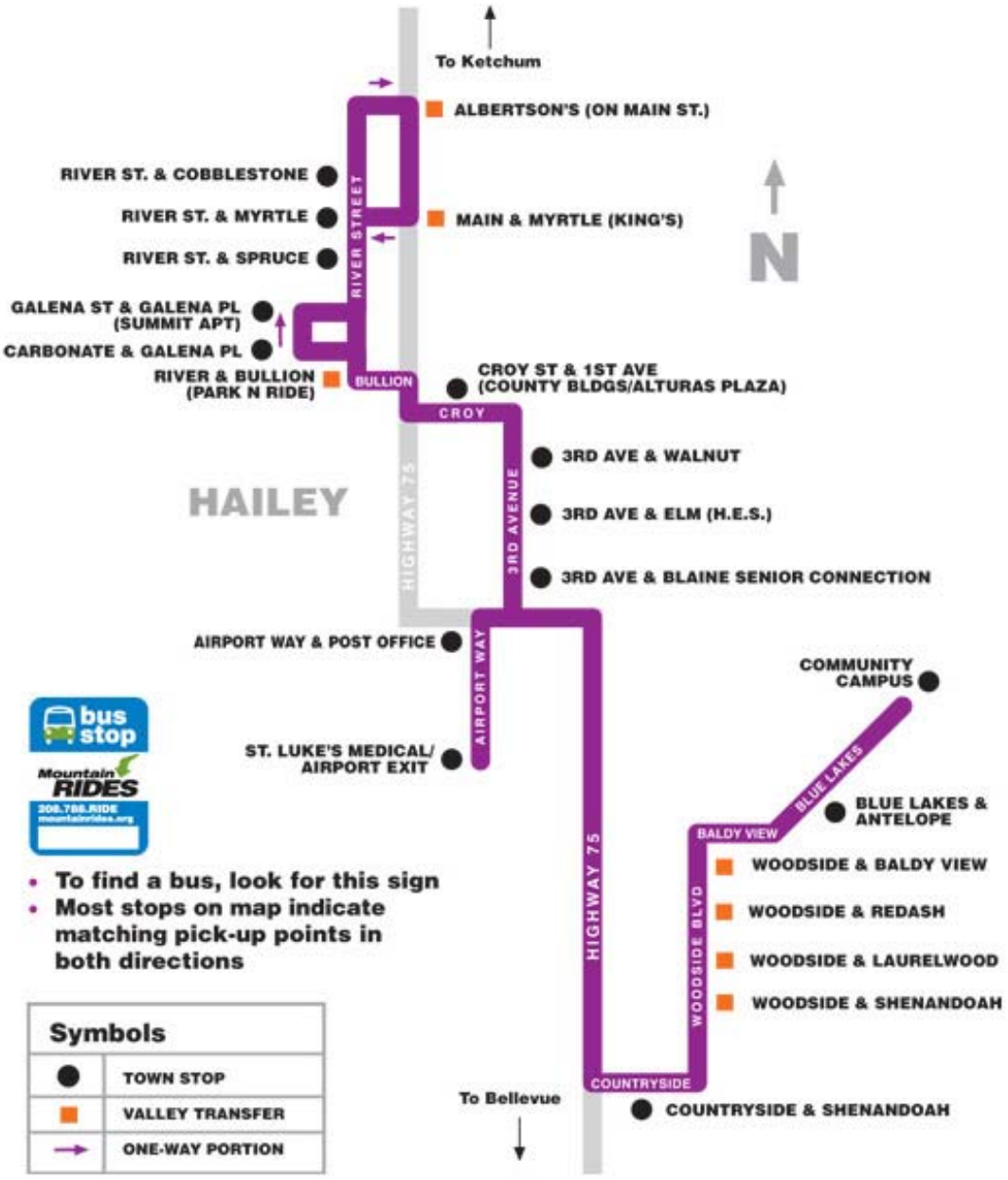

To Ketchum
ALBERTSON'S (ON MAIN ST.)
RIVER ST. & COBBLESTONE
RIVER ST. & MYRTLE
MAIN & MYRTLE (KING'S)
RIVER ST. & SPRUCE
RIVER STREET
N
GALENA ST & GALENA PL (SUMMIT APT)
CARBONATE & GALENA PL
RIVER & BULLION (PARK N RIDE)
BULLION
CROY ST & 1ST AVE (COUNTY BLDGS/ALTURAS PLAZA)
CROY
3RD AVE & WALNUT
HAILEY
HIGHWAY 75
3RD AVENUE
3RD AVE & ELM (H.E.S.)
3RD AVE & BLAINE SENIOR CONNECTION
AIRPORT WAY & POST OFFICE
AIRPORT WAY
COMMUNITY CAMPUS
bus stop
Mountain RIDES
ST. LUKE'S MEDICAL/ AIRPORT EXIT
BLUE LAKES
BLUE LAKES & ANTELOPE
BALDY VIEW
WOODSIDE & BALDY VIEW
WOODSIDE & REDASH
WOODSIDE & LAURELWOOD
WOODSIDE & SHENANDOAH
WOODSIDE BLVD
HIGHWAY 75
• To find a bus, look for this sign
• Most stops on map indicate matching pick-up points in both directions
Symbols
TOWN STOP
VALLEY TRANSFER
ONE-WAY PORTION
COUNTRYSIDE
To Bellevue
COUNTRYSIDE & SHENANDOAH

