

Washington State County Road Administration Board

2012 Annual Report

Prepared for the Legislative Transportation Committee and the Washington State Transportation Commission



January 1, 2013

The Honorable Judy Clibborn Washington State Representative Chair, House Transportation Committee

The Honorable Tracy Eide Washington State Senator Co-Chair, Senate Transportation Committee

The Honorable Curtis King Washington State Senator Co-Chair, Senate Transportation Committee

Dear Representative Clibborn and Senators Eide and King:

The Washington State County Road Administration is pleased to present this report to the legislature for the activities of this agency for the year 2012. This report indicates not only the proper, but effective use of road dollars by the thirty-nine counties of Washington State.

The Board and its staff remain committed to accomplishing the legislative mandate to provide statutory oversight of each of the county road departments, and in doing so to provide to you the assurance that county road operations remain accountable for their stewardship of public assets and public trust. We would like to thank the Transportation Committees of the legislature for your continued support of that effort.

Respectfully submitted,

Non 19th

Commissioner Dean Burton, CRABoard Chairman

Jay P. Weber, Executive Director

County Road Administration Board

CRABoard Members	Term Expires
Chairman Dean Burton, Garfield County Commissioner	2013
Vice-Chairman Brian Stacy, P.E., Pierce County Engineer	2015
Second Vice-Chair Ray Thayer, Klickitat County Commissioner	2014
Bob Koch, Franklin County Commissioner	2015
John Koster, Snohomish County Council Member	2015
Dale Snyder, Douglas County Commissioner	2013
Derek Pohle, P.E., Grant County Engineer	2013
Andrew Woods, P.E., Columbia County Engineer	2014
Mike Leita, Yakima County Commissioner	2014

County Road Administration Board Staff

Executive Director	Jay Weber
Executive Assistant Administration	Karen Pendleton Toni Cox, Engineering Technician
	Rhonda Mayner, Secretary
Deputy Director Engineering	Walter Olsen, P.E. Jeff Monsen, P.E., Intergovernmental Policy Manager Randy Hart, P.E., Grant Programs Manager Don Zimmer, Road Systems Inventory Manager Bob Moorhead, P.E., Compliance & Data Analysis Manager Larry Pearson, P.E., Maintenance Manager – retired
Assistant Director Technology	Steven Hillesland Bob Davis, IT Systems Manager Jim Ayres, P.E., Design Systems Engineer Jim Oyler, Support Specialist Kathy O'Shea, Database Development Specialist Eric Hagenlock, Applications Specialist

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County Freight and Goods System	
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From the Executive Director

I just love it when a team comes together

2012 was a busy year for the staff of the County Road Administration Board. As the following pages will relate in much greater detail than I can in this brief space, the assistance provided to counties via grants programs, engineering services and training, together with information technology support has been delivered across the full spectrum of county road department activities. This effort would not have been possible, nor would it have been anywhere near as successful, without the coordination of the multi-talented individuals here at CRAB. I have often said that I am privileged to serve with some of the finest and most highly skilled public employees in state service, and that was certainly confirmed by their efforts of the past year.

A great deal of what appears in this report reflects the general work load experienced by this agency every year, but in addition to all that, the releases of the updates to Mobility, enhancements to VisRate, refinements to RAP Online, augmentation of Design Systems Training, and CRAB's participation in the data collection effort in support of the Performance Measures Study conducted by WSAC for the Joint Transportation Committee, were work items in addition to that effort.

The two divisions of Engineering Services and Information Technology, ably led by Mr. Walter Olsen, P.E., and Mr. Steven Hillesland, respectively, melded their skill sets to provide nicely enhanced systems at the agency and collaborative support to the WSAC Performance Measures Study for the legislature. Special thanks are more than due to Jeff Monsen. P.E., Randy Hart, P.E., Bob Morehead, P.E., Don Zimmer, Bob Davis, Kathy O'Shea, Jim Oyler, Eric Hagenlock, and Jim Ayers, P.E..

All the data reported to CRAB begins with actual engineering activity which occurs on the ground in the thirty-nine counties of the state. Those activities are then digitized and become part of the data base of the county road log maintained in this office. Anytime there is a question of substance which concerns a change in the reporting, retrieval, or collating of that data, it necessarily involves both engineering and IT assessment and response. Design Systems training is also a direct point of contact between CRAB IT capability and the counties' capacity to deliver project design. This annual report clearly indicates the successful results of talented individuals applying their expertise with an old fashioned teamwork approach. To each of those who are named above, I offer my thanks and appreciation for a job well done.

Engineering Services

The Engineering Services Division, under the direction of Deputy Director Walt Olsen, includes Intergovernmental Policy Manager Jeff Monsen, Compliance and Data Analysis Manager Bob Moorhead, Maintenance Program Manager Larry Pearson, Grant Programs Manager Randy Hart, and Road Systems Inventory Manager Don Zimmer. This small staff, most of whom hold Professional Engineer licenses, is directly responsible for the following functions:

- Functions related to the administration of the Rural Arterial Program, the County Arterial Preservation Program, and the County Ferry Capital Improvement Program;
- Functions related to the maintenance of the County Road Log and the computations and updates to the distribution of the counties' share of the motor vehicle fuel tax;
- Management of the reports and other information necessary for recommendations related to the Annual Certificate of Good Practice for each county;
- Guidance and research on statutory and regulatory issues affecting county road and public works departments;
- Assistance in representation of county engineer interests on a variety of state-level committees and task forces;
- Design and traffic engineering assistance to counties, as requested, including consultant selection assistance;
- Liaison services on behalf of county engineers with various state agencies, especially the H&LP Division of WSDOT.

CRAB acts as a clearinghouse for information requests, questions, and the exchange of ideas. With an emphasis on good communication, Engineering Services staff has worked with state transportation officials, resource agencies personnel, and public works departments as they strive to meet the transportation needs of their counties.

A final responsibility of the Engineering Services Division is the maintenance and updating of summary reports, guidance materials, and model documents, and the provision of training to County Engineers and their staffs.

Areas the Engineering staff worked on extensively in 2012:

The legislature awarded study monies to the Washington State Association of Counties (WSAC) to develop a performance measurement program to assist county governments in improving the delivery of their transportation programs and projects. Funding for the award came from a portion of the revenues distributed to counties from state fuel taxes. CRAB has been working in conjunction with the WSAC, Washington State Association of

County Engineers (WSACE), and Lund Consulting to explore the possibilities and prepare for the development of a Performance Measures program.

The working group of county engineers and staff, agency staff and WSAC staff met in November of 2011 to begin the discussion and adopt some guiding principles. The work group identified and discussed several key issues:

- The public expects accountability, performance, and transparency.
- The Legislature wants accountability, performance, and transparency with future investments.
- Transportation dollars are diminishing.
- Demand for services is increasing and changing.
- County transportation is often more than roads and bridges, although evaluating road and bridge performance is a good place to start the discussion on how to measure service delivery.
- Not everyone understands how county transportation programs are developed and maintained.

Additional discussions concerning guidance for the project led WSAC staff to develop the guiding principles, and initial performance measures were developed and are under review by the stakeholder groups. These measures will address system safety, preservation and maintenance, project/program delivery, and environmental impacts.

From the guiding principles, proposed performance measures were developed and prepared for review in late spring 2012.

Two additional work group meetings as well as three regional meetings with county staff have taken place and the discussions with the consultants continue to produce progress. CRAB staff has been involved in all of these meetings and have continued to support WSAC's efforts with input to the consultants and data for possible performance measures. CRAB strongly holds the opinion that any performance measures must use existing data sources and reports so as not to burden county staff with new data gathering tasks. Further, CRAB has suggested that any measures should be aggregated at the RAP regional level to prevent misinterpretation of individual county's data in times of financial or environmental difficulty. CRAB is dedicated to the idea that performance measures are part of the original compliance mission of the agency and have taken steps to use Mobility data to demonstrate the effectiveness of the program to deliver reasonable and defensible measures at little to no additional effort by the counties.

CRAB will continue to provide the highest level of support and cooperation with WSAC, WSACE, and Lund Consulting as the project moves into subsequent phases.

CRAB continued County Engineer/Public Works Director training this year and conducted 3-day training sessions May 1-3 and December 4-6, 2012, at the CRAB office, totaling 342 training contact person-hours. The training is constantly revised to reflect the everchanging climate of engineering, social, political, and environmental concerns. These intense sessions review the duties and responsibilities of the counties and the County Engineer. Another aspect of this training has been developed to allow modules of this training package be provided directly to a county or gathering of multiple counties at their site, and customized for their specific needs. Two of these customized sessions were conducted during 2012, one in Pacific County and one in Okanogan County, totaling 48 training contact person-hours.

For many years, CRAB has provided County Engineers and other county Public Works staff a variety of information resources. One of these information resources is the County Engineers' and Public Works Directors' Manual, which contains guidance on a variety of technical and administrative issues affecting county engineering functions. In addition to providing this Manual as a hardcopy reference document, a major re-design of the Manual was released November, 2010, which takes advantage of current internet technology through inclusion of over 1,500 internet "hotlinks" embedded within the document's text. While the revised Manual may contain less written detail on most topics, and is only half the number of pages from the previous version, the total number of topics covered has actually expanded. When the document is open as an electronic file on a computer connected to the internet, the embedded "hotlinks" significantly expand the amount of information immediately available to the user. In order to ensure current information is provided, since the release of this re-designed document in November 2010, three updates have been released, including the most recent in October, 2012.



Pacific County's Monohon Landing Road.

Information Services

The Information Services Division at CRAB is a team of Information Technology (IT) professionals dedicated to programs and initiatives, both at CRAB and in our counties, and improve the public's investment in our which protect transportation infrastructure. Three primary goals of the IT team are: the continued smooth and efficient operation of this agency; ensuring that Washington's counties continue to effectively apply current and emerging technology; and assisting our counties in their compliance with the WAC rules of this agency. The first goal was accomplished by providing a progressive, stable and secure computing environment for agency staff. Developing and providing software, training, support and consulting services specific to the needs of county road departments in Washington accomplished the second and third goals. CRAB IT products and systems leverage the latest technologies such as virtualization, cloud computing, remote desktop services, web services and text-to-speech to enhance the computing experience of the staff of this agency and our counties. In 2012 the Information Services team again made significant, unique and creative contributions to the initiatives of CRAB staff and to the design and management efforts of Washington counties. The following paragraphs illustrate some of the benefits and efficiencies provided by CRAB Information Services this past year.

A significant initiative of the IT team in 2012 was the further securing of our systems and data from the continuous attacks against state agencies by hackers. Because CRAB systems hold critical information for this and agency all Washington counties it is no longer enough just to have a firewall against these spurious attempts at intrusion. With ever increasing network attacks from across the world, CRAB has stepped up its IT program security bv implementing strict IT policies and procedures, utilizing "Next Generation"



security tools, and in performing its own network penetration and vulnerability tests to ensure a safe and secure networking environment. The CRAB Systems Manager also found it beneficial to become a "Certified Ethical Hacker" in order to proficiently detect and thwart intrusions. CRAB Information Services developed and provides for Washington counties a comprehensive transportation asset management system named *Mobility*©, which enhances a county's ability to make quality decisions through consistent, equitable, and defensible management plans and operations. The systematic application of sound business logic embedded in *Mobility* ensures accountability in county road departments and assists county personnel in their compliance with reporting requirements to CRAB, the State Legislature, and federal entities. *Mobility* is a prime example of the economy-of-scale for which CRAB is well known, in that it saves the counties from spending millions on management systems that are neither as responsive to, nor as specific to their needs as *Mobility*.



This year CRAB IT staff was able to enhance the functionality and usability of *Mobility* for the benefit of Washington county staff. Five new asset inventories were added to the already existing sixteen and the *Mobility* Pavement Management System (PMS) and *VisRate*© were nicely enhanced. The *Mobility* PMS is a methodology for maintaining road surfaces by systematically analyzing pavement life cycles and pavement ratings to determine the correct timing and type of pavement preservation that will be most cost effective and prevent major road deterioration. *VisRate* is a CRAB application which enables counties to easily collect road condition data in the field and rapidly share it with office staff for reporting and analysis in the *Mobility* PMS. This year voice feedback and a connection to a digital mileage indicator were added to *VisRate*. It is not unusual for *VisRate* to reduce the time to collect a year's worth of pavement ratings to as little as a few weeks.

