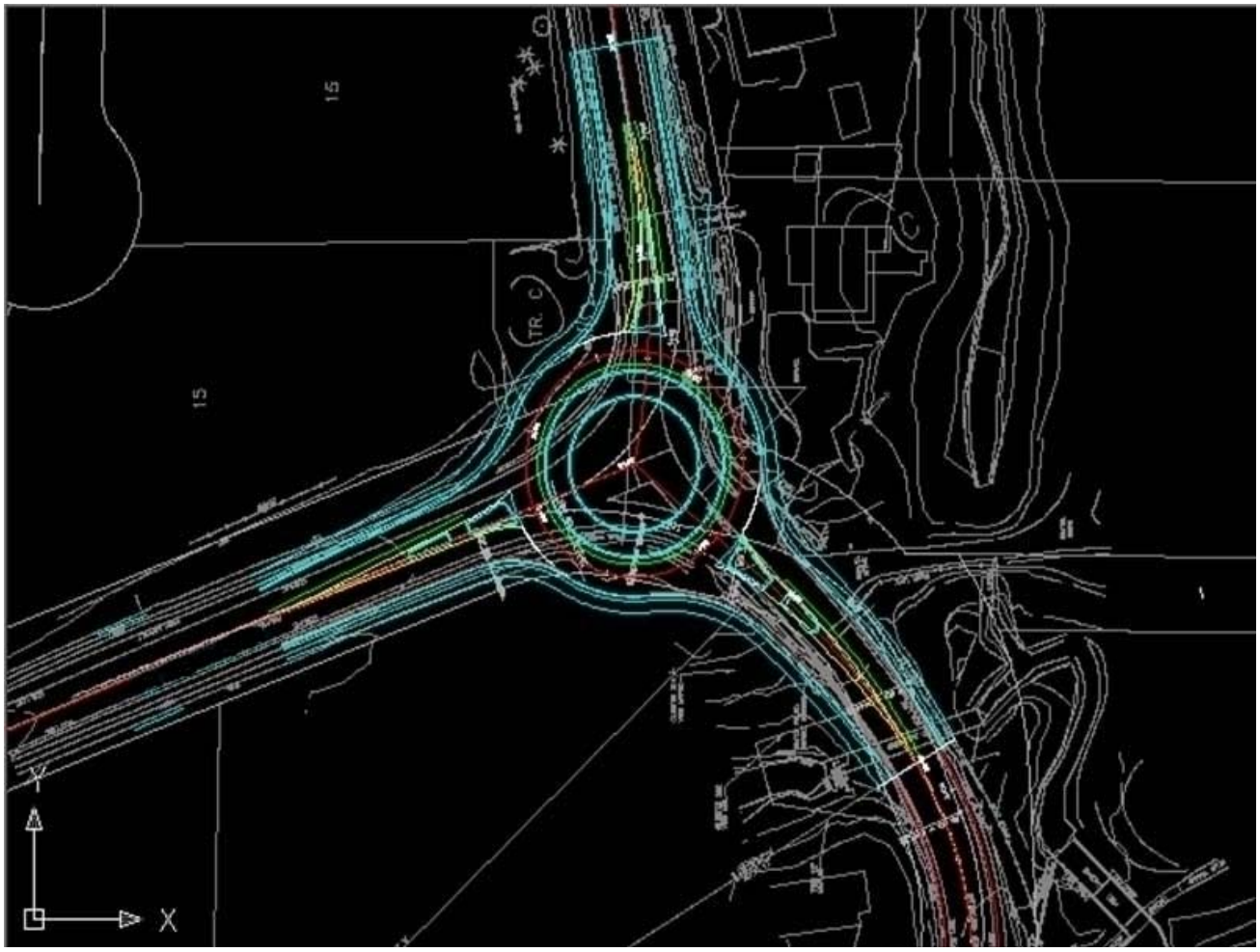

Transportation Needs Report 2012

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

King County

2012 TRANSPORTATION NEEDS REPORT

An Element of the
King County
Comprehensive Plan

August 2012

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Transportation Needs Report 2012

Introduction

The Transportation Needs Report (TNR) is a long-term, comprehensive list of recommended improvements to serve unincorporated King County's transportation needs. It incorporates consideration of significant projects in cities, adjacent counties, and on state highways as they relate to the overall functioning of the transportation system. The transportation needs outlined in the TNR include those currently known (existing) as well as those that are forecast due to regionally-adopted targets for growth and development.

The TNR is a functional plan of the King County Comprehensive Plan. Together with the Roads Six-Year CIP and the Roads biennial operating 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 2031, which is consistent with regionally-adopted targets for population and employment growth.

The schedule for updating the TNR corresponds to the major updates to the Comprehensive Plan. Starting with TNR 2004, the update cycle coincides with the four-year, comprehensive plan major amendment cycles. If circumstances warrant, interim updates may be developed and transmitted with the annual comprehensive plan technical amendments.

Purpose

The TNR serves the following purposes:

Relationship to King County Comprehensive Plan: A primary purpose of the TNR is to fulfill specific 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 analysis fulfill these requirements. The needs list was developed using forecasts of traffic for the 2031 horizon year based on regionally-adopted growth targets and the land use element of the King County Comprehensive Plan.

Transportation Planning and Funding: The TNR helps King County make decisions on planning and funding of transportation improvements, based on policies, strategies, and actions set forth in the comprehensive plan and the Strategic Plan for Road Services. It follows guidelines established in the state's Growth Management Act to link 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.

