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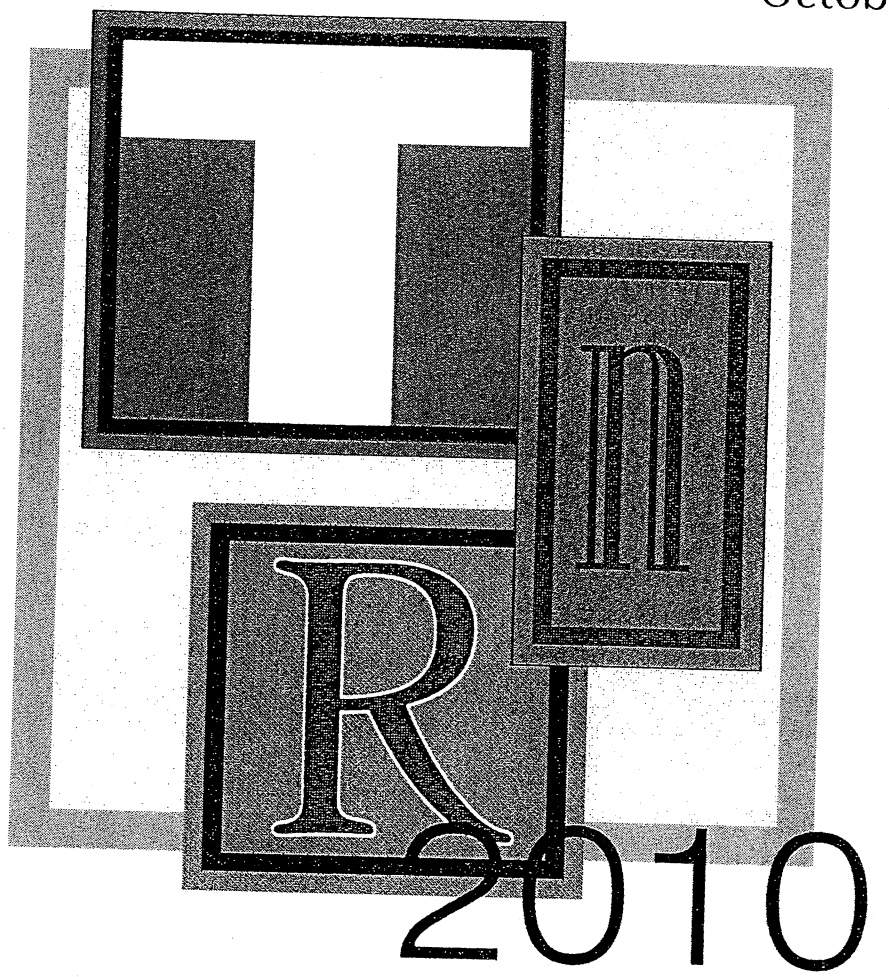
2010-0163 ATTACHMENT C

October 2010



2010 Update of the Transportation Needs Report 2008

A Component of the Transportation Element of the King County Comprehensive Plan

King County

2010 Update of the TRANSPORTATION NEEDS REPORT 2008

An Element of the
King County
Comprehensive Plan

October 2010

King County
Department of Transportation
Road Sevices Division

King County

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October 2010

INTRODUCTION

The Transportation Needs Report (TNR) is a long-term, comprehensive list of recommended improvements to serve unincorporated King County's transportation needs. In determining King County's needs, the Road Services Division uses professional engineering standards, safety records, adopted service levels and citizen comments. Defining transportation needs also takes into account projects and current studies in cities, adjacent counties, and on state highways. The transportation needs are those currently known (existing) as well as those that are forecast due to regionally-adopted targets for growth and development.

The Strategic Plan for Road Services (SPRS), now under development, will guide how the Road Services Division builds, operates and maintains the road system in the future. SPRS is anticipated to significantly change the way transportation needs are prioritized. SPRS replaces the Roads Operational Master Plan (ROMP) and aligns the Division's strategic planning with countywide planning and performance management requirements. In recommendations for the Division's service areas and deliverables, the ROMP Phase I report calls for these prioritized outcomes:

1. ***Preservation*** of the existing roadway facilities network

2. Managing and enhancing ***mobility*** through system efficiencies

3. Addressing concurrency-driven roadway ***capacity*** needs

In the accomplishment of these prioritized outcomes, enhancing the safety of the users of King County's roadways while meeting local, state and federal mandates is inherent in all of the Road Services Division's program areas and deliverables.

Another ROMP recommendation is to "Prioritize Asset Life Cycle in Rural Areas". This recommendation would encourage, in principle, investing in road reconstruction before the road is allowed to significantly deteriorate (and cost a greater amount of money to fix). Its implementation is subject to budget constraints.

The TNR is a functional plan of the King County Comprehensive Plan. Together with the Roads Six-Year CIP and the Roads annual budget, it fulfills the requirement of growth management legislation (RCW 36.70A.070) for a transportation capital facilities plan element of the King County comprehensive plan. The TNR was prepared consistent with all requirements of growth management legislation including:

1. It is based on the land use element of the comprehensive plan.
2. Its list of transportation needs and recommended improvements was developed using travel demand forecasts that are based on the regionally-adopted growth targets.
3. It includes a financial analysis that reflects the most recent land use changes, project amendments, costs, and financial revenue assumptions.

The TNR horizon year is 2022, which is consistent with regionally-adopted targets for population and employment growth.

The schedule for updating the TNR has been changed to coordinate with major updates to the Comprehensive Plan. Starting with the major Comprehensive Plan update of 2004, the TNR will be updated every four-years, with an optional technical update submitted in the second year between Comprehensive Plan updates. The TNR was last adopted in 2008, and this document will serve as a technical update to the TNR 2008.

PURPOSE

The TNR serves the following purposes:

Relationship to King County Comprehensive Plan 2008: A primary purpose of the TNR is to fulfill certain requirements of state growth management legislation for comprehensive planning. These requirements as outlined in state legislation (RCW 36.70A.070 (6)) are:

1. Specific actions and requirements for bringing into compliance locally-owned transportation facilities or services that are below an established level of service standard;
2. Forecasts of traffic for at least ten years based on the adopted growth targets and land use plan to provide information on the location, timing, and capacity needs of future growth;
3. Identification of state and local system needs to meet current and future demands;
4. An analysis of funding capability to judge needs against probable funding resources;
5. A multiyear financing plan based on the needs identified;

The TNR needs list and financial analyses fulfill these requirements. The needs list was developed using forecasts of traffic for the 2022 horizon year based on regionally-adopted growth targets and the land use element of the King County Comprehensive Plan 2008.

Transportation Planning and Funding: The TNR helps King County make decisions on planning and funding of transportation improvements. It provides guidance based on policies, strategies, and actions set forth in the Comprehensive Plan. It follows established processes linking land use planning with transportation needs.

The TNR plays a significant role in evaluating the difference between identified transportation needs and future expected revenues for King County. This analysis assesses the County's ability to keep pace with the demands of growth and assists in developing financial strategies to deal with unmet needs.

Recently the TNR has been used to assess the feasibility of areas proposed to annex into nearby cities (Potential Annexation Areas, or PAAs) or incorporate into new cities. The cities can use the TNR to see the future projects identified for the area and the potential future transportation cost that they might incur.

Coordination: The TNR helps to coordinate transportation improvements connecting King County with other jurisdictions including the Washington State Department of Transportation (WSDOT), adjacent cities, and counties. It also helps coordination between different divisions of the King County Department of Transportation. By clearly showing the location and scope of intended transportation

improvements as well as the priority of these improvements, the TNR provides other jurisdictions with information to use in appropriately coordinating project implementation. Additionally, the private sector development community can use the TNR to identify areas where future growth could be accommodated by improved facilities.

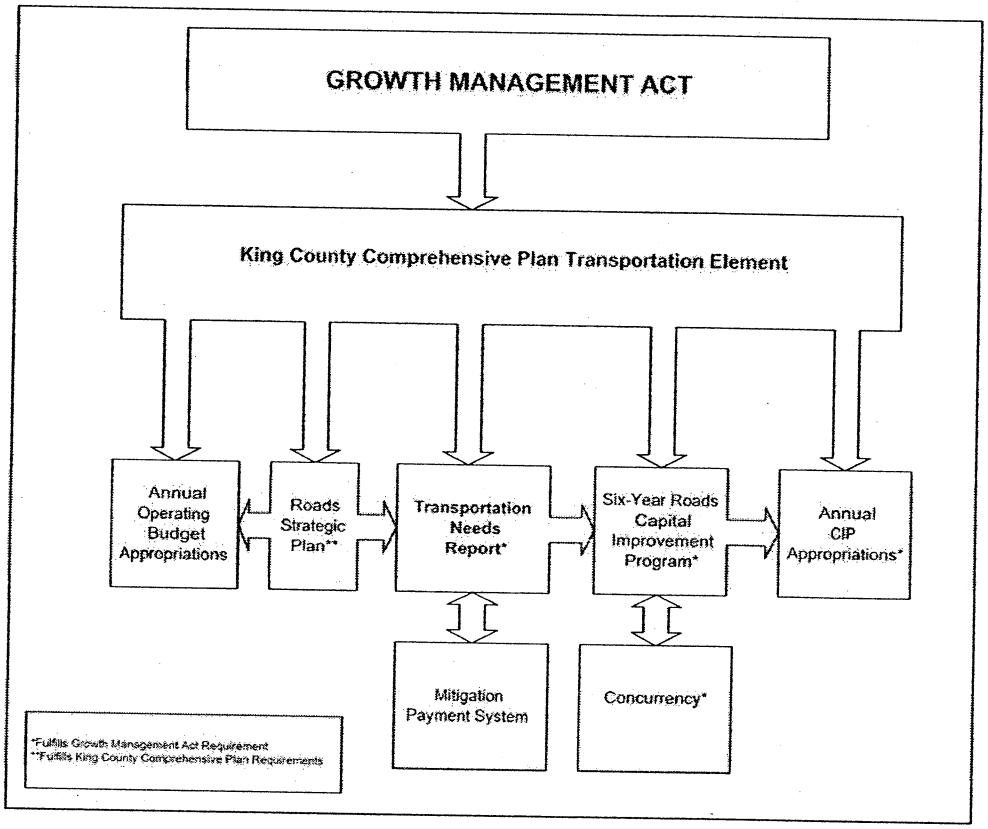
Development Review: The TNR serves as a major source of information in the review of proposed land developments and in determining appropriate mitigation measures required as a condition of new development approval.

Mitigation Payment System: King County has established a Mitigation Payment System (MPS) to charge developments for the transportation costs of their impacts. The MPS uses the TNR to identify growth-related projects that will be part of the impact fee system and receive the MPS fees.

Road Vacation: Property owners can petition King County to have portions of the County's unused road rights-of-way sold to them if the property is not needed for current or future transportation purposes. The TNR is used to indicate the location of future projects on the road system in this road vacation process.

Role Within the Road Services Division

The development of the TNR is part of a comprehensive planning process that is guided by state growth management legislation. This process, as depicted in the flow diagram below, links the guidance of the King County Comprehensive Plan and the Roads Strategic Plan with the development of the TNR, the six-year Roads Capital Improvement Program, and the Roads annual budget. The MPS program, which is authorized by growth management legislation and required by King County ordinance, is used to collect impact fees to help build growth-related road projects. The concurrency program identifies areas and roadways that are not meeting the County's level-of-service standard for traffic congestion, and this information on road deficiencies feeds into both the Transportation Needs Report and the Capital Improvement Program.



DEVELOPMENT OF THE TNR 2010

As the King County Comprehensive Plan undergoes a major update each four years, a major update to the TNR will occur at the same time. In the two year mid period, the TNR will be limited to technical updates which typically recognize recent project completions or new analysis which calls for new projects. As with the King County Comprehensive Plan, the two-year update will not include changes to transportation policies, growth targets or the horizon year of the plan.

For this update to the TNR, the following major changes were incorporated into the TNR 2010.

Countywide Guardrail Program

Following a technical analysis, several dozen guardrail corridors were eliminated from the TNR as no longer meeting guardrail warrants. Other locations were merged into existing corridors. The individual guardrail corridor changes are identified in the Change Report.

Annexations

Cities continue to annex portions of unincorporated King County, and when the annexed properties include TNR project locations, they are removed from the County's TNR. The major annexations occurring since the TNR 2008 were located in the south White Center area (to the City of Burien), east North Bend (to the City of North Bend) and the Panther Lake area of Soos Creek (to the City of Kent). The City of Kirkland has recently voted to annex the Juanita, Finn Hill and Kingsgate areas, but this project change will not be reflected until the TNR 2012.

Capital Project Completions
Numerous capital projects were completed since the adoption of the Transportation Needs Report 2008, and these completed projects will be deleted from the needs list.

High Accident Locations (HAL) and High Accident Road Segments (HARS)
Following the publishing of the Transportation Needs Report 2008, the Road Services Division completed the High Accident Locations and Road Segments Analysis (Road Safety Audits), which identifies the locations that meet the criteria for a high number of collisions. These locations were determined from accident records which had a minimum of nine accidents per location over a three year period. Recommended solutions to the accident problems were developed and project costs and priorities were calculated. These were added to the TNR.

Signal Warrant Priority Array
The latest analysis of intersections was completed in January, 2009. Intersections which met at least one traffic warrant for a traffic signal were added to the TNR with the scope of the project as "Intersection Operational Improvement". When the highest priority locations receive funding, they will be evaluated for traffic signals, roundabouts, turn channels or other treatments.

Operational Intersection Improvements (OP-INT-)**
In an effort to streamline the recommendations for intersections, a number of locations which represented operational improvements have now been combined with the signal warrants needs for the same location. The improvement could cover a range of treatments, which will be decided upon further study. The previous TNR list had one recommendation for a traffic signal and a separate recommendation for possible turn lanes in the same intersection.

Prioritization Processes -- Healthscape
King County has been active in promoting the "Healthscape" initiative. Healthscape is a program which attempts to tie together the factors of land use, transportation, air quality and health to maximize the closely-correlated benefits of each. The County worked with a consultant in 2007 to develop a "Transportation Programming Tool" which evaluates the effectiveness of pedestrian projects and their potential for increasing pedestrian accessibility.

All pedestrian projects were evaluated with the new Transportation Programming Tool and assigned high, medium and low priorities. The priority list was further stratified into urban and rural projects.

A more detailed description of the Healthscape Transportation Programming Tool is found in the Appendix C of this document and also at the following internet location.
http://www.kingcounty.gov/sites/transportation/healthscape/tools.aspx

FINANCIAL ANALYSIS AND SHORTFALL

A financial analysis was developed to balance projected needs with anticipated revenue. Revenues were projected to the horizon year for the Road Fund, Federal, State, and MPS revenues. Revenues were adjusted to take into account the recent annexations of Panther Lake and the southern portion of White Center.

Projected needs were expressed in constant 2010 dollars and were totaled for the TNR program through the year 2022. The shortfall is calculated by subtracting the total projected needs by total projected revenues for the TNR time period.

Comparing projected revenues with projected needs reveals a shortfall of $762,569 million to the year 2022. Summary cost and revenue estimates are included in Appendix D of this document. Different revenue assumptions for each edition of the TNR as well as different plan horizon years make a yearly trend line of the shortfall difficult to develop, but generally show a trend of increasing growth of the financial shortfall:

Much of the financial shortfall is comprised of project costs in the designated Urban area which will eventually become annexed into cities. The following table shows the breakdown of Rural project costs and Urban Potential Annexation Area (PAA) project costs.

Project Costs – Urban and Rural Areas
In thousands of dollars

URBAN AREA	Project Costs
Urban - East Federal Way PAA	$68,479
Urban - East Renton PAA	$17,518
Urban - Eastgate PAA	$5,878
Urban - Fairwood PAA	$21,790
Urban - Federal Way PAA	$1,654
Urban - Issaquah PAA	$26,768
Urban - Kirkland PAA (annexation effective July, 2011)	$81,992
Urban - North Highline PAA ($149,065 attributed to South Park Bridge)	$171,651
Urban - Not in primary PAAs	$27,599
Urban - West Hill PAA	$16,214
Total URBAN Costs	**$439,543**
Total RURAL Costs	**$688,572**

The financial shortfall is an indication of King County's ability (or lack of ability) to serve the unincorporated area. This shortfall must be addressed by delaying improvements or by finding new sources of revenue or by some combination of the two strategies.

There are several methods available to address this shortfall. Additional revenue sources could be pursued. Implementation of needed improvements could be phased or delayed. Future development could be delayed, phased, or scaled back to assure the timely availability of needed infrastructure. These

and perhaps other strategies will be employed and incorporated into future TNRs, CIPs, and budgets to balance needs with available revenues.

TNR

NEEDS

LIST

NEEDS LIST for the Transportation Needs Report 2010

Needs are divided into chapters based on sub-areas of King County, in the following order:

1) Bear Creek
2) East King County
3) East Sammamish
4) Enumclaw
5) Federal Way
6) North Highline / West Hill
7) Newcastle
8) Northshore
9) Snoqualmie Valley
10) Soos Creek
11) Tahoma/Raven Heights
12) Vashon Island

LEGEND for Needs List

Number - Unique identifier for project
PAA - Potential Annexation Area (urban locations)
Location - Where project is located
Need - The primary purpose of the proposed project

PRIORITIES - determined by individual programs

ITS - Intelligent Transportation Systems
Safety - HAL HARS Signal programs
Bridge - Bridge and structure priorities
Reconst. - Major roadway maintenance
Guardrail - Guardrail installation and repair
Oper. - Traffic-oriented operational improvements
Capacity - Road Widening
Nonmotorized - Sidewalks and Walkways

TBD- Priority To Be Determined as future work program item

Other data fields -

Equestrian - "X" indicates the location within the designated "Equestrian Communities" of Rural King County.

Cost-000 - Future cost to King County Road Services Division to complete the proposed project (2010 dollars in thousands)

Comments - Preliminary elements of the proposed project.

Number	PAA	Location	Need	Priorities								Equestrian	Cost-000	Comments
				ITS	Safety	Bridge	Reconst	Guardrail	Operational	Capacity	Nonmotorized			
County Subarea: Bear Creek														
CORRIDOR: Avondale Rd														
CP-13	Rural - N/O I-90	Avondale Road NE Ph II From NE 155th St to NE 168th St	Capacity Minor							Medium		X	$5,765	Widen roadway to 3 lanes including 2 eight foot shoulders and a walkway.
HAL-26	Rural - N/O I-90	Avondale Road NE & Woodinville-Duvall Rd	Safety		Low							X	$8,838	See intersection project CP-16
OP-RD-8	Rural - N/O I-90	Avondale Road Phase III From NE 133rd St To NE 155th St	Capacity Minor						High			X	$15,447	Widen To Three Lanes--Construct Bridge
HAL-38	Rural - N/O I-90	Avondale Road NE & NE 165th St	Safety		Low							X	$1,500	Add NB & SB left turn lanes.
ITS-3	Rural - N/O I-90	Avondale Road ITS Phase 2 From NE 132nd St to Woodinville-Duvall Road	ITS	High								X	$6,096	Provide Intelligent Transportation System improvements which could include synchronized signals; cameras; vehicle detection; fiber connection
100408	Rural - N/O I-90	Avondale Road ITS Phase 1 From Novelty Hill Rd to NE 132nd St	ITS									X	$0	See King County Capital Improvement Program (CIP) document or website for detailed project description including scope.
CP-16	Rural - N/O I-90	Woodinville-Duvall Rd & Avondale Rd NE	Capacity Major						TBD			X	$7,650	Widen the intersection for additional turn lanes, signal improvements, illumination, curb, gutter, sidewalks, bike lanes

Number	PAA	Location	Need	Priorities								Equestrian	Cost-000	Comments
				ITS	Safety	Bridge	Reconst.	Guardrail	Operational	Capacity	Nonmotorized			
OP-INT-99	Rural - N/O I-90	Avondale Road & NE 165th St	Operations						Medium			X	$735	Provide North and South bound Left Turn Lanes
SW-90	Rural - N/O I-90	Avondale Rd & Bear Creek Rd	Safety		Low							X	$1,395	Intersection Operational Improvement
100209	Rural - N/O I-90	Bear Creek Bridge #480A On NE 116th St Crossing Bear Creek	Bridge			High							$0	See King County Capital Improvement Program (CIP) document or website for detailed project description including scope.
CORRIDOR: Misc														
100508	Rural - N/O I-90	Mink Rd From Bear Creek Rd To Woodinville-Duvall Rd	Nonmotorized								High	X	$460	See King County Capital Improvement Program (CIP) document or website for detailed project description including scope.
OP-RD-45	Rural - N/O I-90	232nd Ave NE From NE 142 St To Old Woodinville-Duvall Rd	Capacity Minor						Low			X	$3,713	Reconstruct Roadway
OP-INT-71	Rural - N/O I-90	Bear Creek Rd & Mink Rd	Operations						Medium			X	$1,744	Improve Sight Distance--Realign Intersection
NM-5067	Rural - N/O I-90	Bear Creek Rd From Mink Rd To NE 133 St	Nonmotorized								Low	X	$459	Provide Nonmotorized Facility
NM-5001	Rural - N/O I-90	Paradise Lake Rd From Woodinville-Duvall Rd To County Line	Nonmotorized								Medium	X	$573	Provide Nonmotorized Facility
GR-115	Rural - N/O I-90	East Ames Lake Dr NE From W Ames Lake Dr NE to W Ames Lake Dr NE	Safety										$20	Construct Guardrail

Number	PAA	Location	Need	Priorities								Equestrian	Cost-000	Comments
				ITS	Safety	Bridge	Reconst.	Guardrail	Operational	Capacity	Nonmotorized			
NM-5066	Rural - N/O I-90	Bear Creek Rd From Avondale Rd To Mink Rd	Nonmotorized								High	X	$200	Provide Nonmotorized Facility
CORRIDOR: NE 124 - NE 128 - NE 132														
OP-INT-82	Rural - N/O I-90	NE 124th St & 162 Pl NE	Operations						Medium				$521	Turn Channels All Legs
OP-RD-52	Rural - N/O I-90	NE 132nd St / NE 128th St From 184 Ave NE to 196 Ave NE	Capacity Minor							Medium		X	$8,165	Widen NE 128 St for RT lane and shoulder. Widen Avondale Rd and add RT lane. Modify signals at NE 132 St and NE 128 St. Widen NE 132 St. New sigal at Bear Creek Rd.
NM-5026	Urban - Not in primary PAAs	172nd Ave NE From Redmond City Limits To NE 138 St	Safety								Low		$417	Construct Neighborhood Pathway
BR-240A	Rural - N/O I-90	Cottage Lake Creek Bridge #240A On Bear Creek Rd Crossing Cottage Lake Creek	Bridge			High						X	$3,178	Replace Bridge
100114	Rural - N/O I-90	Bear Creek Bridge #333A On NE 133rd St Crossing Bear Creek	Bridge			High						X	$616	See King County Capital Improvement Program (CIP) document or website for detailed project description including scope.
SW-82	Rural - N/O I-90	162 Pl NE & NE 124 Way	Safety		Low								$1,395	Intersection Operational Improvement

Number	PAA	Location	Need	Priorities								Equestrian	Cost-000	Comments
				ITS	Safety	Bridge	Reconst.	Guardrail	Operational	Capacity	Nonmotorized			
ITS-16	Rural - N/O I-90	NE 124th St. ITS Ph II From SR 202 to Avondale Road NE	ITS	Medium								X	$2,725	Provide Intelligent Transportation System improvements which could include cameras; fiber optic communications; vehicle detection; flood detection
CORRIDOR: NE 165 St														
OP-RD-7	Rural - N/O I-90	NE 165th St From 179 Pl NE To 183 Ave NE	Capacity Minor				Low					X	$4,269	Reconstruct Roadway
100309	Rural - N/O I-90	Cottage Lake Creek Bridge #52B On NE 165th St Crossing Cottage Lake Creek	Bridge			Low						X	$0	See King County Capital Improvement Program (CIP) document or website for detailed project description including scope.
CORRIDOR: NE Union Hill Rd														
ITS-11	Rural - N/O I-90	Union Hill Road ITS Ph II From 238th Ave NE to Ames Lake Rd.	ITS	High								X	$166	Provide Intelligent Transportation System improvements which could include fiber optic communications; cameras; speed warning; vehicle detection
RC-51	Rural - N/O I-90	Union Hill Rd From 229 Ave NE to 238 Ave NE	Preservation				Medium					X	$2,117	20ft wall
RC-44	Rural - N/O I-90	Union Hill Rd From 196 Ave NE to 206 Pl NE	Preservation				Medium					X	$155	10ft tall wall. Complete sections not covered by CIP # 100709.

Number	PAA	Location	Need	Priorities								Cost-000	Comments
				ITS	Safety	Bridge	Reconst.	Guardrail	Operational	Capacity	Nonmotorized / Equestrian		
100112	Rural - N/O I-90	Union Hill Rd ITS From 196 Ave NE to 238 Ave NE	ITS									$3,819	See King County Capital Improvement Program (CIP) document or website for detailed project description including scope.
RC-116	Rural - N/O I-90	Union Hill Rd From 238 Ave NE To 258 Ave NE	Reconstruction				Low				X	$1,422	Reconstruct roadway 1.5 miles
OP-RD-5	Rural - N/O I-90	Union Hill Rd From 208 Ave NE To 238 Ave NE	Capacity Minor						High		X	$5,868	Widen Travel Lanes--Pave Shoulders--Provide Equestrian Facility
101101	Rural - N/O I-90	238th Ave NE & Union Hill Rd	Operations						High		X	$0	See King County Capital Improvement Program (CIP) document or website for detailed project description including scope.
BR-952A	Rural - N/O I-90	Evans Creek Bridge #952A On NE Union Hill Rd Crossing Evans Creek	Bridge			High						$4,093	Replace Bridge
NM-5004	Rural - N/O I-90	Union Hill Rd From 238 Ave NE To Ames Lake-Carnation Rd	Nonmotorized								Medium X	$1,760	Provide Nonmotorized Facility
SW-51	Rural - N/O I-90	238th Ave NE & NE 63rd PL	Operations		Low						X	$1,395	Intersection Operational Improvement
CORRIDOR: Novelty Hill Rd													
SW-86	Rural - N/O I-90	214 Ave NE & NE Novelty Hill Rd	Safety		Low						X	$1,395	Intersection Operational Improvement

Number	PAA	Location	Need	Priorities								Equestrian	Cost-000	Comments
				ITS	Safety	Bridge	Reconst.	Guardrail	Operational	Capacity	Nonmotorized			
100992	Rural - N/O I-90	Novelty Hill Rd From Redmond C/L to 244 Ave NE	Capacity Major							High		X	$61,486	The EIS preferred alternative comprises three roads: Novelty Hill Road to 196th Avenue NE, at which point, the corridor continues southward to NE Union Hill Road. At the intersection of 196th Avenue NE and NE Union Hill Road, the project corridor extends to its western terminus of 192nd Avenue NE and NE Union Hill Road. See the CIP website for detailed project description.
100901	Rural - N/O I-90	Novelty Hill Road From Avondale Road to Remond C/L	Capacity Minor							TBD		X	$0	See King County Capital Improvement Program (CIP) document or website for detailed project description including scope.
OP-INT-113	Rural - N/O I-90	208th Ave NE & NE Union Hill Rd	Operations						Low			X	$735	Provide Southbound Right Turn Lane
100909	Rural - N/O I-90	Novelty Hill Road ITS, Ph I From 208th Ave NE to West Snoqualmie Road	ITS	High								X	$0	See King County Capital Improvement Program (CIP) document or website for detailed project description including scope.
SW-87	Rural - N/O I-90	218 Ave NE & NE Novelty Hill Rd	Safety		Low							X	$1,395	Intersection Operational Improvement
100308	Rural - N/O I-90	Novelty Hill Rd & Redmond Rd	Safety		High							X	$0	See King County Capital Improvement Program (CIP) document or website for detailed project description including scope.