The CRAB Design Systems Program has consistently provided Washington county personnel with state-of-the-art engineering road design software including support and

training since 1985. This program has enabled county design staff to effectively collect, develop and manipulate the geometric information for necessary site design and construction planning, which has costs and improved contained productivity throughout the life of Currently road projects. CRAB provides road design software named *Eagle Point*©, free of charge, to Washington counties. CRAB also provides world-class consultation, support and training for both *Eagle* Point and another industry leader named AutoDesk Civil 3D©.



In addition to improved design and lower project cost, the savings to counties for user licensing, support, and training in design software by CRAB is hundreds of thousands of dollars each year. Because of CRAB support, our county designers maintain a sophistication and competence which enables multiple forms of analysis of surface models



in 3D that allows a more realistic geometric representation of the project area, volumes involved, and quantities to be moved and promotes a better design. Training classes are continuously provided to county design staff at CRAB or in their county for a savings of at least \$1295 per student. Other savings and increased competence accomplished through are а county's use of the Design Systems Program website, the design forum, and the annual Road Design Conference.

The Design Program highlight for 2012 was the building of a very beneficial relationship between

CRAB, the counties of Washington State and Autodesk. Autodesk is the developer of Civil 3D, the design software now used by 38 Washington counties. Civil 3D allows counties to plan, design, obtain earthwork calculations, and perform all construction as-built of all their roadway projects. The software combines powerful design options, accurate and

high-speed results, and supreme usability, setting new standards for road engineers worldwide. Contractors who are using the software in conjunction with their Automated Machine Guidance tools have acknowledged Civil 3D as their primary tool for getting the job done using county-designed surface models. Along with the training and support provided by CRAB, Autodesk has lent its enormous resources to the Civil 3D support of our counties. This year alone Autodesk provided three free training events to Washington county design personnel as well as being a primary sponsor of our design conference. The level of respect and collaboration between Autodesk and CRAB reached the point where Autodesk suggested that a delegation from the Indonesian Directorates of Road Engineering, Planning and Affairs visit CRAB to see how Civil 3D can be best used. Another indication of this mutual respect was that an Autodesk senior vice president, Mr. Paul McRoberts, flew out from Boston to speak at the Road Design Conference.



Demand for training provided by CRAB to county personnel continues to grow.

A significant part of our IT effort this year was devoted to improving CRAB's ability to better manage our funding programs. Construction, preservation, and maintenance in our counties are a challenge, because the work on the ground is the most difficult. However, the real challenge is bringing together all the stakeholders just before these inherently complex projects should begin. This means securing funding from multiple sources with uncertain revenue forecasts and negotiating with property owners, ecology, fisheries and many others. It is not unusual, because of these various delays, for a project to be eight years in planning and then only a few months in construction. As a first-in project funding source CRAB's RAP projects often necessarily need to dedicate funds for a longer period than other funding sources. That is where the IT work on Project Portfolio Management (PPM) is critical to effectively managing those funds. Several proven PPM methods incorporated into our newest IT applications allow the RAP program manager to quickly analyze up-to-date project information from multiple sources and adjust program spending as necessary. This in turn gives counties immediate updates so that project managers can



adjust schedules by either moving projects forward or back as the situation demands or allows. Our PPM applications also provide project and spending data to the CRAB website so that anyone from a legislator to a citizen can be kept up-to-date and make more informed decisions. *"RAP Online"* is the primary PPM application developed by CRAB IT which continues to support the needs of managing CRAB's RAP grant program. In little more than two years, over \$53 million in RATA funds have been paid to counties, 21 county projects have been completed, and 84 final project applications have been submitted using

RAP Online. Approximately 200 county staff currently have access to RAP Online for the purpose of updating project progress, viewing project funding status, requesting project change, submitting vouchers and otherwise communicating with the RAP program manager.

The CRAB website effectively responds to citizens and government, informing and educating users in the initiatives of CRAB and the counties. County personnel can find assistance for the effective operation and management of their road systems and assistance in compliance with law and regulation, along with schedules and forms necessary to that compliance. Citizens can find great detail on their county's road system, its road department, that department's funding, operations, construction and maintenance. Legislators can observe the breadth and detail of the accountability ensured by CRAB, as well as the good road work being done in their district. Please take time to visit this site at http://www.crab.wa.gov where you can learn much more about CRAB and the counties. After touring the general site you may want to spend some time perusing a wealth of active road project information under the Grant Programs tab or the massive amount of information under the Reference tab in the Library section.

Grant Programs

County Arterial Preservation Program (CAPP)

At 0.45 cents per gallon of the statewide gas tax, the CAPP provides \$16,000,000 (which includes \$1,500,000 from the Transportation Partnership Account) to counties annually for

preservation. Whereas pavement counties were resurfacing about 13% of the road system when CAPP was created in 1990, the value of these funds has steadily declined. and resurfacing of the system has dropped to an average 8.1% over the last five years. This equates to almost 1,300 lane miles of eligible roadway no longer being resurfaced. Using the cheapest resurfacing method, seal coats, at \$10,000 per lane mile, this results in an shortfall of approximate \$10-\$15 million annually. Higher cost surfacing methods, which are needed in many



cases, greatly increase the amount of shortfall. With the help of an additional \$3,500,000 from the Highway Safety Account authorized in 2012 per transportation budget bill ESHB 2190, some of the shortfall is being addressed. In the meantime, county road departments will continue to focus more attention on road-saving repair work such as crack sealing, pothole removal and patching at the worst segments of their road system.

In order to be eligible for CAPA (County Arterial Preservation Account) funds each county must:

- Employ a qualified "Pavement Management System" (PMS) to assure the CAPA funds are used effectively.
- Publish to the CRABoard their annual program for use of CAPA funds, to assure eligible work on eligible arterial roads.
- Report to the CRABoard the actual preservation accomplishments of the previous year.

SURFACE TYPE	CAPP ELIGIBLE ROADS	LOCAL, NON ELIGIBLE ROADS
SEAL COATS	309	261
THIN OVERLAYS	113	89
STRUCTURAL OVERLAYS	281	74
LEVELING	<u>62</u>	<u>49</u>
TOTAL	765	474

DOLLARS SPENT FOR RESURFACING 1990 - 2011 (in millions)

TOTAL CAPA FUNDS DISTRIBUTED THROUGH 2011 = 281 Million

Rural Arterial Program (RAP)

RAP funds address the neediest county arterial roads in the state. Rural farm-to-market and commuter roads are usually the highest in priority due to high truck counts, traffic volumes and unsafe geometry. The RATA portion of the statewide fuel tax, enacted in 1990, is 0.58 cents and provides approximately \$19,000,000 for competitive road funding grants annually.

Rural Arterial Trust Account (RATA) funds are awarded to county projects based on the criteria listed in statute RCW 36.79, namely:

- (1) Structural ability to carry loads imposed upon it;
- (2) Capacity to move traffic at reasonable speeds;
- (3) Adequacy of alignment and related geometrics;
- (4) Accident experience;
- (5) Fatal accident experience

RURAL ARTERIAL PROGRAM EXPENDITURES BY COUNTY AND LEGISLATIVE DISTRICT IN 2011

	LEG	RATA \$'s		LEG	RATA \$'s
COUNTY	DIST	RECEIVED	COUNTY	DIST	RECEIVED
Asotin	9	58,600	Lincoln	7	3,105,849
Asotin	16	86,083	Mason	35	652,646
Benton	15	585,243	Pacific	19	579,688
Benton	16	56,605	Pend Oreille	7	5,373
Chelan	12	1,633,271	Pierce	26	477,005
Clallam	24	552,718	Pierce	31	83,530
Clark	18	50,291	Skagit	40	278,957
Columbia	16	44,910	Snohomish	39	240,587
Cowlitz	18	10,625	Spokane	4	140,130
Douglas	12	120,111	Stevens	7	34,986
Ferry	7	832,209	Thurston	2	21,721
Franklin	9	307,776	Thurston	20	100,460
Franklin	16	1,909,488	Thurston	22	36,581
Garfield	9	2,159,336	Thurston	35	39,178
Grant	13	1,816,015	Wahkiakum	19	203,354
Grays Harbor	24	523,773	Walla Walla	16	1,264,741
Island	10	2,389,866	Whatcom	42	2,202,993
Jefferson	24	26,920	Whitman	9	274,238
King	45	398,175	Yakima	13	1,468,686
Kittitas	13	140,303	Yakima	15	97,289
Klickitat	15	1,556,051			

26,566,360

History of RATA fund Usage per County (as of 12/2012)

	TOTAL RATA	TOTAL RATA	%
REGION COUNTY	APPROVED	SPENT	SPENT
NE Adams	18,947,884	13,842,831	73%
NE Chelan	20,087,900	16,820,273	84%
NE Douglas	21,696,535	18,774,126	87%
NE Ferry	17,886,230	13,319,833	74%
NE Grant	24,559,268	22,606,059	92%
NE Lincoln	21,653,720	20,090,231	93%
NE Okanogan	17,632,382	12,669,068	72%
NE Pend Oreille	16,083,578	12,258,005	76%
NE Spokane	29,166,191	21,076,768	72%
NE Stevens	25,063,785	18,907,367	75%
NE Whitman	22,389,612	17,666,129	79%
NE REGION TOTALS	235,167,085	188,030,690	
NW Clallam	8,025,076	7,007,029	87%
NW Island	13,305,700	10,358,229	78%
NW Jefferson	6,943,240	3,215,967	46%
NW Kitsap	10,178,550	7,426,057	73%
NW San Juan	5,932,508	4,227,466	71%
NW Skagit	6,938,733	5,012,648	72%
NW Whatcom	10,432,182	9,800,595	94%
NW REGION TOTALS	61,755,989	47,047,991	
PS King	13,180,107	10,203,992	77%
PS Pierce	12,735,396	9,972,006	78%
PS Snohomish	11,781,391	9,394,108	80%
PS REGION TOTALS	37,696,894	29,570,105	
SE Asotin	12,053,811	9,359,071	78%
SE Benton	15,742,553	11,759,660	75%
SE Columbia	11,993,271	7,561,746	63%
SE Franklin	12,511,886	12,243,301	98%
SE Garfield	11,897,743	11,720,028	99%
SE Kittitas	15,737,770	10,997,303	70%
SE Klickitat	18,214,953	16,543,170	91%
SE Walla Walla	15,479,590	14,163,833	92%
SE Yakima	19,950,791	16,074,725	81%
SE REGION TOTALS	133,582,368	110,422,838	
SW Clark	9,413,718	9,025,038	96%
SW Cowlitz	11,178,406	10,246,826	92%
SW Gravs Harbor	13,279,248	11,671,072	88%
SW Lewis	8,982,446	5,308,208	59%
SW Mason	10,991,453	8,825,952	80%
SW Pacific	9,622,465	8,724,721	91%
SW Skamania	2,175,968	1,817.573	84%
SW Thurston	12,829,268	9,689,111	76%
SW Wahkiakum	6,696,986	3,427,102	51%
SW REGION TOTALS	85,169,958	68,735,603	
STATEWIDE TOTAL	553,372,294	443,807,228	80%



2012 RATA ACTIVITY:

MONTH	BEGINNING BALANCE	REVENUE	Expenditures	ENDING BALANCE
Jan- Mar	20, 135, 755	4, 189, 120	2,567,736	21,757,139
Apr - June	21,757,139	4,351,085	2,953,735	23,154,489
Jul - Sept	23, 154, 489	4,755,000	5,473,094	22,436,394
Oct - Dec	22,436,394	<u>4,779,729</u>	<u>4,391,995</u>	22,824,128
TOTALS:		18,074,933	15,386,560	

* These figures based on most recent (November, 2012) estimates for 2012.

2011/2012 Grant Program Projects

Shelton Matlock Road - Mason County

Shelton Matlock Road is a T3 truck route near Shelton that serves commuters, recreational traffic and log and gravel haulers. Built in rolling terrain, it had a number of alignment issues that have come to the forefront traffic has as increased over the years. This recent project eliminated a set of severe S-curves that have a history of severe accidents. The roadway was also narrow at 22 feet wide with no shoulders, compounding the alignment deficiencies. The new roadway is constructed to a safe, 50 mph design speed, correcting all of this section's alignment deficiencies. It was also paved with new hot mix



asphalt. Shelton Matlock Road now safely serves the movement of all traffic types that depend on it, year round.