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. Considering the location and types of capacity projects anticipated by other agencies in traffic forecasting and analysis, helps King County understand how the overall transportation system will function in the future and predict where unincorporated capacity improvements may be needed. The information in the TNR also helps facilitate coordination between different divisions of the King County Department of Transportation. In addition, by clearly showing the location and scope of intended unincorporated road system improvements as well as the priority of these improvements, the TNR provides other jurisdictions with information to use in appropriately coordinating project implementation.

Annexations: Cities considering annexing portions of unincorporated King County can refer to the TNR for identified road improvements which their city may need to address in the future.

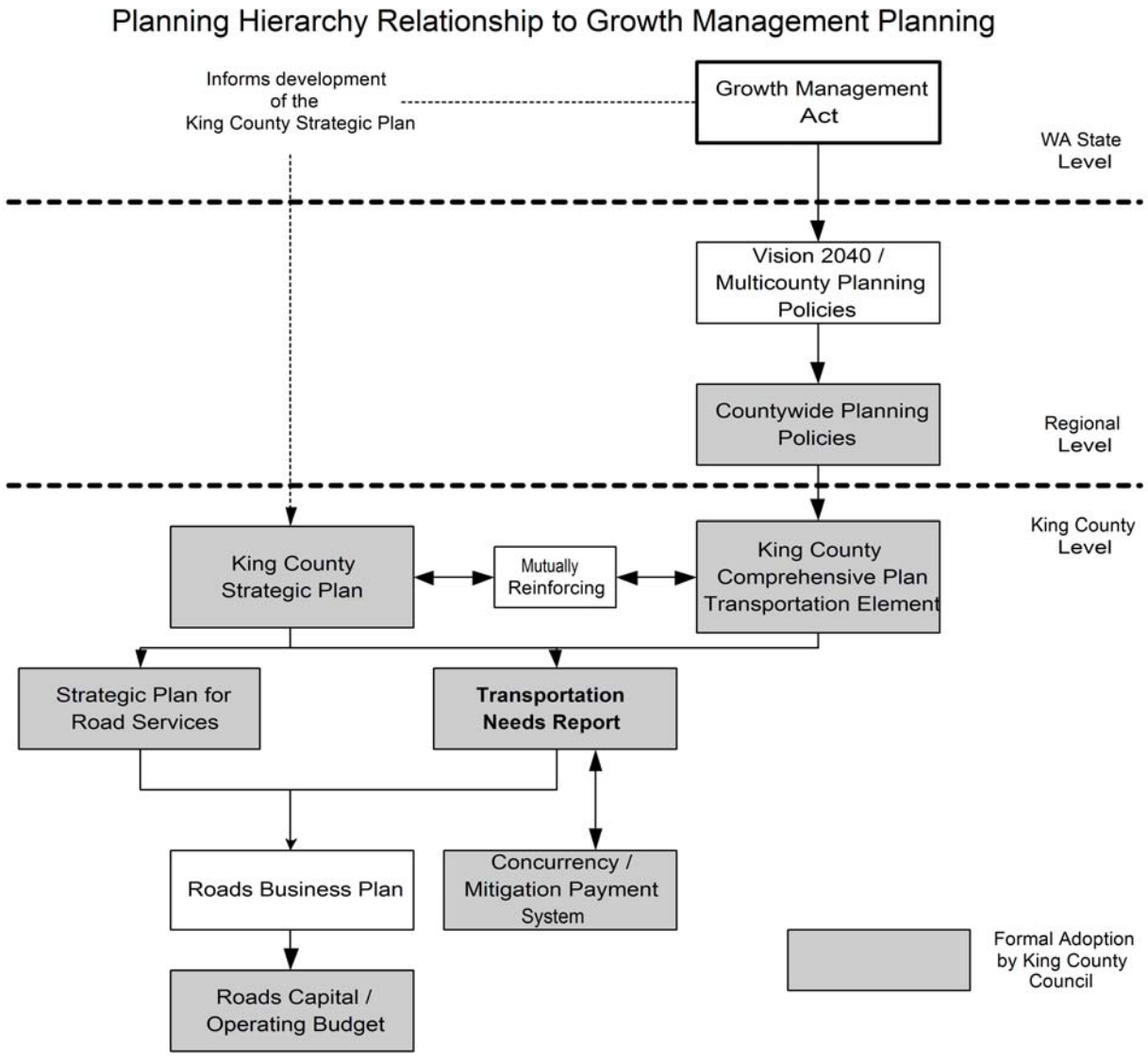
Development Review: The TNR serves as a major source of information in the review of proposed land developments and in determining appropriate mitigation measures required as a condition of new development approval. The County's Mitigation Payment System (MPS) uses the TNR to identify growth-related projects that will be part of the impact fee system.

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.

Process

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, links the guidance of the King County comprehensive plan and the Strategic Plan for Road Services with

the development of the TNR, the six-year Roads capital improvement program, and the Roads biennial operating budget. The mitigation payment system, which is authorized by growth management legislation and required by King County ordinance, is used to collect impact fees to help build road projects needed to support growth. Projects receiving MPS funding are included in the TNR. The concurrency program, which is required by growth management legislation, tests proposed development to make sure road capacity needed to support future growth will be available when needed. If a project needed to support the travel needs of a proposed development is included in the Roads six-year capital needs program and if other requirements are met, the proposed development may be granted concurrency and allowed to proceed with permit application.



Strategic Plan for Road Services (SPRS)

The Strategic Plan for Road Services lays out the Road Services Division's mission, vision, and focused direction for an approximately five year timeframe. It aligns the division's employees, services, and programs with the overarching goals of King County; informs decisions by the King County Executive and Metropolitan King County Council on matters of policy, operations, and budget; and provides a framework to ensure oversight and management of the division's programs and services.