Number	PAA	Location	Need	Priorities								Equestrian	Cost-000	Comments
				ITS	Safety	Bridge	Reconst.	Guardrail	Operational	Capacity	Nonmotorized			
OP-INT-50	Rural - N/O I-90	Novelty Hill Road & Redmond Road	Operations						TBD			X	$735	Evaluate for turn lanes or roundabout
CORRIDOR: Woodinville-Duvall Rd														
101404	Rural - N/O I-90	Woodinville-Duvall Rd & 212th Ave NE	Safety						High			X	$0	See King County Capital Improvement Program (CIP) document or website for detailed project description including scope.
SW-97	Rural - N/O I-90	Woodinville-Duvall Rd & 176 Ave NE	Safety		Medium							X	$1,395	Intersection Operational Improvement
CP-12	Rural - N/O I-90	Woodinville-Duvall Rd From 171st Ave NE to Avondale Rd	Capacity Minor							Medium		X	$9,851	Widen roadway to increase capacity.
HAL-35	Rural - N/O I-90	194th Ave NE & Woodinville-Duvall Rd	Safety		Low							X	$1,031	EB left turn lane.
ITS-13	Rural - N/O I-90	Woodinville-Duvall Rd ITS, Phase II From 212th Ave NE to SR-203	ITS	Medium								X	$4,001	Provide Intelligent Transportation System improvements which could include cameras; road weather information; data stations; dynamic message signs
NM-5002	Rural - N/O I-90	Woodinville-Duvall Rd From Avondale Rd To SR-203	Nonmotorized								High	X	$14,892	Provide Nonmotorized Facility
OP-RD-9	Rural - N/O I-90	Old Woodinville-Duvall Rd From Woodinville-Duvall Rd To Woodinville-Duvall Rd	Capacity Minor						Low			X	$4,540	Reconstruct Roadway

Number	PAA	Location	Need	Priorities								Equestrian	Cost-000	Comments
				ITS	Safety	Bridge	Reconst.	Guardrail	Operational	Capacity	Nonmotorized			
RC-43	Rural - N/O I-90	Woodinville-Duvall Rd From Old Woodinville-Duvall Rd to W. Snoqualmie Valley Rd	Preservation				High					X	$482	Walls both sides 10ft tall
ITS-6	Rural - N/O I-90	Woodinville-Duvall Rd ITS, Phase I From 168th Ave NE to 212th Ave NE	ITS	High								X	$4,001	Provide Intelligent Transportation System improvements which could include synchronized signals; cameras; vehicle detection; fiber optic communications; dynamic message signs.
100109	Rural - N/O I-90	Woodinville-Duvall Rd & 194th Ave NE	Safety		High							X	$1,492	See King County Capital Improvement Program (CIP) document or website for detailed project description including scope.

Number	PAA	Location	Need	Priorities								Cost-000	Comments
				ITS	Safety	Bridge	Reconst.	Guardrail	Operational	Capacity	Nonmotorized / Equestrian		
County Subarea: East King County													
CORRIDOR: Misc													
RC-8	Rural - N/O I-90	North Fork Road Shoulder Repair	Reconstruction				High					$123	Long Term Fix which includes rebuilding of shoulder and perhaps installing nails is expensive. Drainage part of job needs done by Fall 2004.
BR-999X	Rural - N/O I-90	Cascade Scenic Highway Bridge #999X On Cascade Scenic Highway Crossing Miller River Slough	Bridge			Medium						$765	Construct short-span bridge
BR-3050A	Rural - S/O I-90	Greenwater River Bridge #3050A SE 496th Pl Crossing Packard Creek	Bridge			Low						$765	Construct short-span bridge

Number	PAA	Location	Need	Priorities									Cost-000	Comments
				ITS	Safety	Bridge	Reconst.	Guardrail	Operational	Capacity	Nonmotorized	Equestrian		
County Subarea: East Sammamish														
CORRIDOR: Issaquah-Fall City Rd														
HAL-32	Urban - Issaquah PAA	Issaquah Fall City Rd & Klahanie Dr SE	Safety		Low								$1,928	Protected-only EB left turn phasing. Will require extension of left turn lane.
200309	Urban - Issaquah PAA	Issaquah-Fall City Rd From 247th Ave SE to Klahanie Dr SE	Nonmotorized								TBD	X	$0	See King County Capital Improvement Program (CIP) document or website for detailed project description including scope.
OP-RD-11	Urban - Issaquah PAA	Issaquah-Fall City Rd/Duthie Hill Rd From Klahanie Blvd To 272 Pl SE	Capacity Minor						High			X	$6,781	Provide Left Turn Lane
CP-17	Urban - Issaquah PAA	Issaquah-Fall City Rd Ph III	Capacity Major							High		X	$18,059	Widen roadway to 5 lanes with curb, gutter and sidewalks
200108	Rural - N/O I-90	Patterson Creek Bridge #180L On SE 28 St Crossing Patterson Creek	Bridge			High							$2,521	See King County Capital Improvement Program (CIP) document or website for detailed project description including scope.
ITS-31	Rural - N/O I-90	Issaquah Fall City Rd ITS From Issaquah-Pine Lake Rd to SR-202	ITS	Low								X	$5,335	Provide Intelligent Transportation System improvements which could include interconnected signals; fiber optic cable; vehicle detection; pavement sensors, cameras
SW-92	Rural - N/O I-90	Duthie Hill Rd & Issaquah-Fall City Rd	Safety		Low							X	$1,395	Intersection Operational Improvement

Number	PAA	Location	Need	Priorities									Cost-000	Comments
				ITS	Safety	Bridge	Reconst.	Guardrail	Operational	Capacity	Nonmotorized	Equestrian		
OP-INT-75	Urban - Not in primary PAAs	Issaquah-Beaver Lake Rd & Duthie Hill Rd	Operations						Low				$360	Traffic Signal
CORRIDOR: NE 50 St														
RC-35	Rural - N/O I-90	NE 50th St From 214 Ave NE to SR-202	Preservation				Medium						$69	Armor Shoulders @$100/cyd
NM-9917	Rural - N/O I-90	NE 50th St From 192 Pl NE to Sahalee Way NE	Nonmotorized								Low		$1,334	Construct AC shoulder (South Side)

Number	PAA	Location	Need	Priorities									Cost-000	Comments
				ITS	Safety	Bridge	Reconst.	Guardrail	Operational	Capacity	Nonmotorized	Equestrian		
County Subarea: Enumclaw														
CORRIDOR: 212 Ave SE														
OP-INT-74	Rural - S/O I-90	218th Ave SE & Green Valley Rd	Operations						Medium				$187	Reconstruct Intersection
NM-5009	Rural - S/O I-90	212th Ave SE From SE 384 St To SE 358 St	Nonmotorized								Low		$3,154	Provide Nonmotorized Facility
CORRIDOR: 244 Ave SE														
NM-5012	Rural - S/O I-90	244th Ave SE From SR-164 To SE 400 St	Nonmotorized								High	X	$9,797	Provide Nonmotorized Facility
NM-5006	Rural - S/O I-90	244th Ave SE From SR-164 To SE 456 St	Nonmotorized								High		$301	Provide Nonmotorized Facility
OP-INT-73	Rural - S/O I-90	SE 448th St & 244 Ave SE	Operations						Medium				$131	Turn Channels - East & West Legs
NM-0015	Rural - S/O I-90	SE 448th St From 244 Ave SE to Enumclaw City Limits	Nonmotorized								High		$283	Construct AC shoulder (North Side)
CORRIDOR: 284 Ave SE														
GR-86	Rural - S/O I-90	284th Ave SE From Mud Mountain Dam Rd To SR-164	Safety					Low				X	$417	Construct Guardrail
BR-3049	Rural - S/O I-90	284th Ave SE Bridge #3049 284th Ave SE Crossing Boise Creek	Bridge			Medium							$765	Construct short-span bridge
NM-5013	Rural - S/O I-90	284th Ave SE From SE 416 St To SR-410	Nonmotorized								High	X	$804	Provide Nonmotorized Facility

Number	PAA	Location	Need	Priorities								Equestrian	Cost-000	Comments
				ITS	Safety	Bridge	Reconst.	Guardrail	Operational	Capacity	Nonmotorized			
NM-5007	Rural - S/O I-90	Veazie-Cumberland Rd/Palmer Rd From SE 386 St To SE 416 St	Nonmotorized								High	X	$1,237	Provide Nonmotorized Facility
400210	Rural - S/O I-90	Newaukum Creek Bridge #3040A	Bridge			High							$593	See King County Capital Improvement Program (CIP) document or website for detailed project description including scope.
CORRIDOR: Misc														
BR-3056A	Rural - S/O I-90	SE 408th St Bridge #3056A On SE 408th St Crossing drainage ditch	Bridge			Medium							$2,000	Construct short-span bridge
GR-84	Rural - S/O I-90	SE 384th St From 160th Pl SE To 212th Ave SE	Safety					Low				X	$465	Construct Guardrail
400410	Rural - S/O I-90	SE 424th St Bridge #3201 On SE 424th St Crossing Watercress Creek	Bridge			Low						X	$593	See King County Capital Improvement Program (CIP) document or website for detailed project description including scope.
400310	Rural - S/O I-90	Newaukum Creek Bridge #3042 On SE 416th St Crossing Newaukum Creek	Bridge			Medium							$593	See King County Capital Improvement Program (CIP) document or website for detailed project description including scope.
BR-3066	Rural - S/O I-90	Newaukum Creek Bridge #3066 On 236 Ave SE crossing Newwaukum Creek	Bridge			TBD							$2,000	Replace Bridge
RC-53	Rural - S/O I-90	Mud Mountain Rd at 29000 block	Preservation				Medium						$207	30' High Wall Needed

Number	PAA	Location	Need	Priorities									Cost-000	Comments
				ITS	Safety	Bridge	Reconst.	Guardrail	Operational	Capacity	Nonmotorized	Equestrian		
BR-3052	Rural - S/O I-90	Boise Creek Bridge #3052 268th Ave SE Crossing Boise Creek	Bridge			Medium							$765	Construct short-span bridge
NM-9983	Rural - S/O I-90	200th Ave SE From SE 400 St to 0.17 miles north	Nonmotorized								Medium		$491	Construct gravel shouler (West Side)
GR-47	Rural - S/O I-90	Mud Mountain Rd From SR-410 To SR-410	Safety					Medium				X	$1,175	Construct Guardrail
BR-3030	Rural - S/O I-90	SE 380 St Bridge #3030 SE 308th St Crossing slough	Bridge			Low						X	$765	Construct short-span bridge
GR-96	Rural - S/O I-90	SE 456th Way From 196th Ave SE To 228th Ave SE	Safety					Low					$360	Construct Guardrail
NM-5010	Rural - S/O I-90	SE 400th Way From SE 400 St To SE 392 St	Capacity Minor						Medium			X	$1,671	Reconstruct Roadway
NM-5011	Rural - S/O I-90	Enumclaw-Franklin Rd From Franklin-Cumberland To SR-169	Nonmotorized								Medium	X	$3,090	Provide Nonmotorized Facility
BR-3051	Rural - S/O I-90	Boise Creek Bridge #3051 On 276th Ave SE Crossing Boise Creek	Bridge			Medium							$765	Construct short-span bridge
GR-104	Rural - S/O I-90	196th Ave SE From SE 400th St To SE 456th St	Safety					Low					$15	Construct Guardrail
GR-92	Rural - S/O I-90	228th Ave SE From SE 400th St To SE 452ND St	Safety					Low					$552	Construct Guardrail
BR-3060	Rural - S/O I-90	208th Ave SE Bridge #3060 208th Ave SE Crossing drainage ditch	Bridge			Low							$765	Construct short-span bridge

Number	PAA	Location	Need	Priorities									Cost-000	Comments
				ITS	Safety	Bridge	Reconst.	Guardrail	Operational	Capacity	Nonmotorized	Equestrian		
CORRIDOR: SE 432 St														
NM-5008	Rural - S/O I-90	SE 432nd St From 284 Ave SE To 268 Ave SE	Nonmotorized								High	X	$804	Provide Nonmotorized Facility
GR-103	Rural - S/O I-90	SE 432nd St From 268th Ave SE To 284th Ave SE	Safety					Low					$161	Construct Guardrail

Number	PAA	Location	Need	Priorities								Cost-000	Comments
				ITS	Safety	Bridge	Reconst.	Guardrail	Operational	Capacity	Nonmotorized / Equestrian		
County Subarea: Federal Way													
CORRIDOR: 51 Ave S													
300311	Urban - E. Federal Way PAA	51st Ave S & S 288th St.	Safety		High							$918	See King County Capital Improvement Program (CIP) document or website for detailed project description including scope.
300411	Urban - E. Federal Way PAA	51st Ave S & S 316th St.	Safety		High							$1,377	See King County Capital Improvement Program (CIP) document or website for detailed project description including scope.
SW-74	Urban - E. Federal Way PAA	51 Ave S & S 298 St	Safety		Low							$1,395	Intersection Operational Improvement
CORRIDOR: Military Rd S													
SW-66	Urban - E. Federal Way PAA	Military Rd S & S Star Lake Rd	Safety		High							$1,395	Intersection Operational Improvement
300408	Urban - E. Federal Way PAA	Military Rd & S 342nd St	Safety		Medium							$1,997	See King County Capital Improvement Program (CIP) document or website for detailed project description including scope.
NM-5014	Urban - E. Federal Way PAA	Military Rd S From Peasley Canyon Way S To SR-161	Nonmotorized								Low	$8,018	Provide Nonmotorized Facility

Number	PAA	Location	Need	Priorities									Cost-000	Comments
				ITS	Safety	Bridge	Reconst.	Guardrail	Operational	Capacity	Nonmotorized	Equestrian		
OP-INT-105	Urban - E. Federal Way PAA	Military Rd S & S 374 St	Operations						Low				$735	Provide Two Way Left Turn Lane
OP-RD-3	Urban - E. Federal Way PAA	Military Rd S From S 340 St to S 342 St	Operations						TBD				$735	Provide Two Way Left Turn Lane: Left Turn Lane at S 342 St
OP-INT-116	Urban - E. Federal Way PAA	Military Rd & S 320th St	Operations										$468	Add eastbound right turn lane
CP-5	Urban - E. Federal Way PAA	Military Rd S From I-5 to S 272 St	Capacity Major							Low			$5,837	Widen to Four/Five lanes--Construct Curb, Gutter, Sidewalk--Construct Bike Lane
HAL-48	Urban - Federal Way PAA	Military Rd S & S 342nd St	Safety		Medium								$632	Northbound left turn lane.
HAL-2	Urban - Federal Way PAA	Military Rd S & S 320th St	Safety		Medium								$508	EB right turn lane (Developer project). Advance EB Signal Head by county
SW-57	Urban - E. Federal Way PAA	Military Rd & S 360th St	Safety		Medium								$1,395	Intersection Operational Improvement
CORRIDOR: Misc														
NM-9976	Urban - E. Federal Way PAA	38th Ave S From S 344 St to Fishing Access Rd	Nonmotorized								Low		$204	Construct AC shoulder (West Side)
NM-4042	Urban - E. Federal Way PAA	38th Ave S From S 304 St to S 307 St	Nonmotorized								TBD		$99	Pave shoulders (East Side)

Number	PAA	Location	Need	Priorities									Cost-000	Comments
				ITS	Safety	Bridge	Reconst.	Guardrail	Operational	Capacity	Nonmotorized	Equestrian		
RC-24	Urban - E. Federal Way PAA	S 304th St From 32nd Ave S To 37th Ave S	Preservation				Medium						$200	Armor Shoulders
OP-INT-100	Urban - E. Federal Way PAA	S 321st St & Peasley Canyon Rd	Operations						High				$735	Reconstruct approaches to meet Road Standards; Lengthen Turn Lanes
GR-71	Urban - Not in primary PAAs	28th Ave S From S 348th St To SR 161	Safety					Medium					$18	Construct Guardrail
300110	Urban - E. Federal Way PAA	Star Lake Rd From Military Rd S to 42 Ave S	Nonmotorized								Medium		$0	See King County Capital Improvement Program (CIP) document or website for detailed project description including scope.
RC-49	Urban - E. Federal Way PAA	58th Place S./56th Place S. From West Valley Rd to West Valley Rd	Preservation				Medium						$22,950	Major Roadwork Needed, Possible Re-alignement
NM-9970	Urban - E. Federal Way PAA	34th Ave S From S 288 St to S 298 St	Nonmotorized								Medium		$503	Construct sidewalk (West Side)
NM-9971	Urban - E. Federal Way PAA	36th Pl S/ S 294 St/ 45 Pl S From S 298 St to S 288 St	Nonmotorized								Medium		$769	Construct sidewalk (West Side)
OP-INT-115	Urban - Not in primary PAAs	Orillia Road S & S 204th St	Operations						TBD				$735	Evaluate for Turn lanes
NM-4066	Urban - E. Federal Way PAA	28th Ave S From S 349 St to S360 ST	Nonmotorized								TBD		$268	Construct walkway

Number	PAA	Location	Need	Priorities									Cost-000	Comments
				ITS	Safety	Bridge	Reconst.	Guardrail	Operational	Capacity	Nonmotorized	Equestrian		
NM-4067	Urban - E. Federal Way PAA	32nd Ave S From S 360 St to S 368 St	Nonmotorized								TBD		$268	Construct walkway
CP-1	Urban - E. Federal Way PAA	S 312th St Study From 28th Ave S to 51st Ave S (Federal Way Lead)	Capacity Major							TBD			$0	The City of Federal Way's Center Access Project has been closed, but the city still retains this road construction project in its plans.
CP-2	Urban - E. Federal Way PAA	S 32nd Ave S Study From S 312th St to Military Road (Federal Way Lead)	Capacity Major							TBD			$0	The City of Federal Way's Center Access Project has been closed, but the city still retains this road construction project in its plans.
SW-73	Urban - E. Federal Way PAA	46 Pl S & S 321 St	Safety		Medium								$1,395	Intersection Operational Improvement
CORRIDOR: Peasley Canyon														
RC-42	Urban - E. Federal Way PAA	Peasley Canyon Way S From S. Peasely Canyon Rd to Military Rd. S	Preservation				High						$551	Retaining wall 10' high
HAL-3	Urban - Federal Way PAA	Peasley Canyon Rd & S 321st St	Safety		Low								$514	WB right turn lane. WB advanced signal head.
300308	Urban - Not in primary PAAs	Peasley Canyon Rd S & Peasley Canyon Way S	Operations		High								$0	See King County Capital Improvement Program (CIP) document or website for detailed project description including scope.

Number	PAA	Location	Need	Priorities									Cost-000	Comments
				ITS	Safety	Bridge	Reconst.	Guardrail	Operational	Capacity	Nonmotorized	Equestrian		
ITS-8	Urban - E. Federal Way PAA	Peasley Canyon Road From Military Rd to West Valley Highway	ITS	High									$8,383	Provide Intelligent Transportation System improvements which could include coordinated signals; cameras; vehicle detection
CORRIDOR: S 277 St														
300108	Urban - E. Federal Way PAA	S 277th St - ITS From West Valley Hwy to Military Rd S	ITS	High									$0	See King County Capital Improvement Program (CIP) document or website for detailed project description including scope.
OP-INT-120	Urban - E. Federal Way PAA	40th Ave S & S 272nd St	Operations										$290	Add turn lanes on S 272nd St
300508	Urban - Not in primary PAAs	SE 277th St Bridge #3126 On SE 277th St Crossing Slough	Bridge			Medium							$2,198	See King County Capital Improvement Program (CIP) document or website for detailed project description including scope.
300407	Urban - E. Federal Way PAA	S 272nd Way & 55th Ave S.	Safety		TBD								$0	See King County Capital Improvement Program (CIP) document or website for detailed project description including scope.
CORRIDOR: S 288 St														
300611	Urban - E. Federal Way PAA	48th Ave S & S 288th St	Safety		High								$861	See King County Capital Improvement Program (CIP) document or website for detailed project description including scope.

Number	PAA	Location	Need	Priorities									Cost-000	Comments
				ITS	Safety	Bridge	Reconst.	Guardrail	Operational	Capacity	Nonmotorized	Equestrian		
SW-94	Urban - E. Federal Way PAA	43 Pl S & S 288 St (T J High School)	Safety		Medium								$1,395	Intersection Operational Improvement
300209	Urban - E. Federal Way PAA	34 Ave S & S. 288 St	Safety		High								$0	See King County Capital Improvement Program (CIP) document or website for detailed project description including scope.
CORRIDOR: S 360 St														
SW-61	Urban - E. Federal Way PAA	28th Ave SE & S 360th St	Safety		High								$1,395	Intersection Operational Improvement
300109	Urban - E. Federal Way PAA	S 360th St From Enchanted Pkwy S to 21 Pl S	Nonmotorized								Low		$0	See King County Capital Improvement Program (CIP) document or website for detailed project description including scope.
OP-RD-48	Urban - E. Federal Way PAA	S 360th St From SR-161 to 28th Ave S	Operations						TBD				$3,943	Operational road improvements

Number	PAA	Location	Need	Priorities: ITS	Safety	Bridge	Reconst.	Guardrail	Operational	Capacity	Nonmotorized	Equestrian	Cost-000	Comments
County Subarea: Newcastle														
CORRIDOR: 156 Ave SE														
ITS-19	Urban - East Renton PAA	156th Ave SE ITS From SE 128th St to SR 169	ITS	Medium									$197	Provide Intelligent Transportation System improvements which could include cameras; pavement sensors; speed warning system
NM-5031	Urban - East Renton PAA	156th Ave SE From SE 128 St To SE 133 St	Nonmotorized								Medium		$501	Provide Nonmotorized Facility
OP-RD-25	Urban - East Renton PAA	154th Pl SE / SE 142 Pl From SE Jones Rd To 156 Ave SE	Capacity Minor						Low				$2,794	Realign Roadway--Widen Roadway
CORRIDOR: Allen Rd														
NM-5030	Urban - Eastgate PAA	Allen Rd (148 SE) North Side From 146 Ave SE To SE 36 St	Nonmotorized								Low		$120	Provide Nonmotorized Facility
NM-9918	Urban - Eastgate PAA	Allen Rd From 13800 block (city limit) to 146 Ave SE	Nonmotorized								High		$498	Construct sidewalk (North Side)
CORRIDOR: May Valley Rd														
SW-54	Rural - S/O I-90	148th Ave SE & May Valley Rd	Safety		Low								$1,395	Intersection Operational Improvement
OP-RD-24	Rural - S/O I-90	May Valley Rd From Coal Creek Parkway To SR-900	Capacity Minor						Low			X	$16,517	Widen Travel Lanes

Number	PAA	Location	Need	Priorities								Equestrian	Cost-000	Comments
				ITS	Safety	Bridge	Reconst.	Guardrail	Operational	Capacity	Nonmotorized			
SW-29	Rural - S/O I-90	May Valley Rd & SE 128th Way	Safety		Medium							X	$1,395	Intersection Operational Improvement
200308	Rural - S/O I-90	May Creek Bridge #5005 & May Valley Rd over May Creek	Bridge			High						X	$0	See King County Capital Improvement Program (CIP) document or website for detailed project description including scope.
BR-593C	Urban - Not in primary PAAs	May Creek Bridge #593C	Bridge			Medium						X	$765	Construct short-span bridge
BR-72A	Urban - Not in primary PAAs	May Creek Bridge #72A On 148th Ave SE Crossing May Creek	Bridge			Medium							$765	Construct short-span bridge
OP-INT-83	Urban - Not in primary PAAs	Coal Creek Parkway & May Valley Rd	Operations						Medium				$706	Provide Left Turn Lane
ITS-29	Rural - S/O I-90	May Valley Road ITS From SR 900 to Issaquah Hobart Rd	ITS	Low								X	$287	Provide Intelligent Transportation System improvements which could include vehicle detection; cameras; road weather info system
OP-RD-26	Rural - S/O I-90	May Valley Road From SR-900 To SE 128 WY	Capacity Minor						Medium			X	$6,470	Reconstruct/Spot Pave Shoulders--Improve Sight Distance
CORRIDOR: Misc														
ITS-34	Urban - East Renton PAA	164th Ave SE ITS From SE 128th St. to SE May Valley Rd.	ITS	Low								X	$1,524	Provide Intelligent Transportation System improvements which could include cameras; vehicle detection

Number	PAA	Location	Need	Priorities									Cost-000	Comments
				ITS	Safety	Bridge	Reconst.	Guardrail	Operational	Capacity	Nonmotorized	Equestrian		
NM-0109	Urban - Eastgate PAA	154th Ave SE From SE 39 St to SE 42 St	Nonmotorized								Low		$350	Construct sidewalke (West Side)
400313	Rural - S/O I-90	204th Ave SE / SE 159th St From SE 156 St to 205 Ave SE	Nonmotorized								High		$326	See King County Capital Improvement Program (CIP) document or website for detailed project description including scope.
CORRIDOR: Newport Way														
NM-4009	Urban - Eastgate PAA	Newport Way From 13800 block(Bell. C/L) to 153 Ave SE	Nonmotorized								TBD		$123	Improve pathway -- North Side and South Side
200211	Urban - Eastgate PAA	Newport Way at 16630	Reconstruction				High						$1,035	See King County Capital Improvement Program (CIP) document or website for detailed project description including scope.
OP-INT-84	Urban - Eastgate PAA	Newport Way & 164 Ave SE	Operations						Low				$1,117	Traffic Signal--Turn Channels All Legs
OP-RD-20	Urban - Eastgate PAA	Newport Way From 138 Ave SE To Eastgate Park Entrance	Capacity Minor						High				$2,512	Provide Left Turn Lane
NM-4010	Urban - Eastgate PAA	Newport Way From 152 Ave SE to 161 Ave SE	Nonmotorized								TBD		$123	Improve pathway (South Side)
CORRIDOR: SE 128 St														
HAL-42	Urban - East Renton PAA	156th Ave SE & SE 128th St	Safety		Low								$2,303	Left turn lane from 156th Ave SE to 164th Ave SE. Combine with HAL 61.

Number	PAA	Location	Need	Priorities								Equestrian	Cost-000	Comments
				ITS	Safety	Bridge	Reconst.	Guardrail	Operational	Capacity	Nonmotorized			
HAL-43	Urban - East Renton PAA	164th Ave SE & SE 128th St	Safety		Low								$1,821	Eastbound Dual Lefts and Protected-Only phasing.
SW-85	Rural - N/O I-90	196 Ave SE & SE 128 St/Way	Safety		Low							X	$1,395	Intersection Operational Improvement
SW-83	Urban - East Renton PAA	175 Ave SE & SE 128 St	Safety		Medium								$1,395	Intersection Operational Improvement
OP-INT-119	Urban - East Renton PAA	168th Ave SE & SE 128th St	Operations										$451	Add turn lanes on SE 128th St
HAL-61	Urban - East Renton PAA	160th Ave SE & SE 128th St	Safety		High								$2,150	Preliminary suggested scope - Add left-turn lane in the WB/EB directions.
OP-RD-21	Urban - Not in primary PAAs	SE 128th St From 168 Ave SE To E OF 169 Ave SE	Capacity Minor						High				$1,229	Improve Sight Distance--Turn Channels
ITS-28	Urban - East Renton PAA	SE 128th St. ITS From 148th Ave SE to May Valley Road	ITS	Low								X	$4,382	Provide Intelligent Transportation System improvements which could include cameras; vehicle detection; synchronize signals; communications

Number	PAA	Location	Need	Priorities									Cost-000	Comments
				ITS	Safety	Bridge	Reconst.	Guardrail	Operational	Capacity	Nonmotorized	Equestrian		
County Subarea: North Highline / West Hill														
CORRIDOR: 1 Ave S														
NM-0110	Urban - North Highline PAA	1st Ave S From S 102 St to S 108 St	Nonmotorized								High		$418	Construct AC shoulder (West Side)
ITS-26	Urban - North Highline PAA	1st Ave S./Myers Way ITS From SW 100th St. to SW 112th St.	ITS	Low									$952	Provide Intelligent Transportation System improvements which could include synchronized signals; transit signal priority; cameras; fiber optic communications
CORRIDOR: 16 Ave SW														
NM-5016	Urban - North Highline PAA	SW 104 St From 17 Ave SW To 28 Ave SW	Nonmotorized								High		$506	Provide Nonmotorized Facility
300710	Urban - North Highline PAA	17th Ave SW From SW 100th St to SW 104th St	Nonmotorized										$0	See King County Capital Improvement Program (CIP) document or website for detailed project description including scope.
OP-INT-78	Urban - North Highline PAA	16th Ave SW & SW 106 St	Operations						Medium				$255	Provide Left Turn Lane--Pedestrian Crossing Signals
HAL-16	Urban - North Highline PAA	16th Ave SW & SW Roxbury St	Safety		Medium								$166	Review timing and phasing, consider prohibiting NB lefts or closing NW approach.