RATA Funding: \$641,000 - Contractor: Miles Resources LLC



Bridge Creek Road - Ferry County

Bridge Creek Road is classed a T3 truck route that serves the local logging industry and is used heavily between Keller and Inchelium. Traversing mountainous terrain, the road is dangerously narrow and experiences seasonal weight restrictions. This project is just one of a series of projects to improve this cross-county route by widening, installing guardrail for additional safety and improving its structural capacity through the use of cement-treated base and a top layer of hot mix asphalt pavement for a more enduring structure. RAP Funding: \$939,488 – Contractor: Central Washington Asphalt





R-NE Road – Grant County

R-NE is the main paved county road extending north from Wilson Creek/SR 28 to Hartline/US 2. This is the main N-S route for agricultural movement and has a high truck percentage. The existing paved surface was 21 feet+/- and had a number of substandard curves. This section of road was subject to seasonal weight restrictions. The existing 21





foot wide pavement surface was widened to 28 feet. All of the curves were brought up to the minimum design standard for 50 mph. The structural load carrying capacity was increased to an All-Season capability, which is a great enhancement for this T4 class haul route. This project was the second phase of four in a corridor improvement project intended to improve R-NE from Wilson Creek/SR 28 north to Hartline/US 2. Public reaction has been positive. RAP Funding: \$1,088,829 – Contractor: Tommer Const. Co.

Hot Springs Avenue – Skamania County

Hot Springs Avenue in Skamania County is a main arterial for economic trade coming from and heading to the eastern part of the state. The most recent RATA funded project on this



T3 truck route was accomplished in two sections: (1) a 1900 foot long roadway reconstruction section, and (2) smaller scope overlay sections off both ends of the reconstruction section. The reconstruction had section alignment problems, sharp corners and narrow width given the relatively high traffic volumes. The first construction obstacle to be tackled was a rock wall that had to be removed to gain the width needed to straighten out the roadwav and attain the

targeted 8% slope. It became apparent early on that the rock face could be excavated without blasting, thereby reducing the days of roadway closure.

The existing roadway surface was rubble-ized and stockpiled onsite to be used as the subgrade for the new alignment. Even though the construction zones were tight between areas being worked, traffic moved through the project with minimal interruption to the contractor and the public. The road was resurfaced by first leveling the roadway with asphalt to the design crown and slope, then paving with a 3 inch asphalt overlay. Guardrail adjusted was to meet standards.



The Contractor and Engineering Staff were able to clear project obstacles each day through open communication on this project, enabling completion 10 days under schedule.

RAP Funding: \$352,350 - Contractor: Dirt and Aggregate Interchange, Inc.

Key Peninsula Highway - Pierce County

Logging operations commenced in the Key Center area in 1870. Transportation was comprised of a flat bottom stern wheeler ship that would beach itself on the mud flats for loading /unloading cargo. By 1891 a permanent wharf and Post Office, served by a fleet of steamships, was in operation at Glen Cove. The road network branched out from the wharf to transport mail, freight, and passengers. The advent of the automobile and an improved roadway network created a shift in the primary mode of transportation on the Peninsula. The project section of Key Peninsula Highway (a T3 class truck route) was a designated State Route (SR-302) through the Key Center region to points west such as Belfair and Allyn.



In recent years, the alignment of SR-302 was redirected west at Elgin-Clifton Rd, north of Key Center, to provide a direct route to SR-3 which serves Belfair and Allyn. The portion of Key Peninsula Highway through Key Center then became a County roadway. In 2002. the project included upgrading the existing flashing beacon with a new flashing beacon. In 2006, Pierce County completed a traffic analysis and determined that the intersection met warrants for a fully actuated traffic signal system. The project scope, now

with a traffic signal, included left turn lanes and guardrail on Key Peninsula Highway. The project design process included participation from the local community which expressed a desire for an "urban feel" at the intersection. The intersection defines the Key Center

Village Rural Activity Center and is considered a "gateway" intersection by the local population.

Pierce County successfully implemented the rural safety project by replacing the flashing beacon with a mast arm traffic signal, left turn lanes on Key Peninsula Highway and installation of guardrail. Local funds were used to install sidewalks adjacent to the intersection which enhance the community center atmosphere desired by the local population. Pierce County donated the old flashing beacon to a local historical



society. RAP Funding: \$792,000 - Contractor: Ceccanti, Inc

Eagle Creek Road- Chelan County

Eagle Creek Road is notched into the rocky hillside above the Eagle Creek valley in Chelan County and is the sole access to residential, commercial (including a winery and a horse ranch), and public land within the valley. It also provides access for recreational tourism and the timber industry as a T5 class truck route. The width of the road varied between 16 and 20 feet with numerous sub-standard curves. Concerns regarding increasing

Average Daily Traffic (ADT), as businesses and residents increased in the valley, as well as the poor condition of the pavement prompted the county to seek to improve the existing corridor.

The RAP funded project involved widening of the existing roadway, standardization of roadway geometrics, repair of a failing roadway surface and base, and providing a safer route for local pedestrians.

Using surveys and open house meetings with the public resulted in overall positive response to safety and roadway condition improvements. Residents were also able to express interest in maintaining the rural country environment.

Throughout construction weekly updates were mailed and e-mailed to interested parties regarding planned work for the following





week. One resident wrote: "I have appreciated your updates each week; they made a HUGE difference in an otherwise stressful situation." Another stated: "We want to express to you our gratitude to the people that have been working on the Eagle Creek Road project. The crew that worked on the job has been professional, considerate and helpful. Everyone has gone out of their way to make an unpleasant situation, tolerable... In all, the road is turning out beautifully and we want to commend your people for a job well done." The completed project was a context sensitive solution that provided major safety improvements, all while maintaining a rural atmosphere for the community.

RAP funding: \$2,457,000 - Contractor: Central Washington Asphalt, Inc.

Dent Road - Franklin County

The Road 100/Dent Road Extension is a T5 truck route that has long been anticipated by the Franklin County community. Road 100 (a north-south route) dead ended at the Pasco city limits – only 0.6 miles from direct access to the I-82 interchange. The Dent Road Extension off the new portion of Road 100 provides that access. The project consisted of replacing two miles of existing Dent Road by constructing two miles of new roadway, one mile of paving/widening an existing gravel road (Easy Street), and spot improvements on Fanning Road to accommodate increased traffic volumes. Franklin County obtained two miles of right-of-way through sand dunes and agricultural land in order to construct a new The newly constructed roadway roadway. provides farm-to-market access to the Road 100/I-82 interchange, substantially reducing travel distance to the Interstate. This new route gives farmers an alternate route, bypassing the rapidly growing Road 68/I-82 interchange - a heavily congested urban route. RAP Funding: \$2,600,000 - Contractor: Apollo, Inc.





Almota Road - Whitman County

As a Rural Major Collector, classified as a T4 freight haul route, Almota Road provides farmto-market transport, leading to a port on the Snake River. The existing road was narrow with no shoulders, deteriorating pavement and poor site distance on vertical and horizontal curves. These poor features resulted in safety conflicts for trucks and cars using the road. The RAP-funded improvement project widened the road from 24 feet to 28 feet, improved drainage, and enhanced safety by smoothing out hazardous curves. The road was resurfaced and guardrail was added at key locations. RAP Funding: \$2,515,977 -Contractor: MA Deatley Const., Inc.





Old Milton Highway - Walla Walla County

Old Milton Highway serves as a higher volume (2200 average daily traffic) commuter route between Oregon and Washington. It is also classed as a T3 haul route. Built in 1920, the road surface and structure were comprised of Portland cement concrete panels on top of a thin layer of sand. The concrete panels had since suffered extensive cracking, wear and settling, which also reflected through the asphalt surface. To correct this condition some of the more damaged (sinking and heaving) panels were removed. Remaining panels were maintained through patching at spalled areas and applying BST. Overall improvements to this section of Old Milton highway included: Removing the concrete panels, reconstructing the road using crushed surfacing and HMA, and widening to a total width of 40 ft. which included 8 foot paved shoulders. The horizontal alignment was improved to provide for a safer intersection radius with Bussell Road and the road profile was raised to gain a drainage advantage. A 17 foot high by approximately 500 foot long segmental block wall was constructed to prevent encroachment into private residences. Since these improvements, the road has been reclassified as a rural minor arterial. Although there were minor road closures, traffic was allowed through the construction area during most of the contract with no complaints from the public. RAP Funding: \$1,364,049 - Contractor: A & B Asphalt, Inc.





Table A

COUNTY BRIDGE DATA - NOVEMBER 2012

Washington State Bridge Inventory System Bridges 20 Feet or Greater in Length on Federal Aid (FAR) and Non Federal Aid (NFAR) Routes Posting Consideration Based on HS-20 Design Load, less than 28 Tons at Operating Rating

COUNTY	County Owned	Bridges Posted or May Consider Posting				Br	Deficient			
	Bridges	FAR	Square Feet	NFAR	Square Feet	FAR	Square Feet	NFAR	Square Feet	Bridges**
ADAMS	114	1	4,060	6	8,336	32	64,510	75	92,531	16
ASOTIN	18	0	0	0	0	14	139,644	4	4,321	2
BENTON	50	1	1,260	2	2,076	16	62,307	31	31,320	8
CHELAN	49	1	10,060	3	5,608	19	87,850	26	65,970	12
CLALLAM	29	1	10,960	3	7,436	10	53,242	15	58,290	9
CLARK	56	0	0	2	2,950	26	98,819	28	53,982	20
COLUMBIA	63	1	2,850	4	5,780	18	27,416	40	64,815	9
COWLITZ	64	2	7,889	6	25,128	22	112,024	34	77,316	17
DOUGLAS	20	2	5,988	1	2,537	10	17,319	7	5,821	1
FERRY	21	0	0	3	4,835	5	8,494	13	19,734	6
FRANKLIN	85	1	2,097	3	2,223	17	32,904	64	89,854	7
GARFIELD	32	1	1,695	0	0	13	12,081	18	17,573	5
GRANT	191	1	552	7	8,913	51	127,775	132	230,430	11
GRAYS HARBOR	158	2	12,136	3	3,589	70	302,406	83	211,555	19
ISLAND	0	0	0	0	0	0	0	0	0	0
JEFFERSON	29	1	1,078	0	0	9	16,759	19	61,472	5
KING	129	4	60,187	9	23,445	64	341,130	52	127,229	49
KITSAP	30	0	0	3	3,538	16	41,394	11	21,699	4
KITTITAS	110	1	864	2	1,107	25	79,439	82	132,480	8
KLICKITAT	57	0	0	6	9,205	13	38,943	38	76,276	13
LEWIS	196	3	2,916	5	8,663	39	145,806	149	285,653	24
LINCOLN	122	0	0	9	6,903	29	47,817	84	113,736	13
MASON	52	0	0	1	936	12	77,212	39	70,186	13
OKANOGAN	51	0	0	2	2,155	13	63,016	36	52,654	7
PACIFIC	61	2	4,296	3	2,990	7	24,648	49	128,390	12
PEND OREILLE	26	2	61,538	1	681	9	39,495	14	16,409	7
PIERCE	102	5	53,857	1	1,350	60	237,006	36	52,155	39
SAN JUAN	4	0	0	1	1,274	0	0	3	2,282	2
SKAGIT	104	1	28,368	3	3,200	41	166,617	59	118,002	21
SKAMANIA	25	0	0	1	1,980	5	30,218	19	55,471	6
SNOHOMISH	167	9	16,635	11	16,793	79	414,917	68	223,632	45
SPOKANE	100	5	7,012	8	9,909	29	193,614	58	125,004	26
STEVENS	49	0	0	1	1,608	7	24,634	41	75,885	6
THURSTON	96	0	0	0	0	27	129,361	69	184,963	25
WAHKIAKUM	20	0	0	1	2,419	8	28,163	11	20,244	1
WALLA WALLA	105	1	1,350	0	0	46	124,469	58	121,130	11
WHATCOM	135	5	14,092	11	20,283	31	101,078	88	146,438	25
WHITMAN	250	4	14,122	13	11,011	49	92,362	184	284,091	57
YAKIMA	292	5	23,160	10	11,541	70	211,621	207	376,099	47
TOTAL	3,262	62	349,022	145	220,402	1,011	3,816,510	2,044	3,895,092	608
Total Replacement Co	ost* (\$ Million):		\$201		\$127		\$2,194		\$2,240	