The plan was developed in response to a critical funding problem coupled with a backlog of road system maintenance and preservation needs. Road Services recognizes that it may not be able to fully accomplish all of the goals and strategies suggested in the strategic plan. The plan prioritizes goals to guide division staff so their work meets the most critical needs with available funding and resources. It places high priority on regulatory compliance, immediate operational safety, and maintenance and preservation of infrastructure.

The goals for the SPRS are as follows (in order of priority):

Priority	Description
1	Meet regulatory requirements and standards. Compliance with local, state and federal regulatory mandates will be inherent in all the division's activities.
2	Meet core safety needs. Road Services will place high importance on reducing the potential for harm on county roadways through activities such as repairing guardrails, removing snow and ice, and maintaining signs and signals.
3	Maintain and preserve the existing roadway facilities network. The division will develop a program to manage road system assets in a way that minimizes costs over the life of the asset. The division also will assess and monitor road system assets, develop a plan to reduce the backlog of infrastructure needs, and direct efforts to the components of the road system that are most in need of attention.
4	Enhance mobility (movement of people and goods) by facilitating more efficient use of the existing road system. This involves making improvements such as signal timing and intelligent transportation systems in conjunction with preservation and maintenance projects or by finding funding for new mobility projects.
5	Address roadway capacity when necessary to support growth targets in the urban area. The division's final priority will be to pursue appropriate funding to increase capacity to support urban growth, consistent with the King County Comprehensive Plan.

A key component of the SPRS implementation is the establishment of a tiered service strategy. SPRS set the priorities upon which the new, tiered approach to roads maintenance and preservation has been built: the most-used arterials would receive the highest level of maintenance and preservation, storm response and snow and ice removal, while the lowest-priority roads could be downgraded.

The new tier service strategy outlines objective criteria for the ranking of each of the nearly 1,600 miles of County roadway into one of five service levels, using criteria such as volume of use by motorists, safety requirements, detour length, and whether the road is considered sole-access, a lifeline route or important for buses:

Tier 1 – Heavily traveled; connect large communities, major services, and critical infrastructure. Will receive the highest level of storm response, including the first roads to receive snow removal. Users of tier 1 roads should expect good road and bridge condition and well-maintained drainage. These roads will receive the highest level of maintenance and preservation.

Tier 2 – Highly used local roads that serve local communities and large residential areas. Users of tier 2 roads can expect to see a lower level of storm and snow response. Will receive maintenance to keep these roads in good condition; generally preservation efforts will be more reactive and prioritized based on level of risk and availability of funding

Tier 3 --Highly used local roads that serve local communities and large residential areas. Will receive little to no storm and snow response, especially during significant storms. Maintenance and preservation are provided to slow deterioration but users of tier 3 roads should expect to see wear-and-tear to roadways, possible load limits, lower posted speed limits, and long-term partial closures.

Tier 4 -- Local residential dead-end roads with no other outlet. Will receive virtually no storm and snow response. Maintenance is limited to activities that preserve access. Users of tier 4 roadways may expect to see a number of one-lane roads with some downgraded to a gravel surface, depending on the level of deterioration and availability of funding.

Tier 5 -- Local residential roads that have alternative routes available for travel in case of road closures. Will receive virtually no storm and snow response. Maintenance is limited and based on factors such as life safety and risk, resulting in a growing number of deteriorating roads. Due to poor conditions, users of tier 5 roads can expect to see some closures, which may result in longer detours and difficulty accessing property. These roads may also be downgraded to a gravel surface, restricted to one lane, and have load limits and lower speed limits.

More information on the road tiers can be found on the Road Services Division website www.kingcounty.gov/roads.

Each of the projects in the Transportation Needs Report has been coded with the corresponding Tier for its road facility. The Tier information will be used to establish priorities for funding and inclusion in the Capital Improvement Program.

Development of the TNR 2012

For this major four year update to the Comprehensive Plan and the TNR, the following changes were incorporated and itemized into the TNR 2012.

Capital Project completions

Numerous capital projects were completed since the adoption of the Transportation Needs Report 2010, and these completed projects were deleted from the needs list.

Annexations

Cities continue to annex portions of unincorporated King County, and when the annexed properties include TNR project locations, they are removed from the Transportation Needs Report or the project is shortened to account for the remaining portion in the unincorporated area. The latest major annexation was Kirkland's Juanita, Finn Hill and Kingsgate annexation in 2011.

Countywide Guardrail Program

A number of guardrail improvements were completed since 2010, and these were deleted from the TNR. The Countywide Guardrail Program is soon approaching the point where new guardrail installations will be completed in all warranted arterial corridors, and the program's emphasis will shift to guardrail upgrades and repair.

High Accident Locations (HAL) and High Accident Road Segments (HARS)

The Road Services Division completed the High Accident Locations and Road Segments Analysis (Road Safety Audits) during 2011, which identifies the locations of traffic accidents in unincorporated King County. These locations were determined from accident records that indicated 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 August, 2011. Intersections which met at least one traffic warrant for a traffic signal were added to the TNR. Locations which previously met warrants but no longer meet warrants were deleted. When the highest priority locations receive funding, they will be evaluated for either traffic signals or roundabouts.

Nonmotorized Project Re-Screening

For this TNR update cycle, many nonmotorized projects have been re-evaluated. These projects were originally defined in the late 1980's and early 1990's when nonmotorized needs as well as county policies may have been different. The evaluation considered many factors, including existing conditions of the roadway, traffic speed and volumes, availability of nearby destinations to which users could walk or bicycle (schools, parks, trails, transit stops and others). Other

information sources used included the Healthscape scores, bicycle level-of-service, and comfort indicators and published reports from bicycle organizations.