Number	PAA	Location	Need	Priorities									Cost-000	Comments
				ITS	Safety	Bridge	Reconst.	Guardrail	Operational	Capacity	Nonmotorized	Equestrian		
300210	Urban - North Highline PAA	16th Ave SW From SW Roxbury to SW 116th St.	ITS	High									$0	See King County Capital Improvement Program (CIP) document or website for detailed project description including scope.
NM-5017	Urban - North Highline PAA	SW 102 St From 11AVE SW To 17 Ave SW	Nonmotorized								High		$140	Provide Nonmotorized Facility
NM-5018	Urban - North Highline PAA	SW 104 St From 15 Ave SW To 17 Ave SW	Nonmotorized								High		$59	Provide Nonmotorized Facility
CORRIDOR: 76 Ave S														
NM-9939	Urban - West Hill PAA	76th Ave S From S 120 St to S 124 St	Nonmotorized								Medium		$209	Construct sidewalk (East Side)
NM-5021	Urban - West Hill PAA	76th Ave S From S 124 St To S 128 St	Nonmotorized								High		$108	Provide Nonmotorized Facility
NM-0004	Urban - West Hill PAA	76th Ave S From S 115 St to S 116 St	Nonmotorized								Medium		$74	Construct AC walkway
CORRIDOR: 78 Ave S														
OP-RD-13	Urban - West Hill PAA	78th Ave S From S 112 St To Renton Ave S	Capacity Minor						High				$1,392	Construct Curb, Gutter, Sidewalk
NM-9938	Urban - West Hill PAA	78th Ave S From S 120 St to S 124 St	Nonmotorized								Low		$204	Construct sidewalk (East Side)
CORRIDOR: 8 Ave S														
NM-5020	Urban - North Highline PAA	8th Ave SW From SW 108 St To SW Roxbury St	Nonmotorized								High		$2,299	Provide Nonmotorized Facility

Number	PAA	Location	Need	Priorities									Cost-000	Comments
				ITS	Safety	Bridge	Reconst.	Guardrail	Operational	Capacity	Nonmotorized	Equestrian		
OP-RD-12	Urban - North Highline PAA	8th Ave S From S Seattle City Limit To Glendale Way S/S 112 St	Capacity Minor						Low				$3,162	Widen Roadway
CORRIDOR: Meyers Wy - 1 Ave S														
OP-RD-50	Urban - North Highline PAA	1st Ave S. & Seattle C/L to Burien C/L	Operations						TBD				$6,955	Provide curb, gutter, sidewalk, drainage and landscaping
OP-RD-14	Urban - North Highline PAA	6th Ave S From Glendale Way/S112 St To Myers Way (1 Ave S)	Capacity Minor						Low				$2,320	Widen Roadway
NM-0302	Urban - North Highline PAA	1st Ave S From SW 108 St to SW 112 St	Nonmotorized								High		$80	Construct sidewalk (West Side)
CORRIDOR: Misc														
NM-4012	Urban - West Hill PAA	80th Ave S From S 114 St to S 118 St	Nonmotorized								TBD		$31	Improve and widen shoulder (West Side)
OP-INT-79	Urban - West Hill PAA	87th Ave S & S 124 St	Operations						Low				$299	Realign Intersection
GR-58	Urban - North Highline PAA	SW 107th St From 22nd Ave SW To 12th Ave SW	Safety					Medium					$13	Construct Guardrail
NM-9937	Urban - West Hill PAA	S 120th St From 76 Ave S to 80 Ave S	Nonmotorized								Medium		$204	Construct sidewalk (South Side)
NM-5022	Urban - West Hill PAA	S 124th St From 76 Ave SW To Skyway Park	Nonmotorized								High		$297	Provide Nonmotorized Facility
NM-9930	Urban - North Highline PAA	SW 112th St From 1 Ave S to 4 Ave SW	Nonmotorized								High		$135	Construct sidewalk (North Side)

Number	PAA	Location	Need	Priorities									Cost-000	Comments
				ITS	Safety	Bridge	Reconst.	Guardrail	Operational	Capacity	Nonmotorized	Equestrian		
NM-9928	Urban - North Highline PAA	11th Ave SW From SW 102 St to SW 106 St	Nonmotorized								Medium		$253	Construct AC shoulder (East Side)
NM-9922	Urban - North Highline PAA	SW 112th St From 16 Ave SW to 26 Ave SW	Nonmotorized								High		$467	Construct AC shoulder (South Side)
300406	Urban - North Highline PAA	28th Ave SW From SW 110 St to SW 112 St	Nonmotorized								Low		$0	See King County Capital Improvement Program (CIP) document or website for detailed project description including scope.
NM-9920	Urban - North Highline PAA	28th Ave SW From SW Roxbury St to SW 102 St	Nonmotorized								Medium		$178	Construct AC shoulder (East Side)
300410	Urban - West Hill PAA	S 133 St From MLK Way to S 134th St	Nonmotorized										$0	See King County Capital Improvement Program (CIP) document or website for detailed project description including scope.
SW-75	Urban - West Hill PAA	64 Ave S & S 129 St	Safety		Low								$1,395	Intersection Operational Improvement
NM-9936	Urban - West Hill PAA	75th Ave S / S 122 St From Renton Ave S to 80 Ave S	Nonmotorized								Medium		$332	Construct sidewalk (South Side)
300197	Urban - North Highline PAA	South Park Bridge #3179 RTID & 14th/16th Ave S.	Bridge			High							131,548	See King County Capital Improvement Program (CIP) document or website for detailed project description including scope.
NM-9945	Urban - West Hill PAA	69th Ave S / S 125 St From S 128 St to 70 Pl S	Nonmotorized								Low		$154	Construct sidewalk (South Side)

Number	PAA	Location	Need	Priorities									Cost-000	Comments
				ITS	Safety	Bridge	Reconst.	Guardrail	Operational	Capacity	Nonmotorized	Equestrian		
NM-5019	Urban - North Highline PAA	15 Ave SW - east side From SW 106 St To SW 107 St	Nonmotorized								High		$49	Provide Nonmotorized Facility
GR-48	Urban - West Hill PAA	Beacon Coal Mine Rd From S 129th St To S 138th St	Safety					Medium					$17	Construct Guardrail
RC-41	Urban - West Hill PAA	68th Ave S From Martin Luther King Way to Renton City Limits	Preservation				Low						$2,182	Walls both sides 20ft tall @$30/psf
300610	Urban - North Highline PAA	South Park Bridge - Demolition	Bridge										$17,517	See King County Capital Improvement Program (CIP) document or website for detailed project description including scope.
SW-72	Urban - North Highline PAA	4 Ave SW & SW 102 St	Safety		High								$1,395	Intersection Operational Improvement
OP-RD-2	Urban - North Highline PAA	Roxbury St From 4th Ave SW to 30th Ave SW	Operations						TBD				$2,142	Widen from 4 to 5 Lanes; Improve Sight Distance
NM-4071	Urban - North Highline PAA	22nd Place S From Des Moines Mem. Dr. S to Burien City Limits	Nonmotorized								TBD		$214	Improve walkway
NM-4077	Urban - North Highline PAA	SW 112th St From Ambaum Blvd SW to 10 Ave SW	Nonmotorized								TBD		$214	Improve walkway
NM-4063	Urban - North Highline PAA	14th Ave SW From SW 110 St to SW 116 St	Nonmotorized								TBD		$214	Improve walkway

Number	PAA	Location	Need	Priorities									Cost-000	Comments
				ITS	Safety	Bridge	Reconst.	Guardrail	Operational	Capacity	Nonmotorized	Equestrian		
CORRIDOR: Rainier Ave S														
SW-55	Urban - West Hill PAA	Rainier Ave S & Lakeridge Dr S	Safety		Medium								$1,395	Intersection Operational Improvement
ITS-33	Urban - West Hill PAA	Rainier Ave S ITS From Seattle City Limits to Renton City Limits	ITS	Low									$2,286	Provide Intelligent Transportation System improvements which could include synchronize signals; vehicle detection; cameras; transit signal priority
CORRIDOR: Renton Ave S														
OP-RD-47	Urban - West Hill PAA	Renton Ave S From 68th Ave S to S 132nd St	Operations						High				$107	Construct Bus Pull-outs
ITS-12	Urban - West Hill PAA	Renton Ave S ITS From Rainier Ave S to Rainier Ave N	ITS	High									$4,764	Provide Intelligent Transportation System improvements which could include synchronized signals; vehicle detection; cameras; transit signal priority
OP-INT-76	Urban - West Hill PAA	Renton Ave S & 76 Ave S	Operations						TBD				$764	Turn Channels - North & South Legs
CORRIDOR: SW 98 St														
300607	Urban - West Hill PAA	SW 98th Street From 11 Ave SW to 16 Ave SW	Nonmotorized								High		$0	See King County Capital Improvement Program (CIP) document or website for detailed project description including scope.

Number	PAA	Location	Need	Priorities: ITS	Safety	Bridge	Reconst.	Guardrail	Operational	Capacity	Nonmotorized	Equestrian	Cost-000	Comments
County Subarea: Northshore														
CORRIDOR: 100 Ave NE														
SW-76	Urban - Kirkland PAA	100 Ave NE & NE 140 St	Safety		Low								$1,395	Intersection Operational Improvement
HAL-20	Urban - Kirkland PAA	100th Ave NE & Simonds Rd	Safety		TBD								$150	Regrade hill north of intersection to improve sight distance
SW-38	Urban - Kirkland PAA	100th Ave NE & NE 140th PL	Safety		Low								$1,395	Intersection Operational Improvement
CP-10	Urban - Kirkland PAA	100th Ave NE From NE139 St to NE 145th St	Capacity Major							Medium			$4,764	Widen roadway to 5 lanes.
100410	Urban - Kirkland PAA	100th Ave NE From 132th Ave NE to 138th Ave NE	Safety		High								$525	See King County Capital Improvement Program (CIP) document or website for detailed project description including scope.
CORRIDOR: 124 Ave NE														
SW-78	Urban - Kirkland PAA	124 Ave NE & NE 140 St	Safety		Low								$660	Install traffic signal
ITS-21	Urban - Kirkland PAA	124th Ave NE ITS From NE 132nd St to NE 160th St.	ITS	Medium									$2,286	Provide Intelligent Transportation System improvements which could include cameras; vehicle detection; fiber optic communications

Number	PAA	Location	Need	Priorities								Equestrian	Cost-000	Comments
				ITS	Safety	Bridge	Reconst.	Guardrail	Operational	Capacity	Nonmotorized			
CORRIDOR: 146 - 156 - 160 PL NE														
OP-INT-81	Rural - N/O I-90	NE 146th Pl & 155 Ave NE	Operations						High			X	$748	Reconstruct Intersection--Improve Sight Distance--Provide Equestrian Facility
NM-9913	Rural - N/O I-90	168th Ave NE From NE 143 St to NE 145 St	Nonmotorized								Low	X	$283	Construct AC shoulder (West Side)
RC-48	Rural - N/O I-90	146th Pl NE From SR-202 to 155 Ave NE	Preservation				Medium					X	$115	15ft tall wall
NM-5029	Rural - N/O I-90	168th Ave NE From NE 143 Pl To NE 140 St	Safety								Low	X	$174	Construct Neighborhood Pathway
NM-0111	Rural - N/O I-90	NE 145th St From 160 Pl NE to 168 Ave NE	Nonmotorized								Low	X	$424	Construct AC shoulder (North Side)
CORRIDOR: 84 Ave NE														
OP-INT-80	Urban - Kirkland PAA	84th Ave NE & NE 138 St	Operations						Low				$586	Provide Left Turn Lane--Provide Right Turn Lane--Construct Curb, Gutter, Sidewalk
NM-5023	Urban - Kirkland PAA	NE 122nd Pl / NE 123 St / 84 Ave N From Juanita Drive To NE 125 Pl	Nonmotorized								Medium		$252	Provide Nonmotorized Facility
NM-0301	Urban - Kirkland PAA	NE 141st St From east of 84 Ave NE	Nonmotorized								Medium		$123	Construct sidewalk (South Side)
CORRIDOR: Holmes Pt Dr														
RC-52	Urban - Kirkland PAA	Holmes Point Drive NE From NE 118 St to NE 116 St	Preservation				Medium						$1,033	Walls both sides 10ft tall

Number	PAA	Location	Need	Priorities								Cost-000	Comments
				ITS	Safety	Bridge	Reconst.	Guardrail	Operational	Capacity	Nonmotorized	Equestrian	
NM-9906	Urban - Kirkland PAA	Holmes Point Dr From Denny Pk (N entrance) to NE 135 PL	Nonmotorized								Low		$836	Construct AC shoulder (East Side)
RC-46	Urban - Kirkland PAA	Holmes Point Drive NE at 144 Ave NE	Preservation				Medium						$172	Wall on downhill side 10ft tall
CORRIDOR: Juanita-Woodinville Way														
CP-4	Urban - Not in primary PAAs	Juanita-Woodinville Way NE From 112 Ave NE to I-405	Capacity Major							High			$3,909	HOV highway access
CP-11	Urban - Not in primary PAAs	Juanita-Woodinville Way NE From 112th Ave NE to NE 145th St	Capacity Minor							High			$4,837	Widen the existing road from NE 145th St to 112th Ave NE. Provide curb, gutter, and sidewalk, street lighting, and a traffic signal at NE 145th St.
CORRIDOR: Misc														
GR-91	Urban - Kirkland PAA	72nd Ave NE From Juanita Drive NE To end of route	Safety					Low					$157	Construct Guardrail
CP-18	Urban - Kirkland PAA	Willows Road Extension From NE 124 St to NE 145 St	Capacity Major							TBD			$20,353	Construct missing arterial link
ITS-17	Urban - Kirkland PAA	NE 144th St. ITS From 124th Ave NE to 148th Ave NE	ITS Medium										$2,478	Provide Intelligent Transportation System improvements which could include vehicle detection; cameras; traveler information
NM-0107	Urban - Not in primary PAAs	178th Ave NE From NE 131 St to NE 136 St	Nonmotorized								Low		$67	Construct sidewalk (West Side)

Number	PAA	Location	Need	Priorities									Cost-000	Comments
				ITS	Safety	Bridge	Reconst.	Guardrail	Operational	Capacity	Nonmotorized	Equestrian		
ITS-10	Urban - Kirkland PAA	NE 132nd St From 100th Ave NE to 132nd Ave NE	ITS	High									$2,668	Provide Intelligent Transportation System improvements which could include fiber optic communications; synchronize signals; Transit signal priority; cameras; vehicle detection; fiber optic communications
NM-9901	Urban - Not in primary PAAs	88th Ave NE From NE 198 St to NE 205 St	Nonmotorized								Low		$671	Construct AC shoulder (East Side)
NM-5028	Rural - N/O I-90	176th Ave NE From Woodinville-Duvall Rd To NE 195 St	Nonmotorized								High	X	$206	Construct Neighborhood Pathway
OP-RD-18	Rural - N/O I-90	NE 175 / NE 172 Pl From 155 Pl NE To Du Rocher Rd (174 NE)	Capacity Minor						High			X	$5,167	Reconstruct Roadway
NM-5024	Urban - Not in primary PAAs	108 / 112 Pl NE From East Riverside Dr To NE 164 St	Nonmotorized								Medium		$361	Provide Nonmotorized Facility
NM-5027	Rural - N/O I-90	Du Rocher Rd From 172 Pl NE To Woodinville-Duvall Rd	Nonmotorized								Medium	X	$482	Provide Nonmotorized Facility
NM-5025	Urban - Not in primary PAAs	NE 140th St AND / OR NE 145 St Crossing I-405	Nonmotorized								Low		$536	Provide Nonmotorized Facility
CP-3	Urban - Not in primary PAAs	Lakepointe Dr - 175th St & 64th-68th/SR-522	Capacity Major							Low			$1,229	King County participation in Road Improvement District (RID)
NM-9904	Rural - N/O I-90	148th Ave NE From NE 154 St to NE 167 St	Nonmotorized								Medium	X	$375	Construct gravel shoulder (East Side)

Number	PAA	Location	Need	Priorities									Cost-000	Comments
				ITS	Safety	Bridge	Reconst.	Guardrail	Operational	Capacity	Nonmotorized	Equestrian		
HAL-49	Urban - Kirkland PAA	108th Ave NE & NE 132nd St	Safety		Low								$36,850	Five lane section from 100th NE to I-405 overpass
OP-INT-103	Urban - Kirkland PAA	Juanita Drive & NE 80th St/112th Ave NE	Operations						Medium				$735	Provide North and Southbound Left Turn Lanes
OP-RD-16	Urban - Kirkland PAA	NE 145th St From 100 Ave NE TO Juanita-Woodinville Rd	Capacity Minor						Medium				$4,274	Turn channels at major intersections
100213	Urban - Kirkland PAA	90th Ave NE From NE 136 St To NE 138 PL	Capacity Minor						Medium				$300	See King County Capital Improvement Program (CIP) document or website for detailed project description including scope.
NM-9903	Rural - N/O I-90	152nd Pl NE / 158 Ave NE From NE 160 St to NE 165 St	Nonmotorized								Low	X	$178	Construct gravel shoulder (West Side)

Number	PAA	Location	Need	Priorities								Equestrian	Cost-000	Comments
				ITS	Safety	Bridge	Reconst.	Guardrail	Operational	Capacity	Nonmotorized			
County Subarea: Snoqualmie Valley														
CORRIDOR: 308 Ave SE														
GR-66	Rural - N/O I-90	308th Ave SE From SE 87th Pl To SE 64th St	Safety					Medium				X	$31	Construct Guardrail
NM-9941	Rural - N/O I-90	308th Ave SE From SE 64 St to SE 87 Pl	Nonmotorized								Medium	X	$1,229	Construct gravel shoulder (East Side)
CORRIDOR: 428 Ave SE-Reinig Rd														
GR-67	Rural - N/O I-90	Reinig Rd From Mill Pond Rd To 428th Ave SE	Safety					Medium				X	$42	Construct Guardrail
NM-5041	Rural - N/O I-90	Mill Pond Rd From SR-202 To Reinig Rd	Nonmotorized								High	X	$1,609	Provide Nonmotorized Facility
RC-37	Rural - N/O I-90	Mill Pond Rd From SE Stearns Rd to SE Reinig Rd	Preservation				Medium						$502	Armor Shoulders @$100/cyd
RC-16	Rural - N/O I-90	Reinig Rd From Mill Pond Rd To 396th Dr SE	Preservation				Medium					X	$315	Armor Shoulders
NM-9942	Rural - N/O I-90	428th Ave SE From SE Reinig Rd to SE 108 St	Nonmotorized								Medium	X	$1,334	Construct AC shoulder (West Side)
CORRIDOR: Cedar Falls Rd														
OP-RD-38	Rural - S/O I-90	436 Ave SE/Cedar Falls Rd From I-90 To Wilderness Rim	Capacity Minor						Medium			X	$8,203	Realign Roadway
NM-9958	Rural - S/O I-90	SE 149th St / 442 Ave SE From 437 Pl SE to 443 Ave SE	Nonmotorized								Low		$516	Construct AC shoulder (North Side)

Number	PAA	Location	Need	Priorities								Equestrian	Cost-000	Comments
				ITS	Safety	Bridge	Reconst.	Guardrail	Operational	Capacity	Nonmotorized			
NM-9968	Rural - S/O I-90	Cedar Falls Rd SE From near Rattlesnake Lake	Nonmotorized								Low		$738	Construct AC shoulder (West Side)
CORRIDOR: Fay Rd														
200411	Rural - N/O I-90	Fay Road From SR-203 to 302nd Way NE	Preservation				High					X	$518	See King County Capital Improvement Program (CIP) document or website for detailed project description including scope.
GR-111	Rural - N/O I-90	Fay Road	Safety					TBD				X	$96	Construct Guardrail
CORRIDOR: Middle Fork Rd														
GR-78	Rural - N/O I-90	Middle Fork Rd From North Bend city limits To 496th Ave SE	Safety					Low					$13	Construct Guardrail
RC-45	Rural - N/O I-90	Lake Dorothy Rd At SE Middle Fork Rd	Preservation				Medium						$14,046	Walls both sides 10ft tall
CORRIDOR: Misc														
GR-28	Rural - N/O I-90	David Powell Rd From Preston-Fall City Rd SE To End of route	Safety					Low				X	$184	Construct Guardrail
BR-61B	Rural - N/O I-90	Fish Hatchery Bridge #61B SE Fish Hatchery Rd Crossing drainage ditch	Bridge			Low						X	$765	Construct short-span bridge
OP-RD-4	Rural - N/O I-90	Ames Lake Rd From Union Hill To SR-202	Capacity Minor						Medium				$8,282	Realign Roadway--Widen Travel Lanes--Pave Shoulders

Number	PAA	Location	Need	Priorities									Cost-000	Comments
				ITS	Safety	Bridge	Reconst.	Guardrail	Operational	Capacity	Nonmotorized	Equestrian		
RC-34	Rural - N/O I-90	284th Ave NE From NE 100 St to NE Carnation Farm Rd	Preservation				Low						$179	Armor Shoulders @$100/cyd
200315	Rural - N/O I-90	Coal Creek Bridge #1086B On 378th Ave SE Crossing Coal Creek	Bridge			Low							$172	See King County Capital Improvement Program (CIP) document or website for detailed project description including scope.
NM-9915	Rural - N/O I-90	Big Rock Rd From Batten Rd NE to 296 Ave NE	Nonmotorized								Medium	X	$418	Construct AC shoulder (North Side)
OP-RD-37	Rural - N/O I-90	Tolt Hill Rd From Tolt Hill Bridge To 500' WEST OF SR-203	Capacity Minor						Medium				$1,478	Reconstruct Roadway
NM-5042	Rural - N/O I-90	Carnation Farm Rd From NE 80 St To SR-203	Nonmotorized								Medium		$7,531	Provide Nonmotorized Facility
GR-98	Rural - N/O I-90	Fish Hatchery Rd From SR-202 To SR-202	Safety					Low				X	$301	Construct Guardrail
OP-RD-54	Rural - N/O I-90	Middle Fork Snoqualmie River Rd From 476 Ave SE to 496 Ave SE	Safety										$3,182	Provide safety improvements within the couplet portion of the roadway, keeping the width 18 to 20 feet. There will be no vertical curve corrections or major drainage improvements.
200215	Rural - N/O I-90	Tate Creek Bridge #122N On SE 73RD St Crossing TATE Creek	Bridge			High							$172	See King County Capital Improvement Program (CIP) document or website for detailed project description including scope.

Number	PAA	Location	Need	Priorities									Cost-000	Comments
				ITS	Safety	Bridge	Reconst.	Guardrail	Operational	Capacity	Nonmotorized	Equestrian		
RC-38	Rural - N/O I-90	NE 100 St From West Snoqualmie Valley Rd to 284 Ave NE	Preservation				Medium						$585	Armor Shoulders @$100/cyd
GR-82	Rural - N/O I-90	384th Ave SE From SE 92ND St To North Bend Way	Safety					Low					$13	Construct Guardrail
OP-RD-46	Rural - N/O I-90	Stossell Creek Way From Swan Mill Road to the Snohomish County Line	Operations						TBD				$458	Environmental improvements to road to improve habitat and reduce maintenance costs
RC-55	Rural - N/O I-90	Money Creek Rd at Money Creek	Preservation				Low						$689	20ft tall wall
RC-57	Rural - N/O I-90	Old Cascade Highway at Miller River	Preservation				Low						$4,590	Overflow is working as designed
200214	Rural - N/O I-90	Lake Joy Bridge #5034A	Bridge			Low							$765	See King County Capital Improvement Program (CIP) document or website for detailed project description including scope.
GR-94	Rural - N/O I-90	NE 124th St From SR 203 To End of route	Safety					Low				X	$272	Construct Guardrail
BR-359C	Rural - N/O I-90	Lake Dorothy Overflow Bridge #359C SE Lake Dorothy Rd Crossing Overflow	Bridge			Low							$2,000	Construct short-span bridge
200115	Rural - S/O I-90	Clough Creek (Kimball Creek) Bridge #909B SE 141st St Crossing Clough Creek	Bridge			Medium							$172	See King County Capital Improvement Program (CIP) document or website for detailed project description including scope.

Number	PAA	Location	Need	Priorities									Cost-000	Comments
				ITS	Safety	Bridge	Reconst.	Guardrail	Operational	Capacity	Nonmotorized	Equestrian		
RC-19	Rural - N/O I-90	North Fork Rd SE From Wagners Bridge To Wagners Bridge	Preservation				Medium						$86	Construct 10ft wall
CORRIDOR: Mt. Si Rd														
GR-75	Rural - N/O I-90	Mt Si Rd From North Bend city limits To End of route	Safety					Low					$13	Construct Guardrail
NM-5064	Rural - N/O I-90	Mt Si Rd From North Bend city limits To Mt. Si Trail	Nonmotorized								Medium		$1,000	Provide Nonmotorized Facility
NM-5065	Rural - N/O I-90	Mt Si Rd From Mt. Si Trail To NW Corner of Section 8	Nonmotorized								Low		$2,622	Provide Nonmotorized Facility
OP-RD-39	Rural - N/O I-90	Mt Si Rd From 452 Ave SE To 800' E	Capacity Minor						Low				$416	Realign Roadway
CORRIDOR: NE 80 St														
OP-RD-40	Rural - N/O I-90	NE 80th St From West Snoqualmie Valley Rd To Ames Lake Rd	Capacity Minor						Low				$3,877	Reconstruct Roadway
RC-36	Rural - N/O I-90	NE 80th St From West Snoqualmie Valley Rd to Ames Lake-Carnation Rd	Preservation				Medium						$1,307	Armor Shoulders @$100/cyd
CORRIDOR: NE Cherry Valley Rd														
200114	Rural - N/O I-90	Kelly Rd Bridge #5007 On Kelly Rd NE Crossing drainage ditch	Bridge			Medium						X	$765	See King County Capital Improvement Program (CIP) document or website for detailed project description including scope.

Number	PAA	Location	Need	Priorities								Equestrian	Cost-000	Comments
				ITS	Safety	Bridge	Reconst.	Guardrail	Operational	Capacity	Nonmotorized			
NM-5045	Rural - N/O I-90	Kelly Rd From Cherry Valley Rd To Big Rock Rd	Nonmotorized								Medium	X	$2,111	Provide Nonmotorized Facility
NM-9916	Rural - N/O I-90	322nd Ave NE From NE Big Rock Rd to NE 130 St	Nonmotorized								Low	X	$491	Construct gravel shoulder (West Side)
CORRIDOR: Neal Rd SE														
RC-7	Rural - N/O I-90	Neal Rd SE Sinkhole Repair	Reconstruction				High						$307	Work with WSDOT to realign road. Other possiblity includes vacating road.
200112	Rural - N/O I-90	C.W. Neal Road Bridge #249B On C.W. Neal Rd Crossing drainage ditch	Bridge			Medium							$765	See King County Capital Improvement Program (CIP) document or website for detailed project description including scope.
200212	Rural - N/O I-90	C.W. Neal Road Bridge #249C On C.W. Neal Rd Crossing drainage ditch	Bridge			Medium							$765	See King County Capital Improvement Program (CIP) document or website for detailed project description including scope.
RC-40	Rural - N/O I-90	Neal Rd SE From SR-203 to SR-203	Preservation				Low						$1,101	Armor Shoulders @$100/cyd
CORRIDOR: Preston-Fall City Rd														
NM-5061	Rural - N/O I-90	Preston-Fall City Rd From I-90 to Regional Trail Crossing	Nonmotorized								High		$9,105	Provide Nonmotorized Facility
NM-5060	Rural - N/O I-90	Preston-Fall City Rd From Regional Trail Crossing to SR-202	Nonmotorized								High		$9,105	Provide Nonmotorized Facility

Number	PAA	Location	Need	Priorities								Cost-000	Comments
				ITS	Safety	Bridge	Reconst.	Guardrail	Operational	Capacity	Nonmotorized	Equestrian		
BR-186J	Rural - N/O I-90	Fire Station Bridge #186J On Preston-Fall City Rd Crossing Unimproved undercrossing	Bridge			High							$2,000	Construct short-span bridge
GR-13	Rural - N/O I-90	316th Pl SE From SE 86th St To End of route	Safety					Low					$51	Construct Guardrail
200209	Rural - N/O I-90	Preston-Fall City / High Pt Way & SE 82nd St	Safety		High								$1,205	See King County Capital Improvement Program (CIP) document or website for detailed project description including scope.
ITS-14	Rural - N/O I-90	Preston Fall City Rd ITS From I-90 to SR 202	ITS	Medium									$5,525	Provide Intelligent Transportation System improvements which could include cameras; weather monitoring; vehicle detection
OP-INT-88	Rural - N/O I-90	Preston-Fall City Rd & SE 43 St	Operations						Low				$650	Realign Intersection
200310	Rural - N/O I-90	Preston-Fall City RD SE Slide Repair	Reconstruction										$2,443	See King County Capital Improvement Program (CIP) document or website for detailed project description including scope.
CORRIDOR: Upper Preston Rd														
GR-109	Rural - N/O I-90	Upper Preston Road	Safety					TBD					$32	Construct Guardrail
200512	Rural - N/O I-90	Upper Preston Rd From SE 97th St to SE 97th St	Preservation				High						$2,142	See King County Capital Improvement Program (CIP) document or website for detailed project description including scope.