*At \$575 per Square Foot

** Deficient Bridges are listed as Structurally Deficient (SD) or Functionally Obsolete (FO).

Table B

ACTUAL COUNTY ROAD RELATED REVENUES 2011

COUNTY	MOTOR VEHICLE FUEL TAX						TAXES			MISC				
	COUNTY REGULAR	TIB	RAP	CAPP	MVFT TOTAL	PROP- ERTY	FOREST HARVEST	OTHER TAXES	TOTAL TAXES	FED GRANTS	FED LANDS	REIMB	OTHER	TOTAL
ADAMS	3,805	0	57	639	4,501	1,393	0	10	1,403	1,335	0	0	37	7,276
ASOTIN	1,526	0	132	120	1,778	1,103	0	4	1,107	774	46	172	111	3,988
BENTON	2,949	60	1,178	355	4,542	5,041	0	70	5,111	125	0	14	291	10,083
CHELAN	2,158	0	1,599	277	4,034	6,569	6	45	6,620	2,502	852	32	475	14,515
CLALLAM	1,828	0	592	152	2,572	6,462	300	10	6,772	1,164	776	340	1,269	12,893
CLARK	6,327	0	135	558	7,020	30,788	63	11	30,862	3,250	25	31	21,342	62,530
COLUMBIA	1,359	0	0	166	1,525	854	6	3	863	71	137	0	87	2,683
COWLITZ	2,181	0	0	236	2,417	8,025	396	74	8,495	1,946	0	293	1,024	14,175
DOUGLAS	6,470	138	128	348	7,084	4,313	0	124	4,437	850	0	186	472	13,029
FERRY	1,662	0	832	208	2,702	572	14	0	586	808	303	4	761	5,164
FRANKLIN	2,659	0	2,217	404	5,280	2,572	0	23	2,595	1,590	0	117	1,296	10,878
GARFIELD	1,210	0	2,159	150	3,519	259	0	2	261	1,396	77	0	102	5,355
GRANT	5,939	62	1,985	984	8,970	7,996	0	1,856	9,852	849	0	85	532	20,288
GRAYS HARBOR	2,192	0	0	299	2,491	5,083	981	28	6,092	2,481	223	152	2,601	14,040
ISLAND	2,149	0	2,390	254	4,793	7,954	0	1	7,955	267	0	0	4,619	17,634
JEFFERSON	1,333	0	27	153	1,513	3,008	169	8	3,185	990	1,046	5	504	7,243
KING	13,762	3,163	407	631	17,963	81,150	142	39	81,331	36,674	156	9,560	44,922	190,606
KITSAP	5,049	0	0	371	5,420	23,011	0	47	23,058	3,659	0	436	3,631	36,204
KITTITAS	1,838	0	451	360	2,649	3,592	2	1	3,595	279	331	164	591	7,609
KLICKITAT	2,525	0	1,474	403	4,402	3,624	153	10	3,787	791	56	16	1,225	10,277
LEWIS	3,154	0	83	338	3,575	8,618	996	6	9,620	3,010	1,115	163	3,291	20,774
LINCOLN	3,920	0	3,166	446	7,532	1,181	0	7	1,188	1,175	0	0	692	10,587
MASON	2,111	0	648	310	3,069	8,177	245	24	8,446	196	0	2,010	828	14,549
OKANOGAN	3,179	0	0	478	3,657	4,032	25	17	4,074	308	713	21	220	8,993
PACIFIC	1,294	0	577	141	2,012	2,803	288	7	3,098	11	0	60	435	5,616
PEND OREILLE	1,522	0	5	197	1,724	1,322	40	1	1,363	2,296	424	2	355	6,164
PIERCE	10,334	4,870	1,086	817	17,107	47,989	198	52	48,239	1,467	261	3,531	16,417	87,022
SAN JUAN	877	0	257	102	1,236	3,232	0	4	3,236	396	0	110	2,662	7,640
SKAGIT	3,006	419	0	31	3,456	10,535	272	46	10,853	3,239	295	5	3,290	21,138
SKAMANIA	746	0	0	54	800	1,500	143	2	1,645	250	0	2	1,160	3,857
SNOHOMISH	9,387	147	0	600	10,134	52,216	352	324	52,892	7,129	0	3,440	18,834	92,429
SPOKANE	8,633	32	106	876	9,647	15,800	11	54	15,865	3,537	0	664	6,249	35,962
STEVENS	3,498	0	35	547	4,080	4,444	177	2	4,623	1,068	143	13	115	10,042
THURSTON	4,791	2,361	204	408	7,764	16,566	241	24	16,831	4,890	2	3,693	5,579	38,759
WAHKIAKUM	788	0	203	93	1,084	314	114	0	428	324	0	0	959	2,795
WALLA WALLA	2,754	138	1,354	464	4,710	4,804	0	64	4,868	2,608	2	0	1,045	13,233
WHATCOM	3,772	0	2,046	423	6,241	16,841	181	36	17,058	967	515	257	2,151	27,189
WHITMAN	3,909	0	274	493	4,676	2,017	0	28	2,045	1,482	0	97	28	8,328
YAKIMA	5,511	24	1,523	868	7,926	12,790	40	22	12,852	1,165	0	211	2,248	24,402
TOTALS	142,107	11,414	27,330	14,754	195,605	418,550	5,555	3,086	427,191	97,319	7,498	25,886	152,450	905,949
% OF TOTAL	15.7%	1.3%	3.0%	1.6%	21.6%	46.2%	0.6%	0.3%	47.2%	10.7%	0.8%	2.9%	16.8%	

(thousands of dollars)

Source: County Reports to D.O.T. Secretary of Transportation

Table C

ACTUAL COUNTY ROAD RELATED EXPENDITURES

Including RAP and CAPP

2011

(thousands of dollars)

COUNTY	CONST	MAINT	ADMIN & OPER	FACIL	FERRY	REIMB	BOND WARRANT RET'T	TRAFFIC POLICING **	OTHER	TOTAL INCLUDES RAP & CAPP	RAP	CAPP
ADAMS	1,786	4,523	1,249	0	0	104	0	0	0	7,662	57	639
ASOTIN	1,209	1,879	693	0	0	0	0	0	0	3,781	87	120
BENTON	1,732	5,572	1,678	0	0	167	211	0 *	0	9,360	642	355
CHELAN	5,607	6,131	1,990	0	0	16	0	0	394	14,138	1,633	277
CLALLAM	4,801	4,879	2,531	0	0	300	0	200	96	12,807	553	298
CLARK	22,093	18,849	10,822	0	0	0	0	0 *	3,484	55,248	50	558
COLUMBIA	209	2,089	359	0	0	0	130	0	36	2,823	45	235
COWLITZ	1,839	8,168	2,161	0	0	0	71	0 *	841	13,080	11	262
DOUGLAS	3,846	3,843	2,214	0	0	137	616	0	112	10,768	120	310
FERRY	2,362	2,031	620	0	0	0	0	0	151	5,164	832	208
FRANKLIN	4,747	3,972	1,068	0	0	145	274	30	128	10,364	2,217	810
GARFIELD	3,484	1,383	536	0	0	173	0	0	0	5,576	2,159	150
GRANT	4,996	11,967	1,817	10	0	83	2	414	1,593	20,882	1,816	984
GRAYS HARBOR	3,661	8,014	1,564	0	0	106	0	0	493	13,838	524	299
ISLAND	7,200	5,560	2,466	0	0	55	95	0	1,926	17,302	2,390	255
JEFFERSON	769	3,798	1,517	63	0	1	37	0 *	1,143	7,328	27	153
KING	53,422	57,973	20,097	1,048	0	14,703	7,960	4,000	28,757	187,960	398	631
KITSAP	8,961	11,927	8,962	0	0	747	82	0 *	479	31,158	0	371
KITTITAS	1,191	3,776	1,110	0	0	404	0	87	923	7,491	140	500
KLICKITAT	3,542	4,586	871	0	0	27	1	0	79	9,106	1,556	403
LEWIS	4,043	10,458	3,551	0	0	0	1	0 *	1,017	19,070	0	338
LINCOLN	4,375	5,509	53	0	0	83	0	0 *	20	10,040	3,106	445
MASON	4,710	6,087	2,660	0	0	0	1,212	0 *	85	14,754	653	476
OKANOGAN	1,746	4,852	1,998	0	0	17	690	0	8	9,311	0	563
PACIFIC	750	2,814	698	0	0	16	0	292	0	4,570	580	3
PEND OREILLE	2,361	2,209	1,306	0	0	247	0	0	89	6,212	5	111
PIERCE	24,201	28,061	25,559	2	3,411	51	179	0	17,042	98,506	561	817
SAN JUAN	1,767	3,513	1,391	0	0	138	391	0 *	100	7,300	253	102
SKAGII	5,052	8,600	5,392	394	1,290	127	0	0	248	21,103	26	419
SKAMANIA	689	2,134	624	0	0	38	0	0	7 004	3,485	0	54
SNOHOMISH	20,380	24,901	27,408	290	0	6,477	790	0	7,931	88,177	241	600
SPOKANE	5,564	18,584	6,436	0	0	3,183	1,765	0 -	1,527	37,059	140	8/9
STEVENS	031	8,135	941	0	0	13	0	0	1,092	11,012	30	547
	16,015	11,031	7,997	0	750	0	0	0	3,398	38,441	198	409
	44 I	708	254	0	750	00	0	0	133	2,402	203	93
	5,007	11 042	1,/0/	0	0	292	0	U 0 *	0	12,707	1,205	404
	4,809	4 076	4,002	0	2,441	5/9	U	07	249	23,783	2,203	423
	1,491 8.010	4,970 10.401	1,400 3,400	0	0	185	970	91	220	24 176	2/4	493
TOTALS	251,199	340,077	161,988	1,807	7,892	28,670	15,477	5,120	73,794	886,024	26,566	15,922
% OF TOTAL	28.4%	38.4%	18.3%	0.2%	0.9%	3.2%	1.7%	0.6%	8.3%			

Construction expenditure amounts do not include State ad & award Federal Aid participation

Source: County Reports to D.O.T. Secretary of Transportation

** Traffic Policing funds paid from diverted road levy ** Road Fund portion only *** "Other" includes facilities, operations and transfers

Table D

ANTICIPATED COUNTY ROAD FUND REVENUES 2012 BUDGETS

(thousands of dollars)

