# ROAD SERVICES DIVISION
# CAPITAL IMPROVEMENT PROGRAM

## Introduction to Program, Goals, and Highlights

The Roads Capital Improvement Program (CIP) budget request for 2009 is $68 million for both roads and facility projects. The total 2009-2014 proposed budget plan is approximately $358 million.

The 2009-2014 Capital Improvement Program (CIP) supports the Road Services Division's (RSD) vision to be a leader, partner and provider of local and regional transportation services and to play a significant role in shaping regional transportation policy.

The primary goal of the CIP continues to be construction of improvements to existing roadways to provide safe, efficient and environmentally sound transportation facilities for the movement of goods, services and the general public. The CIP is developed to provide safe roads and bridges, to be consistent with federal, state, and county land use policies and plans and to meet identified transportation needs. This CIP addresses the needs and deficiency issues of the RSD's facilities with an eye to the future of King County.

The goals identified in the RSD's Core Business Goals that relate to the CIP are:

- Lead and partner in planning and carrying out local and regional transportation solutions that support mobility, accessibility and growth management.
- Provide a high level of travel safety through effective design, construction, operation and maintenance of roadways and other transportation facilities.
- Achieve high levels of customer satisfaction through the identification and timely response to roadway and other transportation facilities service needs, and provide timely, consistent and clear two-way communication tailored to the transportation needs of customers and citizens.
- Deliver projects and services on time and within budget through timely, efficient and cost effective management of resources.
- Ensure the design, construction, operation and maintenance of roadways and other transportation facilities are done in an environmentally responsible manner.

The road and bridge improvements reflected in this program are consistent with the principles and policies of the adopted King County Comprehensive Plan.

## Project Prioritization Methodology

There are two primary prioritization processes that provide input to the CIP: the Bridge Priority Process published in the Annual Bridge Report and the Transportation Needs Report (TNR).

The Annual Bridge Report includes the prioritized list of county bridges for replacement or rehabilitation. The criteria used to evaluate these priorities include: sufficiency rating, seismic rating, geometrics, hydraulics, load limits, traffic safety, serviceability, importance, useful life and structural concern. This report is updated annually and submitted to the King County Council for review.

In prioritizing capital investments for roads and bridges, the RSD first looks to the transportation policies adopted in the King County Comprehensive Plan. Those policies inform the prioritization processes used to develop the TNR. The RSD places a greater emphasis and a higher priority on projects providing safe and efficient roadways and preserving the road system infrastructure.

The TNR includes the RSD's safety related priority arrays, including High Accident Location, High Accident Road Segment, Pedestrian Safety and Mobility, Guardrail Priority and Signal Priority. It also contains the priorities for needed capacity projects. One of the processes of the TNR screens out projects that are cost prohibitive or not buildable due to environmental restrictions. The TNR was last updated in the Executive Recommended TNR 2008, which was transmitted to the King County Council on March 1, 2008. The projects within the proposed CIP are consistent with the TNR.

## Growth Management and Comprehensive Plan Issues

The county is required by the Washington State Growth Management Act and the KCCP to specify transportation levels of service and enforce them through a concurrency management system. This is to ensure that new growth is allowed to occur only if the transportation infrastructure necessary to support the additional traffic that will be generated by new development is in place.

The Transportation Concurrency Management program is a key tool used by the county to ensure that transportation facilities to serve new development are available or there is a financial commitment in place to construct the needed improvements within six years. Financial commitment is established if construction of the improvements is programmed in the adopted RSD Six-Year CIP.

The Comprehensive Plan distinguishes between building new capacity projects for existing and pipeline development (vested in permitting), and those projects needed to serve future new growth. Capital projects that increase roadway capacity to accommodate existing and pipeline development are given a higher priority than projects that increase roadway capacity to accommodate future development.

Projects included in the RSD 2009-2014 Capital Improvement Program have been evaluated for consistency with the KCCP – safety and preservation are the highest priorities, with added road system capacity addressed only when those more critical system priorities are responsibly funded.