Number	PAA	Location	Need	Priorities									Cost-000	Comments
				ITS	Safety	Bridge	Reconst.	Guardrail	Operational	Capacity	Nonmotorized	Equestrian		
CORRIDOR: W Snoqualmie River Rd														
BR-916A	Rural - N/O I-90	West Snoqualmie River Rd Bridge #916A West Snoqualmie River Rd Crossing slough	Bridge			Medium							$765	Construct short-span bridge
200412	Rural - N/O I-90	312th Ave SE Bridge #228F On West Snoqualmie River Rd Crossing drainage ditch	Bridge			Low							$765	See King County Capital Improvement Program (CIP) document or website for detailed project description including scope.
RC-18	Rural - N/O I-90	West Snoqualmie River Rd From NE Tolt Hill Rd To SE 24th St	Preservation				Medium						$6,122	Armor Shoulders
RC-17	Rural - N/O I-90	SE 24th St From 309th Ave SE To W. Snoqualmie River Rd	Preservation				Medium						$319	Armor Shoulders
RC-32	Rural - N/O I-90	Tolt Hill Rd From Tolt Hill Bridge to SR-203	Preservation				Medium						$110	Armor Shoulders @$100/cyd
GR-80	Rural - N/O I-90	West Snoqualmie River Rd From SE 24th St To Tolt Hill Rd	Safety					Low					$85	Construct Guardrail
ITS-25	Rural - N/O I-90	West Snoqualmie River Road/Tolt Hill Road ITS From WSRR from SE 24th St to Tolt Hill and Tolt from SR-203 to SWRR	ITS	Low									$432	Provide Intelligent Transportation System improvements which could include vehicle detection; cameras; pavement condition sensors
GR-44	Rural - N/O I-90	308th Ave SE From SR 202 To SE 40th St	Safety					High				X	$36	Construct Guardrail

Number	PAA	Location	Need	Priorities									Cost-000	Comments
				ITS	Safety	Bridge	Reconst.	Guardrail	Operational	Capacity	Nonmotorized	Equestrian		
CORRIDOR: W Snoqualmie Valley Rd														
RC-113	Rural - N/O I-90	West Snoqualmie Valley Rd From NE 124 St To NE Novelty Hill Rd	Reconstruction				Medium						$313	Reconstruct roadway .28 mile
200213	Rural - N/O I-90	Woodinville-Duvall Rd & W. Snoqualmie Valley Rd	Operations						High				$2,381	See King County Capital Improvement Program (CIP) document or website for detailed project description including scope.
RC-39	Rural - N/O I-90	West Snoqualmie Valley Rd From NE 124th St to Ames Lake-Carnation Rd	Preservation				High						$3,236	10ft wall@$30/psf (Length=4700ft)
OP-INT-122	Rural - N/O I-90	NE 124th St & West Snoqualmie Valley Rd	Operations						High				$4,807	Construct right turn pocket and modify existing signalization.
200311	Rural - N/O I-90	West Snoqualmie Valley Rd From NE 80 St To Ames Lake Carnation Rd	Reconstruction				High						$8,463	See King County Capital Improvement Program (CIP) document or website for detailed project description including scope.
BR-5009B	Rural - N/O I-90	Snoqualmie Valley Rd Bridge #5009B	Bridge			Medium							$765	Construct short-span bridge
200113	Rural - N/O I-90	West Snoqualmie Valley Rd From NE 124th St to NE Woodinville-Duvall Rd	Preservation									X	$2,319	See King County Capital Improvement Program (CIP) document or website for detailed project description including scope.
RC-150	Rural - N/O I-90	West Snoqualmie Valley Rd From Snohomish County Line to Woodinville-Duvall Rd	Preservation				High						$3,020	10ft wall@$30/psf (Length=4700ft)

Number	PAA	Location	Need	Priorities								Equestrian	Cost-000	Comments
				ITS	Safety	Bridge	Reconst.	Guardrail	Operational	Capacity	Nonmotorized			
NM-5003	Rural - N/O I-90	Ames Lake-Carnation Rd From Union Hill Rd To NE 80 St	Nonmotorized								Low		$8,611	Provide Nonmotorized Facility
NM-5063	Rural - N/O I-90	West Snoqualmie Valley Rd From Novelty Hill Road To Carnation Rd	Nonmotorized								Low		$14,819	Provide Nonmotorized Facility
NM-5062	Rural - N/O I-90	West Snoqualmie Valley Rd From Woodinville-Duvall Rd To Novelty Hill Road	Nonmotorized								High	X	$14,819	Provide Nonmotorized Facility
ITS-18	Rural - N/O I-90	West Snoqualmie Valley Rd NE ITS From NE Woodinville Duvall Road to Ames Lake Rd	ITS	Medium								X	$8,060	Provide Intelligent Transportation System improvements which could include vehicle detection; cameras; flood detection; weather monitoring station
CORRIDOR: Woodinville-Duvall Rd														
200408	Rural - N/O I-90	Duvall Slough #1136B On Woodinville-Duvall Rd Crossing Duvall Slough	Bridge			High							$0	See King County Capital Improvement Program (CIP) document or website for detailed project description including scope.
HAL-11	Rural - N/O I-90	West Snoqualmie Valley Rd & Woodinville-Duvall Rd	Safety		Low								$2,035	Widen intersection with EB & WB left turn lanes.

Number	PAA	Location	Need	Priorities									Cost-000	Comments
				ITS	Safety	Bridge	Reconst.	Guardrail	Operational	Capacity	Nonmotorized	Equestrian		
County Subarea: Soos Creek														
CORRIDOR: 132-140 Ave SE														
SW-91	Urban - Fairwood PAA	140 Ave SE & SE 184 St (Carriage Crest Elementary School)	Safety		Low								$660	Install traffic signal
SW-81	Urban - Fairwood PAA	140 Ave SE & SE 200 St	Safety		Low								$1,395	Intersection Operational Improvement
400113	Rural - S/O I-90	Lake Youngs Way Bridge #3109B SE Lake Youngs Way Crossing Soos Creek	Bridge			Low							$765	See King County Capital Improvement Program (CIP) document or website for detailed project description including scope.
CORRIDOR: 148 Ave SE														
OP-INT-102	Rural - S/O I-90	148th Ave SE & SE 308th St	Operations						Low				$735	Improve Sight Distance
SW-17	Rural - S/O I-90	148th Ave SE & SE 208th St	Safety		Medium							X	$1,395	Intersection Operational Improvement

Number	PAA	Location	Need	Priorities								Equestrian	Cost-000	Comments
				ITS	Safety	Bridge	Reconst.	Guardrail	Operational	Capacity	Nonmotorized			
CORRIDOR: Lk Holm Rd														
ITS-30	Rural - S/O I-90	Lake Holm Rd ITS From 148th Ave SE to Auburn Black Diamond Rd.	ITS	Low								X	$49	Provide Intelligent Transportation System improvements which could include a speed warning system
OP-RD-44	Rural - S/O I-90	Lake Holm Rd From Near Lake Holm (east)	Capacity Minor						Medium			X	$871	Widen Roadway
CORRIDOR: Misc														
NM-9966	Urban - Fairwood PAA	Lake Youngs Pipeline Pathway From vicinity of 155 Pl SE	Nonmotorized								Low		$36	Construct AC walkway
OP-INT-90	Rural - S/O I-90	196th Ave SE & SE 192 St	Operations						Medium			X	$1,843	Reconstruct Intersection--Improve Sight Distance--Turn Channels
NM-9965	Urban - Fairwood PAA	SE 183rd St From 142 Ave SE to 147 Ave SE	Nonmotorized								Low		$235	Construct sidewalk (South Side)
RC-50	Rural - S/O I-90	196th Ave SE From SE 161 St to SE 170 St	Preservation				Medium						$930	Retaining wall 10' high
GR-88	Rural - S/O I-90	156th Ave SE From SE 240th St To CITY LIMIT	Safety					Low				X	$13	Construct Guardrail
NM-5036	Rural - S/O I-90	148 Ave SE From SE 296 St To S.I.R.	Nonmotorized								Low		$2,671	Provide Nonmotorized Facility
NM-5015	Urban - Not in primary PAAs	Green River Rd SE From S 258 St To SE 277 St	Nonmotorized								Medium		$8,796	Provide Nonmotorized Facility

Number	PAA	Location	Need	Priorities								Cost-000	Comments
				ITS	Safety	Bridge	Reconst.	Guardrail	Operational	Capacity	Nonmotorized / Equestrian		
300313	Rural - S/O I-90	Soos Creek Bridge #3109 On SE 224th St Crossing Soos Creek	Bridge			High						$765	See King County Capital Improvement Program (CIP) document or website for detailed project description including scope.
300810	Rural - S/O I-90	Alvord T Bridge #3130	Bridge									$1,048	See King County Capital Improvement Program (CIP) document or website for detailed project description including scope.
OP-RD-27	Rural - S/O I-90	164th Ave SE From SE 240 St To SE 248 St	Capacity Minor						Medium		X	$134	Pave Shoulders
NM-5038	Rural - S/O I-90	SE 208th St From 132th Ave SE To 148th Ave SE	Nonmotorized								Medium X	$301	Provide Nonmotorized Facility
300213	Rural - S/O I-90	Soos Creek Bridge #3109A SE 216th St Crossing Soos Creek	Bridge			Low						$765	See King County Capital Improvement Program (CIP) document or website for detailed project description including scope.
CORRIDOR: Petrovitsky Rd													
SW-13	Rural - S/O I-90	Petrovitsky Rd & Sweeney Rd	Safety		High							$1,395	Intersection Operational Improvement
OP-INT-106	Urban - Fairwood PAA	Petrovitsky Rd & SE 192nd St	Operations						Low		X	$735	Provide SE Bound Left Turn Lane
CP-15	Urban - Fairwood PAA	140th Ave SE & Petrovitsky Rd	Capacity Major						TBD			$14,442	Widen all legs of intersection to increase capacity
OP-INT-85	Rural - S/O I-90	Petrovitsky Rd SE & SE 184 St Crossing	Operations						Low			$392	Pedestrian Crossing Signals

Number	PAA	Location	Need	Priorities									Cost-000	Comments
				ITS	Safety	Bridge	Reconst.	Guardrail	Operational	Capacity	Nonmotorized	Equestrian		
400409	Rural - S/O I-90	Petrovitsky & 162nd Pl SE	Safety		High								$0	See King County Capital Improvement Program (CIP) document or website for detailed project description including scope.
HAL-14	Urban - Fairwood PAA	140th Ave SE & SE Petrovitsky Rd	Safety		Low								$0	Widen all legs of intersection to increase capacity. For project cost, see CP-15
HAL-59	Urban - Fairwood PAA	SE 176th St & SE Petrovitsky Rd	Safety		Low								$1,821	Eastbound dual lefts and PO phasing
RC-3	Urban - Fairwood PAA	Petrovitsky Rd From 134 Ave SE to 143 Ave SE	Reconstruction				High						$2,466	Road Reconstruction
CORRIDOR: SE 224 St														
NM-5033	Rural - S/O I-90	SE 224th St From 132 Ave SE To 148 Ave SE	Nonmotorized								Low	X	$602	Provide Nonmotorized Facility
400109	Rural - S/O I-90	148th Ave SE & SE 224th St	Operations		Medium							X	$912	See King County Capital Improvement Program (CIP) document or website for detailed project description including scope.
NM-5071	Rural - S/O I-90	SE 232 St From 196 Ave SE St To SR-18	Nonmotorized								High	X	$1,068	Provide Nonmotorized Facility
NM-4036	Rural - S/O I-90	SE 224th St From 172 Ave SE to 180 Ave SE	Nonmotorized								TBD	X	$49	Widen walkway
NM-5070	Rural - S/O I-90	Peter Grubb Rd / SE 232 St From SE 224 St To 196 Ave SE	Nonmotorized								Low	X	$500	Provide Nonmotorized Facility

Number	PAA	Location	Need	Priorities								Equestrian	Cost-000	Comments
				ITS	Safety	Bridge	Reconst.	Guardrail	Operational	Capacity	Nonmotorized			
CORRIDOR: SE 240 St														
SW-56	Rural - S/O I-90	164th Pl SE & SE 240th St	Safety		Medium							X	$1,395	Intersection Operational Improvement
NM-5032	Rural - S/O I-90	SE 240th St From 196 Ave SE To SR-18	Nonmotorized								Medium	X	$1,809	Provide Nonmotorized Facility
NM-4041	Rural - S/O I-90	SE 240th St From 156 Ave SE to 172 Ave SE	Nonmotorized								TBD	X	$24	Widen walkway
NM-4033	Rural - S/O I-90	164th Ave SE From SE 224 St to SE 240 St	Nonmotorized								TBD	X	$86	Widen pathway and improve lighting
NM-5068	Rural - S/O I-90	SE 240th St From 148 Ave SE (south side) To 164 Ave SE	Nonmotorized								Medium	X	$603	Provide Nonmotorized Facility
NM-5039	Rural - S/O I-90	196th Ave SE From SE 240 St To SE 232 St	Nonmotorized								Low	X	$402	Provide Nonmotorized Facility
NM-5069	Rural - S/O I-90	SE 240th St From 164 Ave SE To 180 Ave SE	Nonmotorized								Medium	X	$603	Provide Nonmotorized Facility

Number	PAA	Location	Need	Priorities								Equestrian	Cost-000	Comments
				ITS	Safety	Bridge	Reconst.	Guardrail	Operational	Capacity	Nonmotorized			
County Subarea: Tahoma/Raven Heights														
CORRIDOR: 276 Ave SE														
NM-4065	Rural - S/O I-90	276th Ave SE From SE 231 ST to 300' north	Nonmotorized								TBD	X	$54	Construct pathway (West Side)
RC-126	Rural - S/O I-90	276 Ave SE From SE 200 St To SE 216 St	Reconstruction				Medium					X	$1,258	Reconstruct roadway 1.0 mile
RC-125	Rural - S/O I-90	276 Ave SE From SR 18 To SE 200 St	Reconstruction				Medium					X	$1,088	Reconstruct roadway 1.18 mile
RC-127	Rural - S/O I-90	276 Ave SE From SE 216 St To SE Summit Landsburg Rd	Reconstruction				Medium					X	$3,547	Reconstruct roadway 2.59 miles
SW-45	Rural - S/O I-90	276th Ave SE & SE 216th St	Safety		Medium							X	$1,395	Intersection Operational Improvement
CORRIDOR: Auburn-Black Diamond Rd														
RC-138	Rural - S/O I-90	Auburn Black Diamond Rd From SE Green Valley Rd To SE Lake Holm Rd	Reconstruction				High					X	$253	Reconstruct roadway .23 mile
RC-137	Rural - S/O I-90	Auburn Black Diamond Rd From SR 18 To SE Green Valley Rd	Reconstruction				High						$227	Reconstruct roadway .18 mile
RC-139	Rural - S/O I-90	Auburn-Black Diamond Rd From SE Lake Holm Rd To 148 Way SE	Reconstruction				Medium					X	$3,338	Reconstruct roadway 2.18 miles

Number	PAA	Location	Need	Priorities								Equestrian	Cost-000	Comments
				ITS	Safety	Bridge	Reconst.	Guardrail	Operational	Capacity	Nonmotorized			
CORRIDOR: Issaquah-Hobart Rd														
OP-INT-124	Rural - S/O I-90	Issaquah-Hobart Rd & May Valley Rd	Operations									X	$660	Construct Roundabout
RC-118	Rural - S/O I-90	Issaquah-Hobart Rd SE From City Limit To SE May Valley Rd	Reconstruction				Medium					X	$635	Reconstruct roadway 1.86 miles
ITS-15	Rural - S/O I-90	Issaquah-Hobart Rd ITS From Cedar Grove Rd to SR 18	ITS	Medium								X	$706	Provide Intelligent Transportation System improvements which could include cameras; vehicle detection; data stations; message signs; weather station
OP-RD-53	Rural - S/O I-90	Issaquah-Hobart Rd From Issaquah City Limits to May Valley Rd	Operations									X	$1,000	Construct center turn lane at major intersections
RC-119	Rural - S/O I-90	Issaquah-Hobart Rd SE From SE May Valley Rd To Cedar Grove Rd	Reconstruction				High					X	$1,892	Reconstruct roadway .98 mile
RC-120	Rural - S/O I-90	Issaquah-Hobart Rd SE From Cedar Grove Rd To SE 156 St	Reconstruction				High					X	$1,624	Reconstruct roadway 1.2 miles
OP-RD-22	Rural - S/O I-90	May Valley Rd From SE 128 WY To Issaquah-Hobart Rd	Capacity Minor						Medium			X	$7,732	Widen Travel Lanes
RC-121	Rural - S/O I-90	Issaquah-Hobart Rd SE From SE 156 St To SR 18	Reconstruction				High					X	$2,779	Reconstruct roadway 2.27 miles
OP-INT-123	Rural - S/O I-90	Issaquah-Hobart Rd & Cedar Grove Rd	Operations									X	$660	Construct Roundabout

Number	PAA	Location	Need	Priorities								Equestrian	Cost-000	Comments
				ITS	Safety	Bridge	Reconst.	Guardrail	Operational	Capacity	Nonmotorized			
BR-1384A	Rural - S/O I-90	Fifteen Mile Creek Bridge #1384A On Issaquah-Hobart Rd Over Fifteen Mile Creek	Bridge			High						X	$5,102	Conduct Feasibility/Needs Study--Replace Bridge
CORRIDOR: Kent-Black Diamond Rd														
OP-INT-97	Rural - S/O I-90	Thomas Rd & Kent-Black Diamond Rd	Operations						Medium			X	$756	Realign Intersection
400511	Rural - S/O I-90	Covington Creek Bridge #3082 Auburn-Black Diamond Road Crossing Covington Creek	Bridge			Medium						X	$765	See King County Capital Improvement Program (CIP) document or website for detailed project description including scope.
NM-5035	Rural - S/O I-90	Kent-Black Diamond Rd From SR-18 To SE Lake Holm Rd	Nonmotorized								Medium	X	$2,012	Provide Nonmotorized Facility
400600	Rural - S/O I-90	Berrydale Overcrossing #3086OX & 290th	Bridge			High						X	$3,456	See King County Capital Improvement Program (CIP) document or website for detailed project description including scope.
400211	Rural - S/O I-90	Covington Creek Bridge #3084	Bridge			High						X	$0	See King County Capital Improvement Program (CIP) document or website for detailed project description including scope.
CORRIDOR: Kent-Kangley Rd														
OP-INT-108	Rural - S/O I-90	Kent-Kangley Rd & Ravensdale Rd	Operations						Medium			X	$735	Provide Turn Channelization: Signal or Roundabout

Number	PAA	Location	Need	Priorities								Equestrian	Cost-000	Comments
				ITS	Safety	Bridge	Reconst.	Guardrail	Operational	Capacity	Nonmotorized			
400107	Rural - S/O I-90	Kent Kangley Rd & Landsburg Rd SE	Safety		High							X	$0	See King County Capital Improvement Program (CIP) document or website for detailed project description including scope.
OP-INT-92	Rural - S/O I-90	Kent-Kangley Rd & Kanaskat-Retreat Rd	Operations						High			X	$1,622	Realign Intersection--Turn Channels
NM-5051	Rural - S/O I-90	Black Diamond-Ravensdale Rd From SR-169 To Kent-Kangley Rd	Nonmotorized								High	X	$2,172	Provide Nonmotorized Facility
RC-133	Rural - S/O I-90	Kent Kangley Rd From Landsburg Rd SE To Retreat Kanaskat Rd SE	Reconstruction				Medium					X	$1,896	Reconstruct roadway 1.18 miles
RC-132	Rural - S/O I-90	Kent Kangley Rd From City Limit To Landsburg Rd	Reconstruction				Low					X	$1,881	Reconstruct roadway 1.14 miles
OP-INT-121	Rural - S/O I-90	Kent-Kangley Rd & Landsburg Rd	Operations		High							X	$660	Traffic Signal or roundabout
CORRIDOR: Lake Sawyer Rd														
SW-58	Rural - S/O I-90	164th Pl SE & SE Covington-Sawyer Rd	Safety		Medium								$1,395	Intersection Operational Improvement
RC-6	Rural - S/O I-90	Covington-Lake Sawyer Rd From Covington C/L to 216 Ave SE	Reconstruction				High					X	$1,171	Road Rehabilitation
400508	Rural - S/O I-90	Covington-Sawyer Rd From 164 Pl SE to 180 Ave SE	Nonmotorized								Low	X	$0	See King County Capital Improvement Program (CIP) document or website for detailed project description including scope.

Number	PAA	Location	Need	Priorities								Equestrian	Cost-000	Comments
				ITS	Safety	Bridge	Reconst.	Guardrail	Operational	Capacity	Nonmotorized			
OP-RD-41	Rural - S/O I-90	Covington-Lake Sawyer Rd From Thomas Rd To 216 Ave SE	Capacity Minor						Medium			X	$8,284	Realign Roadway
SW-59	Rural - S/O I-90	180th/181st Ave SE (Thomas Rd) & SE Covington-Sawyer Rd	Safety		Low							X	$1,395	Intersection Operational Improvement
NM-9974	Rural - S/O I-90	Covington-Sawyer Rd From east of 181 Ave SE	Nonmotorized								Low	X	$191	Construct AC shoulder (North Side)
SW-84	Rural - S/O I-90	181 Ave SE & SE Covington-Sawyer Rd	Safety		Medium							X	$1,395	Intersection Operational Improvement
CORRIDOR: Lk Holm Rd														
SW-27	Rural - S/O I-90	Auburn-Black Diamond & Green Valley Rd	Safety		Low								$1,395	Intersection Operational Improvement
RC-140	Rural - S/O I-90	Lake Holm Rd From Auburn Black Diamond Rd To 147 Ave SE	Reconstruction				High					X	$1,741	Reconstruct roadway 1.64 miles
CORRIDOR: Maxwell Rd														
BR-3099	Rural - S/O I-90	Maxwell Rd Bridge #3099 225th Ave SE Crossing Gem Creek	Bridge			Low							$765	Construct short-span bridge
BR-3202	Rural - S/O I-90	Maxwell Rd Bridge #3202 225th Ave SE Crossing cattle UX	Bridge			Medium							$765	Construct short-span bridge

Number	PAA	Location	Need	Priorities								Equestrian	Cost-000	Comments
				ITS	Safety	Bridge	Reconst.	Guardrail	Operational	Capacity	Nonmotorized			
CORRIDOR: Misc														
400411	Rural - S/O I-90	Green Valley Rd Bridge #3022	Bridge			Medium							$765	See King County Capital Improvement Program (CIP) document or website for detailed project description including scope.
GR-87	Rural - S/O I-90	244th Ave SE From SE 224th St To SE 235th PL	Safety					High					$91	Construct Guardrail
GR-45	Rural - S/O I-90	Kanaskat-Kangley Rd From Cumberland-Kanaskat Rd To Kent-Kangley Rd	Safety					Medium				X	$33	Construct Guardrail
GR-112	Rural - S/O I-90	Green River Rd SE From Kent C/L to Auburn C/L	Safety										$50	Construct Guardrail
GR-95	Rural - S/O I-90	Courtney Rd From Kanaskat-Kangley Rd To End of route	Safety					Low				X	$13	Construct Guardrail
GR-113	Rural - S/O I-90	SE Lake Walker Rd From 316 Ave SE to W Lake Walker Dr SE	Safety									X	$15	Construct Guardrail
400610	Rural - S/O I-90	Fifteen Mile Creek Bridge #1384B	Bridge									X	$1,843	See King County Capital Improvement Program (CIP) document or website for detailed project description including scope.
GR-93	Rural - S/O I-90	SE 200th St From 276th Ave SE To 244th Ave SE	Safety					Low				X	$35	Construct Guardrail
NM-0202	Rural - S/O I-90	195th Ave SE From Lake Morton DR SE to SE 320 St	Nonmotorized								Medium	X	$80	Construct AC shoulder (West Side)

Number	PAA	Location	Need	Priorities									Cost-000	Comments
				ITS	Safety	Bridge	Reconst.	Guardrail	Operational	Capacity	Nonmotorized	Equestrian		
NM-5034	Rural - S/O I-90	168th Way (Ave) SE From Kent-Black Diamond Rd To Auburn-Black Diamond Rd	Nonmotorized								Medium	X	$724	Provide Nonmotorized Facility
NM-5050	Rural - S/O I-90	Sweeney Rd SE From 196 Ave SE To SE 232 St	Nonmotorized								High	X	$1,005	Provide Nonmotorized Facility
400311	Rural - S/O I-90	Green Valley Rd Bridge #3020 SE Greeen Valley Rd Crossing drainage ditch	Bridge			Medium							$765	See King County Capital Improvement Program (CIP) document or website for detailed project description including scope.
OP-INT-98	Rural - S/O I-90	SE 235th Pl & 244 Ave SE	Operations						Low				$434	Improve Sight Distance
GR-52	Rural - S/O I-90	Summit-Landsburg Rd From Landsburg Rd SE To Kent-Kangley Rd	Safety					Medium				X	$63	Construct Guardrail
NM-4054	Rural - S/O I-90	Covington-Sawyer Rd From 188 Ave SE to 192 Pl SE	Nonmotorized								TBD	X	$161	Construct walkway (North Side)
NM-9980	Rural - S/O I-90	168th Way SE & Covington Creek	Nonmotorized								Medium	X	$55	Widen bridge and construct sidewalk (East Side)
GR-54	Rural - S/O I-90	Lake Francis Rd From Cedar Grove Rd To SE 192nd St	Safety					Medium				X	$17	Construct Guardrail
BR-3097	Rural - S/O I-90	Dorre Don Way Bridge #3097 Dorre Don Way Crossing drainage ditch	Bridge			Low							$765	Construct short-span bridge
RC-128	Rural - S/O I-90	Landsburg Rd SE From SE Summit Landsburg Rd To SE Kent Kangley Rd	Reconstruction				Medium					X	$1,547	Reconstruct roadway 1.27 miles

Number	PAA	Location	Need	Priorities								Equestrian	Cost-000	Comments
				ITS	Safety	Bridge	Reconst.	Guardrail	Operational	Capacity	Nonmotorized			
GR-110	Rural - S/O I-90	SE 248th Street	Safety					TBD				X	$64	Construct Guardrail
400309	Rural - S/O I-90	Summit-Landsburg Rd From City Limit To Landsburg Rd SE	Reconstruction				High					X	$8,747	See King County Capital Improvement Program (CIP) document or website for detailed project description including scope.
NM-5047	Rural - S/O I-90	244th Ave SE From SR-18 To SE 196 St	Nonmotorized								Low	X	$514	Provide Nonmotorized Facility
ITS-27	Rural - S/O I-90	Auburn-Black Diamond ITS From At Kent-Black Diamond Rd and SE Lake Holm Rd	ITS	Low								X	$145	Provide Intelligent Transportation System improvements which could include advanced intersection warning system; slide detection
GR-57	Rural - S/O I-90	SE 208th St From 276th Ave SE To ENDTRE	Safety					Low				X	$383	Construct Guardrail
RC-135	Rural - S/O I-90	Black Diamond Ravensdale From SE Kent Kangley Rd To 268 Ave SE	Reconstruction				Medium					X	$640	Reconstruct roadway .6 mile
RC-142	Rural - S/O I-90	SE Green Valley Rd From 243 Ave SE To SR-169	Reconstruction				High						$1,524	Reconstruct roadway 1.3 miles
CORRIDOR: Petrovitsky Rd														
SW-93	Rural - S/O I-90	Petrovitsky Rd & SE 232 St	Safety		High								$1,395	Intersection Operational Improvement

Number	PAA	Location	Need	Priorities								Equestrian	Cost-000	Comments
				ITS	Safety	Bridge	Reconst.	Guardrail	Operational	Capacity	Nonmotorized			
ITS-24	Rural - S/O I-90	Petrovitsky/Sweeney Rd SE ITS From 151st Ave SE and SR 18	ITS	Medium								X	$8,441	Provide Intelligent Transportation System improvements which could include vehicle detection; cameras; fiber optic communications, weather station
CORRIDOR: Retreat-Kanaskat Rd														
NM-5052	Rural - S/O I-90	Retreat-Kanasket Rd From Kent-Kangley Rd To Kanasket-Kangley Rd	Nonmotorized								Medium	X	$2,172	Provide Nonmotorized Facility
OP-INT-93	Rural - S/O I-90	Kanaskat-Kangley Rd & Cumberland-Kanaskat Rd	Operations						High			X	$402	Realign Intersection
RC-136	Rural - S/O I-90	Retreat Kanaskat Rd SE From SE Kent Kangley Rd To Cumberland Kanaskat Rd	Reconstruction				High					X	$3,408	Reconstruct roadway 3.04 miles
OP-INT-72	Rural - S/O I-90	Stampede Pass Rail & Greenriver Headworks Rd	Operations						Low				$82	Reconstruct Intersection--Traffic Signal
OP-INT-91	Rural - S/O I-90	Stampede Pass Rail & Hudson Rd RR Crossing	Operations						Medium			X	$82	Reconstruct Intersection--Traffic Signal
GR-63	Rural - S/O I-90	Cumberland-Kanaskat Rd From Retreat-Kanaskat Rd To SE 352nd St	Safety					Medium				X	$127	Construct Guardrail
GR-11	Rural - S/O I-90	SE 309th St From Cumberland-Kanaskat To End of route	Safety					Low				X	$111	Construct Guardrail

Number	PAA	Location	Need	Priorities									Cost-000	Comments
				ITS	Safety	Bridge	Reconst.	Guardrail	Operational	Capacity	Nonmotorized	Equestrian		
CORRIDOR: SE 216 St														
SW-89	Rural - S/O I-90	244 Ave SE & SE 216 St	Safety		High								$1,395	Intersection Operational Improvement
NM-5049	Rural - S/O I-90	SE 216th St From Approx. 232 Ave SE To 276 Ave SE	Nonmotorized								High	X	$1,086	Provide Nonmotorized Facility
RC-130	Rural - S/O I-90	SE 216 St From 244 Ave SE To 276 Ave SE	Reconstruction				High					X	$2,144	Reconstruct roadway 2.0 miles
OP-INT-95	Rural - S/O I-90	SE 216th Way & Dorre Don Way	Operations						Low				$312	Turn Channels
NM-9967	Rural - S/O I-90	SE 216th Way From SR-169 to Dorre Don Way SE	Nonmotorized								Medium		$92	Construct sidewalk (East Side)
RC-129	Rural - S/O I-90	SE 216 Way From SR 169 To 244 Ave SE	Reconstruction				High						$1,564	Reconstruct roadway 1.13 miles

Number	PAA	Location	Need	Priorities								Equestrian	Cost-000	Comments
				ITS	Safety	Bridge	Reconst.	Guardrail	Operational	Capacity	Nonmotorized			
County Subarea: Vashon														
CORRIDOR: Misc														
NM-9959	Rural - Vashon	107th Ave SW From SW 228 St to SW 232 St	Nonmotorized								Medium	X	$276	Construct AC shoulder (West Side)
RC-58	Rural - Vashon	Cresent Dr SW From West Side Highway to SW Cove Road	Preservation				Low					X	$574	Rebuild Roadway with New Base
GR-106	Rural - Vashon	SW 156th St From 91st Ave SW To Vashon Highway SW	Safety					Low				X	$13	Construct Guardrail
NM-5053	Rural - Vashon	SW 240th St / Bay View DR From Vashon Highway SW To Burton Acres Park Entrance	Nonmotorized								High	X	$885	Provide Nonmotorized Facility
RC-54	Rural - Vashon	Govenor's Lane From 99 Ave SW to 96 Ave SW	Preservation				Low					X	$2,783	Replace seawall @$2500/ft
NM-9975	Rural - Vashon	Tahlequah Rd From near Tahlequah Ferry Dock	Nonmotorized								Low	X	$184	Construct AC shoulder (South Side)
RC-15	Rural - Vashon	Vashon Highway Seawall From 115th Ave SW To SW 240th Pl	Preservation				High					X	$15,606	Perform feasibility studies, preliminary engineering, environmental documents, design and construct a solution to the major vulnerabilities of the Vashon Highway. In particular a solution to the 3200 linier feet of failing seawalls along Quartermaster Harbor will be part of this project.