Drainage-related Projects
Projects involving road culverts and other road drainage-related features have been included in the Transportation Needs Report for the first time. These are larger-scale projects which would be candidates for capital funds instead of the usual operational-funded projects. The Strategic Plan for Road Services states a program will be developed "to manage road system assets in a way that minimizes costs of the life of the asset." As King County moves towards an asset management system to meet this goal, a detailed inventory of drainage needs will be identified in conjunction with other roadway assets. These additional drainage projects will be included in future editions of the TNR.

Travel Forecasts for 2031
Travel demand forecasts for unincorporated King County were completed for the year 2031. Travel corridors which showed future capacity problems were identified and proposed for capacity projects. Existing capacity projects were confirmed by the analysis to be needed and deleted if the analysis showed they were not needed.

Rural Regional Corridors
Rural Regional Corridors is a term used in the King County Comprehensive Plan to refer to segments of certain arterials that pass through rural lands to primarily serve the needs of urban areas. This type of roadway plays a key regional mobility role in the county's transportation system. While additional capacity is generally prohibited by county policy on arterial roads in the rural area, a limited exception is made for Rural Regional Corridors. These corridors may receive capacity improvements if the increased capacity is designed to serve mobility and safety needs of the urban population while discouraging inappropriate development in the surrounding Rural Area or natural resource lands.

Rural Regional Corridors must be classified as Principal Arterials and carry high traffic volumes, defined as a minimum of 15,000 ADT. They also must have at least half of their PM Peak trips (the evening commute) traveling to cities or other counties. They connect one urban area to another, or to a highway of statewide significance that provides such connection, by traversing the rural area.

Based on the criteria in the Comprehensive Plan, the following King County unincorporated area roadways currently qualify as Rural Regional Corridors:

	Woodinville-Duvall Road	Novelty Hill Road	Issaquah-Hobart Road	Avondale Road
Limits	Woodinville city limits to Duvall city limits	Redmond city limits to W. Snoq. Valley Rd	Issaquah city limits to SR-18	NE 116th to Woodinville-Duvall Rd
Functional Class	Principal Arterial	Principal Arterial	Principal Arterial	Principal Arterial
Average Daily Trips (ADT)	20,000	20,000	18,000	16,000
% PM Peak Trips to Cities / Other Counties	60	59	56	51

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 Mitigation Payment System revenues.

Projected needs were expressed in constant 2012 dollars and were totaled for the TNR program through the year 2031. 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 financial shortfall of $ 662,824,000 to the year 2031. 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
E. Federal Way PAA	$65,980
East Renton PAA	$13,473
Eastgate PAA	$8,558
Fairwood PAA	$26,131
Issaquah PAA	$37,680
NE Kent PAA	$3,882
North Highline PAA	$22,460
Not in primary PAAs	$18,351
West Hill PAA	$15,075
Total URBAN Costs	$211,590
Total RURAL Costs	$596,945

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 2012

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 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 -

Tier Level - Servke Level for roadway (1=Highest, 5=Lowest)

Cost-000 - Future cost to King County Road Services Division to complete the proposed project (2012 dollars in thousands)

Comments - Preliminary elements of the proposed project.

NOTE - Project costs updated in August 2012

Number	PAA	Location	Need	Priorities: ITS	Safety	Bridge	Reconst.	Guardrail	Operational	Capacity	Nonmotorized	TIER Level	Cost-000	Comments
County Subarea: Bear Creek														
CORRIDOR: Avondale Rd														
HAL-38	Rural - N/O I-90	Avondale Road NE & NE 165th St	Safety		High							1	$1,500	Add north and southbound left turn lanes
RC-151	Rural - N/O I-90	Avondale Road From NE 134 St to Woodinville-Duvall Road	Preservation									1	$3,572	Replace damaged pavement surface
100413	Rural - N/O I-90	Avondale Road ITS Phase 2 From NE 132nd St to Woodinville-Duvall Road	ITS	High								1	$1,679	Provide Intelligent Transportation System improvements which could include synchronized signals; cameras; vehicle detection; fiber connection
100209	Rural - N/O I-90	Bear Creek Bridge #480A On NE 116th St Crossing Bear Creek	Bridge			High						5	$0	See King County Capital Improvement Program (CIP) document or website for detailed project description including scope.
HAL-78	Rural - N/O I-90	Avondale Rd & NE 128th Way	Safety		Medium							1	$8,747	Build ultimate configuration per CIP # 101088 (previously cancelled)

Number	PAA	Location	Need	Priorities: ITS	Safety	Bridge	Reconst.	Guardrail	Operational	Capacity	Nonmotorized	TIER Level	Cost-000	Comments
HAL-26	Rural - N/O I-90	Avondale Road NE & Woodinville-Duvall Rd	Safety		High							1	$8,195	Widen the intersection for additional turn lanes, signal improvements, illumination, curb, gutter, sidewalks, bike lanes. 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							Low		1	$16,547	Widen To Three Lanes--Construct Bridge
CP-16	Rural - N/O I-90	Woodinville-Duvall Rd & Avondale Rd NE	Capacity Major						TBD			1	$0	Widen the intersection for additional turn lanes, signal improvements, illumination, curb, gutter, sidewalks, bike lanes. For project costs see project HAL-26
OP-INT-99	Rural - N/O I-90	Avondale Road & NE 165th St	Operations						Medium			1	$0	Provide North and South bound Left Turn Lanes. For project costs see project HAL-38
CP-13	Rural - N/O I-90	Avondale Road NE Ph II From NE 155th St to NE 168th St	Capacity Minor							Low		1	$6,176	Widen roadway to 3 lanes including 2 eight foot shoulders and a walkway.
CORRIDOR: Bear Creek Rd														
NM-5066	Rural - N/O I-90	Bear Creek Rd From Avondale Rd To Mink Rd	Nonmotorized								High	3	$214	Provide Nonmotorized Facility
NM-5067	Rural - N/O I-90	Bear Creek Rd From Mink Rd To NE 133 St	Nonmotorized								Low	3	$491	Provide Nonmotorized Facility