Figure F-3

Valley Route
STIRRUP LN & SADDLE RD
THUNDER SPRINGS
NORTHWOOD WY & SADDLE RD
OLD DOLLAR RD
KETCHUM PARK & RIDE
COMMUNITY SCHOOL
SUN VALLEY CITY HALL
YMCA
PARKSIDE
LEWIS ST
Sun Valley
MAIN & 4TH (WELLS FARGO)
STURTEVANTS
EAST AVE & FIRST
Ketchum
MAIN & FIRST ST
KENTWOOD
TOPAZ
LIFT TOWER LODGE
WEYYAKIN
MT VIEW GROCERY & HWY 75
ST LUKES & HOSPITAL DRIVE
N
EAST FORK NE Corner
EAST FORK SW Corner
75
NORTH 1ST AVE
MAIN & MYRTLE ST
BULLION & RIVER ST PARK & RIDE
MAIN & CROY
MAIN & MAPLE ST
Hailey
FOX ACRES RD & WOODSIDE
VALLEY BUS ROUTE
VALLEY BUS STOP
PARK & RIDE BUS STOP
VALLEY TRANSFER STOP
CONNECT TO WARM SPRINGS, RIVER RUN, OR ELKHORN
BALDY VIEW & WOODSIDE
RED ASH & WOODSIDE
LAURELWOOD & WOODSIDE
MOONLIGHT & WOODSIDE
WINTERHAVEN
PIÑON
CHERRY CREEK
POWER ENGINEERS
VALLEY MARKET
MAIN & SPRUCE ST
MAIN & BROADFORD
MAIN & COTTONWOOD
MAIN & PINE ST
BOWLING ALLEY
Bellevue
CLOVER

- ADA Paratransit Service – MRTA provides demand-responsive service for individuals who are unable to ride fixed-route services, in the Ketchum/Sun Valley city limits that coincides with the hours that the around town routes are operated. In calendar year 2010, Mountain Rides provided a total of 420,000 passenger trips on its fixed routes and 1,200 ADA paratransit trips. There are approximately twelve bus shelters in LMMN 4A and a handful of benches at bus stops. MRTA serves approximately 180 bus stops.

Data on the Mountain Rides services can be found in Table F-1.

REGIONAL BUS / INTERCITY RAIL

No regional bus or intercity passenger rail operates in this LMMN.

HUMAN SERVICE AGENCIES

Human service agencies typically provide services for their program participants to access agency programs or activities integral to the agency's mission. The following human service agencies either provide transportation services, or provide financial to their participants for transportation purposes, in LMMN 4A (Table F-2):

- The Advocates – based in Hailey, provides financial assistance for transportation to survivors of domestic abuse; serves Blaine, Camas, Custer, and Lincoln Counties.

- College of Southern Idaho Office on Aging – CSI's Office on Aging is the Area VI Agency on Aging (serving Cassia, Gooding, Jerome, Lincoln, Minidoka, and Twin Falls Counties). This office funds transportation services for elderly persons to access medical appointments, shopping, personal business, and services. This is an umbrella organization that provides funding and oversight to many of the local senior centers and includes the following program that provides transportation:
  - The Retired Seniors Volunteer Program (RSVP) is made up of volunteers who take clients to medical appointments or grocery shopping. The driver stays with the client and then takes them home. The service is currently providing about 12 trips per day. The program asks for 48 hours advance notice when possible, but will work on shorter notice if there is an emergency.
  - The Senior Companion Program provides one-on-one assistance to the frail elderly and other homebound persons who have difficulty completing everyday tasks. Among the services is transportation to medical appointments provided by volunteers who are reimbursed for their mileage.

Table F-1: Public Transit Systems in LMMN 4A

Organization	Organization Type	LMMN(s) Served	Route or Service Name	Geographic Area Served	FY 2009 Total Passenger Trips	Type of Service	Vehicles	Lift-Equipped Vehicles	Hours of Operation	Fares
Mountain Rides Transportation Authority (MRTA)	public	4a	Valley Bus	Bellevue, Hailey, Ketchum and Sun Valley	103,664	fixed-route	4	4	Winter season: M-Su 6am-8pm Remainder of year: M-F 6 am-11 pm Sa 6:30 am-8:15 pm Sun 6:30 am-6 pm	$3 each way
		4a	Ketchum/Sun Valley Town Bus: Blue Route	Warm Springs, Ketchum, SV Village, Dollar, Elkhorn	232,473	fixed-route	8 during peak winter season	6 during peak winter season	Winter season : M-Su 7 am-11:50 pm Remainder of year: M-Su 7 am-9:20 pm	free
		4a	Ketchum/Sun Valley Town Bus: Red Route	Elkhorn neighborhoods, River Run Lifts		fixed-route			M-Su 7:55 am-5:25 pm	free
		4a	Ketchum/Sun Valley Town Bus: Green Route	Ketchum, River Run, St. Luke's, Meadows		fixed-route			M-Su 7:30-10:30 am & 2:00-5:40 pm	free
		4a	Ketchum/Sun Valley Town Bus: Gold Route	Elkhorn Springs, Dollar Lodge, SV Village, SV Club		fixed-route			Winter season only: M-Su 8:34 am-3:45 pm	free
		4a	Ketchum/Sun Valley Town Bus: Silver Route	SV Village, Ketchum, River Run, Dollar to River Run Express		fixed-route			Winter season only: M-Su 8:15 am-5:15 pm	free
		4a	Ketchum/Sun Valley Town Bus: Bronze Route	Warm Springs from SV Village over Saddle Rd		fixed-route			Winter season only: M-Su 8:30 am- 3:45 pm	free
		4a	Hailey Town Bus	Hailey	started April 2010	deviated fixed-route			M-F 7-10:55am & 2-6:55 pm	free
		4a	ADA Paratransit Service	Ketchum-Sun Valley city limits	709	demand-response	1	1	M-Su 7:30am until the last run of day on Ketchum/Sun Valley Town service	free
		4a, 4b	Vanpool	Twin Falls/Shoshone to Hailey/Ketchum/Sun Valley	27,134	vanpool	8	0	Varies by route; AM and PM commute	monthly distance-based fee ($120-155)
			Total		363,980		28	16		

Table F-2: Human Service Agency Transportation Providers and Funding Agencies in LMMN 4A