	BEGIN	M	OTOR V	EHICLE F	UEL TAX			TAXES			MISC			
COUNTY	FUND	COUNTY				OTHER	PROP-	FOREST	OTHER	FED	FED			TOTAL
	BAL	REGULAR	TIB	RAP	CAPP	MVFT	ERTY	HARVEST	TAXES	GRANTS	LANDS	REIMB	OTHER	
ADAMS	2,300	3,936	0	2,053	667	0	1,350	0	8	0	1	63	583	10,961
ASOTIN	800	1,500	0	1,000	120	0	1,122	2	2	2,755	45	115	67	7,528
BENTON	2,019	3,013	1,400	1,570	364	459	5,672	0	7	1,046	0	1,970	1,577	19,097
CHELAN	2,646	2,179	2,380	0	289	0	6,729	1	40	4,594	762	6	442	20,068
CLALLAM	12,536	1,805	0	234	0	148	6,550	270	9	7,281	501	255	3,183	32,772
CLARK	29,113	6,223	0	0	585	4,697	30,091	47	150	10,885	9	631	9,492	91,923
COLUMBIA	729	1,350	0	1,262	168	0	860	0	0	1,250	0	0	13	5,632
COWLITZ	4,500	2,287	0	690	248	0	9,313	100	70	3,860	100	245	835	22,248
DOUGLAS	3,673	3,300	164	268	310	18,284	4,506	0	110	719	0	160	280	31,774
FERRY	500	1,697	0	1,800	217	0	777	5	0	750	548	4	179	6,477
FRANKLIN	450	2,760	0	1,288	422	0	2,685	0	13	2,452	0	270	202	10,542
GARFIELD	629	1,220	0	262	155	0	400	7	3	2,020	0	221	189	5,106
GRANT	8,346	6,115	0	825	1,026	0	8,100	0	1,830	1,565	0	50	251	28,108
GRAYS HARBOR	1,040	2,327	0	680	320	150	4,410	450	30	2,414	226	45	1,756	13,848
ISLAND	0	1,722	0	809	278	4,223	8,054	0	2	1,461	0	0	279	16,828
JEFFERSON	4,379	1,377	0	42	159	0	3,988	50	5	2,373	430	0	201	13,004
KING	2,142	12,649	0	0	651	0	74,210	0	0	6,149	0	16,236	27,857	139,894
KITSAP	21,172	5,065	0	0	389	0	26,002	0	30	1,446	0	26	913	55,043
KITTITAS	15,598	1,799	0	2,460	1,207	0	4,350	0	5	2,433	0	62	1,044	28,958
KLICKITAT	2,129	2,500	0	1,540	375	0	3,882	0	7	2,920	0	5	1,167	14,525
LEWIS	8,744	3,280	3,000	1,592	354	18	9,697	500	6	2,677	1,042	184	831	31,925
LINCOLN	900	4,067	0	754	472	0	681	0	0	800	0	0	155	7,829
MASON	2,300	2,100	0	946	310	0	8,208	300	30	2,562	50	0	890	17,696
OKANOGAN	4,000	3,245	0	1,209	498	0	3,392	8	0	1,650	955	0	155	15,112
PACIFIC	3,580	1,337	0	829	147	0	2,992	215	7	1,297	0	30	222	10,656
PEND OREILLE	700	1,500	0	0	174	61	1,378	10	1	2,292	500	0	313	6,929
PIERCE	31,910	10,000	2,272	526	750	250	49,165	87	25	3,261	265	2,188	17,397	118,096
SAN JUAN	569	880	0	1,722	105	2,500	3,672	0	(542)	1,110	0	82	337	10,435
SKAGIT	(3,707)	3,202	5,500	1,750	437	600	11,272	200	40	9,513	300	0	3,973	33,080
SKAMANIA	563	842	0	0	105	0	1,528	135	8	705	0	0	2	3,888
SNOHOMISH	(1,645)	9,400	0	1,991	627	145	53,419	265	250	1,336	0	2,626	28,081	96,495
SPOKANE	7,277	8,938	162	83	918	265	16,172	9	48	4,838	0	450	6,440	45,600
STEVENS	4,000	3,401	0	2,900	562	0	4,585	200	2	0	200	20	17	15,887
THURSTON	8,941	4,828	0	2,676	427	0	16,942	200	25	7,067	0	91	9,447	50,644
WAHKIAKUM	1,301	770	0	1,300	97	495	260	60	1	4,662	3	0	459	9,408
WALLA WALLA	4,510	2,860	1,424	522	443	0	4,858	0	60	4,257	0	92	212	19,238
WHATCOM	17,281	3,631	0	0	421	160	16,709	100	25	30	500	1,197	3,441	43,495
WHITMAN	6,000	4,000	0	2,900	500	0	2,052	0	20	2,115	0	68	16	17,671
YAKIMA	3,890	5,673	2,195	1,233	900	0	12,604	0	0	8,712	0	0	4,095	39,302
TOTAL	215,815	138,778	18,497	39,716	16,197	32,455	422,637	3,221	2,327	117,257	6,437	27,392	126,993	1,167,722
% OF TOTAL	18.5%	11.9%	1.6%	3.4%	1.4%	2.8%	36.2%	0.3%	0.2%	10.0%	0.6%	2.3%	10.9%	

Table E

ANTICIPATED COUNTY ROAD FUND EXPENDITURES 2012 BUDGETS

(thousands of dollars)

COUNTY	CONST	MAINT	ADMIN & OPER	FACIL	FERRY	REIMB	BOND WARR RET'T	TRAFFIC POLICING	OTHER	TOTAL	END FUND BAL	GRAND TOTAL
ADAMS	2,790	4,572	1,160	0	0	69	0	0	84	8,675	2,286	10,961
ASOTIN	3,930	2,226	689	0	0	0	0	0	0	6,845	683	7,528
BENTON	8,872	6,945	1,889	0	0	668	211	510	2	19,097	0	19,097
CHELAN	8,956	6,673	1,774	206	0	0	0	0	194	17,803	2,265	20,068
CLALLAM	11,420	5,810	2,646	20	0	211	0	305	126	20,538	12,234	32,772
CLARK	28,076	34,831	11,362	40	0	0	0	4	4,484	78,797	13,126	91,923
COLUMBIA	2,551	1,624	346	15	0	0	130	0	15	4,681	951	5,632
COWLITZ	6,825	8,164	2,559	206	0	0	0	0	1,612	19,366	2,882	22,248
DOUGLAS	20,206	5,884	2,246	55	0	160	559	0	1,079	30,189	1,585	31,774
FERRY	2,952	2,600	538	0	0	64	0	0	5	6,159	318	6,477
FRANKLIN	4,614	4,002	1,190	0	0	100	205	0	81	10,192	350	10,542
GARFIELD	2,261	1,299	446	0	0	30	205	0	186	4,427	679	5,106
GRANT	5,687	11,421	1,519	60	0	50	2	210	903	19,852	8,256	28,108
GRAYS HARBOR	4,660	7,391	1,300	0	0	380	0	0	43	13,774	74	13,848
ISLAND	3,976	7,868	2,490	0	0	85	0	0	2,409	16,828	0	16,828
JEFFERSON	1,681	4,266	1,377	25	0	0	36	720	1,429	9,534	3,470	13,004
KING	900	59,374	20,835	124	0	14,886	7,150	4,000	30,005	137,274	2,620	139,894
KITSAP	8,385	13,340	11,182	115	0	48	85	1,985	372	35,512	19,531	55,043
KITTITAS	6,504	4,835	1,312	0	0	599	0	200	1,165	14,615	14,343	28,958
KLICKITAT	7,123	4,986	825	15	0	75	1	0	52	13,077	1,448	14,525
LEWIS	10,988	11,997	3,521	0	0	0	1	0	970	27,477	4,448	31,925
LINCOLN	1,439	4,424	950	76	0	100	0	0	1	6,990	839	7,829
MASON	7,620	5,026	2,928	263	0	0	1,161	0	575	17,573	123	17,696
OKANOGAN	2,860	6,656	2,077	211	0	30	382	0	60	12,276	2,836	15,112
PACIFIC	2,631	3,770	1,050	0	0	4	0	300	0	7,755	2,901	10,656
PEND OREILLE	2,450	2,996	1,033	45	0	0	0	0	273	6,797	132	6,929
PIERCE	24,289	29,777	29,375	31	1,225	862	3,308	0	10,989	99,856	18,240	118,096
SAN JUAN	3,786	3,952	1,275	60	0	82	393	0	44	9,592	843	10,435
SKAGIT	19,839	10,717	5,518	255	1,838	96	0	1,350	388	40,001	(6,921)	33,080
SKAMANIA	769	2,464	0	0	0	0	0	0	0	3,233	655	3,888
SNOHOMISH	32,870	26,142	22,779	758	0	5,682	845	0	7,419	96,495	0	96,495
SPOKANE	12,037	15,397	11,220	157	0	2,182	822	0	1,250	43,065	2,535	45,600
STEVENS	3,855	6,909	1,059	529	0	35	0	0	0	12,387	3,500	15,887
THURSTON	17,968	13,947	8,938	0	0	0	0	0	1,847	42,700	7,944	50,644
Wahkiakum	6,392	849	213	35	782	16	0	0	1,121	9,408	0	9,408
WALLA WALLA	7,439	5,385	1,855	0	0	196	0	0	0	14,875	4,363	19,238
WHATCOM	6,758	13,989	9,601	40	172	366	0	707	1,369	33,002	10,493	43,495
WHITMAN	8,186	6,426	1,434	0	0	0	0	105	0	16,151	1,520	17,671
YAKIMA	22,793	10,368	2,703	0	0	0	978	0	393	37,235	2,067	39,302
TOTAL	337,338	379,302	175,214	3,341	4,017	27,076	16,474	10,396	70,945	1,024,103	143,619	1,167,722
% OF TOTAL	28.9%	32.5%	15.0%	0.3%	0.3%	2.3%	1.4%	0.9%	6.1%	87.7%	12.3%	

Table F

COUNTY ROAD LEVY SUMMARY

As shown in 2012 Budgets

(thousands of dollars)

			County			(F	RCW 36.33.220)		Levy Shift
	Unincorp	County	Road			Diversion		Revenue	from Road
COUNTY	Valuation	Road	Property		Payment	from Road		Remaining	to Current
000111	, and a non	Property	Тах	Operating	for	To Current	County Road Property Tax	in	
			Povonuo	Transfor	Sonicos	Exponso	Exp. for Other Purposes	Road Fund	84 52 043)
		Tax Lovy	Produced	Transier	OCI VICCO	Expense		Road Fund	04.02.040)
			1 loudood	Traffic Polic	ing expense	paid by:			
ADAMS	1,053,956	2,371	1,429					1,429	0
ASOTIN	1,021,540	2,298	1,133					1,133	400
BENTON	3,239,819	7,290	5,718			510		5,209	0
CHELAN	5,147,419	11,582	6,758	120				6,638	400
CLALLAM	4,891,600	11,006	6,566		300			6,266	0
CLARK	17,706,998	39,841	35,490			4,533		30,958	0
COLUMBIA	468,054	1,053	981				Divert - Current Expense 115	866	0
COWLITZ	4,848,724	10,910	9,884			638		9,247	959
DOUGLAS	2,488,751	5,600	4,506					4,506	0
FERRY	578,364	1,301	1,301			521		781	0
FRANKLIN	1,842,627	4,146	2,657					2,657	265
GARFIELD	255,013	574	393					393	0
GRANT	3,960,525	8,911	8,236		210			8,026	0
GRAYS HARBOR	2,726,232	6,134	4,853		663			4,190	750
ISLAND	10,674,899	24,019	8,067		716			7,351	0
JEFFERSON	3,453,863	7,771	3,994			720		3,274	0
KING	32,758,485	73,707	73,707	4,332				69,374	0
KITSAP	16,760,881	37,712	25,487			1,979		23,508	0
KITTITAS	4,855,096	10,924	4,350			200		4,150	300
KLICKITAT	3,048,168	6,858	4,086					4,086	0
LEWIS	5,347,386	12,032	11,043			1,292		9,751	17
LINCOLN	921,638	2,074	1,689			500		1,189	0
MASON	7,069,886	15,907	9,170			875		8,295	0
OKANOGAN	2,908,179	6,543	3,622					3,622	500
PACIFIC	1,821,164	4,098	2,892		300			2,592	0
PEND OREILLE	1,179,350	2,654	1,176					1,176	600
PIERCE	32,527,400	73,187	61,148	2,675			Divert - Traffic and Courts 11,973 *	46,500	0
SAN JUAN	7,445,135	16,752	3,826			546		3,280	309
SKAGIT	7,302,686	16,431	12,163			1,350		10,813	1,000
SKAMANIA	1,056,466	2,377	1,528					1,528	0
SNOHOMISH	31,136,147	70,056	53,574	4,354				49,220	0
SPOKANE	12,739,802	28,665	17,592			1,325		16,267	0
STEVENS	2,961,168	6,663	4,644					4,644	464
THURSTON	12,974,536	29,193	19,929			3,000		16,929	0
WAHKIAKUM	368,014	828	221					221	300
WALLA WALLA	2,260,168	5,085	4,852					4,852	0
WHATCOM	11,736,054	26,406	17,581			707		16,874	0
WHITMAN	1,145,349	2,577	2,073		105			1,968	0
Yakima	6,066,026	13,649	13,021					13,021	0
TOTALS	270,747,566	609,182	451,341	11,482	2,294	18,694	12,088	406,783	6,263

* Increased by voter approval (RCW 84.55.050)