Number	PAA	Location	Need	Priorities: ITS	Safety	Bridge	Reconst.	Guardrail	Operational	Capacity	Nonmotorized	TIER Level	Cost-000	Comments
OP-INT-71	Rural - N/O I-90	Bear Creek Rd & Mink Rd	Operations						Medium			3	$1,868	Improve Sight Distance--Realign Intersection
CORRIDOR: Misc														
OP-RD-7	Rural - N/O I-90	NE 165th St From 179 Pl NE To 183 Ave NE	Capacity Minor				Low					3	$4,573	Reconstruct Roadway
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					Low				5	$21	Construct Guardrail
NM-9984	Rural - N/O I-90	Mink Rd From Bear Creek Rd To Woodinville-Duvall Rd	Nonmotorized								High	3	$493	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			3	$3,977	Reconstruct Roadway
NM-5001	Rural - N/O I-90	Paradise Lake Rd From Woodinville-Duvall Rd To County Line	Nonmotorized								Medium	2	$614	Provide Nonmotorized Facility
CORRIDOR: NE 124 - NE 128 - NE 132														
NM-5026	Urban - Not in primary PAAs	172nd Ave NE From Redmond City Limits To NE 138 St	Nonmotorized								Low	5	$447	Construct Neighborhood Pathway

Number	PAA	Location	Need	Priorities: ITS	Safety	Bridge	Reconst.	Guardrail	Operational	Capacity	Nonmotorized	TIER Level	Cost-000	Comments
100312	Rural - N/O I-90	Cottage Lake Creek Bridge #240A On Bear Creek Rd Crossing Cottage Lake Creek	Bridge			High						2	$1,235	Replace Bridge
100114	Rural - N/O I-90	Bear Creek Bridge #333A On NE 133rd St Crossing Bear Creek	Bridge			High						2	$1,116	See King County Capital Improvement Program (CIP) document or website for detailed project description including scope.
ITS-16	Rural - N/O I-90	NE 124th St. ITS Ph II From SR 202 to Avondale Road NE	ITS	Medium								1	$2,919	Provide Intelligent Transportation System improvements which could include cameras; fiber optic communications; vehicle detection; flood detection
OP-RD-52	Rural - N/O I-90	NE 132nd St / NE 128th St From 184 Ave NE to 196 Ave NE	Capacity Minor							Low		1	$0	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. For project costs, see project HAL-78
CORRIDOR: NE Union Hill Rd														
HAL-87	Rural - N/O I-90	208th Ave NE & Union Hill Rd	Safety		Low							2	$1,607	Construct Roundabout

Number	PAA	Location	Need	Priorities								TIER Level	Cost-000	Comments
				ITS	Safety	Bridge	Reconst.	Guardrail	Operational	Capacity	Nonmotorized			
ITS-20	Rural - N/O I-90	Union Hill Road ITS From 196 Ave NE to 238 Ave NE	ITS									2	$3,600	Provide Intelligent Transportation System improvements which could include fiber optic communications; cameras; speed warning; vehicle detection
OP-INT-125	Rural - N/O I-90	238th Ave NE & Union Hill Rd	Operations						High			2	$1,300	Intersection Operational Improvement
BR-952A	Rural - N/O I-90	Evans Creek Bridge #952A On NE Union Hill Rd Crossing Evans Creek	Bridge			High						2	$4,385	Replace Bridge
OP-RD-5	Rural - N/O I-90	Union Hill Rd From 208 Ave NE To 238 Ave NE	Capacity Minor						High			2	$6,286	Widen Travel Lanes--Pave Shoulders--Provide Equestrian Facility
RC-51	Rural - N/O I-90	Union Hill Rd From 229 Ave NE to 238 Ave NE	Preservation				Medium					2	$2,268	20ft wall
ITS-11	Rural - N/O I-90	Union Hill Road ITS Ph II From 238th Ave NE to Ames Lake Rd.	ITS	High								3	$178	Provide Intelligent Transportation System improvements which could include fiber optic communications; cameras; speed warning; vehicle detection
SW-51	Rural - N/O I-90	238th Ave NE & NE 63rd PL	Operations		Low							2	$1,494	Intersection Operational Improvement

Number	PAA	Location	Need	Priorities: ITS	Safety	Bridge	Reconst.	Guardrail	Operational	Capacity	Nonmotorized	TIER Level	Cost-000	Comments
RC-44	Rural - N/O I-90	Union Hill Rd From 196 Ave NE to 206 Pl NE	Preservation				Medium					2	$166	10ft tall wall. Complete sections not covered by CIP # 100709.
RC-116	Rural - N/O I-90	Union Hill Rd From 238 Ave NE To 258 Ave NE	Reconstruction				Low					3	$1,523	Reconstruct roadway 1.5 miles
CORRIDOR: Novelty Hill Rd														
OP-INT-113	Rural - N/O I-90	208th Ave NE & NE Union Hill Rd	Operations						Low			2	$0	Provide Southbound Right Turn Lane. For project costs see project HAL-87
100992	Rural - N/O I-90	Novelty Hill Rd From Redmond C/L to 244 Ave NE	Capacity Major			High				High		1	$0	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.
HAL-91	Rural - N/O I-90	Novelty Hill Rd & 206th Ave NE	Safety		High							1	$5,000	Construct Novelty Hill Road Phase II -- For project costs see project CP-8