Number	PAA	Location	Need	Priorities									Cost-000	Comments
				ITS	Safety	Bridge	Reconst.	Guardrail	Operational	Capacity	Nonmotorized	Equestrian		
300208	Rural - Vashon	Dockton Road Preservation - Seawall From SW Ellisport Road to Portage Way SW	Preservation				High					X	$31,285	See King County Capital Improvement Program (CIP) document or website for detailed project description including scope.
NM-4079	Rural - Vashon	Cemetery Rd From Beall Rd SW to # 9303	Nonmotorized								TBD	X	$80	Improve pathway (South Side)
GR-70	Rural - Vashon	Beall Rd SW From SW Cemetery Rd To SW Bank Rd	Safety					Medium				X	$18	Construct Guardrail
GR-83	Rural - Vashon	Point Robinson Rd From Dockton Rd SW To End of route	Safety					Low				X	$421	Construct Guardrail
RC-27	Rural - Vashon	Quartermaster Drive Seawall From 1/4 mi. east of Monument Rd SW To Dockton Rd SW	Preservation				Medium					X	$379	Replace seawall
GR-65	Rural - Vashon	Cove Road From Westside Highway SW To Vashon Highway SW	Safety					Medium				X	$22	Construct Guardrail
GR-69	Rural - Vashon	Wax Orchard Rd SW From SW 220th St To Vashon Highway SW	Safety					Medium				X	$545	Construct Guardrail
NM-0106	Rural - Vashon	Bank Rd From 97 Pl SW to Beall Rd SW	Nonmotorized								High	X	$584	Construct AC shoulder (South Side)
GR-79	Rural - Vashon	Cemetery Rd From Westside Highway SW To Vashon Highway SW	Safety					Low				X	$13	Construct Guardrail
GR-97	Rural - Vashon	91st Ave SW From SW 156th St To Gorsuch Rd	Safety					Low				X	$13	Construct Guardrail

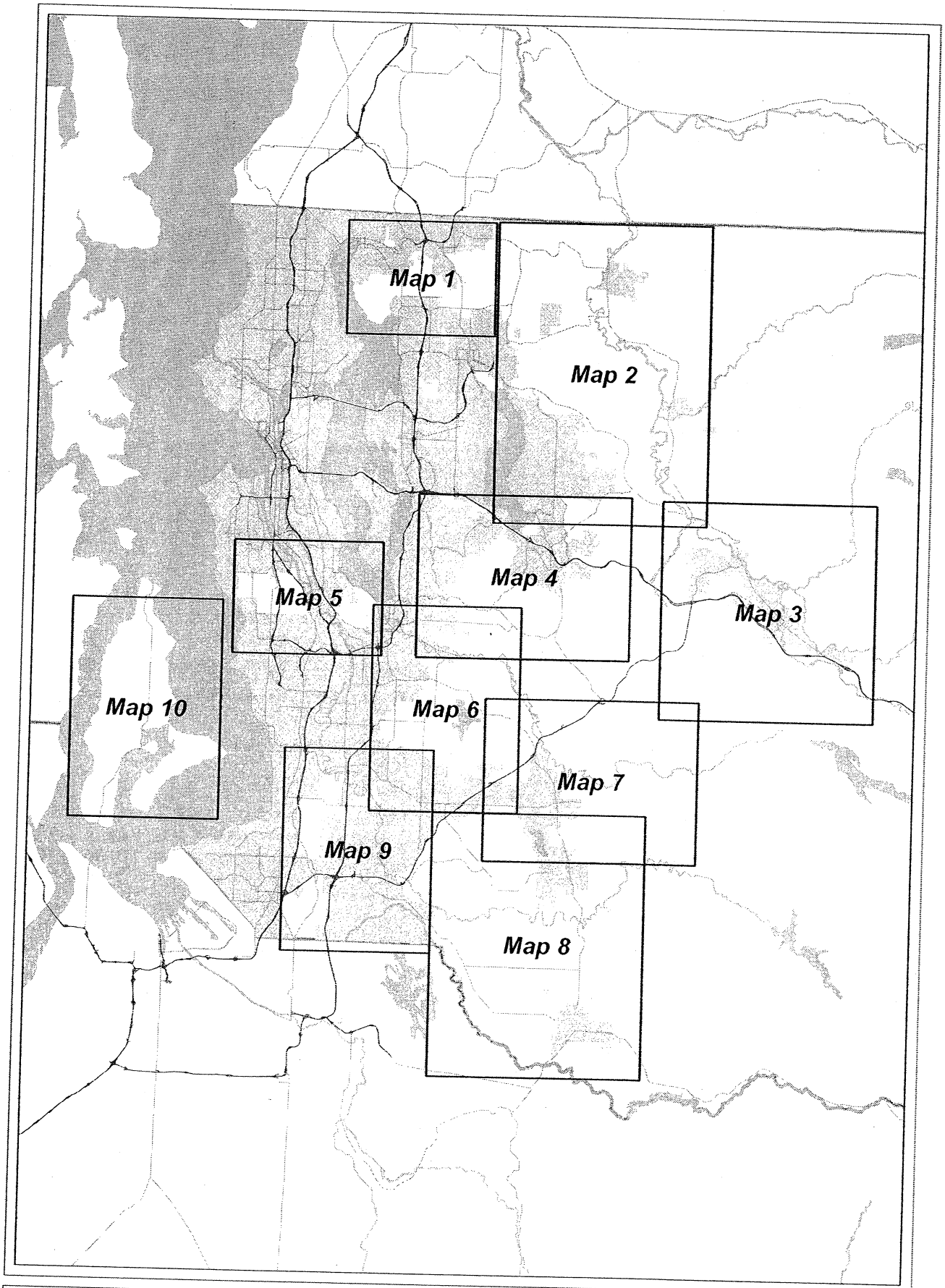
Number	PAA	Location	Need	Priorities								Equestrian	Cost-000	Comments
				ITS	Safety	Bridge	Reconst.	Guardrail	Operational	Capacity	Nonmotorized			
RC-59	Rural - Vashon	Kingsbury Beach Rd From SW 234 St to 80 Ave SW	Preservation				Low					X	$574	Rebuild Roadway with New Base
CORRIDOR: Vashon Island Highway-N														
SW-2	Rural - Vashon	Vashon Highway & SW Bank Rd	Safety		High							X	$1,395	Intersection Operational Improvement
SW-96	Rural - Vashon	Vashon Highway & SW Cemetery Rd	Safety		High							X	$1,395	Intersection Operational Improvement
NM-5054	Rural - Vashon	Bank Rd From 107 Ave SW To Vashon Highway	Nonmotorized								High	X	$602	Provide Nonmotorized Facility
NM-4080	Rural - Vashon	Vashon Island Hwy From #20120 to Metro bus stop	Nonmotorized								TBD	X	$80	Construct separated pathway (East Side)
SW-95	Rural - Vashon	Vashon Highway & SW 178 St	Safety		Medium							X	$1,395	Intersection Operational Improvement
NM-0203	Rural - Vashon	Vashon Hwy SW / SW Bank Rd From SW 177 St to 98 Pl SW	Nonmotorized								High	X	$80	Construct sidewalk (East and South Sides)
300708	Rural - Vashon	Judd Creek Bridge #3184 - Redeck On Vashon Highway SW From SW 225 St to SW 227 St	Bridge										$0	See King County Capital Improvement Program (CIP) document or website for detailed project description including scope.
CORRIDOR: Westside Highway														
RC-56	Rural - Vashon	Westside Highway SW From Cresent Dr SW to Cresent Dr SW	Preservation				Low					X	$458	Rebuild Roadway with New Base

Number	PAA	Location	Need	Priorities								Equestrian	Cost-000	Comments
				ITS	Safety	Bridge	Reconst.	Guardrail	Operational	Capacity	Nonmotorized			
GR-76	Rural - Vashon	Westside Highway SW From SW 220th St To SW 196th St	Safety					Low				X	$32	Construct Guardrail
GR-73	Rural - Vashon	Westside Highway SW From SW 144th St To SW 196th St	Safety					Low				X	$103	Construct Guardrail

TNR

Project

Maps



Index Map

TNR 2010

King County

N

See Color Maps at:
www.kingcounty.gov/roads

1 inch = 4.28 miles

Legend

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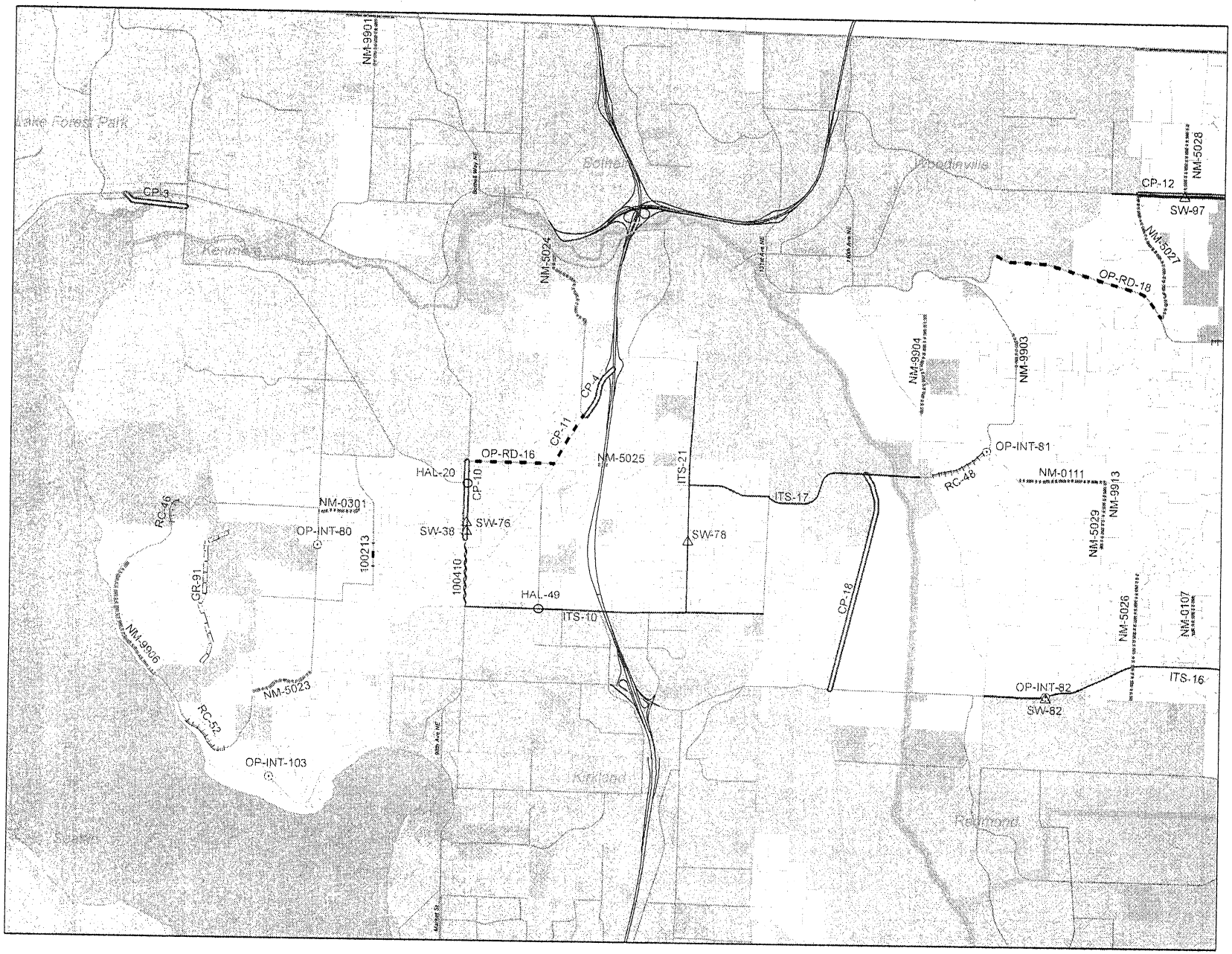
- Bear Creek - Map 2
- Snoqualmie Valley - Map 3
- Newcastle - Map 4
- North Highline/ West Hill - Map 5
- North Soos Creek - Map 6
- Tahoma/ Raven Heights - Map 7
- Enumclaw - Map 8
- Federal Way - Map 9
- Vashon - Map 10
- Cities



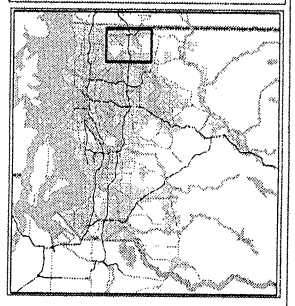
Northshore

TNR 2010
Map 1

King County

Legend

- Bridge
- Capacity
- HAL
- Operational
- Signal Warrants
- Capacity
- Guardrail
- ITS
- Operational
- Pedestrian
- Reconstruction
- HARS
- Cities
- Parks



See Color Maps at:
www.kingcounty.gov/roads

Miles
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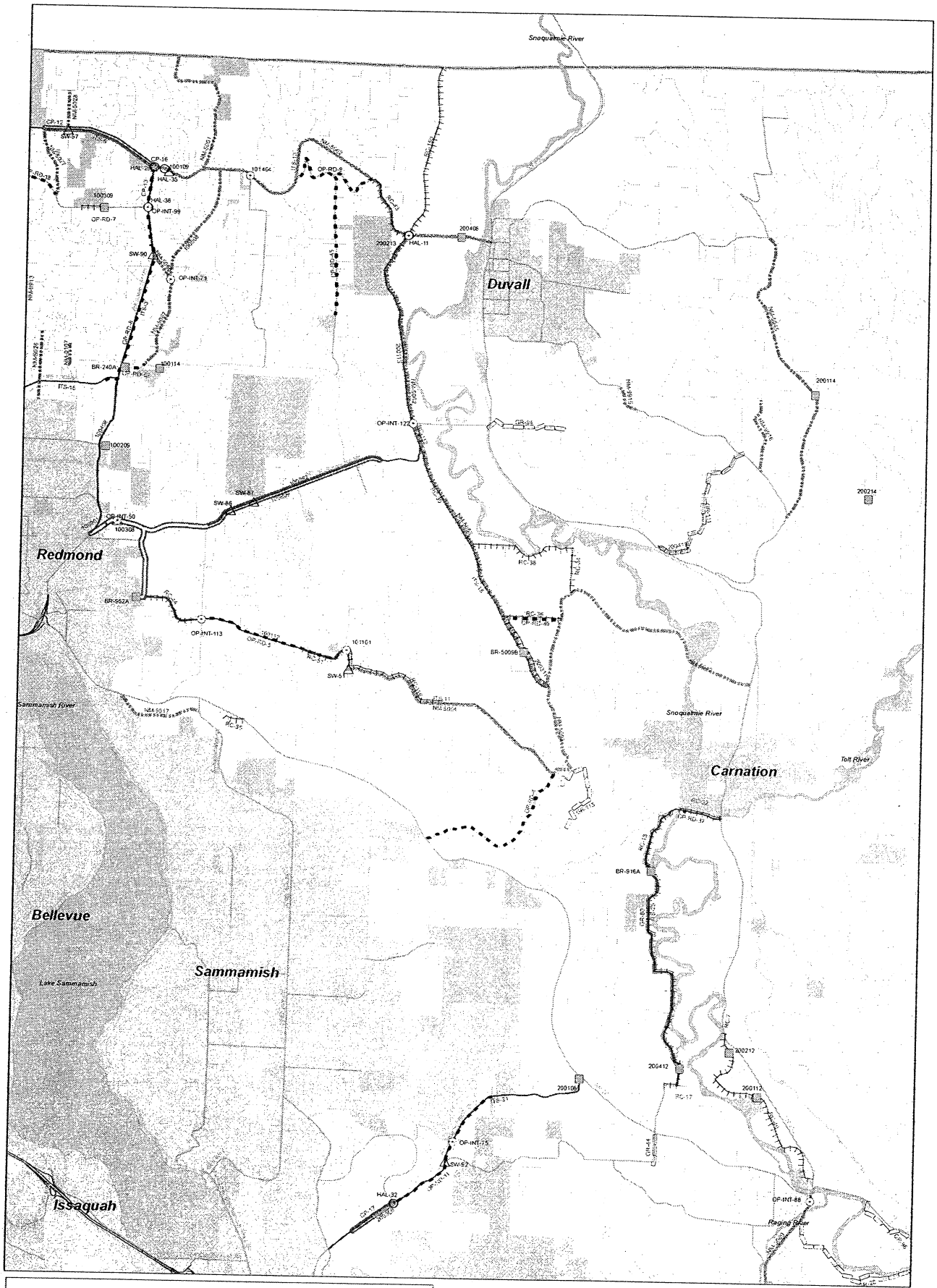


Bear Creek

TNR 2010
Map 2

King County

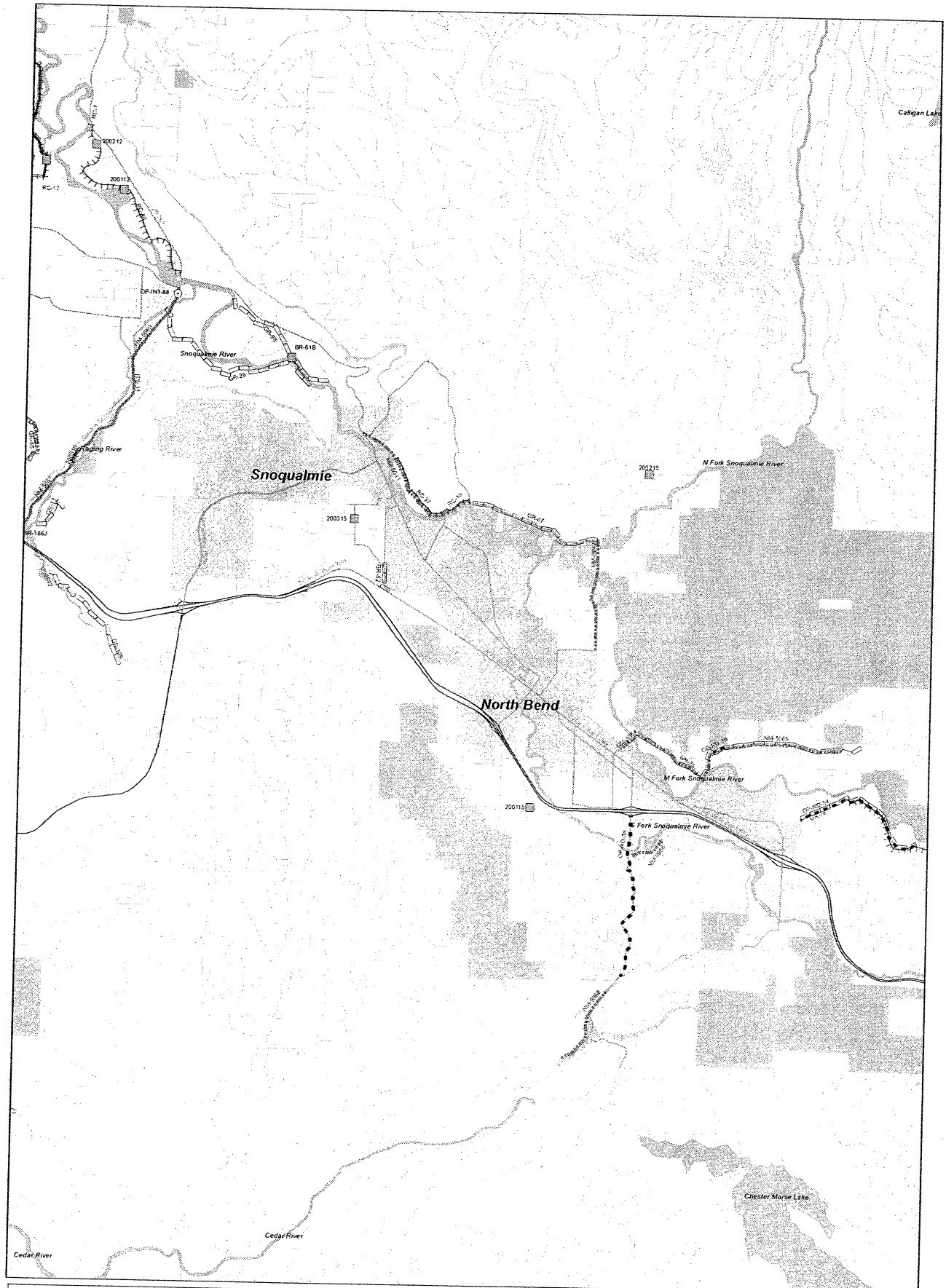
See Color Maps at:
www.kingcounty.gov/roads

N

0 0.375 0.75 1.5 Miles

Legend

- Bridge
- Capacity
- HAL
- Operational
- Signal Warrants
- Capacity
- Guardrail
- ITS
- Operational
- Pedestrian
- Reconstruction
- HARS
- Cities
- Parks



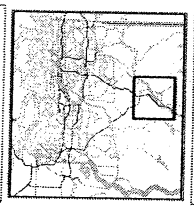
Snoqualmie Valley

TNR 2010
Map 3

King County

See Color Maps at:
www.kingcounty.gov/roads

0 0.3 0.6 1.2 Miles



Legend

- Bridge
- Capacity
- HAL
- Operational
- Signal Warrants
- Capacity
- Guardrail
- ITS
- Operational
- Pedestrian
- Reconstruction
- HARS
- Cities
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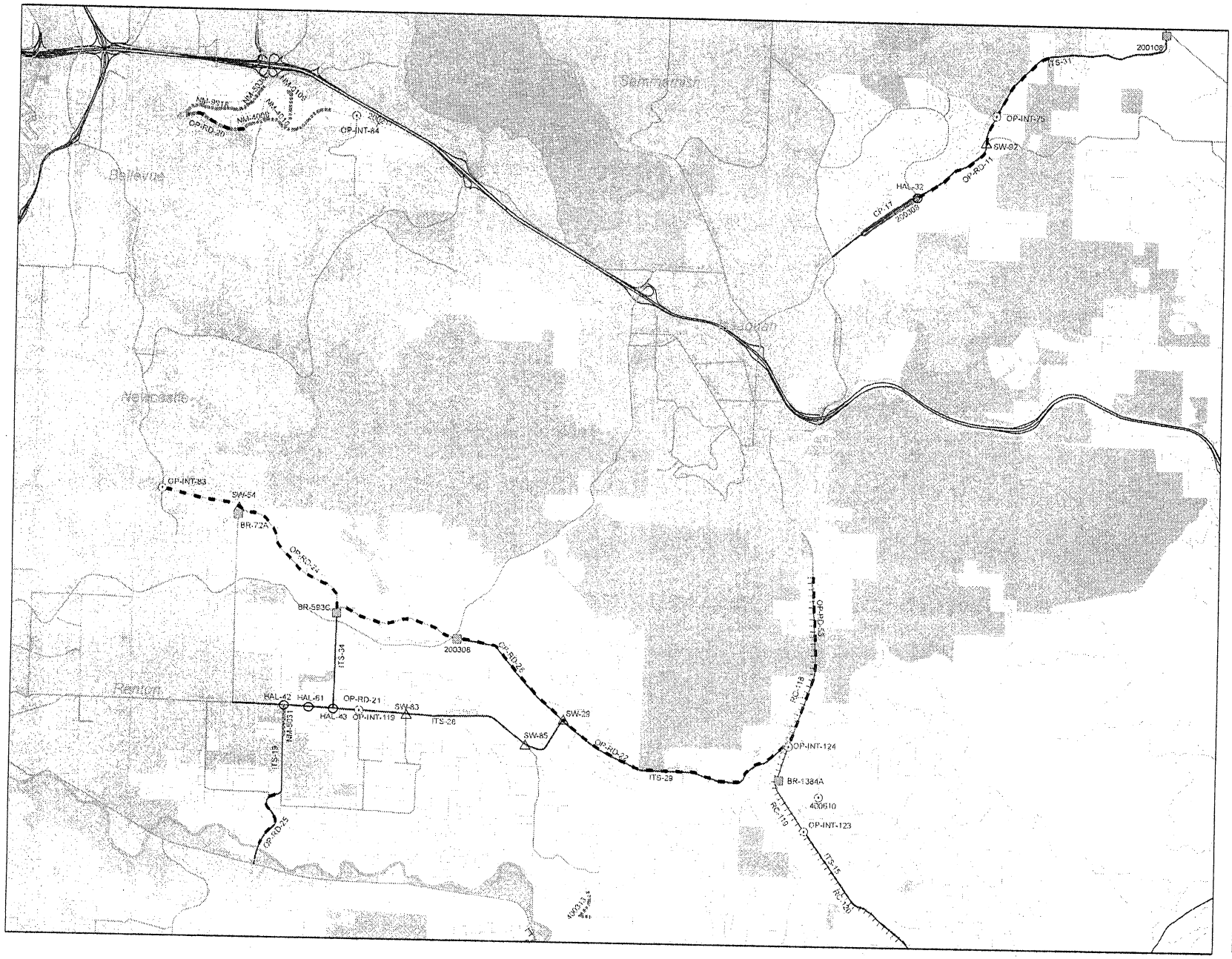

Newcastle

TNR 2010
Map 4

King County

Legend

- Bridge
- Capacity
- HAL
- Operational
- Signal Warrants
- Capacity
- Guardrail
- ITS
- Operational
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- HARS
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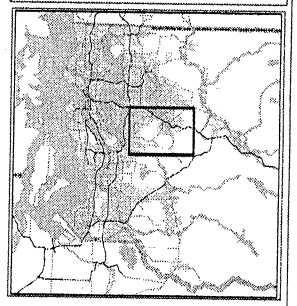
- Parks