Organization	Organization Type	Role in mobility and transportation services					Transportation Service Area	Days and Hours of Transportation Services	Service Type	Customer Groups (Eligible for Agency Transportation)	Trip Purposes Served	Agency-Owned Vehicles
		Operate Agency-Owned Vehicles	Purchase or contract from, or provide funding to, organizations that provide transportation	Arrange for Volunteer Drivers	Financial Support to Customers (Reimburse/ Vouchers)	Other						
The Advocates	private non-profit				x		Blaine, Camas, Custer, and Lincoln			survivors of domestic violence		
College of Southern Idaho Office on Aging - includes Retired Senior Volunteer Program SAS (Senior Assisted Services) Van	public	x	x	x	x		Cassia, Gooding, Jerome, Lincoln, Minidoka, Twin Falls Counties		demand-response	Older adults	medical, shopping,personal business	van(s) operated by voluteers
College of Southern Idaho Office on Aging - Senior Companion Program	private non-profit			x	x		Blaine, Camas, Cassia, Gooding, Jerome, Lincoln, Minidoka, Twin Falls Counties	M-F 8 am - 5 pm	demand-responsive	frail elderly and other homebound persons	medical	
Golden Years Senior Center	private non-profit						based in Shoshone					S. 5310 recipient
Idaho Commission for the Blind and Visually Impaired	public				x		Blaine, Camas, Cassia, Gooding, Jerome, Lincoln, Minidoka, Twin Falls Counties			people with vision disabilities		
Idaho Commission on Aging	Public		x				Statewide and Cache, UT			Older adults		
Idaho Dept of Health and Welfare	Public		x		x		Blaine, Camas, Cassia, Gooding, Jerome, Lincoln, Minidoka, Twin Falls Counties			Low income (Medicaid recipients)	medical	
Idaho Dept of Health and Welfare Behavioral Health	public						Statewide			People with emotional disabilities	Access agency programs, medical	
Idaho Division of Vocational Rehabilitation	public		x		x		Blaine, Camas, Cassia, Gooding, Jerome, Minidoka, Shoshone, Twin Falls Counties			People with disabilities preparing for employment	employment, training	
LINC -- Living Independence Network Corp.	private non-profit				x		Gooding, Jerome, Lincoln, Twin Falls Counties	varies by taxi provider	user-side subsidy for taxi services	Older adults, people with disabilities (S. 5310-funded)		none
Magic Valley Youth and Adult Services, Inc.	private non-profit					coordinate services	Blaine, Camas, Cassia, Gooding, Jerome, Lincoln, Minidoka, Twin Falls Co.			job-seeking youth and adults	employment-related	
Senior Connection of Blaine County	private non-profit	x					Blaine County (Carey to North Fork Store in Ketchum)	M-F 8:30 am-5:30 pm, weekends when needed	demand-response	Older adults, people with disabilities, others on a space-available basis	shopping, recreation, and medical	2; S. 5310 recipient
Sun Valley Adaptive Sports (SVAS)	private non-profit						Blaine County			Children and adults with disabilities	recreation, education	21-passenger bus
Wood River Community YMCA	private non-profit		x		x		Blaine County				recreation	

- Golden Years Senior Center – based in Shoshone, owns a small accessible bus that was funded under the Section 5310 program, provided an estimate of 183 trips in 2009.

- Idaho Commission for the Blind and Visually Impaired - this state agency provides financial assistance for transportation to people with vision disabilities. The Twin Falls office serves Blaine, Camas, Cassia, Gooding, Jerome, Lincoln, Minidoka, and Twin Falls Counties.

- Idaho Commission on Aging – funds transportation services for seniors throughout the State.

- Idaho Department of Health and Welfare – funds transportation services for clients eligible for a variety of programs throughout the State, including Medicaid transportation. LMMN 4A is located in IDHW Region 5 (with a regional office in Twin Falls).
  - Idaho Department of Health and Welfare Behavioral Health – funds transportation services for clients to access mental health and substance abuse programs.

- Idaho Division of Vocational Rehabilitation – This state agency provides financial assistance for transportation for people with disabilities preparing for employment, including access training. The Twin Falls regional office serves Blaine, Camas, Cassia, Gooding, Jerome, Minidoka, Shoshone, and Twin Falls Counties.

- LINC -- Living Independence Network Corporation - LINC uses Section 5310 funding for a user-side subsidy program in serving Gooding, Jerome, Lincoln, and Twin Falls Counties. Over the past 17 years, this program has grown to serve more than 500 individuals. For eligible individuals (people aged 60+ or with a disability), LINC issues a monthly punch card which, with a co-payment, is accepted by area taxi companies. The transportation customer arranges their own transportation with their provider of choice, and the cab companies invoice LINK for the remaining cost of the ride. An estimated 9,630 trips were subsidized in 2009 in the four counties.

- Magic Valley Youth and Adult Services, Inc. – located in Twin Falls, this agency coordinates transportation and assists job-seeking youths and adults under the Workforce Investment Act in Blaine, Camas, Cassia, Gooding, Jerome, Lincoln, Minidoka, and Twin Falls Counties.

- Senior Connection of Blaine County – Based in Hailey, the Senior Connection's mission is to connect older adults and the community through services and programs. The Senior Connection operates two ADA-accessible vehicles (one of which was funded through the Section 5310 program) for transporting seniors and people with disabilities to services in the community, as well as to and from shopping and recreation opportunities outside of Blaine County. The service area reaches from Carey to the North Fork Store in Ketchum. In 2009, an estimated 4,840 one-way passenger trips were provided.

- Sun Valley Adaptive Sports (SVAS) - offers programs for children, teens, adults, and veterans that cover a wide-range of disabilities-physical, emotional, developmental, and learning. SVAS operates an ADA-accessible 21-passenger bus to move those with disabilities to various educational and recreational opportunities in the Blaine County area.

- Wood River Community YMCA – funds transportation services in Blaine County for participants in recreation programs.

RIDESHARE / VANPOOL

Two rideshare/vanpool programs include LMMN 4A in their service area (Table F-3):

- Mountain Rides Vanpool - MRTA provides equipment and support for commuter vanpool routes serving Blaine County. There are currently eight vanpool routes that provide connectivity from Shoshone, Twin Falls (4B), Jerome (4B), and Gooding (4B) to the communities in Blaine County. The monthly fare is distance-based.