Number	PAA	Location	Need	Priorities: ITS	Safety	Bridge	Reconst.	Guardrail	Operational	Capacity	Nonmotorized	TIER Level	Cost-000	Comments
HARS-12	Rural - N/O I-90	Novelty Hill Rd from 206 Ave NE to 208 Ave NE	Safety		High							1	$5,000	Construct Novelty Hill Road Phase II -- For project costs see project CP-8
HAL-86	Rural - N/O I-90	Novelty Hill Rd & 208 Ave NE	Safety		High							1	$5,000	Construct Novelty Hill Road Phase II -- For project costs see project CP-8
CP-8	Rural - N/O I-90	Novelty Hill Rd Phase II From 195 Ave NE to Trilogy Parkway NE	Capacity Major			High				TBD		1	$50,600	Road improvements to NE Novelty Hill Road starting at the east end of the roundabout at NE Novelty Hill Road/195th Avenue NE to Trilogy Parkway Northeast. Work will include the construction of a two-lane roundabout at 208th Avenue NE, realignment of NE Novelty Hill Road, widening of various section of Novelty Hill Road, construction of stormwater facilities, and development of mitigation sites. Additional project costs are found in projects HAL-86, HAL-91 and HARS-12
HAL-77	Rural - N/O I-90	Trilogy Pkwy & NE Novelty Hill Rd	Safety		Low							1	$2,142	Construct Roundabout

Number	PAA	Location	Need	Priorities: ITS	Safety	Bridge	Reconst.	Guardrail	Operational	Capacity	Nonmotorized	TIER Level	Cost-000	Comments
ITS-35	Rural - N/O I-90	Novelty Hill Rd ITS, Phase II From 208 Ave NE to West Snoqualmie Road	ITS	High								1	$450	Provide Spot ITS improvements which could include travel time devices and road weather information system and safety devices
SW-10	Rural - N/O I-90	Novelty Hill Road & Redmond Road	Operations		High							1	$1,494	Intersection Operational Improvement
CORRIDOR: Woodinville-Duvall Rd														
RC-43	Rural - N/O I-90	Woodinville-Duvall Rd From Old Woodinville-Duvall Rd to W. Snoqualmie Valley Rd	Preservation				High					1	$516	Walls both sides 10ft tall
HAL-35	Rural - N/O I-90	194th Ave NE & Woodinville-Duvall Rd	Safety		Low							1	$1,104	EB left turn lane.
100415	Rural - N/O I-90	Woodinville-Duvall Rd ITS, Phase I & II From 168th Ave NE to City of Duvall	ITS	High								1	$3,776	Provide Intelligent Transportation System improvements which could include synchronized signals; cameras; vehicle detection; fiber optic communications; dynamic message signs.
CP-12	Rural - N/O I-90	Woodinville-Duvall Rd From 171st Ave NE to Avondale Rd	Capacity Minor							Low		1	$10,553	Widen roadway to increase capacity.

Number	PAA	Location	Need	Priorities								TIER Level	Cost-000	Comments
				ITS	Safety	Bridge	Reconst.	Guardrail	Operational	Capacity	Nonmotorized			
NM-5002	Rural - N/O I-90	Woodinville-Duvall Rd From Avondale Rd To SR-203	Nonmotorized								High	1	$15,953	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			3	$4,863	Reconstruct Roadway

Number	PAA	Location	Need	Priorities: ITS	Safety	Bridge	Reconst.	Guardrail	Operational	Capacity	Nonmotorized	TIER Level	Cost-000	Comments
County Subarea: East King County														
CORRIDOR: Misc														
BR-3050A	Rural - S/O I-90	Greenwater River Bridge #3050A SE 496th Pl Crossing Packard Creek	Bridge			Medium						4	$1,294	Construct short-span bridge
200712	Rural - N/O I-90	Miller River Bridge replacement	Bridge			High						3	$7,246	See King County Capital Improvement Program (CIP) document or website for detailed project description including scope.
RC-19	Rural - N/O I-90	North Fork Rd SE From Wagners Bridge To Wagners Bridge	Preservation				Medium					4	$92	Construct 10ft wall
BR-999X	Rural - N/O I-90	Cascade Scenic Highway Bridge #999X On Cascade Scenic Highway Crossing Miller River Slough	Bridge			Medium						3	$1,294	Construct short-span bridge
RC-8	Rural - N/O I-90	North Fork Road Shoulder Repair	Reconstruction				High					4	$132	Long Term Fix which includes rebuilding of shoulder and perhaps installing nails is expensive. Drainage part of job needs done by Fall 2004.