See Color Maps at:
www.kingcounty.gov/roads

Miles
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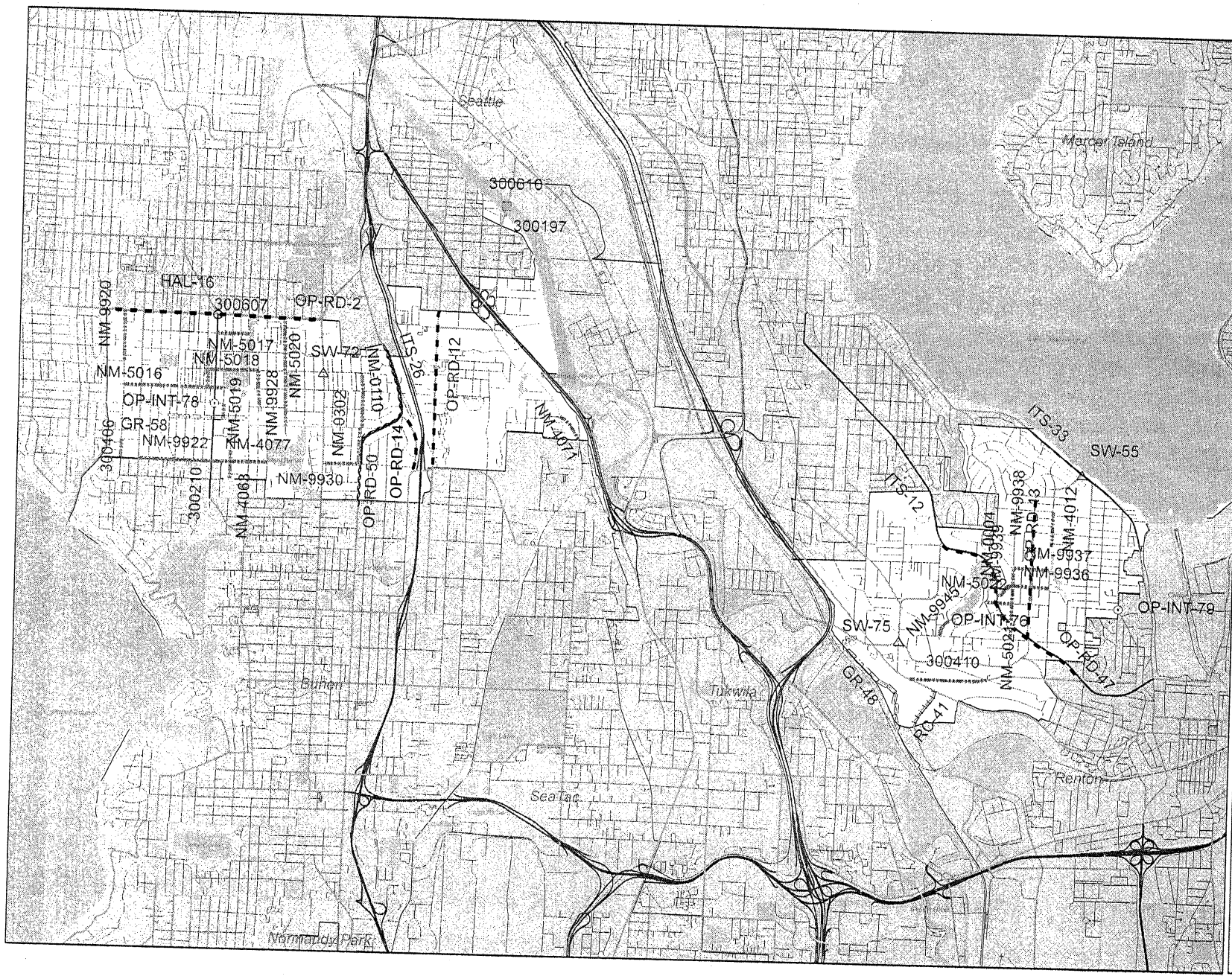


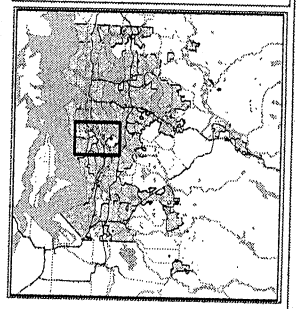
North Highline/ West Hill

TNR 2010
Map 5

King County

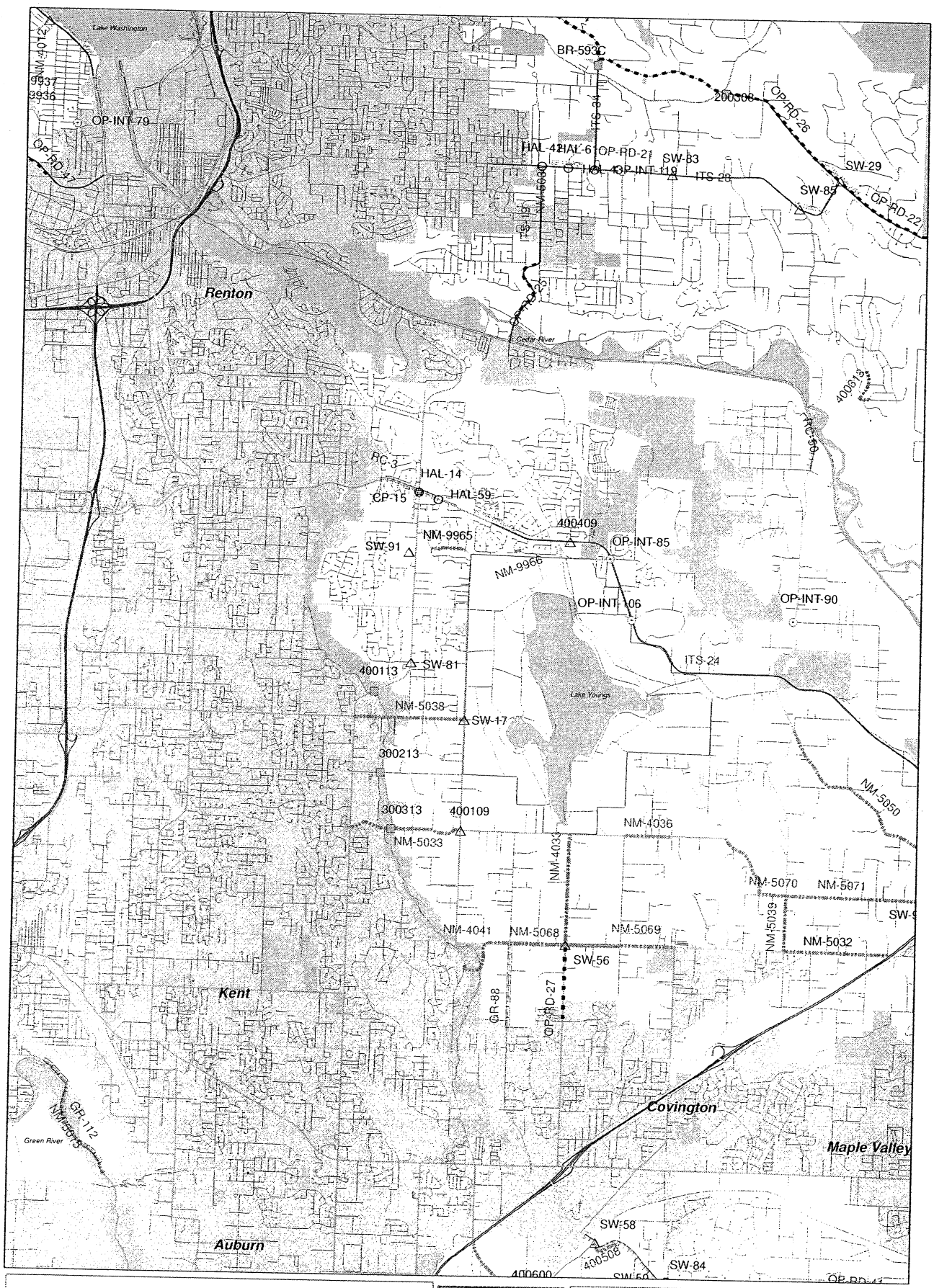
Legend

- Bridge
- Capacity
- HAL
- Operational
- Signal Warrants
- Capacity
- Guardrail
- ITS
- Operational
- Pedestrian
- Reconstruction
- HARS
- Cities
- Parks



See Color Maps at:
www.kingcounty.gov/roads

0 0.2 0.4 0.8 Miles



North Soos Creek

TNR 2010
Map 6

King County

See Color Maps at:
www.kingcounty.gov/roads

N

0 0.25 0.5 1 Miles

Legend

- Bridge
- Capacity
- HAL
- Operational
- Signal Warrants
- Capacity
- Guardrail
- ITS
- Operational
- Pedestrian
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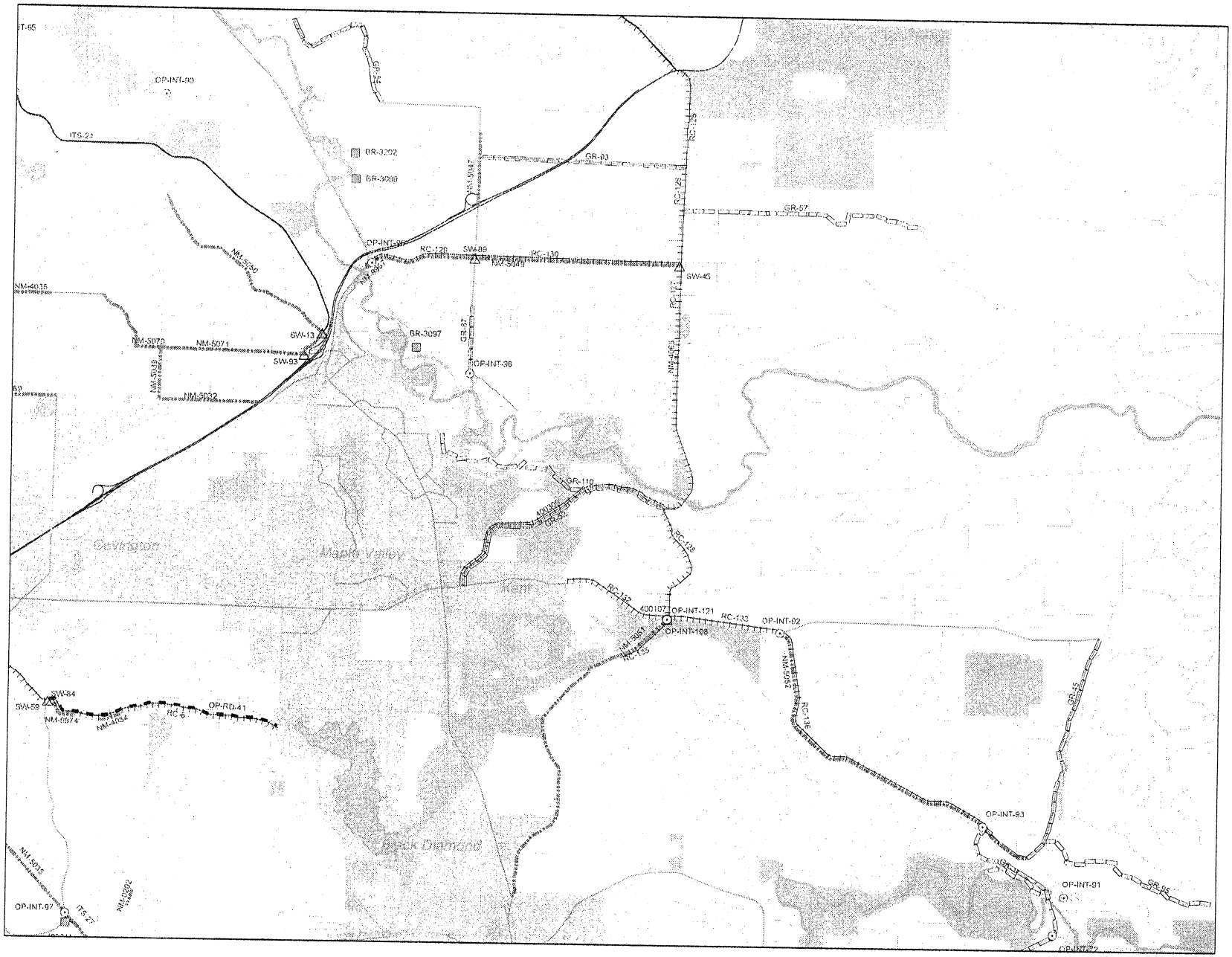
- HARS
- Cities
- Parks



Tahoma/ Raven Heights

TNR 2010

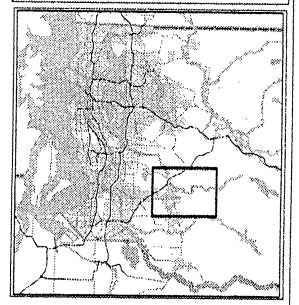
Map 7

N

King County

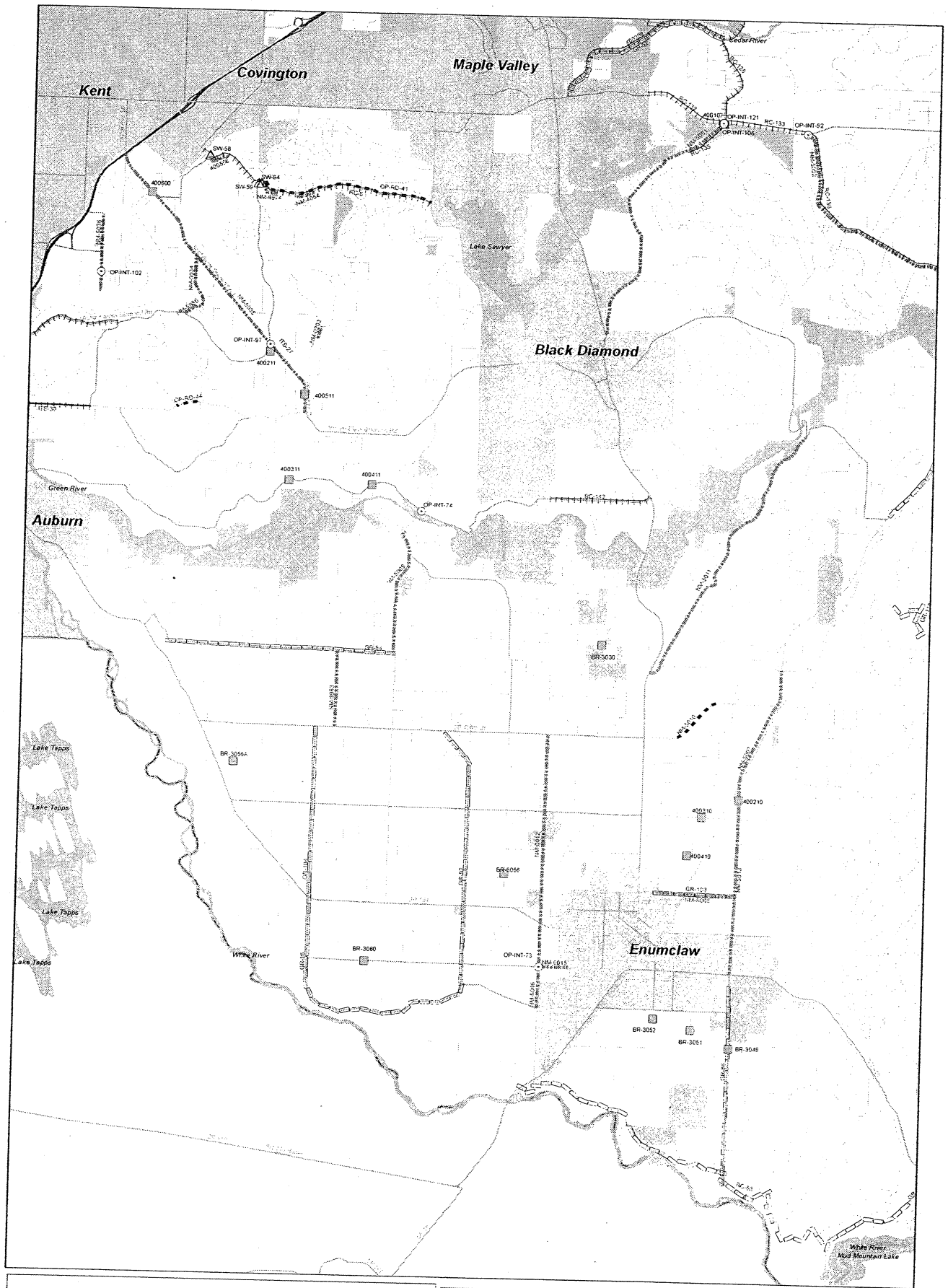
Legend

- Bridge
- Capacity
- HAL
- Operational
- Signal Warrants
- Capacity
- Guardrail
- ITS
- Operational
- Pedestrian
- Reconstruction
- HARS
- Cities
- Parks



See Color Maps at:
www.kingcounty.gov/roads

0 0.375 0.75 1.5 Miles



Enumclaw

TNR 2010
Map 8

King County

N

See Color Maps at:
www.kingcounty.gov/roads

0 0.45 0.9 1.8 Miles

Legend

- Bridge
- Capacity
- HAL
- Operational
- Signal Warrants
- Capacity
- Guardrail
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- Pedestrian
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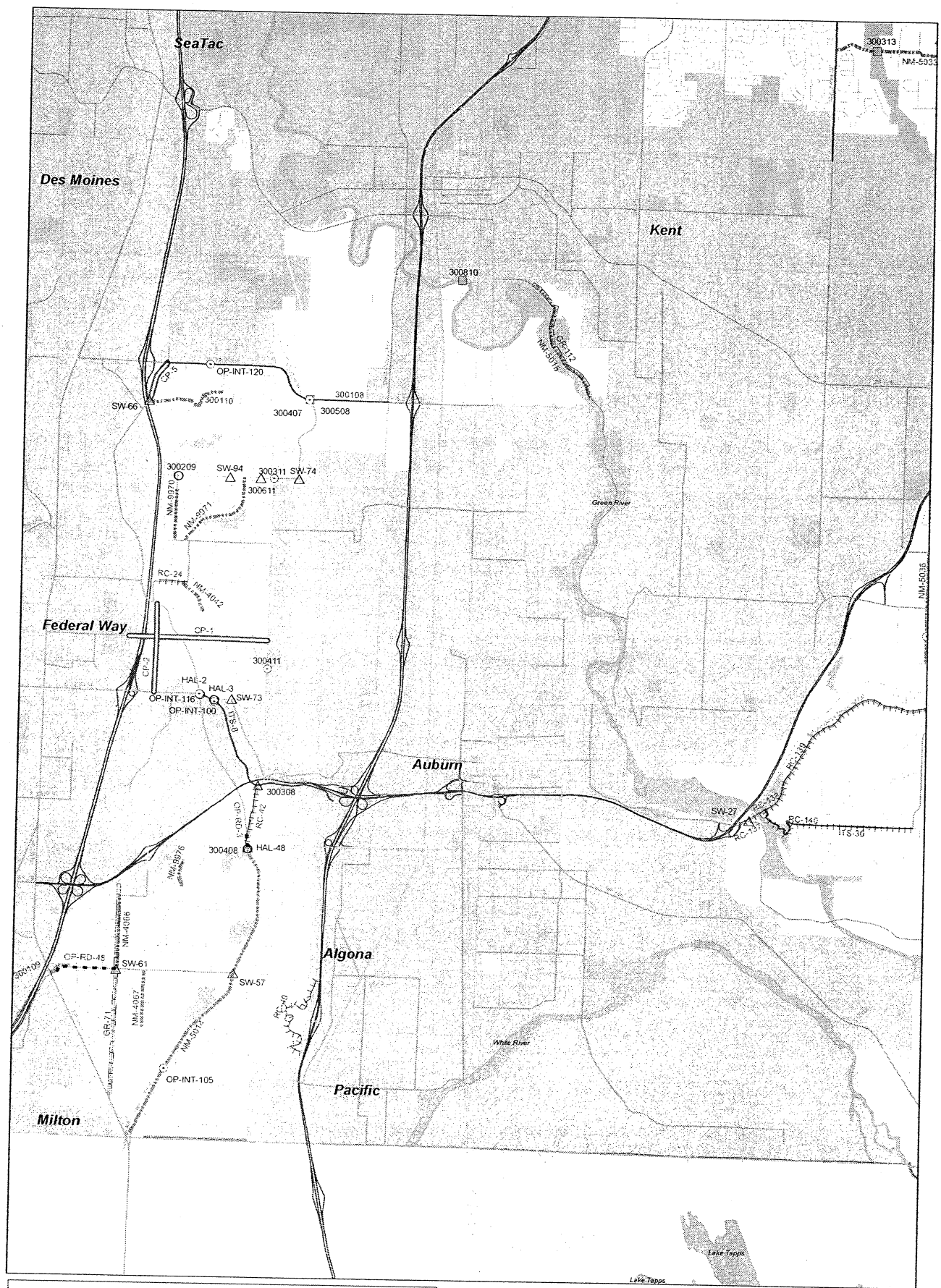


Federal Way

TNR 2010
Map 9

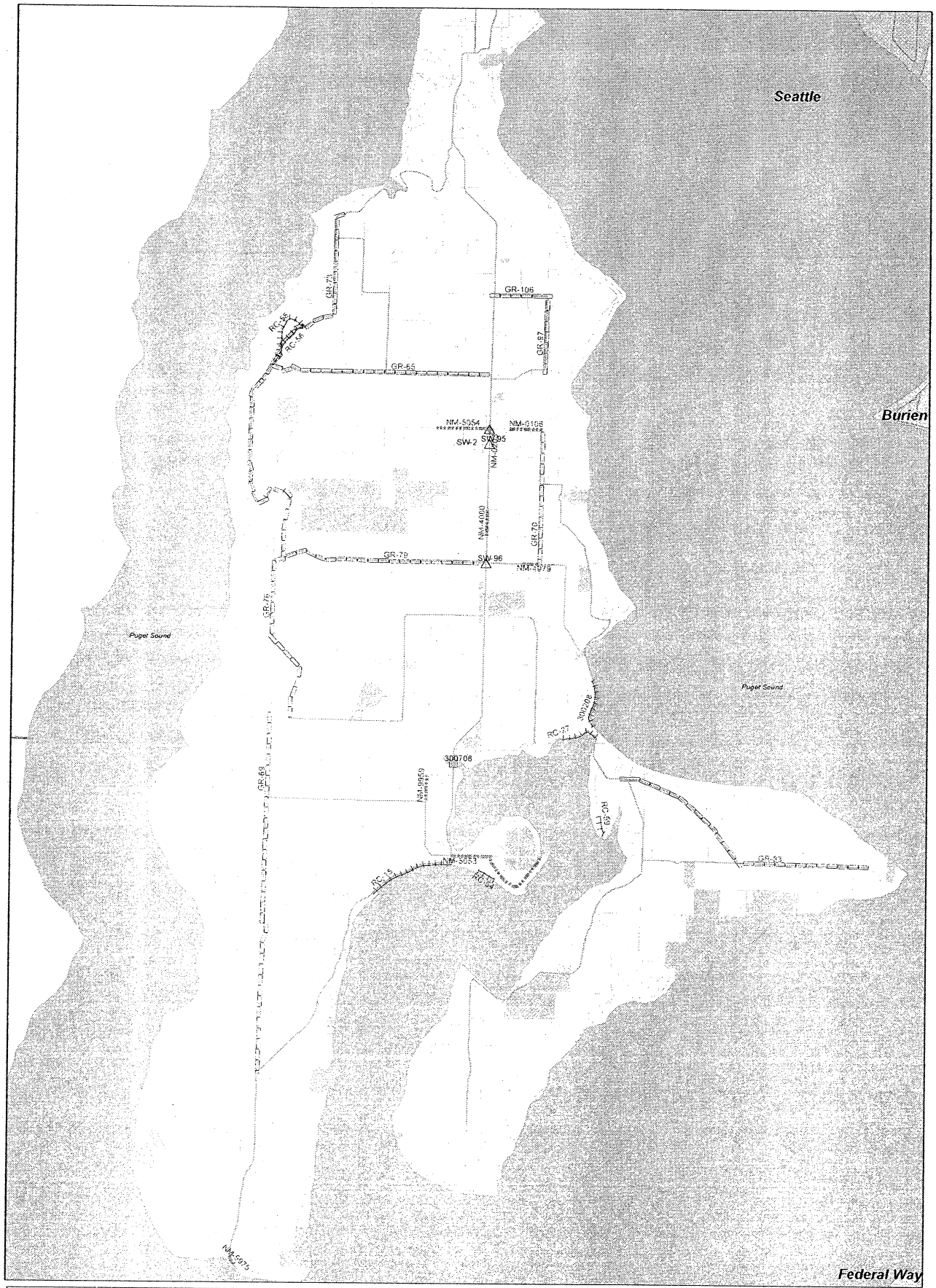
King County

See Color Maps at:
www.kingcounty.gov/roads

0 0.3 0.6 1.2 Miles

Legend

- Bridge
- Capacity
- HAL
- Operational
- Signal Warrants
- Capacity
- Guardrail
- ITS
- Operational
- Pedestrian
- Reconstruction
- HARS
- Cities
- Parks



Vashon

TNR 2010
Map 10

King County

See Color Maps at:
www.kingcounty.gov/roads

0 0.3 0.6 1.2 Miles

Legend

- Bridge
- Capacity
- HAL
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Appendix A

Growth Targets

King County 2001-2022 Household and Employment Targets

Subareas	Household Target	Housing Capacity in PAA*	PAA HH Target	Job Target	Job Capacity in PAA*	PAA Job Target
South King County						
Algona	298			108		
Auburn	5,928	2,635	926	6,079	252	252
Black Diamond	1,099			2,525		
Burien	1,552			1,712		
Covington	1,173			900		
Des Moines	1,576	5	2	1,695		
Federal Way	6,188	3,754	1,320	7,481	134	134
Kent	4,284	1,763	619	11,500	44	44
Milton	50	106	37	1,054		
Maple Valley	300			804		
Normandy Park	100			67		
Pacific	996	127	45	108		
Renton	6,198	5,622	1,976	27,597	458	458
SeaTac	4,478	14	5	9,288	496	496
Tukwila	3,200	13	5	16,000	497	497
Unincorp King County	4,935			2,582	701	701
Total	**42,355**	**14,039**	**4,935**	**89,500**	**2,582**	**2,582**
East King County						
Beaux Arts Village	3			-		
Bellevue	10,117	184	178	40,000	27	27
Bothell	1,751	603	584	2,000	174	174
Clyde Hill	21			-		
Hunts Point	1			-		
Issaquah	3,993	827	802	14,000	1	1
Kenmore	2,325			2,800		
Kirkland	5,480	770	747	8,800	221	221
Medina	31			-		
Mercer Island	1,437			800		
Newcastle	863	1	1	500		
Redmond	9,083	402	390	21,760	21	21
Sammamish	3,842			1,230		
Woodinville	1,869			2,000		
Yarrow Point	28			-		
Unincorp King County	6,801	**4222	**4099	4,637	**4193	**4193
Total	**47,645**	**7,009**	**6,801**	**98,527**	**4,637**	**4,637**
Sea-Shore						
Lake Forest Park	538			455		
Seattle	51,510			92,083		
Shoreline	2,651			2,618		
Unincorp King County***	1,670	1,670	1,670	694	1,544	694
Total	**56,369**	**1,670**	**1,670**	**95,850**	**1,544**	**694**
Rural Cities*						
Carnation	246			75		
Duvall	1,037			1,125		
Enumclaw	1,927			1,125		
North Bend	636			1,125		
Skykomish	20			-		
Snoqualmie	1,697			1,800		
Total	**5,563**			**5,250**		
King County Total	**151,932**			**289,127**		

*PAA: Potential Annexation Area in Unincorporated King County Urban Area; **Bear Creek UPD; ***North Highline

****The Rural Cities' targets are for the current city limits and rural expansion area for each city. Thus the methodology for adjusting targets as annexations occur is not applicable to the rural cities.

Editor's Note: Source for 2001 housing and job capacity figures for PAAs is the 2002 King County Buildable Lands evaluation. Subarea unincorporated targets were allocated to PAAs based on proportional capacity.