Table G

COUNTY ROAD MILEAGE - 1/1/12

	U	RBAN ROADS	5		RURAL ROAE	DS	SYSTEM	PAVED	PAVED	
COUNTY	ACCESS		τοται	ACCESS		τοται	CENTERLINE	ARTERIAL		
	ACCESS	ARTERIAL	IUIAL	ACCESS	ARTERIAL	IUIAL	IUIAL	C/L WILES	LAINE-IVIILES	C/L MILES
ADAMS		0.01	0.01	1,109.04	667.10	1,776.14	1,776.16	544.53	1,086.17	1,128.59
ASOTIN	61.28	21.04	82.31	165.81	151.90	317.71	400.03	100.35	203.34	233.50
BENTON	81.64	30.36	112.00	432.16	313.34	745.50	857.50	296.09	592.17	258.79
CHELAN	30.01	19.70	49.71	389.72	214.85	604.56	654.27	234.27	469.50	121.09
CLALLAM	17.09	6.78	23.87	335.51	124.16	459.67	483.54	130.94	261.74	2.96
CLARK	404.92	174.26	579.18	275.63	253.58	529.21	1,108.39	427.84	922.95	11.56
COLUMBIA			0.00	272.58	230.32	502.91	502.91	141.50	283.00	356.05
COWLITZ	52.14	29.31	81.45	253.84	194.20	448.04	529.49	223.51	447.07	8.26
DOUGLAS	56.78	36.14	92.92	1,136.16	401.20	1,537.36	1,630.28	293.55	591.84	1,194.11
FERRY			0.00	507.68	231.26	738.94	738.94	176.96	354.29	537.33
FRANKLIN	24.47	13.38	37.85	614.67	338.88	953.55	991.40	344.78	689.68	398.17
GARFIELD			0.00	234.08	213.03	447.10	447.10	123.58	247.15	317.78
GRANT	27.61	16.76	44.36	1,580.85	891.73	2,472.58	2,516.94	827.13	1,663.58	1,078.08
GRAYS HARBOR	9.99	7.57	17.56	291.22	255.90	547.11	564.67	258.18	516.31	39.79
ISLAND	50.38	21.90	72.28	318.66	192.12	510.79	583.06	214.02	430.30	6.98
JEFFERSON	9.04	1.69	10.73	249.46	136.79	386.24	396.97	130.34	261.30	73.47
KING	667.68	196.08	863.76	400.14	266.43	666.56	1,530.32	462.51	967.23	51.29
KITSAP	350.87	148.33	499.20	260.63	161.33	421.96	921.16	309.66	627.70	10.47
KITTITAS	1.45	3.87	5.32	251.65	306.53	558.18	563.51	306.34	613.42	67.84
KLICKITAT			0.00	709.11	375.70	1,084.81	1,084.81	352.74	705.58	541.30
LEWIS	32.46	17.40	49.86	719.68	275.66	995.33	1,045.19	287.99	576.62	45.02
LINCOLN			0.00	1,342.23	658.49	2,000.72	2,000.72	384.80	769.61	1,543.64
MASON	3.79	1.77	5.56	341.17	271.42	612.59	618.14	263.58	527.32	47.79
OKANOGAN			0.00	855.43	511.51	1,366.95	1,366.95	405.93	812.00	689.00
PACIFIC			0.00	219.62	130.12	349.74	349.74	119.85	240.12	48.04
PEND OREILLE			0.00	380.13	180.86	560.98	560.98	167.49	334.98	260.96
PIERCE	626.92	422.09	1,049.01	253.51	251.61	505.12	1,554.13	669.85	1,389.75	26.08
SAN JUAN			0.00	183.53	87.05	270.58	270.58	87.05	174.09	51.72
SKAGIT	56.42	43.94	100.37	388.92	311.96	700.88	801.24	355.90	712.80	40.52
SKAMANIA			0.00	154.27	85.36	239.64	239.64	85.36	171.17	28.80
SNOHOMISH	618.37	213.52	831.89	448.28	284.77	733.05	1,564.93	495.23	1,022.46	11.60
SPOKANE	316.02	148.61	464.63	1,434.90	649.46	2,084.36	2,548.99	724.84	1,492.72	1,155.75
STEVENS			0.00	928.98	560.75	1,489.73	1,489.73	466.67	933.36	828.09
THURSTON	241.30	70.90	312.19	451.87	270.19	722.05	1,034.25	341.09	696.43	23.21
WAHKIAKUM			0.00	59.13	84.44	143.57	143.57	79.03	158.06	16.92
WALLA WALLA	50.58	30.36	80.94	444.92	442.31	887.23	968.17	402.10	805.15	373.35
WHATCOM	73.47	38.98	112.45	510.40	318.62	829.02	941.47	357.60	718.34	31.33
WHITMAN	04.04	00.00	0.00	1,287.17	617.60	1,904.77	1,904.77	419.50	839.00	1,466.96
	04.24	82.03	100.27	017.30	008.90	1,400.32	1,052.59	728.90	1,478.47	550.02
STATEWIDE	3,948.89	1,796.78	5,745.67	21,010.08	12,581.46	33,591.53	39,337.20	12,741.53	25,786.76	13,676.15
EASTERN	734.07	402.26	1,136.33	14,894.63	8,625.77	23,520.40	24,656.73	7,442.03	14,965.01	13,100.37
WESTERN	3,214.82	1,394.52	4,609.34	6,115.45	3,955.68	10,071.13	14,680.47	5,299.51	10,821.75	575.78

County Road Log Data certified 1/1/2012 by the County Road Administration Board

Table H

COUNTY ARTERIAL PRESERVATION PROGRAM 2011 ACCOMPLISHMENT SUMMARY

	1/1/10									
	Eligible	Total	Total	Total	CAPP	2011	2011	2011	2011	2011
COUNTY	Arterial	CAPP	CAPP	Eligible	Contri-	Arterial	Arterial	Arterial	Total	Percent
	System C/Lino	Recia	Expended	Expenses	bution	Prep/ Popair	Sealcoat	Overlay C/Lino	C/Lino	System Rosurf'd
	(miles)	(\$1,000)	(\$1,000)	(\$1,000)	(%)	(\$1,000)	(miles)	(miles)	(miles)	Resultu
ADAMS	545.10	639.6	639.6	1 105 0	57.9	205.6	39.7	0.0	39.7	7.3
ASOTIN	100.35	121.2	121.2	121.2	100.0	0.0	7.5	0.0	7.5	7.5
BENTON	301 57	354.6	354.6	1 072 0	33.1	0.0	67.0	0.0	67.0	22.2
	237.19	279.5	279.5	725 /	38.5	122.9	19.7	0.0	19.7	8.3
	129.58	152.3	61	61	100.0	0.0	30.9	0.0	30.9	23.8
CLARK	439.55	560.5	1 122 7 *	5 598 6	20.1	0.0	20.8	14.0	34.8	7.9
	141.26	166 1	96.7	0185	10.5	50.1	0.0	5.7	5.7	4.0
	222.80	262.2	262.2	1 021 4	25.7	531.8	0.0	0.0	0.0	0.0
	293 92	3/8 3	202.2	698.1	42.7	276.6	54.8	0.0	55.0	18.7
FERRY	176 75	208.0	117.4	117.4	100.0	111.0	0.0	0.0	0.0	0.0
FRANKLIN	344.24	405.2	0.0	48.2	0.0	0.0	1.6	0.0	1.6	0.5
GARFIELD	127.51	149.7	149 7	316.1	47.4	109.9	5.9	0.0	5.9	4.6
GRANT	834.39	987.0	987.0	3 763 9	26.2	1.167.9	96.5	5.9	102.4	12.3
GRAYS HARBOR	244.82	287.8	287.8	611.4	47.1	611.4	0.0	0.0	0.0	0.0
ISLAND	215.76	255.4	255.4	1.642.2	15.6	408.5	8.7	5.8	14.5	6.7
JEFFERSON	129.74	152.9	152.9	477.1	32.0	104.8	8.4	0.0	8.4	6.4
KING	517.97	649.3	649.3	1.110.1	58.5	0.0	6.7	4.6	11.3	2.2
KITSAP	313.03	372.8	372.8	914.1	40.8	501.7	0.1	5.0	5.1	1.6
KITTITAS	305.89	360.1	505.7	505.7	100.0	60.3	18.1	0.0	18.1	5.9
KLICKITAT	338.25	397.8	397.8	1,038.8	38.3	0.0	30.4	0.0	30.4	9.0
LEWIS	287.54	337.2	337.2	1.169.2	28.8	217.0	5.5	4.2	9.7	3.4
LINCOLN	380.19	446.8	446.8	560.2	79.8	204.6	23.5	0.0	23.5	6.2
MASON	263.20	309.7	634.6	649.0	97.8	0.0	0.0	5.7	5.7	2.2
OKANOGAN	406.72	478.3	844.1	844.1	100.0	304.1	27.8	0.0	27.8	6.8
PACIFIC	119.85	141.2	3.4	663.7	0.5	150.4	6.0	1.1	7.1	5.9
PEND OREILLE	167.49	196.9	196.9	202.3	97.3	0.0	0.0	1.7	1.7	1.0
PIERCE	671.75	820.0	820.0	3,034.4	27.0	813.0	34.1	4.6	38.7	5.8
SAN JUAN	86.71	101.9	101.9	520.9	19.6	0.0	11.8	0.0	11.8	13.6
SKAGIT	354.88	417.8	410.5	1,674.7	24.5	80.0	34.2	2.5	36.7	10.3
SKAMANIA	85.55	101.1	31.0	294.5	10.5	56.8	4.2	0.4	4.6	5.4
SNOHOMISH	516.09	620.1	620.1	1,458.8	42.5	168.5	13.9	4.5	18.4	3.6
SPOKANE	720.26	872.9	872.9	2,052.5	42.5	720.7	51.1	0.0	51.1	7.1
STEVENS	465.12	546.9	719.9	1,023.5	70.3	203.2	31.0	0.5	31.6	6.8
THURSTON	340.34	409.7	409.7	725.9	56.4	184.8	11.7	0.3	12.0	3.5
WAHKIAKUM	78.90	92.8	92.8	96.3	96.3	9.1	2.1	0.0	2.1	2.7
WALLA WALLA	389.05	457.8	457.8	1,377.1	33.2	325.6	44.0	0.0	44.0	11.3
WHATCOM	360.86	425.8	425.8	460.0	92.6	180.4	12.2	0.3	12.5	3.5
WHITMAN	419.33	493.0	493.0	1,636.5	30.1	496.5	41.7	2.7	44.5	10.6
YAKIMA	729.48	866.5	866.5	1,753.8	49.4	0.0	43.0	1.9	44.9	6.2
TOTAL	12,803.0	15,246.7	15,841.4	42,008.7	37.7%	8,377.3	814.7	71.6	886.2	
* Expended amount	s higher than re	ceived are fr	om carry forwa	rd amounts of	prior years	6.		A	VERAGE	6.8

* Expended amounts higher than received are from carry forward amounts of prior years.