Number	PAA	Location	Need	Priorities								TIER Level	Cost-000	Comments
				ITS	Safety	Bridge	Reconst.	Guardrail	Operational	Capacity	Nonmotorized			
OP-RD-46	Rural - N/O I-90	Stossell Creek Way From Swan Mill Road to the Snohomish County Line	Operations						TBD			4	$491	Environmental improvements to road to improve habitat and reduce maintenance costs

Number	PAA	Location	Need	Priorities: ITS	Safety	Bridge	Reconst.	Guardrail	Operational	Capacity	Nonmotorized	TIER Level	Cost-000	Comments
County Subarea: East Sammamish														
CORRIDOR: Issaquah-Fall City Rd														
CP-17	Urban - Issaquah PAA	Issaquah-Fall City Rd Ph III	Capacity Major							High		1	$19,345	Widen roadway to 5 lanes with curb, gutter and sidewalks
HAL-32	Urban - Issaquah PAA	Issaquah Fall City Rd & Klahanie Dr SE	Safety		High							1	$5,356	Convert signal to protected only EB left turn phasing. Will require dual left turn lane or extending existing left turn lane.
OP-RD-11	Urban - Issaquah PAA	Issaquah-Fall City Rd/Duthie Hill Rd From Klahanie Blvd To 272 Pl SE	Capacity Minor						High			1	$7,264	Provide Left Turn Lane
ITS-31	Urban - Issaquah PAA	Issaquah-Fall City Rd ITS From Issaquah City Limits to SR-202	ITS	Low								1	$5,715	Provide Intelligent Transportation System improvements which could include interconnected signals; fiber optic cable; vehicle detection; pavement sensors, cameras
200108	Rural - N/O I-90	Patterson Creek Bridge #180L On SE 28 St Crossing Patterson Creek	Bridge			High						2	$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	TIER Level	Cost-000	Comments
CORRIDOR: NE 50 St														
NM-9917	Rural - N/O I-90	NE 50th St From 192 Pl NE to Sahalee Way NE	Nonmotorized								Low	5	$958	Construct AC shoulder (South Side)
RC-35	Rural - N/O I-90	NE 50th St From 214 Ave NE to SR-202	Preservation				Medium					5	$74	Armor Shoulders @$100/cyd

Number	PAA	Location	Need	Priorities: ITS	Safety	Bridge	Reconst.	Guardrail	Operational	Capacity	Nonmotorized	TIER Level	Cost-000	Comments
County Subarea: Enumclaw														
CORRIDOR: 212 Ave SE														
HAL-83	Rural - S/O I-90	212th Ave SE & SE 400 St	Safety		Low							1	$1,071	Construct Roundabout
NM-5009	Rural - S/O I-90	212th Ave SE From SE 384 St To SE 358 St	Nonmotorized								Low	2	$3,379	Provide Nonmotorized Facility
CORRIDOR: 284 Ave SE														
400210	Rural - S/O I-90	Newaukum Creek Bridge #3040A	Bridge			High						2	$0	See King County Capital Improvement Program (CIP) document or website for detailed project description including scope.
GR-86	Rural - S/O I-90	284th Ave SE From Mud Mountain Dam Rd To SR-410	Safety					Low				3	$447	Construct Guardrail
400314	Rural - S/O I-90	284th Ave SE Bridge #3049 284th Ave SE Crossing Boise Creek	Bridge			High						3	$1,218	Construct short-span bridge
NM-5007	Rural - S/O I-90	Veazie-Cumberland Rd/Palmer Rd From SE 386 St To SE 416 St	Nonmotorized								High	2	$1,325	Provide Nonmotorized Facility
NM-5013	Rural - S/O I-90	284th Ave SE From SE 416 St To SR-410	Nonmotorized								High	2	$431	Provide Nonmotorized Facility

Number	PAA	Location	Need	Priorities: ITS	Safety	Bridge	Reconst.	Guardrail	Operational	Capacity	Nonmotorized	TIER Level	Cost-000	Comments
CORRIDOR: Green Valley Rd														
OP-INT-74	Rural - S/O I-90	218th Ave SE & Green Valley Rd	Operations						Medium			2	$200	Reconstruct Intersection
CORRIDOR: Misc														
GR-92	Rural - S/O I-90	228th Ave SE From SE 400th St To SE 452ND St	Safety					Low				5	$591	Construct Guardrail
GR-84	Rural - S/O I-90	SE 384th St From 160th Pl SE To 212th Ave SE	Safety					Low				3	$498	Construct Guardrail
NM-5010	Rural - S/O I-90	SE 400th Way From SE 400 St To SE 392 St	Capacity Minor						Medium			2	$1,790	Reconstruct Roadway
NM-9983	Rural - S/O I-90	200th Ave SE From SE 400 St to 0.17 miles north	Nonmotorized								Medium	5	$526	Construct gravel shouler (West Side)
GR-96	Rural - S/O I-90	SE 456th Way From 196th Ave SE To 228th Ave SE	Safety					Low				5	$386	Construct Guardrail
NM-5012	Rural - S/O I-90	244th Ave SE From Enumclaw City Limit To SE 400 St	Nonmotorized								High	2	$9,445	Provide Nonmotorized Facility
RC-53	Rural - S/O I-90	Mud Mountain Rd at 29000 block	Preservation				Medium					5	$222	30' High Wall Needed