Appendix B

City and State Projects

CITY AND STATE PROJECTS

Project Name	From	To	Description	Jurisdiction	County
Auburn Way NE	2nd St NE	4th St NE	Widen to 5 lanes	Auburn	King County
M St NE	E Main	8th St NE	Widen to 5 lanes	Auburn	King County
M St SE	E Main	Auburn Way S	Widen to 4 lanes	Auburn	King County
S 277th St	Auburn Way N	Green River	Widen to 5 lanes	Auburn	King County
S 277th Street	SR-181	SR-167	Widen to 4 lanes	Auburn	King County
148th Ave SE	SE 24th St	I-90 WB on ramp	Add SB lane from SE 24 ST to the WB I-90 on-ramp	Bellevue	King County
Bellevue Way	South Bellevue P & R	I-90	Add HOV lanes	Bellevue	King County
Coal Creek Pkwy	I-405	Newport Way	Widen to 5 lanes	Bellevue	King County
Factoria Blvd	SE 36th St	SE 38th St	Construct SB Lane on 128TH from 36TH to 38TH	Bellevue	King County
Richards Road	SE 28th St	Lake Hill Connector	Widen to 4-5 lanes	Bellevue	King County
Ambaum Blvd SW	SW 128th St	SW 148th St	Widen to 5 lanes	Burien	King County
SR 99	S 216th St	Kent-Des Moines Road	Add HOV lanes	Des Moines	King County
SR-410	244th Ave SE	Enumclaw ECL	Widen to 3 lanes	Enumclaw	King County
16th Ave S	SR-99	SR-18	Add HOV lanes	Federal Way	King County
1st Ave S	S 348th St	S 356th St	Widen to 5 lanes	Federal Way	King County
1st Ave/Wy S	S 320th St	S 348th St	Widen to 6 lanes	Federal Way	King County
21st Ave SW	SW 344th St	SW 356th St	Widen to 5 lanes	Federal Way	King County
23rd Ave S	S 317th St	S 324th St	Widen to 5 lanes	Federal Way	King County
Military Rd S	S 288th St	S 304th St	Widen to 5 lanes	Federal Way	King County
S 288th St	18th Ave S	Military Rd	Add 1 GP lane in each direction	Federal Way	King County
S 320th St	1st Ave S	SR 99	Add HOV lanes	Federal Way	King County
S 336th / S 340th St	26th Pl SW	Hoyt Rd SW	Widen to 5 lanes	Federal Way	King County
S 336th/S 348th St	9th Ave S	13th Pl S	Add 1 GP lane in each direction	Federal Way	King County
S 336th/S 348th St	1st Ave S	21st Ave SW	Add 1 GP lane in each direction	Federal Way	King County
S 348th St	9th Ave S	SR 99	Add HOV lanes	Federal Way	King County

CITY AND STATE PROJECTS

Project Name	From	To	Description	Jurisdiction	County
S 348th St	1st Ave S	9th Ave S	Add HOV lanes	Federal Way	King County
S 356th St	SR 99	SR 161	Widen to 3 lanes	Federal Way	King County
S 356th St	21st Ave S	SR-99	Widen to 5 lanes	Federal Way	King County
SR 161	SR-18	S 352nd St	Add HOV lanes	Federal Way	King County
SR 99	S 312th St	S 324th St	Add HOV lanes	Federal Way	King County
SR 99	S 284TH ST	SR 509	Add HOV lanes	Federal Way	King County
SR 99	SR 509	S 312th St	Add HOV lanes	Federal Way	King County
SR 99	S 324th St	S 340th St	Add HOV lanes	Federal Way	King County
SR 99	S 340th St	S 356th St	Add HOV lanes, 2-way left-turn lane	Federal Way	King County
SR 99	S 312th St	S 324th St	Construct HOV lanes	Federal Way	King County
E Lake Sammamish Pkwy	SE 56th St	I-90	Widen to 5 lanes	Issaquah	King County
Issaquah bypass	Front St	I-90	Construct new 5 lane arterial	Issaquah	King County
Newport Way	W. Sunset Wy	NW Maple St	Widen to 3 lanes	Issaquah	King County
NW Maple St	SR 900	SE Newport Way	Extend NW Maple 650 ft from SR-900 to Newport Way, 5 lanes	Issaquah	King County
SE Newport Wy	Maple St extension	SE 54th St	Widen to 3 lanes	Issaquah	King County
SE Newport Wy	SR-900	SE 54th St	Widen to 3 lanes	Issaquah	King County
68th Ave NE	NE 175 St	NE 185 St	Widen to 6 lanes	Kenmore	King County
68th Ave NE	N 175th St	Samm River Bridge	Add 1 NB GP lane	Kenmore	King County
132nd Ave SE	SE 272ND ST	SE 256TH ST	Widen to 5 lanes	Kent	King County
132nd Ave SE	SE 240th St	SE 256th St	Widen to 3 lanes	Kent	King County
S 196th/S 200th St	SR-181	E Valley Hwy	Provide 5-lane roadway	Kent	King County
S 208th St	SR-167	108th Ave SE	Widen to 5 lanes	Kent	King County
SE 192nd St Corridor	SR 167 Bridge	Talbot Rd	Build new 5-lane arterial	Kent	King County
SR 99	Kent-Des Moines Road	South 252nd Street	Add HOV lanes	Kent	King County
SR 99	South 252nd Street	South 272nd Street	Add HOV lanes	Kent	King County

CITY AND STATE PROJECTS

Project Name	From	To	Description	Jurisdiction	County
W Valley Hwy	Hawley Rd	S 272 St	Widen to 5 lanes	Kent	King County
W Valley Hwy	James Street	Green River Bridge	Widen to seven lanes (two general purpose lanes, and one HOV lane in each direction, plus turn lanes) from Harrison St to SR-516, and four lanes S to the Green River Bridge	Kent	King County
124th Ave NE	NE 85th St	NE 124th St	Widen to 3 lanes	Kirkland	King County
NE 124th St	116th Ave NE	132nd Pl NE	New HOV lanes	Kirkland	King County
SR 169	SE 231 St	Wax Rd	Widen to 7 lanes	Maple Valley	King County
SR 169	SE 240 St	SE 253 St	Widen to 5 lanes	Maple Valley	King County
Newcastle Road/Lakemont Blvd	Coal Creek Parkway	164th Way SE	Widen to 3 lanes	Newcastle	King County
Avondale Rd	Novelty Hill Rd	Avondale Way	Add SB HOV lane	Redmond	King County
Bel-Red Rd	NE 30th ST	NE 40th ST	Widen to 5 lanes	Redmond	King County
East Lake Sammamish Pkwy	Redmond Way	187th AVE NE	Widen to 4 lanes	Redmond	King County
Redmond Way	148th Ave NE	I-405	Construct HOV lanes	Redmond	King County
Redmond-Woodinville Rd	160TH AVE NE	NE 124th ST	Widen to 5 lanes	Redmond	King County
Union Hill Road	Avondale Rd	178th Pl NE	Widen to 6 lanes	Redmond	King County
W Lk Sammamish Pkwy	Leary Way	SR-520	Widen to 5 lanes	Redmond	King County
W. Lk. Sammamish Pkwy. NE	Marymoor Park Entrance	NE 51st St	Widen roadway from 2 to 4 lanes	Redmond	King County
Duvall Ave NE	NE 4th St	NE 25th Ct	Widen to 5 lanes	Renton	King County
Oakesdale Ave SW	Monster Rd	SR 900	Widen to 5 lanes	Renton	King County
Park Dr-Sunset Blvd	Garden Ave	I-405	Add EB HOV lane	Renton	King County
SW 27th St	SR-167	SR 181	Construct HOV lanes on SW 27 St, and extend arterial to Strander Blvd	Renton	King County
228th Ave SE	SE 8th St	NE 4th St	Widen to 5 lanes	Sammamish	King County
244th Ave NE	SE 8th Street	Just s/o SR-202	Provide continuous 2-lane arterial	Sammamish	King County
Sahalee Way NE	NE 8th	NE 37th	Widen to 5 lanes	Sammamish	King County

CITY AND STATE PROJECTS

Project Name	From	To	Description	Jurisdiction	County
Sahalee Way NE	NE 37th	SR 202	Widen to 5 lanes	Sammamish	King County
28th/24th Ave S	S 188th St	S 216th St	Build new 5-lane road	Seatac	King County
International Blvd	S 152nd St	S 170th St	Widen to 6 lanes with turn channelization	Seatac	King County
International Blvd	S 200th Street	S 216th Street	Widen to 7 lanes	Seatac	King County
S 154th St	SR 518	24th Ave S	Widen to 4 lanes	Seatac	King County
S 188th St	16th Ave S	Des Moines Memorial Drive	Widen to 6 lanes	Seatac	King County
S 200th St	SR 509	Des Moines Memorial Drive	Widen to 3 lanes	Seatac	King County
South Airport Link	28th Ave S	S 188th St	New construction	Seatac	King County
Mercer Street Corridor	Queen Anne Ave	I-5	Convert to 2-way 4-6 lane road	Seattle	King County
Valley Street	Queen Anne Ave	I-5	Convert to 2-way 2-lane road	Seattle	King County
I-5/NE 185th St			Add HOV direct access ramp	Shoreline	King County
SR 99	N 205th St	N 145th St	Widen to 7 lanes for HOV	Shoreline	King County
I-405 @ NE 128th St			I-405 HOV direct access at NE 128th	Sound Transit	King County
I-405 @ NE 8th St			New HOV-access IC	Sound Transit	King County
E Marginal Way	Boeing Access Road	S 112th St	Widen to 3 lanes	Tukwila	King County
I-405	SR-522	I-5 Tukwila	Add 2 GP lanes in each direction	WSDOT	King County
I-405 @ NE 132nd St			Add half-diamond IC	WSDOT	King County
I-5	N 175th St	N 205th St	Add 1 NB lane	WSDOT	King County
I-5	Pierce CL	Kent	Complete 2-way HOV lanes	WSDOT	King County
I-5	Airport / Industrial Way Interchange Vicinity		HOV direct access to Industrial Way and the E-3 Busway	WSDOT	King County
I-5/SR-18/SR-161 Triangle			Connect SR-161 directly to I-5/SR-18	WSDOT	King County
I-90	Eastgate	Issaquah	Extend HOV lanes to Front Street and add auxiliary lanes from Eastgate to Front Street.	WSDOT	King County
I-90	I-5	I-405	Add one lane HOV each direction	WSDOT	King County
NE 85th St	148th Ave NE	Kirkland Way	Add HOV lanes	WSDOT	King County

CITY AND STATE PROJECTS

Project Name	From	To	Description	Jurisdiction	County
SR 161	Jovita Blvd	S 360th St	Widen to 5 lanes	WSDOT	King County
SR 167	15th St NW	County Line	Add HOV lanes	WSDOT	King County
SR 167	I-405	S 180th St	Add 2 lanes in each direction	WSDOT	King County
SR 167@ SW 27th St			HOV Direct Access Ramps at SW 27th St.	WSDOT	King County
SR 169	140th Way SE	I-405	Add HOV lanes	WSDOT	King County
SR 169	Black Diamond NCL	SR 516	Widen to 5 lanes	WSDOT	King County
SR 169	SR 516	SE Jones Road	Widen to 4 lanes	WSDOT	King County
SR 18	I-5 I/C	SR 164 I/C	Add a WB truck climbing lane from SR 167 to I-5	WSDOT	King County
SR 18	Maple Valley	I-90	Widen to 4 lanes	WSDOT	King County
SR 202	SR 522	NE 145th St./148th Ave NE	Widen to 5 lanes	WSDOT	King County
SR 202	E Lk Samm Pky	Sahalee Way	Widen to 5 lanes	WSDOT	King County
SR 509/I-5	S 188th Way	S 320th St	Extend SR 509 (4 GP + 2 HOV) to I-5 @ SW 210th, add 1 GP each way on I-5 from S 204th St to S 320th St	WSDOT	King County
SR 516	SR 18	SR 169	Widen to 5 lanes	WSDOT	King County
SR 518	SR 518/SR 509 I/C	I-5	Add GP Lanes each way. I/C improvements	WSDOT	King County
SR 519 Extenstion	I-90	1st Ave S	Extend freeway around ballpark	WSDOT	King County
SR 520	W Lake Sammamish Parkway	Avondale Road	Widen to 4 lanes	WSDOT	King County
SR 520	I-405	I-5	Add 1 HOV lane in each direction. Replace SR 520 bridge	WSDOT	King County
SR 520	W Lk Sammamish Pkwy	SR-202	Add 2-way HOV lanes	WSDOT	King County
SR 522	96th Ave NE	Woodinville	Realign SR-522 through Bothell. Complete full diamond I/C @ NE 195th St	WSDOT	King County
SR 900	I-90	SE 78th St St	Widen to 4 lanes	WSDOT	King County
SR 99	S 284th St	S 272nd St	Add 2-way Business, Access and Transit (BAT) lanes	WSDOT	King County
SR 99 (Pacific Highway South)	S 348th St	S 188th St	Provide continuous HOV lanes	WSDOT	King County
8th St E	E Valley Hwy E	W Valley Hwy	Widen to 5 lanes	Pierce County	Pierce County

CITY AND STATE PROJECTS

Project Name	From	To	Description	Jurisdiction	County
Lake Tapps Pkwy E	182nd Ave E	East Valley Hwy	Extend arterial from EVH to 182nd & widen to 4/5 lanes	Pierce County	Pierce County
Valley Ave E/70th Ave E	Freeman Rd E	20th St E	Widen to 5 lanes	Pierce County	Pierce County
SR-410	SR-167	Bonney Lake	Add 1 lane in each direction + EB hillclimb lane	Sumner	Pierce County
Norpoint Way	49th Ave NE	29th St NE	Provide 3-lane roadway	Tacoma	Pierce County
I-5	DuPont Rd U-xing	Fort Lewis Rd	Add HOV lanes in both directions, and NB GP lane	WSDOT	Pierce County
I-5	Fort Lewis Rd	Gravelly Lake Dr U-xing	Add HOV lane in both directions	WSDOT	Pierce County
I-5	Gravelly Lake Dr U-xing	Carlyle Rd U-xing	Add SB HOV lane & convert NB GP lane to HOV	WSDOT	Pierce County
I-5	Carlyle Rd U-xing	Pierce CL	Add HOV lanes in each direction	WSDOT	Pierce County
SR-16	I-5	SR-302	Add HOV lanes in each direction	WSDOT	Pierce County
SR-161	Jovita Blvd	36th St	Widen to 5 lanes	WSDOT	Pierce County
SR-161	176th St	234th St	Widen to 5 lanes	WSDOT	Pierce County
SR-167	I-5	Puyallup	Build new six-lane freeway (2 GP + 1 HOV each direction)	WSDOT	Pierce County
SR-167	SR-18	SR-161	Add HOV lanes in each direction	WSDOT	Pierce County
SR-167	I-5	Port of Tacoma	Build new four-lane freeway	WSDOT	Pierce County
SR-167 @ 24th Ave E			Build new interchange	WSDOT	Pierce County
SR-410	214th	234th	Add 1 lane in each direction	WSDOT	Pierce County
SR-410	214th Ave E	Park Ave Wy	Widen to 4 lanes	WSDOT	Pierce County
I-405	SR-522	I-5 Swamp Creek	Add 2 GP lanes in each direction	WSDOT	Snohomish County
I-5	SR-526	SR-2	Add HOV lanes	WSDOT	Snohomish County
I-5	44th Ave W	220th St SW	Add NB auxiliary lane	WSDOT	Snohomish County
I-5	SR-2	SR-528	Add 1 HOV lane in each direction	WSDOT	Snohomish County
SR-2	SR-522	City of Monroe ECL	Add new 2-lane bypass road	WSDOT	Snohomish County
SR-2	I-5	SR-204	Add 1 Hov lane in each direction	WSDOT	Snohomish County
SR-2	City of Monroe ECL	City of Sultan WCL	Widen to 4 lanes	WSDOT	Snohomish County
SR-2	City of Sultan WCL	Fir Rd (near Proctor Creek)	Widen to 4 lanes	WSDOT	Snohomish County

CITY AND STATE PROJECTS

Project Name	From	To	Description	Jurisdiction	County
SR-522	Snohomish River	SR-2	Widen to 4 lanes	WSDOT	Snohomish County
SR-522	Paradise Lake Rd	Snohomish River	Widen to 4 lanes	WSDOT	Snohomish County
SR-524	I-5	SR-527	Widen to 5 lanes	WSDOT	Snohomish County
SR-527	SR-524	SE 228th St	Add HOV lanes	WSDOT	Snohomish County
SR-9	SR-522	176th St E	Widen to 5 lanes	WSDOT	Snohomish County
SR-99	SR-104	204th	Add 1 HOV lane in each direction	WSDOT	Snohomish County

Appendix C

Priority Processes

Capacity
HAL / HARS
Bridges
Short-Span Bridges
Guardrail
Traffic Signals
Nonmotorized
ITS
Vulnerable Road Segments
Small-Scale Operational Road and Intersection

King County Road Services Division
PROJECT PRIORITY PROCESSES

CAPACITY NEEDS

Forecast travel information was used to identify future capacity needs and potential improvements. The travel forecasting model was developed by King County DOT staff using EMME/2 travel demand forecasting modeling software.

The model was calibrated to base year 2000 conditions using 2000 census data, existing roadway information, and empirical traffic count data. Detailed documentation of this model resides in the offices of the King County Department of Transportation, Roads Services Division.

A forecast year of 2022 was chosen consistent with the land use element of the comprehensive plan as required by state growth management legislation (RCW36.70A.070(6)). The model was run with regionally-adopted, 2022 target land use data for population and employment distributed to the model's zonal system. Growth targets and land use assumptions are included in Appendix A of this document. The model road network was developed to represent existing conditions plus a limited number of capacity projects that were considered committed for development and therefore certain to be in place by 2022. The Washington State Department of Transportation's 20-year list of transportation improvements to the state highway system was included in the network as were city projects that were listed in the 20-year time horizon of the regional plan, Destination 2030. City and state projects are listed in Appendix B.

By forecasting future year travel demand on a roadway network comprised of only existing and committed projects, it is possible to highlight areas that lack the capacity needed to accommodate the travel demand associated with the target year. This capacity needs information was identified by analyzing model results using forecast traffic volumes and forecast ratios of traffic volumes to roadway capacity.

Once the areas of forecast needs were identified, additional capacity was coded into the network to represent projects that might accommodate those needs. The model was run again using 2022 land use data. The results were analyzed using forecast traffic volumes, forecast ratios of traffic volumes to roadway capacity, and existing traffic count data. Additional adjustments were made to model network capacity to optimize performance. This process was repeated several times to identify the best set of capacity projects for meeting forecast needs based on the assumptions and conditions represented in the model.

The resulting needs represents the network capacity increases added to the final or optimum model run. This list represents the roadway capacity needs for 2022 assuming the regionally-adopted land use forecasts for population, households, and employment used to develop the land use component of the King County Comprehensive Plan 2004. All needs identified through this process are included in the needs list section of this document. Needs are also shown on maps included in Section III.

Since the capacity needs clearly exceeded available revenues, a priority scoring methodology was developed to help balance needs with available revenue. This methodology incorporated existing, empirical data; forecast data for 2022 without an improved roadway network; and forecast data for 2022 with an improved roadway network. The following data elements were collected, calculated, and scored:

- Average weekday traffic
- Existing traffic volume to roadway capacity ratios
- 2022 forecast volume to capacity ratios (without capacity improvement)
- 2022 forecast traffic volumes with capacity improvements
- Ratio between 2022 traffic volumes to roadway capacity for the unimproved network compared with the volume to capacity ratio for the improved network
- Arterial Classification of the project need

A description of this scoring system is included in the following table.

Priority Scoring for Capacity Projects

EXISTING Average Daily Traffic (ADT) for project
5 groupings based on magnitude of ADT – from Count Station locations

ADT Value	Score
>20,000	5
15,000 – 20000	4
10,000 – 15,000	3
5,000 – 10,000	2
<5,000	1

EXISTING Volume to Capacity Ratio (V/C) problem in 2000 – from the model
5 groupings based on severity of V/C

V/C Value	Score
>1.2	5
1.0 – 1.2	4
8. – 1.0	3
.6 - .8	2
<.6	1

Yr 2022 V/C problem without improvements
5 groups rated on severity of V/C problem

V/C Value	Score
>1.4	5
1.2 – 1.4	4
1.0 – 1.2	3
.6 – 1.0	2
<.6	1

Year 2022 ADT with final recommended improvements

ADT Value	Score
>40,000	5
30,000 to 40,000	4
20,000 to 30,000	3
10,000 to 20,000	2
<10,000	1

Year 2022 Improvement in V/C, Recommended Improvement verses no action

Value	Score
> .6 V/C change	5
.5 to .6 V/C change	4
.4 to .5 change	3
.3 to .4 V/C ratio	2
.2 to .3 V/C ratio	1

SYSTEM-Level ratings

Arterial Classification

Value	Score
Principal	3
Minor	2
Collector	1
Local	0

FINAL SCORES AND GROUPING

Score 27 to 24 = High Priority Group
Score 23 to 20 = Medium Priority Group
Score 19 and below = Low Priority Group

NON-CAPACITY NEEDS

Non-capacity needs are prioritized by groups of like needs. Existing prioritization processes have been developed either in-house or by consultants for various categories including bridge, guardrail, high accident location, traffic signals, and others.

Existing prioritization processes used to develop the TNR are summarized below.

HIGH ACCIDENT LOCATION (HAL) AND HIGH ACCIDENT ROAD SEGMENT (HARS) NEEDS

In 2007 the King County Department of Transportation list of prioritized High Accident Locations (HALs) and High Accident Road Segments (HARSs) was updated. The first step in this process was to develop a list of candidate HAL and HARS for review and analysis. An initial list was compiled based on collision data from the three-year period from 2003-2005. The list was made up of locations that had nine or more recorded collisions during the three-year period.

Once the locations were identified, data such as collision types, traffic volumes, and roadway characteristics were collected for each location. This information was used to develop improvements intended to reduce the occurrence of collisions ("countermeasures"). There are a broad range of countermeasures, with approaches ranging from changing roadway geometrics to altering traffic signal timing. Countermeasures were selected based on predominant collision patterns, field observations, County practices, and the experience of the review team.

Countermeasures were developed for most but not all of the locations. Locations without countermeasures remain on the HAL and HARS list but are not included in this report. There were several reasons for not developing countermeasures for a given location. These include:

- Locations where recent improvements were judged likely to have a significant effect on the predominant accident patterns were omitted, as were locations slated for near-term improvements judged likely to have a significant effect on the predominant accident patterns.
- Any locations that had been recently annexed by other jurisdictions were excluded.
- Sites with no clear collision pattern and no noted deficiencies were excluded.

Once the countermeasures were developed, a benefit-cost analysis was prepared for each location. The benefit/cost ratio accounts for economics and therefore is frequently used to prioritize safety improvements. The benefit/cost ratio is equal to the benefit of the expected reduction in collision costs divided by the project cost. A benefit/cost ratio greater than 1 indicates the benefits of a proposed countermeasure are greater than the costs.

The expected reduction in collisions due to a given countermeasure was estimated using nationally published "reduction factors" with modifications based on King County's past experience. The reduction factor was used in combination with typical collision costs to

determine the expected societal benefit (in dollars) of completing the improvement. The benefit was then "normalized" by converting to a present value based on the expected service life of the improvement. Finally, the normalized benefit was divided by a planning-level cost estimate to obtain the benefit-cost ratio for the project.

The results of the benefit/cost analysis and detailed documentation of the process used are contained in the report, *High Accident Locations and Road Segments Analysis, King County, Washington*; King County DOT, Traffic Engineering Section; December 2007.

BRIDGE NEEDS

Assessment of bridge needs begins with inspection. The inspection system, which is based on the National Bridge Inspection Standards (NBIS), calculates a sufficiency rating based on such factors structural adequacy and safety, serviceability and functional obsolescence, and how essential the bridge is for public use. The rating ranges from zero (worst) to 100 (best). Under this system, all bridges having a sufficiency rating less than or equal to 50 are either functionally obsolete or structurally deficient and are equally eligible for federal replacement funds. Any bridge with a sufficiency rating less than or equal to 80 that is functionally obsolete or structurally deficient is also eligible for rehabilitation funds.

Sufficiency rating alone establishes eligibility for federal funding, but it is inadequate to prioritize bridges for replacement or rehabilitation. It does not give enough weight to important criteria such as load limitations, hydraulics, geometric deficiency, and expected useful life. The priority process establishes the need for individual bridge replacement by score and rank using criteria approved by the King County Council (Ord. 11693).

The bridge seismic study completed in 1994 ranks the relative need of seismic retrofits for each bridge included in the study. Bridges scheduled for replacement or rehabilitation within 10 years were excluded. The study assigned equal weights to four criteria: structural vulnerability, importance, seismicity, and life hazard. The final assessment of which bridges to retrofit considers the potential for the bridge to become a viable replacement candidate and to be replaced within ten years. Consideration is given to such factors as whether the bridge provides a sole access and if the cost of the retrofit is a reasonable amount to invest for a limited period of protection prior to replacement.

Priority process rankings are used in the development of the annual six-year CIP. Highest priority projects are in the current CIP. Consideration for additions are guided by the following goals: add the highest priority bridges to the replacement program, continue with existing seismic retrofit program, establish a routine painting program, and provide for major maintenance and repairs that cannot be accomplished by Maintenance Operations.

The methodology for prioritizing bridge needs is documented in, "Proposed Prioritization Process for King County Bridge Needs," King County Department of Public Works, Roads and Engineering Division, July 1994 and "2002 Annual Bridge Report of the King County Department of Transportation, Road Services Division, Structural Design and Bridge Inspection Unit," April 2003.

SHORT-SPAN BRIDGE NEEDS

The Short-Span Bridge Program was started in 2006 to address the needs of short bridges nearing the end of their useful life. These bridges are less than twenty feet in length, and ineligible for federal or state bridge funds. The Road Services Division has identified over 50 bridges for this new program. The bridges have been inventoried and assigned a priority. It is expected that the bridge replacement program will last for a number of years, as several of the top ranked bridges will be will be implemented each year in a two year, design -- build schedule.

The priority array used for the Short-Span Bridge Program is the same priority array used for the other bridge needs.

ROADSIDE BARRIER (GUARDRAIL) NEEDS

The methodology for identifying and ranking potential sites for safety mitigation using roadside barriers, specifically guardrails and bridge rails, was revised in 2002-2003. The new methodology is quantitative and was used to develop priority arrays for each of three categories of barriers: new barriers, retrofits to existing barriers, and bridge rail upgrades.

The methodology has two principal considerations—risk potential and severity. The risk potential factor is a function of parameters that quantify the exposure and probability associated with vehicles running off the road. Severity is a function of parameters that quantify and rate personal injury potential. These factors were derived from current statistics and existing roadside features. Factors are based on accidents, average daily traffic (ADT), road functional classification, corridor geometry, bridge geometry, speed limit, need as defined by embankment slopes, and roadside obstacles. The algorithms for retrofit barriers and bridge rail upgrades also incorporate parameters for existing barrier and rail deficiencies.

The primary source for establishing potential new barrier locations was the existing barrier priority array initially established in 1988. All locations remaining on the list were included in the array. In addition, a comprehensive roadside hazard inventory was completed for the King County arterial roadway system and analyzed to identify locations that might require barriers. Twenty-one sites were identified for further investigation. Additional non-arterial sites suggested by citizens and county employees were also included.

All sites with existing roadside barriers that are not compliant with standards were included as candidates for barrier retrofit. About have the existing barriers are non compliant and were therefore included as candidates. Risk exposure and degree of deficiency were the primary considerations in the prioritization process. Severity was less of a concern than for new barriers because it was assumed that all barrier locations were warranted.

All bridges and culvert crossings maintained by King County were included as candidates for bridge rail upgrades. Many of the candidate bridges were built prior to 1964 and do not have bridge railings designed to current safety standards. The bridge rail array identifies locations with safety deficiencies and prioritizes their upgrade. Three specific bridge deficiency and difficulty factors were established: structural deficiency, difficulty of upgrade, and end transition deficiency. In addition, a risk potential factor (average daily traffic) and a severity factor (posted speed limit) were included.

Priority arrays were developed for each of the three categories of barrier using the appropriate factors and algorithms. Each priority array was fully tested following development. Statistically valid sample sizes were developed for each array, and engineers field reviewed and ranked the sites. In each case, rankings correlated 90% or better with the results of the priority arrays.

Detailed documentation of priority array development and methodology is available in the document, *King County Roadside Barrier Program Priority Array Development;* September 2003; Jacobs Civil Inc., TransCore ITS, Inc., Garry Struthers Associates, Inc.; for King County Department of Transportation Traffic Engineering Section.

TRAFFIC SIGNAL PRIORITY PROCESS

The process to prioritize signals conforms to the laws set forth by the federal government, adopted with amendments by state government, and presented in the *Manual on Uniform Traffic Control Devices* (MUTCD) published by the Federal Highway Administration and the U.S. Department of Transportation. The prioritization process evaluates signal warrants (tests) set forth in the MUTCD and assigns rating values to each warrant. The rating values assign weights to the individual warrants. The sum of the individual warrant rating values provides a basis for comparison to other potential signal locations.

Prioritization and selection of intersections for signalization starts with data collection. Traffic Engineering staff members collect data on vehicle and pedestrian volumes, prevailing speeds, and accident history at each intersection over the most recent three-year period. Each intersection is then evaluated using MUTCD warrants based on the number of approach lanes and the collected data.