- IdahoRideshare.org– Residents of LMMN 4A can be matched with others with whom to share rides in carpools and vanpools through the statewide rideshare program, online at Idaho Rideshare. This program was created in partnership with state and public transportation providers in Washington State, and the website has recently been expanded to include all of Idaho as well. Idaho Rideshare also provides information and referral to transportation alternatives, and tools for employers.

PARK & RIDE LOTS

- There are two formal park and ride lots: one in Shoshone and one in Hailey.

Table F-3: Rideshare Programs Serving LMMN 4A

Program	Administering Organization	LMMN(s) Served	Program Description	Service Area
RideshareOnline.com	Washington State Department of Transportation	all	Website that provides online ridematching services, information and referral to transportation alternatives, and tools for employers	Washington State and Idaho
Mountain Rides Vanpool	Mountain Rides Transportation Authority (MRTA)	4a, 4b	equipment and support for commuter vanpool routes	Twin Falls/Shoshone to Hailey/Ketchum/Sun Valley

NON-MOTORIZED TRANSPORTATION (BICYCLE / PEDESTRIAN)

- The WRV has a network of separated, multi-use pathways with a core spine, the Wood River Trail, running from Bellevue to Ketchum, as well as a primary loop in the Sun Valley area.

- Downtown areas of Ketchum, Hailey, Bellevue, Shoshone, Carey, and Fairfield have varied and, in most cases, disconnected sections of sidewalks and pedestrian pathways.

- A limited number of bike lanes exist in LMMN 4A. Few bike racks and storage areas can be found in the downtown areas of towns within LMMN 4A.

- Blaine County has a Safe Routes to School program, administered by Mountain Rides, that works to get more kids and parents biking and walking to school, as well as getting more infrastructure built to support safer bike and pedestrian access.

- Blaine County Recreation District, a county-wide recreation organization that operates a majority of the multi-use pathways in Blaine County, is a full-service operator of these facilities, including ongoing maintenance, signage, resurfacing, and promotion efforts. BCRD provides trail information, maps, and a volunteer network of Trail Ambassadors to assist non-motorized users of these multi-use pathways. Additionally, BCRD is involved heavily in the Safe Routes to School program, bicycle advocacy/education, development of new bike and pedestrian transportation infrastructure. Besides the multi-use pathways in the WRV, BCRD operates Galena Lodge north of Ketchum and is responsible for maintaining a 130km network of Nordic ski trails called the North Valley Trails. This Nordic destination is one of the largest in the United States and experiences over 15,000 visits annually from both tourists and locals.

  The BCRD also partners with the US Forest Service to help maintain one of those trails during summer usage, the Harriman Trail. This trail is roughly 30km and runs from the SNRA headquarters north of Ketchum to Galena Lodge. The trail is a non-paved trail that serves as a major destination for both tourists and locals during both the summer and winter seasons. The entire BCRD system complements a separate 40km Nordic system at the Sun Valley Resort in Sun Valley, Idaho. Together, the valley offers one of the largest and most diverse Nordic experiences in the United States providing healthy, active recreation for locals and a valuable destination for tourists and visitors to the valley.

As a taxing district in the County, the BCRD also acts as an advocate of all public access recreation throughout the County. It is committed to partnering with the community to enhance non-motorized transportation as well as improving access to existing recreational outlets throughout the county.

- There are several non-profits and coalitions that support, advocate, and help guide the development of new bike and pedestrian facilities. WRBC formed in 2008 to help advocate for bike/pedestrian needs. Through the efforts of the WRBC, the WRV recently received "Silver Level" designation from the League of American Bicyclists.

- Hailey recently received a federal Tiger II grant to construct additional sidewalks along Woodside Blvd to the Woodside Elementary.

- Recent improvements include construction of a 4th Street pedestrian/bike corridor in Ketchum.

TAXI SERVICES

The three taxi services were identified as serving LMMN 4A:

- A-0 Cab (doing business as Wood River Taxi) – based in Hailey, also provides airport shuttle, serves Sun Valley, Ketchum, Hailey, Twin Falls, Boise, Salt Lake, and Stanley.

- A-1 Taxi – based in Ketchum, also provides airport shuttle, charter, limousine and package delivery services, serves Sun Valley, Boise, Twin Falls, Idaho Falls, Salt Lake, Stanley.

- Airport Cab Company - based in Sun Valley, also provides airport shuttle, charter, and courier services, serves Sun Valley, Boise, Twin Falls, Idaho Falls, Salt Lake, and Stanley.

SCHOOLS/EDUCATION

BCSD operates school buses for students. BCSD serves five elementary schools, one middle school, and two high schools. Total student enrollment for the district is approximately 3,300 students. BCSD has a fleet of small and large buses to get students to and from school, as well as for school-related activities.

AERONAUTIC

- Blaine County's Aviation System includes both public and private air facilities. Friedman Memorial Airport (FMA), located in the City of Hailey, is the County's only airport serving both general aviation and scheduled commercial air carriers. Other small airfields or landing strips in Blaine County are located south of Bellevue (Sluder airstrip – private-use), in Carey (Carey airfield – public-use), near Picabo (Picabo airstrip – private-use), and near Smiley Creek (Smiley Creek airfield public-use).

- FMA is Blaine County's only aviation facility that is part of the federal National Plan of Integrated Airport Systems (NPIAS). As part of this system, FMA is considered necessary "to provide a safe, efficient, and integrated system of nation-wide public-use airports adequate to anticipate and meet the needs of: commercial air service; civil aeronautics; the national defense requirements of the Secretary of Defense; emergency air medical evacuation; BLM and USFS fire response support; as well as ground carriers such as FedEx, UPS, and the United States Postal Service." As such, it is also the only airport in Blaine County that receives federal funding via the Federal Aviation Administration (FAA) and it is subject, therefore, to FAA design standards, regulations, rules, sponsor responsibilities, and policies.