Table I

COUNTY FREIGHT AND GOODS SYSTEM - 1/1/2012

COUNTY	Frei	ght and Goo	oods System - Truck Route Class			Total	Total	%
	T-1	T-2	T-3	T-4	T-5	FGTS	Adequate	Adequate
ADAMS		0.53	65.29	229.73	270.22	565.78	199.21	35.2%
ASOTIN		0.15	23.00	19.98		43.13	37.66	87.3%
BENTON			116.41	125.71	83.44	325.56	86.86	26.7%
CHELAN			64.59	80.00	33.41	178.00	64.86	36.4%
CLALLAM			34.40	98.74	9.99	143.13		0.0%
CLARK	0.33	11.34	161.77	146.59		320.03	270.25	84.4%
COLUMBIA			10.30	49.13	146.71	206.15	11.20	5.4%
COWLITZ			78.52	57.47	3.00	138.99	111.05	79.9%
DOUGLAS			6.89	83.77	171.26	261.92	3.22	1.2%
FERRY			108.86	115.60		224.46	27.31	12.2%
FRANKLIN			111.86	154.05	252.51	518.42	248.04	47.8%
GARFIELD				10.13	125.75	135.88	113.03	83.2%
GRANT		10.46	270.42	262.23	306.07	849.18	57.67	6.8%
GRAYS HARBOR		1.03	211.56	7.13		219.72	192.26	87.5%
ISLAND			14.44	26.84	0.20	41.48	41.09	99.1%
JEFFERSON			39.44	33.20	65.75	138.39	106.90	77.2%
KING	18.06	21.71	246.41	107.30		393.48	366.15	93.1%
KITSAP	0.49	5.84	184.12	83.83		274.28	190.12	69.3%
KITTITAS		1.44	191.80	104.41	9.57	307.22	204.64	66.6%
KLICKITAT			174.68	111.37		286.05	7.63	2.7%
LEWIS			144.59	209.72	45.97	400.28	206.64	51.6%
LINCOLN			131.90	281.78	363.90	777.59	447.51	57.6%
MASON			68.72	52.04	1.46	122.22	4.01	3.3%
OKANOGAN			100.49	118.83	179.33	398.65	5.43	1.4%
PACIFIC				135.41		135.41	26.14	19.3%
PEND OREILLE			38.39	125.40	62.21	226.00	0.49	0.2%
PIERCE	11.57	52.02	308.57	24.33	7.70	404.19	136.74	33.8%
SAN JUAN			23.92	64.57		88.49	57.48	64.9%
SKAGIT		5.19	116.78	118.61		240.58	111.54	46.4%
SKAMANIA			22.66	58.73		81.38	80.96	99.5%
SNOHOMISH	4.64	7.45	329.78	108.93	60.82	511.61	328.08	64.1%
SPOKANE	5.69	31.95	456.26	106.90	109.28	710.08	603.82	85.0%
STEVENS			79.72	184.56	71.12	335.40	12.82	3.8%
THURSTON		9.52	173.78	52.86	4.13	240.29	24.24	10.1%
WAHKIAKUM			12.00	2.67	10.83	25.50	12.80	50.2%
WALLA WALLA		7.83	71.95	285.32		365.10	13.02	3.6%
WHATCOM			107.95	91.99		199.94	71.11	35.6%
WHITMAN			3.29	37.97	249.59	290.85	37.44	12.9%
YAKIMA		8.45	388.47	137.60	67.41	601.93	592.97	98.5%
TOTAL	40.78	174.90	4,693.95	4,105.43	2,711.64	11,726.70	5,112.36	43.6%

County Road Log Data Certified 1/1/2012 by the County Road Administration Board

2012 County Freight and Goods System

Executive Summary

The Washington State Legislature has recognized that Washington State is uniquely positioned as a gateway to the global economy. As one of the most trade-dependent states per capita in the nation, Washington's economy is highly dependent on an efficient multimodal transportation network in order to remain competitive. The vitality of the state's economy is placed at risk by growing traffic congestion that impedes the safe and efficient movement of goods. Freight corridors that serve international and domestic interstate and intrastate trade and those freight corridors that enhance the state's competitive position through regional and global gateways are strategically important. Ownership of the freight mobility network is fragmented and spread across various public jurisdictions, private companies, and state and national borders. Transportation projects have grown in complexity and size, requiring more resources and longer implementation time frames. State investments in projects that enhance or mitigate freight movements should pay special attention to solutions that utilize a corridor solution to address freight mobility issues with important transportation and economic impacts well beyond any local area.

The County Freight and Goods System (CFGS) is made up of 11,727 centerline miles of county roads - 29.8% of the 39,337 total miles of county road. 9,866 miles of the CFGS roads are classified as arterials and collectors. This represents 84.1% of the County Freight and Goods System.

The purpose of the County Freight and Goods System (CFGS) Status Report is:

- 1. To develop criteria for determining which roads should be included in the CFGS;
- 2. To obtain the field data necessary to determine which roads are CFGS routes;
- 3. To establish the CFGS network, statewide;
- 4. To develop criteria to evaluate deficiencies in the CFGS;
- 5. To obtain a needs assessment to determine the costs to improve the CFGS to allweather standards; and
- 6. To provide information on County Roads Strategic Freight Corridors.

The counties will monitor changes in their truck routes and obtain truck classification and volume information on new and existing truck routes annually. This information is used by each county to develop their priority arrays, deficiency and needs analysis, six-year programs, and annual road improvement programs. This information will also be used to provide an updated annual status report on the County Freight and Goods System, and be provided to WSDOT to update the Freight and Goods Transportation System (FGTS) inventory and to Freight Mobility Strategic Investment Board (FMSIB) to update their Strategic Corridors inventory.

Truck Route Classes

In order to be integrated with the statewide FGTS, the CFGS uses the same method of classification as the FGTS. The current FGTS classes are based on gross annual tons of freight and goods on the route. To determine gross annual tons on each road, every county must have accurate truck volumes and classification information on its road system. All counties are obtaining the needed information as part of their annual traffic counting and classification program.

Truck Route Classes

FGTS	
<u>Class</u>	Description
T-1	Over 10 million gross tons annually.
T-2	4 to 10 million gross tons annually.
T-3	300,000 to 4 million gross tons annually.
T-4	100,000 to 300,000 gross tons annually.
T-5	Seasonal – Over 100,000 gross tons in 60 days.
	Cyclical – Over 100,000 gross tons annually, but not every year.
	Missing Link – Over 100,000 gross tons annually if improved.
	Over 100,000 gross tons annually if Snake River drawdown occurs.
	FGTS <u>Class</u> T-1 T-2 T-3 T-4 T-5

Three additional truck route classes, T-6, T-7, and T-8 have been created for the purposes of this study to allow the counties to better classify County Freight and Goods System (CFGS) routes in the future. The inclusion of T-6, T-7, and T-8 will allow these routes to be identified and properly managed. Class T-1 through T-5 are the same as the current Freight and Goods Transportation System (FGTS) truck route classes established by the Transportation Commission.

T-6 is a road that has over 100,000 gross annual tons, but not in every year. These are cyclical truck routes. An example is lowland logging. Certain roads will carry many loaded trucks during the year(s) that their tributary areas are being logged, but these areas are logged only once every 10 to 25 years. During the harvest years, these roads will likely meet the criteria for a FGTS/CFGS route, but only in those years. While there may be better ways to manage these routes than reconstruction to FGTS standards (e.g., haul road agreements), this classification will provide an inventory of these routes.

T-7 is a route that would be an FGTS route but there is some problem with the road that prevents truck traffic from using it. If these problems were eliminated, the roads would become preferred truck routes with a savings of time and/or distance over currently used routes. An example of such a route comes from Spokane County: There is a road, the use of which would save trucks both time and distance, but there is an inadequate railroad crossing that prevents use of the route. If the railroad crossing were improved, trucks

would use the road. Using this classification will provide a list of road improvements that would benefit the movement of freight and goods.

T-8 was created for the Lower Snake River Drawdown Study (1999), to inventory those county roads that would become an FGTS route if barge traffic were removed from the Snake River. As grain is hauled from farm or storage to the Tri-Cities or beyond rather than to the barge loading facilities on the Snake River, truck travel patterns will change. Truck Route Class T-8 will identify those routes that will likely become FGTS/CFGS routes if this happens.

County Data Collection and Analysis

Annually, counties conduct traffic counts on a portion of their road system and conduct volume and classification studies on many roads that are existing and/or potential truck routes. To provide the best information possible, some counties work with trucking concerns (haulers, grain co-ops, and industry representatives) to develop tonnage data.

The field data obtained provides the number of truck-by-truck classifications. The methodology developed by WSDOT, described in "Instructions for FGTS Truck Tonnage Estimation", is used to convert this information to Gross Annual Tons. The WSDOT methodology was used so that the designation of Truck Route Classes would be consistent between the state and the counties.

Counties submit an annual Road Log update to CRAB that includes all changes made to their road systems during the year. The update contains road and usage information for all identified CFGS routes which CRAB extracts for each CFGS route. This information provides an inventory of the CFGS routes, and a deficiency elimination evaluation and maintenance needs evaluation for each county's system. This is the basis for the CFGS Annual Status Report.

Deficiency Elimination Evaluation

Roads

One of the tasks of the Cost Responsibility Study was to define a set of "Minimum Tolerable Conditions" (MTC) that a FGTS route must meet to be deemed 'adequate'. The MTCs were established for Roadway Width and Structural Adequacy.

- 1. Roadway Width is a measure of the safety and ease of operation of trucks. A narrower roadway provides operational impediments to safe and efficient operation of trucks. Pavement Width and Shoulder Width are required fields in the Road Log, and are certified correct by the County Engineer.
- 2. Structural Adequacy is the ability of the pavement and base to adequately support the number of heavy loads on the road. Weeks of Weight Restriction (how many weeks in a typical average year the road is restricted to lighter loads) and Base Adequacy (an evaluation of the adequacy of the road base to support the volume of heavy trucks using the road) are not required fields. The counties are encouraged to enter correct data in these fields. However, due to data and staff limitations, some information may not be current.

A scenario approach was adopted by the Cost Responsibility Study (CRS) to produce estimates of needs under alternative sets of minimum tolerable conditions. This provides policy makers with a range of options and information on how the needs vary depending on the MTCs selected. Scenario 1 is "all weight restrictions addressed", and assumes that all FGTS segments with weight restrictions will be upgraded to all-weather roads. Scenario 2 is "some weight restrictions addressed", and assumes that minimal weight restrictions would be allowed in the lower truck route classes (T-3 thru T-5). Scenario 3 is "most severe weight restrictions addressed", and assumes moderate weight restrictions will be allowed in all truck route classes.

Deficiencies are determined by comparing the data in the Road Log with the Minimum Tolerable Condition, established in the CRS.

The costs for improvements to ensure that minimum tolerable conditions exist were originally determined in the Road Jurisdiction Study (1988), reviewed and updated for the Cost Responsibility Study (1993), and adopted for use in the Needs Assessment Evaluation (1994). They represent standards of design and construction that existed at that time. These costs have been adjusted to 2012 dollars using WSDOT Planning and Programming Service Center, Economics Branch, implicit price deflators.

These cost estimates are conservative. The costs assume structural adequacy and adequate width. They do not include costs that are necessary for other safety improvements or upgrades to improve truck operational efficiencies, currently required environmental permitting, mitigation, and project delays or other potential restrictions. The emphasis on environmental concerns has dramatically escalated since these cost factors were developed.

Bridges

Bridge restrictions are a major impediment to truck traffic. Removing bridge restrictions can provide (1) alternate truck routes that save time and/or distance and (2) truck routes that can carry both legal and oversized/overweight permitted loads. Both result in more efficient truck travel.

Bridges are also evaluated by scenario. In Scenario 1, all bridge deficiencies will be removed (load postings, narrow widths, and vertical clearance problems). In Scenario 2, load limit and vertical clearance deficiencies will be removed. In Scenario 3, only load limit deficiencies will be removed.

The current WSDOT bridge inventory system provides counties with an automated inspection form. Each county inspects its bridges on a regular basis and submits the data to WSDOT. Analysis and management functions are performed by WSDOT.

Railroad Crossings

Railroad crossing deficiencies can impede truck traffic in several ways:

- 1. Steep approach grades to the crossing;
- 2. Sight distance restrictions;

- 3. Narrow and/or height restricted under crossings that constrict the free flow of traffic;
- 4. Lack of warning lights, gates, and other safety devices.

Washington Utilities and Transportation Commission (WUTC) and WSDOT cooperate to improve railroad crossings on a priority basis. CRAB does not have the ability to segregate the railroad crossings on the CFGS to develop an inventory, deficiency listing or a needs analysis.

Maintenance Needs Evaluation

The Road Jurisdiction Study (RJS) included an evaluation of annual maintenance needs. It identified a reasonable standard for road maintenance for a typical local agency and determined costs required to achieve that standard. The CRS used those standards and costs to determine annual maintenance needs for the FGTS. For the Needs Assessment Study, CRAB used the RJS and CRS standards and costs to develop a maintenance needs assessment routine applicable to county roads.

This evaluation was used (with costs updated to reflect 2011 costs) to determine the estimated annual maintenance needs on the County Freight and Goods system. It must be noted that these costs are 'not unreasonable' estimates of the total statewide annual maintenance needs for counties, based on the criteria established by the RJS and CRS.