The MUTCD states that the signal warrants define the minimum conditions under which installing a traffic control signal might be justified. However, selection and use of traffic control signals should be based on careful analysis of traffic operations, pedestrian and bicyclist needs and other factors, coupled with engineering judgment. Traffic signals should not be installed unless one or more of the eight signal warrants is met. Three of these warrants are based on traffic volumes at several periods during the day: the peak hour, the fourth highest hour, and the eighth highest hour. Another warrant examines the traffic accident history, focusing attention of accidents correctable by signalization (left-turn and right-angle types). Two warrants examine pedestrian activity to determine if pedestrian volumes warrant signalization. The final two

warrants examine whether signalization would improve traffic flow in a coordinated signal system or roadway network.

Four primary warrants are used in the evaluation of all intersections. The remaining warrants are most applicable to urban sites with frequent pedestrian activity. Such sites are less common in unincorporated King County.

The four primary warrants are:

1. Warrant #1 – Eight-Hour Vehicular Volume
   Condition A: Minimum Vehicular Volume
   Condition B: Interruption of Continuous Traffic
2. Warrant #2 – Four-Hour Vehicular Volume
3. Warrant #3 – Peak-Hour Vehicular Volume
4. Warrant #7 – Crash Experience

To the MUTCD warrants, King County adds a factor for proximity to school site. This additional factor does not replace the pedestrian-related warrants. For locations near schools, shopping, and other pedestrian attractors, the volume of pedestrian activity is examined as well as pedestrian warrants. The proximity to school factor addresses the potential for pedestrian activity outside the average-day activities.

Rating values representing the degree to which signal warrants are met are calculated for each warrant. Values are summed by intersection, and the list of intersections is sorted to separate those that meet signal warrants from those that do not. Intersections that meet warrants are sorted by rating value from the largest to the smallest and are then numbered according to their order in the list. The resulting list of rank-ordered intersections is commonly called the priority array. It provides a starting point for determining the locations to signalize.

Intersections on the top of the priority array undergo extensive evaluation of alternatives including existing and forecast traffic operational analyses to determine the effectiveness of each alternative, turn pocket lengths, and cost comparisons. Alternative measures to signalization include, but are not limited to, the construction of additional lanes, revising the intersection geometrics to channelize movements, installing street lighting, improving sight distance, roundabouts, measures to reduce approach speeds, changing lane use assignments, restricting movements, adding stop controls or intersection flashers. Particular attention is given to the predominant type of accident recurring at the intersection. A committee of signal design and maintenance staff reviews the information developed from these analyses and selects the improvement providing the safest, most cost-effective, long-term solution.

Detailed documentation of the signal prioritization process is contained in the report, *King County Countywide Signal Program, Signal Priority Process*, King County Road Services Division, Traffic Engineering Section, July 2004.

NONMOTORIZED NEEDS

King County has been active in promoting the "Healthscape" initiative. Healthscape is a program which attempts to tie together the factors of land use, transportation, air quality and health to maximize the closely-correlated benefits of each. The County worked with a consultant in 2007 to develop a "Transportation Programming Tool" (TPT) which evaluates the effectiveness of pedestrian projects and their potential for increasing pedestrian accessibility. The purpose of the TPT is to prioritize nonmotorized transportation improvements based on air quality, health, and transportation outcomes.

Using the new Transportation Planning Tool, all nonmotorized projects, with the exception of the School Pathway projects, were evaluated and scored and assigned high, medium and low priorities. The priority list was further stratified into urban and rural projects.

A more detailed description of the Transportation Programming Tool can be found at the following location.

http://www.kingcounty.gov/sites/transportation/healthscape/tools.aspx

Healthscape TPT Factors:

Transportation
Non-motorized projects have the potential to increase transit and non-motorized mode share and decrease vehicle mode share; and decrease per capita rates of vehicle use (hours/miles/trips/mode share), and increase per capita rates of walking, bicycling, and transit (hours/miles/trips/mode share) (Ewing & Cervero, 2001).

Safety.
Non-motorized projects can slow vehicle traffic (traffic calming), provide vehicle-free pathways, reduce vehicle conflicts with pedestrians (intersection redesign) and increase the number of users, all of which have been shown to reduce risk and/or the perception thereof.

Environmental
Non-motorized projects shift travel from polluting modes (vehicular) to those that have less or no health-damaging air pollutant emissions (NOx, CO2, VOCs, and hydrocarbons) and dramatically lower carbon dioxide and greenhouse gas releases. Moreover, the vehicle trips replaced are largely short trips, which are more frequently higher-polluting 'cold starts' (WSDOT, 2005 and LUTAQH, 2005).

Economic
Our economy benefits from more efficient, productive use of energy. Non-motorized travel is highly energy efficient, and increases as walkability increases (Frank et al. 2006). The increased physical activity is efficiently accomplished as part of daily routine trips to both work and non-work destinations. Moreover, the reduction in health care costs, as a result of facility improvements inducing physical activity, can be quantified (TRB, 2006).

Equity
Depending on where a project is located (close to a school, for example) it can improve access for sensitive populations or those who are less reliant on vehicle travel (for example, low income, youth and elderly).

Health
As noted above, non-motorized transportation projects generate more walking and bicycling travel. Such physical activity, whether for the purpose recreation or transportation, is associated with higher rates of physical activity, and lower rates of obesity and other chronic diseases (LUTAQH, 2005; McGinnis, 2002).

Healthscape TPT Measures:

Increased Route Directness (Connectivity).
Nonmotorized projects can create more direct routes between destinations for cyclists and pedestrians.

Connections to Transit
Although it is related to connectivity, access to transit is important to measure outside of the other connectivity measures. Transportation benefits are not exclusive to bicycling and walking - transit ridership is dependent on good access by nonmotorized modes. In the LUTAQH study, a measure of transit inaccessibility (distance from home to nearest bus stop) was found to be positively related to VMT, and each ¼ mile increase in distance to transit reduced the odds of someone reporting a transit trip to work by 16%. Another Puget Sound region study for WSDOT (2005) found each mile to a bus stop was associated with a 5% increase in VMT, and just over 4% increase in VHT.

Reduced Conflicts With Vehicular Modes
The various non-motorized level of service tools use measures like vehicle speeds, traffic volumes, number of lanes or roadway width, and separation from traffic, and crossing distance to score the safety/comfort conditions, many of which are statistically associated either with lower rates of collision or perception of reduced risk.

Size and Characteristics of Impacted Population
The size of the surrounding population – the 'travelshed' of the improvement - acts as a multiplier to the other benefits. Certain locations, such as those that have a high density or many destinations, may be more 'ripe' for nonmotorized transportation improvements. This is, essentially, the concept of latent demand for nonmotorized improvements.
Demographics of the impacted population may also change the equity benefits.

Healthscape TPT project evaluation criteria
The following are the individual data items which comprise the TPT scores. In most cases, the data item receives a value between 1 and 4 based on the raw score.

- Does the project address an accident location?
- Does the project address a known or perceived hazard?

- What is the traffic volume on the closest adjacent street?
- What is the traffic speed on the closest adjacent street?
- How many bus stops within a 1/4 mile?
- What is the transit LOS (level of service, as measured by bus stop boardings) within ¼ mile of the project?
- Does the project create a new connection to retail areas?
- Does the project create a new connection to transit?
- Does the project fill a gap in the street, pedestrian or bicycle network?
- Proximity to:
    - Elementary School
    - Middle or High School
    - Park
    - Hospital
    - Civic facility
- Does project meet ADA requirements?
- Percentage disabled households surrounding the project
- Percentage low-income households surrounding the project
- Percentage elderly households surrounding the project
- Percentage of residents under 18 surrounding the project
- Average residential density surrounding the project
- Retail Floor Area Ratio surrounding the project
- Land use mix surrounding the project
- Density of road intersections surrounding the project

INTELLIGENT TRANSPORTATION SYSTEM (ITS) NEEDS

The corridor projects provide an overall ITS improvement program for key regional corridors. The key corridors were identified from the 2004 Transportation Needs Report (TNR) and from stakeholder feedback regarding transportation needs in unincorporated King County. ITS improvements proposed for the identified corridors include cameras, vehicle detection, traffic signal equipment and timing upgrades, pavement conditions sensors, and other devices where needs warrant, as well as communications infrastructure to support these devices. For the most part, these corridors are linked to each other or to other King County ITS projects, allowing for communications continuity and the establishment of a regional ITS corridor network. The corridors include both urban arterials and smaller-capacity rural roads.

A total of 34 corridor projects were identified. As with any planned improvement program, all of the projects cannot begin at once, and a prioritization process is needed to determine which projects best meet the needs of the County based upon their ability to meet key criteria. Criteria for analyzing the project priorities were established based upon examples from the 2004 Transportation Needs Report (TNR), as well as other criteria specific to ITS projects and the needs of the County. Each criterion was analyzed on a scale of 1 – 5 points; no single criterion was weighted more heavily than another. Priorities were established by totaling the points

received by each project. A general priority level (Low, Medium, High) was then assigned by comparing the scores each project received.

It is recognized that actual project deployments are likely to be affected by such factors as funding availability and dependence on other projects, as well as require additional investigation into overall project feasibility. Therefore, the intent of the exercise was to provide a relative analysis of King County's ITS priorities, and not to establish a set order for deployment.

ITS Corridor Projects

The corridor projects include a broad cross-section of both urban and rural corridors, dispersed across the county. This section describes the process and criteria that was used to assign a relative (high, medium, low) priority to each project. These criteria were established with the purpose of providing a quantitative assessment of each project's alignment with King County needs and priorities. To the extent possible, the prioritization method was based upon criteria used in the 2004 TNR. The criteria include:

Average Daily Traffic (ADT): This criterion used the same traffic volume scale as capacity projects to assign priority to corridor projects along roads with the highest average daily traffic counts.

ADT Value	Score
>20,000	5
15,000 – 20,000	4
10,000 – 15,000	3
5,000 – 10,000	2
<5,000	1

Volume to Capacity Ratios: This criterion gave priority to roads whose volumes were approaching or exceeding capacity, based upon the following scale used in the TNR:

V/C Value	Score
> 1.2	5
1.0 – 1.2	4
.8 – 1.0	3
.6 -- .8	2
<.6	1

Accident Rates: Corridors with high accident rates were considered higher priority, using the following scale:

Accident Rate	Score
> 4.1	5
Below 4.0	4
Below 3.0	3
Below 2.0	2
Below 1.0	1

Transit Ridership: Corridors with greater volume of transit ridership were considered higher priority, using the following scale:

Average Weekday Ridership	Score
>400	5
300 – 400	4
200 – 300	3
100 – 200	2
1 -- 100	1

Potential for Annexation: Proposed and approved land annexations for 2004 and 2005 were reviewed as well as proposed future annexations. Corridors with little probability of annexation were considered higher priority using the following scale:

Proposed Annexation Year	Score
Rural	5
>2010	4
2009 – 2010	3
2007 – 2008	2
2005 -- 2006	1

Availability of Communications: Corridors with access to communications infrastructure were considered higher priority, using the following scale:

Communications	Score
King County fiber existing on corridor	5
King County or WSDOT fiber nearby	4
INET Hub Nearby	3
Other	2
None / Unknown	1

Links to Other Existing/Planned Projects: Higher priority was given to corridor projects that could coordinate or build off of other county ITS corridor projects, as follows:

Projects	Score
Links to Funded / Existing King County Corridor Project	5
Links to Other Strategic Plan Project	3

Hazard Areas: King County has identified a number of hazards along county roadways,including High Accident Road Segments (HARS), High Accident Locations (HAL), and areas prone to flooding, ice, and landslides. Corridors with two or more of these hazard locations were given a score of 5; corridors with one identified hazard were given a score of 3.

Hazard Areas	Score
Two or more hazards in corridor	5
One identified hazard in corridor	3

Final Priority Ranking

Total Corridor Priority	Total Score
High	Score > 23
Medium	Score 22 – 17
Low	Score <16

VULNERABLE ROAD SEGMENTS (VRS) STUDY

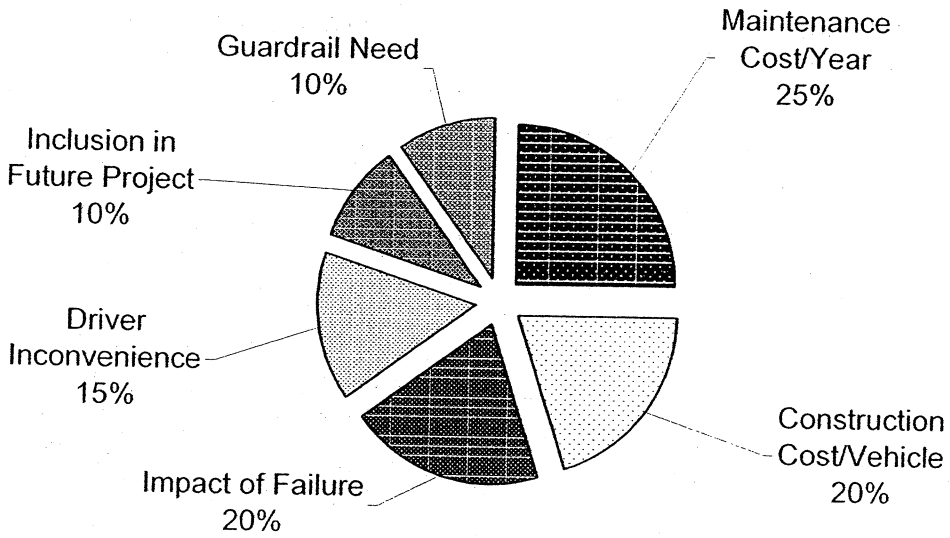
The Vulnerable Roadway Segments (VRS) study was instituted in 2005 to identify and address specific roadway funding needs throughout the County. A vulnerable road segment was defined as a road segment that requires abnormally expensive and/or frequent repairs. This includes roads with failing retaining walls, seawalls, roads with chronic settlement problems, or roadways close to rivers with repetitive erosion problems.

The first step of the study was to identify the vulnerable road segments throughout the County. The identification process consisted of a two-pronged effort; researching existing lists of problem roads as well as finding new segments. The data collected from researching existing lists and working with the Road Services Division Maintenance Section provided enough information to start compiling a comprehensive list of the roadway segments found.

Priority Array Description
The factors shown in the pie chart below were used in developing the priority rank formula for vulnerable roadway segments. The value assigned to each of the factors was either calculated or collected from various data sources. The percentage of influence each category has in producing the priority rank is shown in the pie chart below.

The factors were chosen by the project team and refined through an iterative process. After each iteration, the values and percentages of the factors, as well as the segment rankings were studied for reasonableness. The overall goal was achieved when the full numerical range of each factor was well distributed among the segments and the weighting percentage of each factor seemed to result in a logical ranking of segments.

Priority Ranking Factors



The Maintenance Cost / Year is the average estimated amount of money spent each year *repairing* the road segment to correct the identified problem in the short term. Projects with higher annual maintenance costs are given more priority.

$$Factor = \frac{M \times f}{20{,}000} \times 25$$

where M = *estimated maintenance cost/year (in thousands of dollars)*
f = *the frequency of the maintenance each year*
20,000 = the maximum maintenance cost/year
25 = the maximum number of points possible for this factor

The Construction Cost / Vehicle factor divides the cost of the *permanent* construction fix (i.e., not a maintenance repair) by the average daily number of vehicles that travel the road. Projects with a lower cost benefiting a higher number of vehicles are given a higher priority.

$$Factor = 20 - \frac{C / ADT}{1500} \times 20 \quad (Factor = 0 \text{ if formula results in negative value})$$

where C = *cost of permanent construction fix*
ADT = *average daily traffic count on segment*
1500 = highest C/ADT ratio, except for a few outliers (1500 chosen to keep this factor well distributed among segments)
20 = maximum number of points possible for this factor

The Impact of Failure factor accounts for the importance in correcting a vulnerable roadway segment. The project team made many field visits evaluating the majority of the vulnerable roadway segments, classifying the roadway problem, and performing a preliminary engineering assessment to score the roadway vulnerabilities. Each of the road segments was scored 1 to 5 addressing the predicted consequences if no action were taken to correct the problem. The scoring is as follows:

Score = 1 If problem is left uncorrected, total failure would likely occur, resulting in closure of the entire road.
Score = 2 If problem is left uncorrected, partial (or possibly total) failure of the road could occur, closing half (or all) of the road.
Score = 3 If problem is left uncorrected, partial failure of road could occur, closing a shoulder and/or possibly a lane of the road.
Score = 4 If problem is left uncorrected, minor loss of road function could occur in near future.
Score = 5 If problem is left uncorrected, maintenance would be necessary with no foreseeable loss of road function.

If Score = 1, Factor = 20	*Values of factors determined by an*
If Score = 2, Factor = 11	*exponential function (as opposed to a*
If Score = 3, Factor = 6	*linear function), to weigh full or partial*
If Score = 4, Factor = 3	*road closures much more heavily than a*
If Score = 5, Factor = 0	*minor loss of road function.*

The Driver Inconvenience factor of each road segment measures the overall level of driver inconvenience if a vulnerable road segment is closed. The detour length and the traffic volume on the segment is considered in this factor. Segments involving longer detours with higher traffic volumes are given more priority.

$$Factor = \frac{l \times ADT}{95{,}000} \times 15$$

where l = *length of detour caused by closed road segment*
ADT = *average daily traffic on segment*
95,000 = *maximum l/ADT ratio (except for one outlier)*
15 = *maximum number of points possible for this factor*

If a segment is part of a planned project in the CIP or TNR, the Inclusion in Future Project factor gives priority to such segments to account for the opportunity to complete two needs with one project.

Factor = 10 if segment included in other project
Factor = 0 if segment not included in other project

The Guardrail Need factor is a yes or no toggle identifying the need for guardrail on the vulnerable segment. Road segments slated for future guardrail projects are given more priority to account for the opportunity to fulfill two needs with one project.
Factor = 10 if guardrail is needed on segment
Factor = 0 if guardrail is not needed on segment
All of the priority ranking factors are then weighted to the percentages shown in the pie chart above and summed to produce a score between 0 and 100, ranking the different road segments and identifying the best project candidates. The road segments with the lower scores are the best candidates for road projects.

Sample calculation

The following sample calculation for vulnerable segment of NE Woodinville Duvall Road (steep slopes above and below roadway) will help illustrate how the final rating scores were calculated:

Maintenance Cost / Year (25 points max.)

$$Factor = \frac{M \times f}{20{,}000} \times 25 = (\$10{,}000 \text{ x } 0.5 \text{ times/year}) / 20{,}000 \text{ x } 25 = \mathbf{6}$$

Score is only 6 out of 25 due to relatively inexpensive repairs at infrequent frequency - once every two years.

Construction Cost / Vehicle (20 points max.)

$$Factor = 20 - \frac{C / ADT}{1500} \times 20 = 20 - (\$420{,}000 / 11{,}100 \text{ vehicles / day}) / 1500 \text{ x } 20 = \mathbf{19}$$

Score is a high 19 out of 20 due to relatively inexpensive permanent fix for large volume of vehicles.

Impact of Failure (20 points max.)

If Score = 3, Factor = **6**

Score is only 6 out of 20 due to lower impact of problem, which would close a shoulder of the segment, or one lane at worst. Traffic would not need to be detoured.

Driver Inconvenience (15 points max.)

$$Factor = \frac{l \times ADT}{95{,}000} \times 15 = (8.5 \text{ mile detour x } 11{,}100 \text{ vehicles / day}) / 95{,}000 \text{ x } 15 = \mathbf{15}$$

Score is a full 15 out of 15 due to lengthy detour affecting a large volume of vehicles.

Inclusion in Future Project (10 points max.)

Factor = **10** (segment included in operational project identified in TNR)

Score is a full 10 points because it has also been identified as a need in another study.

Guardrail Need (10 points max.)

Factor = ***0*** *(guardrail is not needed on segment)*

Factor is zero since there is no need for guardrail on this segment, meaning two projects cannot be completed due to action on this segment.

Total Score

6 + 19 + 6 + 15 + 10 + 0 = 56

Total Rating (lower score is better candidate for action)

100 – 56 = ***44*** *(actually 43 due to rounding in spreadsheet)*

SMALL SCOPE OPERATIONAL PROJECTS

Program Description

Historically, small scope operational projects have been a lower consideration in the Road Services Division's CIP project development process, as these project are typically developed on an as-needed basis. In September 2005, the Division recognized the need to establish a program for these types of projects -- those that do not rate high enough to be funded from other prioritized program project lists. The goal for this program is to identify and support high benefit cost ratio projects that could address small scope traffic flow and safety issues. The focus of this effort is to develop a comprehensive list of pedestrian facilities, non-signal intersection improvements and roadway location projects with recommended improvements to serve unincorporated King County's transportation and pedestrian needs.

Program Development Process

As a new program and process, a statement of the programs goals and objectives was developed. A project recommendation and evaluation process was introduced that satisfied these goals and objectives. The project selection process used an objective methodology for ranking potential sites for safety and traffic improvements. Finally, a budget element was applied to make sure the most deserving projects are achieved first.

Goals and Objectives

The goal of this Small Scope Operational Program is to identify locations within unincorporated King County that could be enhanced by operational improvements, yet have not been implemented due to funding constraints. There are needs that have been identified for pedestrian facilities, non-signal intersection improvements and roadway locations that either do not fit the criteria of existing improvement programs or do not score high enough to be funded.. The objective of this program is to develop a prioritized list of small scale projects showing description of proposed work scope, limits and costs. Another common element of these projects is their short design and construction schedules, which makes this program highly responsive to emerging needs.

Project Selection Process

The staff from the Road Services Division's Traffic Engineering Section developed a logical, project-selection process for identifying, selecting and prioritizing projects. There are four tiers to this process:

- Identification of a candidate project
- Preliminary screening and scoping of candidate locations
- Determination of priority process score
- Evaluations of candidate locations

Identification of Candidate Projects

A list of potential improvements is compiled from recommendations by a number of sources including KCDOT engineering staff, businesses, community groups, and members of the general public.

Preliminary Screening and Scoping of Candidate Locations
A field review was conducted for candidate projects for scope verification, cost estimating, and identification of unique constraints and challenges. Field trips were made to most sites to collect relevant, up-to-date field information, site-specific data, create site diagrams and sketches and take photographs. In addition, King County traffic volume and accident data was included as part of the location-specific analysis.

The evaluation for each project was based on a preliminary screening of the project information obtained during data collection. Preliminary screening/feasibility analysis was undertaken prior to project development to assure a candidate project is feasible and satisfies program goals and criteria before it is evaluated. As each project was screened, it was assigned a relative (high, medium, low) priority to develop a preliminary ranking and determination of whether to advance formal prioritization process.

Determination of Priority Process Score
The priority process was developed with the purpose of providing a quantitative assessment of each project's merits for comparison with similar projects. Prioritization and selection of projects begins with project screening/feasibility analysis and ends with the prioritized project list. Data on vehicle and pedestrian volumes, vehicle speeds, existing and planned facility capacities and accident history at each location over the most recent three or five year period was also collected as part of the analysis process.

Each project is unique due to the specific issues addressed. Certain concerns are indicative of site deficiencies that can be addressed by specific countermeasures. Countermeasures are the improvements that address problems at a given location to improve the safety or traffic operations. Countermeasures at each location were developed for the three separate categories (pedestrian facilities, non-signal intersection improvements and roadway locations) based on the predominant problems, field observations, King County practices and standards, and the experience of the review team.

Pedestrian-oriented projects used the existing pedestrian priority array (see Pedestrian Priority Process earlier in this appendix). . The algorithm for non-signal intersection improvements and roadway location projects was developed specifically by the Traffic Engineering staff to score projects in these categories. The potential improvements for these projects were rated on the following criteria:

NON-SIGNAL INTERSECTION IMPROVEMENT PROJECTS

Volume to Capacity Ratio

Volume to Capacity Ratio	**Score**
Greater than 1.0	15
.5 to .99	10

.25 to .49	5
Less than .25	0

Volume to Capacity Ratio relative to number of hours it exceeds various thresholds

Volume to Capacity Ratio	**Score**
V/C > .8 for 8 + hours	10
V/C > .8 for 5 - 7 hours	7
V/C > .6 for 8 + hours	5
V/C > .6 for 7 hours or less	0

SAFETY CRITERIA

Accidents per million Entering vehicles -average of 5 most recent years (ACC/MEV)

Accidents / MEV	**Score**
Greater than 1.0	30
.5 to .99	25
.25 to .49	15
.10 to .24	10
Less than .10	0

SAFETY CRITERIA

Intersection Geometrics with respect to King County Road Standards-1993 for angle of intersection, horizontal curvature of approach, vertical curvature of approach, and stopping sight distance

Road Design Standards Met	**Score**
4 Criteria Not Met	30
3 Criteria Not Met	20
2 Criteria Not Met	15
1 Criteria Not Met	10
Meets KCRS Criteria	0

SAFETY CRITERIA

Speeding

85th Percentile Speed in excess of the posted speed limit

Speed greater than posted speed	**Score**
Greater than 10 MPH	15
7 MPH to 10 MPH	10
5 MPH to 7 MPH	5
Less than 5 MPH	0

ROADWAY LOCATIONS PROJECT CRITERIA

Level-0f-Service (congestion)

Level-of-Service	**Score**
A	0

B	0
C	5
D	15
E	20
F	25

SAFETY CRITERIA

Accidents per million vehicles (average of 5 most recent years)

Accidents per Million Vehicle miles traveled – 5 years	**Score**
Greater than 3.0	30
3.0 to 2.5	20
2.5 to 1.5	10
Less than 1.5	0

SAFETY CRITERIA

Roadway geometrics with respect to King County Road Standards 1993

Road Design Standards Met	**Score**
Meets none	30
Meets 1	25
Meets 2	15
Meets all	0

Speeding

Speed greater than posted speed	**Score**
Greater than 10 MPH	15
7 MPH to 10 MPH	10
5 MPH to 7 MPH	5
Less than 5 MPH	0

Evaluations of Candidate Locations

Scores for each location ranged from 0 to 100, with the following levels:

0 to 30 Low
31 to 50 Medium
51 to 100 High

Potential projects were reviewed with planning-level cost estimates and then subjected to a basic financial analysis. Low scoring projects or those with prohibitive costs are given less consideration. The highest scoring projects are prioritized and considered as best candidates for the Road Services Division's Small Scope Operational Projects program.

Project Selection

The small scope operational projects include a broad cross-section of both urban and rural locations, and priority arrays were developed for each of the three categories. The final project selection will be based on the priority scores weighted based on an assessment of each project's

potential effectiveness. Consideration and higher priority was also given to such factors as whether the project could coordinate with or enhance other King County transportation needs and priorities.

Appendix D

Financial Analysis

Transportation Needs Report 2010

October 2010

Financial Forecast in Constant 2010 Dollars

All columns other than Road Fund in thousands of dollars

Year	Road Fund	Fed / Other	Fed BRAC	Fed TP/ITS/ CMAQ	State TIB	State RAP	MPS	Other
2011	7,773,936	99,000	$3,090	$800	$0	$0	$1,100	$350
2012	31,898,659		$1,744	$1,521	$0	$4,100	$1,000	$350
2013	34,483,473		$1,084	$3,392	$0	$0	$900	$350
2014	36,296,103		$2,3170	$700	$1,850	$0	$800	$350
2015	38,074,625		$17,486	$0	$0	$0	$700	$350
2016	40,124,302		$0	$750	$1,000	$150	$600	$350
2017	42,284,747		$0	$750	$1,000	$150	$500	$350
2018	44,558,763		$0	$750	$1,000	$150	$500	$350
2019	46,952,003		$0	$750	$1,000	$150	$500	$350
2020	48,742,895		$0	$750	$1,000	$150	$500	$350
2021	49,869,552		$0	$750	$1,000	$150	$500	$350
2022	50,920,519		$0	$750	$1,000	$150	$500	$100
	$471,979,577	**$99,000**	**$25,721**	**$11,663**	**$8,850**	**$5,150**	**$8,200**	**$3,950**
								$538,577

	2010 -2022		2010 - 2022	
	Project Costs		**Allocation**	
Bridge	$211,232		$163,676	
Capacity Major	$137,729		$9,800	
Capacity Minor	$156,321		$32,647	
ITS	$79,708		$14,080	
Nonmotorized	$170,374		$18,000	
Operations	$54,468		$15,721	
Preservation	$124,008		$58,608	
Reconstruction	$59,476		$38,410	
Safety	$134,799		$14,604	
Total	**$1,128,115**		**$365,546**	
Other CIP Needs	**2010 -2022 CIP NEEDS**			
Overlay	$61,894			
Misc	$13,219			
Debt Service	$97,918			
Total	**$173,031**	Total Revenue	**$538,577**	
		(-) Other Needs	**$173,031**	
		AVAILABLE FOR CIP	**$365,546**	
		SHORTFALL	**$762,569**	