OTHER TRANSPORTATION PROVIDERS

Other transportation providers include private for-profit airport shuttles, charter buses, for-profit non-emergency medical transportation providers, recreational shuttles, and other services (Table F-4). In LMMN 4A, these include:

- Child Safe Transportation - transports children to and from the houses of shared-custody parents. Friday and Sunday trips are provided to children between Boise, Twin Falls, Pocatello, WRV, and Bellevue. Trips are $190 round trip for a month of travel, or $130 for monthly one-way travel.

- Mountain Fairy Shuttle – operates a shuttle with bicycle carriage between Galena and the Sawtooth National Recreation Area.

- Sawtooth Transportation LLC - river rafting shuttle, airport shuttle and charter service, based in Boise, serving Boise, Stanley, Salmon, McCall, Sun Valley, Twin Falls, and points between.

- Sun Valley Company - As the largest private sector employer in Blaine County, Sun Valley moves many employees and guests through a variety of

Table F-4: Other Transportation Providers in LMMN 4A

Organization	Organization Type	Transportation Service Area	Days and Hours of Operation	Transportation Services Provided					Vehicle Fleet
				Airport Shuttle	Charter	Non-Emergency Medical	Taxicab	Other Services	
A-0 Cab (DBA Wood River Taxi)	private for-profit	based in Hailey; serves Sun Valley, Ketchum, Hailey, Twin Falls, Boise, Salt Lake & Stanley		x			x		
A-1 Taxi	private for-profit	based in Ketchum; Sun Valley and Hailey area; serves Boise and Twin Falls airports	daily 24/7; meets all flights at Boise and Twin Falls airports	x	x		x	limousine, package delivery	minivans, 15 passenger vans and 4-wheel-drive vehicles
Airport Cab Company	private for-profit	based in Sun Valley; Sun Valley, Boise, Twin Falls, Idaho Falls, Salt Lake, Stanley		x	x		x	courier	
Blaine School District	public	Blaine County						school bus	school buses
Mountain Fairy Shuttle	private for-profit	between Galena and the Sawtooth National Recreation Area						shuttle with bicycle carriage	pink vans
Sawtooth Transportation LLC	private for-profit	based in Boise, serves Boise, Stanley, Salmon, McCall, Sun Valley, Twin Falls, and points between		x	x			river rafting shuttle	
Sun Valley Company	private for-profit	serves Sun Valley Resort, Sun Valley, Ketchum, airport; contracts for commuter shuttle service between Twin Falls and Sun Valley resort						transports its employees and guests; contracts commuter shuttle from a charter operator	several 15-pass vans & 20-pass shuttle buses; contracts for operation of 50-pass bus
Sun Valley Express	private for-profit	airport shuttle from Sun Valley to Boise airport	One round trip daily: departs Sun Valley 8:30 am; departs Boise 2:55 pm	x	x				10-passenger, 24-passenger, 50 and 58 passenger coaches
Sun Valley Stages	private for-profit	based in Twin Falls; airport shuttle from Sun Valley to Boise airport	Summer: two round trips daily: departs Sun Valley 7 am & 11 am; departs Boise 2 pm & 6 pm	x	x				11-passenger vans, 24-passenger buses, 52-passenger motorcoaches

means. Sun Valley operates several 15-passenger vans to get employees to and from work, as well as for moving guests from the Sun Valley resort to destinations in Sun Valley and Ketchum. Sun Valley also operates 20-passenger shuttle buses to move guests from the airport to the resort. Additionally, Sun Valley contracts with a private charter company to provide daily service with a 50-passenger coach from Twin Falls for employees.

- Sun Valley Express - a private, for-profit company offering charter service, and shuttle service between the Boise airport and Sun Valley. In the winter, up to four trips per day are made, and up to two trips are made per day in the summer. Generally, trips depart Boise in the afternoon, and depart from Sun Valley in the mornings. The company has vehicles that fit 10, 24, 40, 50, or 57 passengers. The 40-passenger vehicles are lift-equipped.

- Sun Valley Stages - based in Twin Falls, operates a airport shuttle from Sun Valley to the Boise airport (two round trips daily) as well as charter bus service; operates a fleet of 11-passenger vans, 24-passenger buses, and 52-passenger motorcoaches. In Blaine County, Sun Valley Stages offers several services. It provides a charter service for school districts to transport students to sporting and other events. It provides service for passengers who are diverted from the Freidman Memorial Airport to the Twin Falls Airport. It also provides shuttle service twice each day from the Sun Valley Inn to the Boise Airport. Further, it contracts with Sun Valley Company to offer commuter bus service for Sun Valley Company Employees, seven days each week.

VEHICLE INVENTORY

As part of the planning process a vehicle inventory was conducted. Through the inventory all FTA funded vehicles are documented and a capital replacement plan for 20 years is in place. The replacement plan is based on FTA minimum useful life standards in terms of age, by type of vehicles, as detailed in FTA circular C5010.d, "Grant Management Requirements" (11/11/03), page IV-17. The inventory for vehicles currently operating in LMMN 4A is located in Table F-5.

Table F-5: Vehicle Inventory and Replacement Plan
Vehicles Currently Operated in LMMN 4A