The primary goal of the Road Services Division (RSD) Capital Improvement Program continues to be the construction of improvements to existing roadways to provide safe, efficient and environmentally sound transportation facilities for the movement of goods, services and the general public. The CIP is developed to provide safe roads and bridges, to be consistent with federal, state and county land use policies and plans and to meet identified transportation needs. This CIP addresses the needs and deficiency issues of the division's facilities with an eye to the future of King County.

## Financial Planning and Policy Overview

The Roads Six-Year CIP is primarily financed by the contribution from the County Road Fund (Fund 103), various State and Federal transportation grants, and developer mitigation payments.

Within the current constraints of the unincorporated Road Levy 1% annual growth limit, the county's share of the eroding State gas tax revenues, and the significant Federal underfunding of transportation as reflected in diminishing grant revenues, the county is losing significant ground in its battle to preserve aged infrastructure and to modernize and make safer its heavily used road system. As population and economic growth continues, the demands increase on the county's system of roads and bridges necessary

to sustain that growth. The current funding level is not keeping up with the soaring costs of materials, fuel, concrete and steel and the additional wear and tear caused by increased vehicular and truck traffic on facilities that are old, and getting older.

In the face of this dilemma, some tough choices are being recommended in the Roads Six-Year CIP including:

Pavement Overlay: In the past several years, RSD has been able to optimize the lifecycle of the pavement on its approximately 1,800 miles of roadway with a sustainable pavement overlay program. The significant increase in the price of oil this year, and no significant price decrease anticipated in future years, makes it impossible to continue to meet the goal of 40-45 miles of roadway receiving pavement overlay each year. There was an increase of 43% in the costs of asphalt from 2007 – 2008 and that number is only expected to grow. The proposed 2009-2014 CIP includes a shift to chip seal on the local access roads, instead of full overlay. This change will also result in a savings of approximately $3 million over the six year program to free up resources needed to begin programming roadway reconstruction of road segments that are failing and cannot be sustained any longer simply by applying pavement overlay.

Road Reconstruction: The vast majority of the roadways within the county's road system are well over 70 years in age. The underlying beds of many of these old roadways are now deteriorating at an accelerated rate and not built for the heavy loads and high volumes of today's traffic. This proposed budget includes some of the highest priority candidate locations for reconstruction. For example, in 2009 design will begin on a project that will reconstruct and rehabilitate a nearly 2.5 mile segment of the SE Summit-Landsburg Road.

The RSD continues to seek local and/or regional funding to replace the previous loss in 2004 of the $15 Local Option Vehicle License Fee, which provided the county with its sole source of funding available to partner with cities across jurisdictional boundaries to invest in regionally significant arterial corridors. With the approval in 2007 of House Bill 1858, the counties and cities have regained authority to levy a local option vehicle fee of up to $20 by councilmatic vote and up to $100 by a vote of the people, but only through the creation of a Transportation Benefit District (TBD). The TBD also can incorporate sales taxes, tolls and impact fees to create a funding package to make specified capital improvements when approved by voters. Current law also would allow a lifting of the 1% levy lid with voter approval.

## 2009 Significant Project Highlights

The following table displays significant projects in 2009.

| Significant Projects<br>Roads Capital Improvement Program | 2009 Executive<br>Proposed Budget | Continuation of<br>Existing Project |
|---|---|---|
| Novelty Hill Road | $11,901,000 | X |
| Countywide Overlay | $7,718,000 | X |
| Facility Maintenance Program – Fund 385 | $7,574,000 | X |
| South Park Bridge | $6,083,000 | X |
| Vashon Highway Preservation Project | ($499,000) | X |

**Novelty Hill Road: $11,901,000**

In 2008, the alternative that will provide additional capacity along the Novelty Hill Road corridor was selected. The budget includes $11.9 million in 2009 to complete the design of the Phase 1 improvements.