Strategic Freight Corridors

RCW 47.06A.010 (6) defines Strategic Freight Corridors as: "... a transportation corridor of great economic importance within an integrated freight system that:

- (a) Serves international and domestic interstate and intrastate trade;
- (b) Enhances the state's competitive position through regional and global gateways;
- (c) Carries freight tonnages of at least:
 - (i) Four million gross tons annually on state highways, city streets, and county roads;
 - (ii) Five million gross tons annually on railroads; or
 - (iii) Two and one-half million net tons on waterways; and
- (d) Has been designated a strategic corridor by the board under RCW 47.06A.020
 (3). However, new alignments to, realignments of, and new links to strategic corridors that enhance freight movement may qualify, even though no tonnage data exists for facilities to be built in the future."

Two hundred and sixteen (216) miles of county roads, in 15 counties, have been classified as Strategic Freight Corridors. These are the routes that are classified Truck Route Class T-1 or T-2.

Strategic Freight Corridors are eligible for FMSIB funding. However, the FMSIB funding rating method is based on reduction of congestion, measured by delay. A review of the "Freight Mobility Strategic Investment Board – 2012 Activities and Recommendations Report" indicates that their current priorities are improvements at railroad crossings, which reduce congestion and delay of both trucks and trains.

	TABLE - I COUNTY FREIGHT AND GOODS - 1/1/2012									
	Freight	and Good	s System -	Truck Rou	te Class		Total	%		
County	T-1	T-2	T-3	T-4	T-5	Total FGTS	Adequate	Adequate		
Adams		0.530	65.293	229.733	270.222	565.778	199.206	35.2%		
Asotin		0.150	22.999	19.976		43.125	37.657	87.3%		
Benton			116.408	125.714	83.442	325.564	86.859	26.7%		
Chelan			64.585	80.000	33.410	177.995	64.855	36.4%		
Clallam			34.400	98.740	9.990	143.130		0.0%		
Clark	0.330	11.340	161.770	146.590		320.030	270.250	84.4%		
Columbia			10.303	49.129	146.714	206.146	11.200	5.4%		
Cowlitz			78.520	57.470	3.000	138.990	111.050	79.9%		
Douglas			6.890	83.770	171.260	261.920	3.220	1.2%		
Ferry			108.860	115.600		224.460	27.310	12.2%		
Franklin			111.860	154.050	252.510	518.420	248.040	47.8%		
Garfield				10.130	125.746	135.876	113.026	83.2%		
Grant		10.460	270.417	262.227	306.073	849.177	57.668	6.8%		
Grays Harbor		1.031	211.560	7.130		219.721	192.261	87.5%		
Island			14.438	26.843	0.200	41.481	41.091	99.1%		
Jefferson			39.440	33.195	65.750	138.385	106.895	77.2%		
King	18.062	21.705	246.409	107.303		393.479	366.151	93.1%		
Kitsap	0.489	5.836	184.118	83.832		274.275	190.117	69.3%		
Kittitas		1.435	191.803	104.408	9.573	307.219	204.637	66.6%		
Klickitat			174.680	111.370		286.050	7.630	2.7%		
Lewis			144.587	209.716	45.974	400.277	206.635	51.6%		
Lincoln			131.900	281.783	363.904	777.587	447.510	57.6%		
Mason			68.719	52.040	1.460	122.219	4.010	3.3%		
Okanogan			100.488	118.829	179.328	398.645	5.426	1.4%		
Pacific				135.409		135.409	26.139	19.3%		
Pend Oreille			38.393	125.397	62.208	225.998	0.490	0.2%		
Pierce	11.570	52.019	308.569	24.330	7.700	404.188	136.740	33.8%		
San Juan			23.921	64.571		88.492	57.475	64.9%		
Skagit		5.190	116.778	118.610		240.578	111.536	46.4%		
Skamania			22.657	58.727		81.384	80.964	99.5%		
Snohomish	4.637	7.454	329.777	108.926	60.816	511.610	328.077	64.1%		
Spokane	5.690	31.950	456.260	106.900	109.280	710.080	603.820	85.0%		
Stevens			79.720	184.560	71.120	335.400	12.820	3.8%		
Thurston		9.515	173.776	52.864	4.131	240.286	24.244	10.1%		
Wahkiakum			12.000	2.670	10.830	25.500	12.800	50.2%		
Walla Walla		7.834	71.945	285.321		365.100	13.022	3.6%		
Whatcom			107.950	91.990		199.940	71.110	35.6%		
Whitman			3.290	37.974	249.589	290.853	37.444	12.9%		
Yakima		8.450	388.470	137.600	67.410	601.930	592.970	98.5%		
Total	40.778	174.899	4,693.953	4,105.427	2,711.640	11,726.697	5,112.355	43.6%		

Data from County Road Logs certified Jan. 1, 2012 by the County Road Administration Board

2012 Table I.xls

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	2012 Strategic Freight Corridors (T1 and T2)													
	County Freight and Goods System													
Cty	County	Т	otal Miles		% of S	ystem	Truck I	Rt Class	Fui	nction Cla	ass	Rural	/Urban	County
#	Name	All Roads	FGTS	SFC	FGTS	SFC	T1	T2	Art	Coll.	Access	Rural	Rural	Art/Coll
1	Adams	1,776.16	565.78	0.53	32%	0%	0.00	0.53	0.00	0.53	0.00	0.53	0.00	0.53
2	Asotin	400.03	43.13	0.15	11%	0%	0.00	0.15	0.15	0.00	0.00	0.00	0.15	0.00
3	Benton	857.50	325.56	0.00	38%	0%	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
4	Chelan	654.27	178.00	0.00	27%	0%	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
5	Clallam	483.54	143.13	0.00	30%	0%	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
6	Clark	1,108.39	320.03	11.67	29%	1%	0.33	11.34	11.54	0.00	0.13	0.00	11.67	0.00
7	Columbia	502.91	206.15	0.00	41%	0%	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
8	Cow litz	529.49	138.99	0.00	26%	0%	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
9	Douglas	1,630.28	261.92	0.00	16%	0%	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
10	Ferry	738.94	224.46	0.00	30%	0%	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11	Franklin	991.40	518.42	0.00	52%	0%	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
12	Garfield	447.10	135.88	0.00	30%	0%	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
13	Grant	2,516.94	849.18	10.46	34%	0%	0.00	10.46	3.29	7.17	0.00	8.17	2.29	10.46
14	Grays Harbor	564.67	219.72	1.03	39%	0%	0.00	1.03	0.00	1.03	0.00	1.03	0.00	1.03
15	Island	583.06	41.48	0.00	7%	0%	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
16	Jefferson	396.97	138.39	0.00	35%	0%	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
17	King	1,530.32	393.48	39.77	26%	3%	18.06	21.71	39.77	0.00	0.00	10.84	28.93	0.00
18	Kitsap	921.16	274.28	6.33	30%	1%	0.49	5.84	5.84	0.49	0.00	0.49	5.84	6.33
19	Kittitas	563.51	307.22	1.44	55%	0%	0.00	1.44	0.34	1.10	0.00	1.35	0.09	1.44
20	Klickitat	1,084.81	286.05	0.00	26%	0%	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
21	Lew is	1,045.19	400.28	0.00	38%	0%	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
22	Lincoln	2,000.72	777.59	0.00	39%	0%	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
23	Mason	618.14	122.22	0.00	20%	0%	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
24	Okanogan	1,366.95	398.65	0.00	29%	0%	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
25	Pacific	349.74	135.41	0.00	39%	0%	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
26	Pend Oreille	560.98	226.00	0.00	40%	0%	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
27	Pierce	1,554.13	404.19	63.59	26%	4%	11.57	52.02	60.45	3.14	0.00	8.11	55.48	63.59
28	San Juan	270.58	88.49	0.00	33%	0%	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
29	Skagit	801.24	240.58	5.19	30%	1%	0.00	5.19	0.82	4.37	0.00	4.37	0.82	5.19
30	Skamania	239.64	81.38	0.00	34%	0%	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
31	Snohomish	1,564.93	511.61	12.09	33%	1%	4.64	7.45	8.31	3.79	0.00	3.68	8.41	12.09
32	Spokane	2,548.99	710.08	37.64	28%	1%	5.69	31.95	30.65	6.99	0.00	12.97	24.67	37.64
33	Stevens	1,489.73	335.40	0.00	23%	0%	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
34	Thurston	1,034.25	240.29	9.52	23%	1%	0.00	9.52	6.83	2.68	0.00	6.56	2.96	9.52
35	Wahkiakum	143.57	25.50	0.00	18%	0%	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
36	Walla Walla	968.17	365.10	7.83	38%	1%	0.00	7.83	2.15	5.69	0.00	6.06	1.77	7.83
37	Whatcom	941.47	199.94	0.00	21%	0%	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
38	Whitman	1,904.77	290.85	0.00	15%	0%	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
39	Yakima	1,652.59	601.93	8.45	36%	1%	0.00	8.45	5.37	3.08	0.00	3.08	5.37	8.45
	Total Miles	39,337.20	11,726.70	215.68	30%	1%	40.78	174.90	175.50	40.05	0.13	67.24	148.44	215.55

COUNTY FREIGHT AND GOODS SYSTEM 2012 STATUS REPORT Freight and Goods Transportation System (FGTS) Deficiency Summary

					D	eficient C	enterline l	Viles			
CRS	Total C/	Miles Improve Pave Minor Shoulder Improve Total Mi. %									
Scenario	FGTS	Adequate	Gravel	Unpaved	Widening	Improv.	Base	Inadequate	Adequate		
1 All Weather	11,726.70	3,814.82	975.36	58.37	181.92	1,439.49	5,256.74	7,911.88	33.0%		
2 Minimal Rest.	11,726.70	4,625.20	975.36	58.37	207.45	1,701.90	4,158.43	7,101.50	39.0%		
3 Moderate Rest.	11,726.70	5,086.20	975.36	58.37	215.15	2,084.24	3,307.38	6,640.50	43.0%		

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Centerline Miles of Road

Cost Estimate to Remove CRS Deficiencies

	Costs To Improve/Remove Deficiencies									
	CRS	Total C/	L Miles	Improve	Pave	Minor	Shoulder	Improve	Bridge	Total
	Scenario	FGTS	Adequate	Gravel	Unpaved	Widening	Improv.	Base	Restrictions	Costs
1	All Weather	11,726.70	3,763.43	530,326	34,052	54,613	425,464	3,048,148	22,362	4,116,513
2	Minimal Rest.	11,726.70	4,571.40	530,236	34,052	64,117	494,651	2,394,285	10,373	3,542,888
3	Moderate Rest.	11,726.70	4,992.17	530,326	34,052	65,758	591,516	1,907,588	10,323	3,125,521

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All Costs in 2012 \$1,000's

Total Estimated Needs to Correct Deficiencies

All Weather FGTS	\$4,116,513,000	\$4.120 Billion
Minimal Restrictions	\$3,542,888,000	\$3.550 Billion
Moderate Restrictions	\$3,125,521,000	\$3.130 Billion

Cost Responsibility Study Improvement Descriptions

Improvement Strategy "J" - Improve Gravel Road Base

If an unpaved road with ADT less than 250 has inadequate base, width, or surface type, the road will be reconstructed to a gravel road with adequate base and current design standard width.

Improvement Strategy "K" - Base Improvement to Existing Paved Road

If a road is not structurally adequate (base inadequate or too many weeks of weight restrictions),

the road is reconstructed to a paved all weather road meeting current design standards

Improvement Strategy "M" - Resurfacing with Minor Widening

If the lane width is less than the MTC, the existing lanes will be widened to current design standards,

adequate shoulders installed, and the existing pavement resurfaced.

Improvement Strategy "N" - Resurfacing with Shoulder Improvements

If the pavement width is adequate but the shoulders are too narrow, the shoulders are improved to current design standards, and the existing pavement resurfaced.

Improvement Strategy "V" - Paving an Unpaved Road

If an unpaved road has an ADT greater than 250, it will be reconstructed to a paved road with an adequate base and current design standard width lanes and shoulders.

All projects undertaken will comply with current road improvement requirements and practices and include:

- Identifying and mitigating safety concerns
- Identifying and mitigating environmental concerns
- Include minor alignment improvements (horizontal and vertical)

Include truck operational enhancements (e.g.: turning lanes, adequate turning radii)







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