Statewide Vehicle ID	District	LMMN(s)	Serves Multiple LMMNs	Transit System that Operates	Local Fleet Number	Model Year	Make	Model	Vehicle Type *LD = light-duty MD = medium-duty HD = heavy-duty*	Equipped with Lift or Ramp?	Seating Capacity		Useful life (years)
											Seats	Wheel-chairs	
262	4	4A		Blaine Co Senior Center (Senior Connection)		2007	Ford	E-450	cutaway-LD-5yr	Y	16	2	5
263	4	4A		MRTA-Blaine Co		2003	Ford	E-450	cutaway-LD-5yr	Y	14	1	5
264	4	4A		MRTA	1	2006	Gillig		transit bus - 30' low-floor	Y	28	2	10
265	4	4A		MRTA	2	2006	Gillig		transit bus - 30' low-floor	Y	28	2	10
266	4	4A		MRTA	3	2002	Gillig		transit bus - 30' low-floor	Y	28	2	10
267	4	4A		MRTA	4	2002	Gillig		transit bus - 30' low-floor	Y	28	2	10
268	4	4A		MRTA	5	2007	Gillig		transit bus - 30' low-floor	Y	35	2	10
269	4	4A		MRTA	6	1994	Gillig		transit bus - 30' low-floor	Y	43	2	10
270	4	4A		MRTA	7	1989	Orion		transit bus - 30' high-floor	N	31	0	10
271	4	4A		MRTA	8	1991	Orion		transit bus - 30' high-floor	N	31	0	10
272	4	4A		MRTA	9	1994	Gillig		transit bus - 40' low-floor	Y	43	2	12
273	4	4A		MRTA	10	1995	Gillig		transit bus - 30' high-floor	Y	29	2	10
274	4	4A		MRTA	11	1999	Gillig		transit bus - 30' high-floor	Y	29	2	10
275	4	4A		MRTA	12	2008	Daimler	Sprinter	van	Y	15	2	4
276	4	4A		MRTA	13	2008	Daimler	Sprinter	van	Y	15	2	4
277	4	4A		MRTA	14	2008	Daimler	Sprinter	van	Y	15	2	4
278	4	4A		MRTA	15	2003	Ford	F-450	cutaway-MD	Y	15	2	7
279	4	4A		MRTA	17	1994	Dodge		cutaway	Y	4	1	4
280	4	4A		MRTA	18	1999	Toyota	Previa	minivan	N	6	0	4
281	4	4A		MRTA	22	1976	Ford	F-250	pick-up	N	2	0	4
282	4	4A		MRTA	V-1	2003	Ford	E-350	van	N	14	0	4
283	4	4A		MRTA	V-2	2000	Ford	E-350	van	N	14	0	4
284	4	4A		MRTA	V-3	2000	Ford	E-350	van	N	14	0	4
285	4	4A		MRTA	V-4	1999	Ford	E-350	van	N	14	0	4
286	4	4A		MRTA	V-5	2008	Ford	E-350	van	N	14	0	4
287	4	4A		MRTA	V-6	2008	Ford	E-350	van	N	14	0	4
288	4	4A		MRTA	V-7	2003	Ford	E-350	van	N	14	0	4
289	4	4A		MRTA	V-8	2006	Ford	E-350	van	N	12	0	4
290	4	4A+B	*	Golden Years Senior Center		2008	Ford	E-450	cutaway-LD-5yr	Y	12	2	5

Table F-5: Vehicle Inventory and Replacement Plan
Vehicles Currently Operated in LMMN 4A

Statewide Vehicle ID	District	LMMN(s)	Serves Multiple LMMNs	Transit System that Operates	Local Fleet Number	Replacement Needs							Replacement Vehicle Type *LD = light-duty MD = medium-duty HD = heavy-duty*	Estimated Unit Cost (FY 2010 dollars)
						Actual	Overdue	1st Needed	2nd Needed	3rd Needed	4th Needed	5th Needed		
262	4	4A		Blaine Co Senior Center (Senior Connection)		2012		2012	2017	2022	2027	2032	cutaway-LD-5yr	$60,000
263	4	4A		MRTA-Blaine Co		2008	**	2011	2016	2021	2026	2031	cutaway-LD-5yr	$60,000
264	4	4A		MRTA	1	2016		2016	2026	2036	2046	2056	transit bus - 30' low-floor	$200,000
265	4	4A		MRTA	2	2016		2016	2026	2036	2046	2056	transit bus - 30' low-floor	$200,000
266	4	4A		MRTA	3	2012		2012	2022	2032	2042	2052	transit bus - 30' low-floor	$200,000
267	4	4A		MRTA	4	2012		2012	2022	2032	2042	2052	transit bus - 30' low-floor	$200,000
268	4	4A		MRTA	5	2017		2017	2027	2037	2047	2057	transit bus - 30' low-floor	$200,000
269	4	4A		MRTA	6	2004	**	2011	2021	2031	2041	2051	transit bus - 30' low-floor	$200,000
270	4	4A		MRTA	7	1999	**	2011	2021	2031	2041	2051	transit bus - 30' high-floor	$200,000
271	4	4A		MRTA	8	2001	**	2011	2021	2031	2041	2051	transit bus - 30' high-floor	$200,000
272	4	4A		MRTA	9	2006	**	2011	2023	2035	2047	2059	transit bus - 40' low-floor	$350,000
273	4	4A		MRTA	10	2005	**	2011	2021	2031	2041	2051	transit bus - 30' high-floor	$200,000
274	4	4A		MRTA	11	2009	**	2011	2021	2031	2041	2051	transit bus - 30' high-floor	$200,000
275	4	4A		MRTA	12	2012		2012	2016	2020	2024	2028	van	$40,000
276	4	4A		MRTA	13	2012		2012	2016	2020	2024	2028	van	$40,000
277	4	4A		MRTA	14	2012		2012	2016	2020	2024	2028	van	$40,000
278	4	4A		MRTA	15	2010	**	2011	2018	2025	2032	2039	cutaway-MD	$150,000
279	4	4A		MRTA	17	1998	**	2011	2015	2019	2023	2027	cutaway	$48,000
280	4	4A		MRTA	18	2003	**	2011	2015	2019	2023	2027	minivan	$35,000
281	4	4A		MRTA	22	1980	**	2011	2015	2019	2023	2027	pick-up	$25,000
282	4	4A		MRTA	V-1	2007	**	2011	2015	2019	2023	2027	van	$35,000
283	4	4A		MRTA	V-2	2004	**	2011	2015	2019	2023	2027	van	$35,000
284	4	4A		MRTA	V-3	2004	**	2011	2015	2019	2023	2027	van	$35,000
285	4	4A		MRTA	V-4	2003	**	2011	2015	2019	2023	2027	van	$35,000
286	4	4A		MRTA	V-5	2012		2012	2016	2020	2024	2028	van	$35,000
287	4	4A		MRTA	V-6	2012		2012	2016	2020	2024	2028	van	$35,000
288	4	4A		MRTA	V-7	2007	**	2011	2015	2019	2023	2027	van	$35,000
289	4	4A		MRTA	V-8	2010	**	2011	2015	2019	2023	2027	van	$35,000
290	4	4A+B	*	Golden Years Senior Center		2013		2013	2018	2023	2028	2033	cutaway-LD-5yr	$60,000