This budget request is based on a total project estimate identified in the environmental assessment. The budget requests prior to the 2009 request were planning level estimates based on performance goals for the yet undefined scope for the first phase of this project as agreed to in the three party agreement between King County, the City of Redmond and Quadrant. The 2009 budget proposal is based on a 70% design for Phase 1 of the preferred alternative. The design is the outcome of negotiations with the city and many agencies involved in the environmental process, interagency and public meetings. Through this process the preferred alternative was selected and shaped, impacts to resources were determined and mitigation measures established. The project is now developed to the point where an item by item cost estimate can be made utilizing the most current pricing for these items of work and is the basis for this year's budget request. The project cost for the Novelty Hill Road is now estimated to be $70 million. A consultant has been selected to provide an independent assessment of the project cost estimate. This review of the proposed budget amounts will be completed by the end of October 2009.

**Countywide Overlay Program: $7,718,000**
The proposed budget includes $7.7 million in 2009 to overlay county roads. This is part of the $46 million investment the county will be making over the next six years to preserve roadways. The countywide overlay program is one of the key programs that ensures the preservation of the 1,850 centerline miles of roads within unincorporated King County. The investment in surface paving maximizes the service life, at the least cost, of our roads and provides a smooth driving surface for the efficient movement of freight and passenger vehicles throughout unincorporated King County. RSD will continue to manage the pavement overlay program to provide for the optimal 12-year life cycle for arterials, and to target non-arterials in poor condition in order to address the back log of problem road segments. With the rise of asphalt prices, RSD will start implementing the use of cost effective paving methods such as Bituminous Surfacing Treatments (BST) - also commonly known as "Chip Seal" - on low volume non-arterial roadways with minimal truck traffic. This will start with the 2009 overlay program. Pavement testing, which is used to identify roads with structural problems that require reconstruction instead of overlay, will also continue in 2009.

**Facility Maintenance Program: $7,574,000**
The proposed budget includes $7.6 million of budget authority in 2009 and $31 million in the remaining five years of the six-year program for facility rehabilitation. The sale of the Summit Pit property necessitates the construction of a new South Regional Maintenance Facility and provides an opportunity to bring the remaining facilities up to code and to current environmental regulations. The facility replacement costs, eventually involving a North Regional Facility siting and construction is funded out of the projected Summit Pit sale proceeds.

The facility repair projects, first proposed in the 2007 budget, are necessary to prevent more costly repairs in the future, ensure a safe and healthy working environment for staff, prevent any disruption of service, improve energy efficiency, and comply with current regulations. This will involve construction of new facilities to replace surplused and outdated buildings; improvements to existing buildings: fire alarm system, heating, lighting, roofs, gutters, downspouts, heating, ventilation and air-conditioning (HVAC) systems, insulation, windows, sewer; and improvements to sites: security, covers, drainage ponds, vactor and decants areas, sewer connections, and salt and other material storage areas.
The facilities range in age from 40 years old to about 70 years old.

**South Park Bridge: $6,083,000**

In 2009 the Roads Services Division will continue design of the Bascule Bridge selected alternative. This budget includes a 2009 appropriation of $6.1 million to complete the design effort. Design is scheduled to be finished in 2009 and in 2010 this project is slated for construction if the needed revenues can be found. The current project estimate is $150 million with the bulk of the revenue necessary to construct the new bridge yet to be secured.

**Vashon Highway Preservation Project: $499,000 2009 reduction; $17 million reduction in the proposed 2009-2014 CIP**

As originally proposed, the Vashon Highway Preservation project scope involved feasibility studies, preliminary engineering, environmental documents, design and construction of a solution to the major vulnerabilities of the Vashon Highway. The project would have determined in the upcoming six years which sections of the highway must be modified, improved, or relocated to ensure the roadway can be reliably maintained over the next 80 to 100 years.