Blaine County Transportation Plan

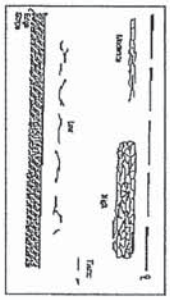
Appendix B

TAMS Roadway
Characteristics Rating Form

Appendix B

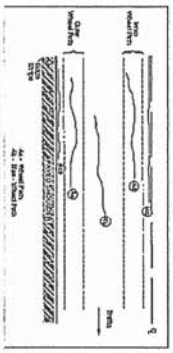
TAMS Roadway Characteristics Rating Form
Asphalt Surfaced Roads

FATIGUE CRACKING



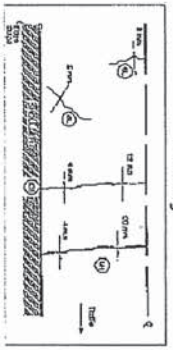
Severity	Extent: Low	Medium	High
0 None	1 Crack WP or 1' off C&G Length	2 Crack WP or 1'-2' off C&G Length	30% of Length
Low Cracks < 1/4"	1	2	3
Medium Cracks 1/4" to 3/4"	4	5	6
High Cracks > 3/4"	7	8	9

LONGITUDINAL CRACKING



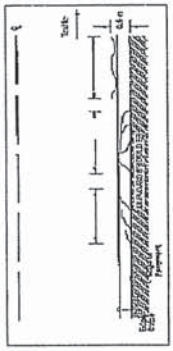
Severity	Extent: Low	Medium	High
0 None	1 Crack Full Length	2 Cracks Full Length	> 2 Cracks Full Length
Low Cracks < 1/4"	1	2	3
Medium Cracks 1/4" to 3/4"	4	5	6
High Cracks > 3/4"	7	8	9

TRANSVERSE CRACKING



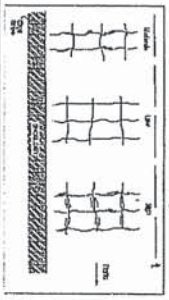
Severity	Extent: Low	Medium	High
0 None	> 200' between Cracks	200'-50' between Cracks	< 50' between Cracks
Low Cracks < 1/4"	1	2	3
Medium Cracks 1/4" to 3/4"	4	5	6
High Cracks > 3/4"	7	8	9

EDGE CRACKING



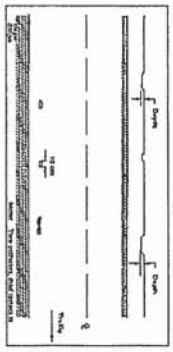
Severity	Extent: Low	Medium	High
0 None	0-10% of Length	10-30% of Length	> 30% of Length
Low 0-6" from Curb	1	2	3
Medium 6-18" from Curb	4	5	6
High 18" from Curb	7	8	9

BLOCK CRACKING



Severity	Extent: Low	Medium	High
0 None	> 15'x15' Squares	15'-10'x Squares	< 10'x10' Squares
Low Cracks < 1/4"	1	2	3
Medium Cracks 1/4" to 3/4"	4	5	6
High Cracks > 3/4"	7	8	9

UTILITY CUTS



Severity	Extent: Low	Medium	High
0 None	0-10% of Length	10-30% of Length	>30% of Length
Low Cracks < 1/4"	1	2	3
Medium Cracks 1/4" to 3/4"	4	5	6
High Cracks > 3/4"	7	8	9

Drainage / Roughness

Good	Fair	Poor

Rutting

Low	0-3/8"	Med	1/2"-3/4"	High	>3/4"

Blaine County Transportation Plan

Appendix C

List of Blaine County Bridges

Idaho Transporation Department
Bridge Inspection 1/24/2012
Blaine County Bridges

BrKey	Str Name	Features	Route	Location	Material Type	Design Type	Lgth	Span Lgth	SqFt	Year Built	NBI Rating*	Suff Rating	Admin Jurisdiction
23695	X992070 0.26	BIG WOOD RIVER	ADAMS GULCH ROAD	1.7 N. 0.5 W. KETCHUM	Steel	Stringer/Girder	55	52	1650	1963	SD	26.0	Blaine County
23790	X992070 13.28	LITTLE WOOD RIVER	MULDOON CANYON RD	2.7 N. 10.4 E. BELLEVUE	Wood or Timber	Stringer/Girder	27	25	441	1935	SD	29.7	Blaine County
19575	92822A 1.15	GLENDALE CANAL	STC2822;GLENDALE R	3.3 S. 0.6 W. BELLEVUE	Prestressed Concrete	Tee Beam	34	32	813	1965	SD	33.5	Blaine County
23785	X992070 13.00	FRIEDMAN CREEK	LTL WOOD RES. ROAD	12.8 N. 2.8 W. CAREY	Steel	Stringer/Girder	35	34	700	1954	SD	53.8	Blaine County
23760	X992070 3.78	SALMON RIVER	POLE CREEK ROAD	0.1S 0.2E SAWTOOTH CITY	Wood or Timber	Slab	24	23	355	1974		58.4	Blaine County
23700	X992070 0.27	BIG WOOD R;W.BELLEVUE BR	BROADFORD ROAD	0.2 N. 0.3 W. BELLEVUE	Prestressed Concrete	Tee Beam	112	108	2680	1974		65.2	Blaine County
19565	92816A 4.20	BIG WOOD RIVER	STC2816;BULLION ST	0.3 S. 0.4 W. HAILEY	Prestressed Concrete	Stringer/Girder	101	99	3202	1972		67.0	Blaine County
19570	92818A 0.27	BIG WOOD RIVER	STC2818;E FORK RD	6.0 N. 1.6 W. HAILEY	Prestressed Concrete	Stringer/Girder	101	98	3202	1974		71.8	Blaine County
23780	X992070 6.15	SILVER CREEK	KILPATRICK BR. RD.	0.5 N. 3.5 W. PICCABO	Steel	Stringer/Girder	65	32	1378	1978		72.8	Blaine County
23675	X992070 0.19	RICHFIELD CANAL	OLD HIGHWAY 93	18.3 S. 2.7 W. BELLEVUE	Concrete	Tee Beam	102	32	2842	1932		74.2	Blaine County
23680	X992070 0.21	E.FK.BIG WOOD RIVER	COVE CREEK ROAD	2.3 E. TRIUMPH	Wood or Timber	Stringer/Girder	29	27	441	1978		76.7	Blaine County
23741	X992070 6.33	HYNDMAN CREEK	EAST FORK ROAD	0.6 E. TRIUMPH	Wood or Timber	Stringer/Girder	32	30	850	1994		80.9	Blaine County
23745	X992070 1.92	LITTLE WOOD RIVER	HI 5 CANYON ROAD	2.2 N. 10.2 E. BELLEVUE	Steel	Truss-Thru	64	60	1216	1986		81.2	Blaine County
23660	X992070 0.08	BIG WOOD RIVER	HULEN MEADOWS ROAD	2.7 N. 0.7 W. KETCHUM	Prestressed Concrete	Tee Beam	70	68	1813	1975		81.4	Blaine County
19545	92814A 3.11	EAST CANAL	STC2814;LTL WOOD	2.5 N. 1.5 W. CAREY	Concrete	Frame	25	24	721	1956		83.9	Blaine County
19540	92814A 2.05	EAST CANAL	STC2814;LTL WOOD	1.7 N. 0.9 W. CAREY	Concrete	Frame	21	20	581	1956		83.9	Blaine County
19550	92814A 4.16	LITTLE WOOD RIVER	STC 2814	2.8 N. 2.0 W. CAREY	Prestressed Concrete	Stringer/Girder	96	94	3057	1978		87.9	Blaine County
23685	X992070 0.22	W.BR.LITTLE WOOD RIVER	GRIFFIN LOOP	1.6 S. 0.2 E. CARRY	Steel	Stringer/Girder	25	22	500	1959		88.5	Blaine County
23770	X992070 4.51	SILVER CREEK;N.PICCABO B	NORTH PICABO ROAD	0.6 N. PICCABO	Steel	Stringer/Girder	45	22	1013	1989		88.5	Blaine County
19555	92815A 104.60	WARM SPRINGS CREEK	STC2815;WARM SPRGS	2.6 W. KETCHUM	Steel	Stringer/Girder	52	50	1310	1955		89.9	Blaine County
23765	X992070 4.17	SILVER CREEK	STOCKER CREEK ROAD	0.2 N. 5.0 W. PICCABO	Prestressed Concrete	Tee Beam	52	51	936	1977	FO	90.5	Blaine County
23658	X992070 100.01	BELLEVUE CANAL	LABRADOR LANE	1.3 S. 0.6 E. BELLEVUE	Concrete	Frame	27	25	818	2000		91.3	Blaine County
23715	X992070 0.63	BIG WOOD RIVER;DEER CR.	DEER CREEK ROAD	2.0 N. 1.0 W. HAILEY	Prestressed Concrete	Stringer/Girder	114	113	3843	1982		93.8	Blaine County
19536	92810A 11.32	DISTRICT CANAL	STC2810;GANNET RD.	1.1 S. 0.6 E. BELLEVUE	Steel	Culvert	29	29	958	1998		94.2	Blaine County
23710	X992070 0.57	LITTLE WOOD RIVER	DRY CREEK ROAD	1.2 N. 0.9 W. CAREY	Prestressed Concrete	Stringer/Girder	66	64	1819	1977		94.5	Blaine County
23726	X992070 101.49	BELLEVUE CANAL	PERO ROAD	4.6 S. 1.6 E. BELLEVUE	Steel	Stringer/Girder	28	26	560	1993		96.0	Blaine County
23731	X992070 106.76	FISH CREEK	HILL ROAD	3.3 N. 4.6 E. CAREY	Steel	Stringer/Girder	25	24	600	2009		97.0	Blaine County
23756	X992070 100.50	SILVER CREEK;S.E. PICABO	PRIEST ROAD	2.3 S. 2.7 E. PICABO	Steel	Stringer/Girder	29	28	753	1995		97.0	Blaine County
19586	92822A 2.16	BYPASS CANAL	STC2822;GLENDALE R	2.7 S. 0.1 E. BELLEVUE	Prestressed Concrete	Stringer/Girder	42	38	1389	1998		97.1	Blaine County
19581	92822A 2.09	BIG WOOD RIVER	STC2822;GLENDALE R	2.7 S. BELLEVUE	Prestressed Concrete	Stringer/Girder	174	85	5794	1998		97.1	Blaine County
23776	92814A 8.98	LITTLE WOOD RIVER	STC 2814	7.3 N. 3.4 W. CAREY	Prestressed Concrete	Stringer/Girder	54	53	1582	1991		98.0	Blaine County
23690	X992070 0.25	LITTLE WOOD RIVER	SMITH LANE	0.4 N. 0.7 W. CAREY	Prestressed Concrete	Stringer/Girder	65	63	1801	1978		99.0	Blaine County
23750	X992070 2.95	BIG WOOD RIVER	BROADFORD ROAD	1.8 N. 1.7 W. BELLEVUE	Prestressed Concrete	Stringer/Girder	103	100	3477	1985		99.7	Blaine County

Total: 33

***NBI Rating: SD = Structurally Deficient FO = Functionally Obsolete**