In the last two years several major storms have damaged failing sections of the Vashon Highway Seawall. Roads Maintenance replaced approximately 150 feet of the wall with a rock slope in 2007 and is working on the replacement of an additional 250 feet planned in 2008 or 2009. These repairs have stabilized the roadway enough that the project can be moved out of the adopted six-year program.

The seawall will eventually fail and must be replaced but these repairs have potentially moved that date out further. The Vashon seawall is smaller and more protected from open wave action than the Dockton Seawall. The Vashon seawall is made primarily of rock and cement chunks whereas the majority of the Dockton seawall is made of wood. The Dockton seawall is of critical importance and the budget remains programmed in the six year plan.

## CIP Program Accomplishments and Completion Lists

### Projects Completed in 2007

| | |
|---|---|
| 100298 | York Bridge #225C |
| 100306 | 84th Ave NE |
| 200107 | Rutherford Slough Bridge #920A |
| 200206 | 396th Dr SE |
| 200207 | CW Neal Bridge #249A |
| 201300 | SE Issaquah Bypass Rd |
| 201896 | 150th Ave SE |
| 300505 | S. 133rd St / S. 132nd St |
| 300604 | Military Rd S. @ S. 272nd St |
| 301204 | S. 296th St @ 51st Ave SE |
| 301304 | SE 320th St @ 124th Ave SE |
| 400106 | 140th Ave / Way SE |
| 400209 | 140th Ave / Way SE |
| 400306 | Carey Creek Tributary |
| 400607 | Facility Painting |
| 401288 | Elliott Bridge #3166 - w/approaches |
| 401595 | SE 192nd St |

## Construction Projects to be Completed in 2008

| | |
|---|---|
| 100206 | Avondale Rd NE / NE Novelty Hill Rd |
| 100207 | Simonds Rd NE |
| 100208 | Avondale Rd NE |
| 100607 | Holmes Point Dr NE |
| 200306 | Patterson Creek Bridge #344A |
| 200394 | Tolt Bridge #1834A |
| 200406 | Patterson Creek Bridge #5024A |
| 200604 | Wagners Bridge #364B |
| 201107 | West Snoquamie River Rd NE Bridge #228D |
| 201207 | 308th Ave SE Bridge #344B |
| 201407 | SE Newport Way @ 16630 |
| 300105 | Traffic Equipment & Storage Building |
| 300205 | SE 304th St @ 124th Ave SE |
| 300407 | S. 272th Way |
| 300607 | SW 98th St |
| 300707 | S. 272nd Way |
| 300908 | Vashon Hazardous Materials Containment Area |
| 400206 | 124th Ave SE |
| 400608 | Renton Back Up Heat Source |

## Construction Projects to be Completed in 2009

| | |
|---|---|
| 100106 | NE Woodinville-Duvall Rd @ Mink Rd NE |
| 100110 | Juanita-Woodinville Way NE / NE 160th St |
| 100210 | 100th Ave NE |
| 100307 | 155th Ave NE at 146th Pl NE |
| 100407 | 140th Pl NE |
| 200208 | Bandaret Bridge #493B |
| 200408 | Woodinville-Duvall Bridge #1136B |
| 200707 | 318th Ave NE |
| 200891 | Coal Creek Parkway |
| 200907 | Kelly Rd NE |
| 200994 | Mount Si Bridge #2550A |
| 300108 | S. 277th St |
| 300306 | S. 128th St |
| 300406 | 28th Ave SW |
| 300506 | Military Rd S. |
| 300508 | SE 277th St Bridge #3126 |
| 300608 | Soos Creek Bridge #3106 |
| 300708 | Judd Creek Bridge #3184 - Redeck |
| 400107 | Landsburg Rd SE @ Kent-Kangley Rd |
| 400108 | Soos Creek Bridge #3205 |
| 400208 | Newaukum Creek Bridge #3043 |
| 400507 | Renton Complex Fire Alarm |