Number	PAA	Location	Need	Priorities: ITS	Safety	Bridge	Reconst.	Guardrail	Operational	Capacity	Nonmotorized	TIER Level	Cost-000	Comments
BR-3052	Rural - S/O I-90	Boise Creek Bridge #3052 268th Ave SE Crossing Boise Creek	Bridge			Low						5	$1,294	Construct short-span bridge
BR-3030	Rural - S/O I-90	SE 380 St Bridge #3030 SE 308th St Crossing slough	Bridge			Low						5	$1,294	Construct short-span bridge
GR-104	Rural - S/O I-90	196th Ave SE From SE 400th St To SE 456th St	Safety					Low				3	$16	Construct Guardrail
DR-3	Rural - S/O I-90	SE 440 St at 27602	Drainage									0	$500	Drainage improvement
BR-3060	Rural - S/O I-90	208th Ave SE Bridge #3060 208th Ave SE Crossing drainage ditch s/o SE 448 St	Bridge			Medium						5	$1,294	Construct short-span bridge
BR-3051	Rural - S/O I-90	Boise Creek Bridge #3051 On 276th Ave SE Crossing Boise Creek	Bridge			Low						5	$1,294	Construct short-span bridge
BR-3056A	Rural - S/O I-90	SE 408th St Bridge #3056A On SE 408th St Crossing drainage ditch	Bridge			Low						5	$1,294	Construct short-span bridge
CORRIDOR: SE 432 St														
GR-103	Rural - S/O I-90	SE 432nd St From 268th Ave SE To 284th Ave SE	Safety					Low				5	$172	Construct Guardrail
NM-5008	Rural - S/O I-90	SE 432nd St From 284 Ave SE To 268 Ave SE	Nonmotorized								High	5	$861	Provide Nonmotorized Facility

Number	PAA	Location	Need	Priorities: ITS	Safety	Bridge	Reconst.	Guardrail	Operational	Capacity	Nonmotorized	TIER Level	Cost-000	Comments
County Subarea: Federal Way														
CORRIDOR: Military Rd S														
300408	Urban - E. Federal Way PAA	Military Rd & S 342nd St	Safety		Medium							1	$1,935	See King County Capital Improvement Program (CIP) document or website for detailed project description including scope.
OP-INT-116	Urban - E. Federal Way PAA	Military Rd & S 320th St	Operations									1	$0	Add eastbound right turn lane. For project costs see project HAL-2
HAL-2	Urban - E. Federal Way PAA	Military Rd S & S 320th St	Safety		Medium							1	$544	EB right turn lane (Developer project). Advance EB Signal Head by county
HAL-92	Urban - E. Federal Way PAA	Military Rd S & S 352 St	Safety		Low							1	$1,071	Add NB and SB left turn lane
NM-5014	Urban - E. Federal Way PAA	Military Rd S From Peasley Canyon Way S To SR-161	Nonmotorized								Low	1	$8,589	Provide Nonmotorized Facility
CP-5	Urban - E. Federal Way PAA	Military Rd S From I-5 to S 272 St	Capacity Major							Low		1	$6,253	Widen to Four/Five lanes--Construct Curb, Gutter, Sidewalk--Construct Bike Lane

Number	PAA	Location	Need	Priorities								TIER Level	Cost-000	Comments
				ITS	Safety	Bridge	Reconst.	Guardrail	Operational	Capacity	Nonmotorized			
OP-RD-3	Urban - E. Federal Way PAA	Military Rd S From S 340 St to S 342 St	Operations						TBD			1	$787	Provide Two Way Left Turn Lane: Left Turn Lane at S 342 St
OP-INT-105	Urban - E. Federal Way PAA	Military Rd S & S 374 St	Operations						Low			1	$787	Provide Two Way Left Turn Lane
SW-57	Urban - E. Federal Way PAA	Military Rd & S 360th St	Operations		Medium							1	$1,494	Intersection Operational Improvement
CORRIDOR: Misc														
RC-49	Urban - E. Federal Way PAA	58th Place S./56th Place S. From West Valley Rd to West Valley Rd	Preservation				Medium					4	$24,585	Major Roadwork Needed, Possible Re-alignement
NM-4067	Urban - E. Federal Way PAA	32nd Ave S From S 360 St to S 368 St	Nonmotorized								TBD	5	$287	Construct walkway
OP-INT-100	Urban - E. Federal Way PAA	S 321st St & Peasley Canyon Rd	Operations						High			1	$0	Reconstruct approaches to meet Road Standards; Lengthen Turn Lanes. For project costs see project HAL-3
NM-9976	Urban - E. Federal Way PAA	38th Ave S From S 344 St to Fishing Access Rd	Nonmotorized								Low	5	$219	Construct AC shoulder (West Side)

Number	PAA	Location	Need	Priorities								TIER Level	Cost-000	Comments
				ITS	Safety	Bridge	Reconst.	Guardrail	Operational	Capacity	Nonmotorized			
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	5	$824	Construct sidewalk (West Side)
NM-9970	Urban - E. Federal Way PAA	34th Ave S From S 288 St to S 298 St	Nonmotorized								Medium	3	$539	Construct sidewalk (West Side)
SW-73	Urban - E. Federal Way PAA	46 Pl S & S 321 St	Operations		Medium							2	$1,494	Intersection Operational Improvement
NM-4066	Urban - E. Federal Way PAA	28th Ave S From S 349 St to S360 ST	Nonmotorized								TBD	2	$287	Construct walkway
NM-4042	Urban - E. Federal Way PAA	38th Ave S From S 304 St to S 307 St	Nonmotorized								TBD	5	$106	Pave shoulders (East Side)
SW-21	Urban - E. Federal Way PAA	51st Ave S & S 316th St.	Operations		High							2	$1,494	Intersection Operational Improvement
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		4	$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.

Number	PAA	Location	Need	Priorities: ITS	Safety	Bridge	Reconst.	Guardrail	Operational	Capacity	Nonmotorized	TIER Level	Cost-000	Comments
RC-24	Urban - E. Federal Way PAA	S 304th St From 32nd Ave S To 37th Ave S	Preservation				Medium					3	$214	Armor Shoulders
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		4	$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.
GR-71	Urban - E. Federal Way PAA	28th Ave S From S 348th St To SR 161	Safety					High				2	$19	Construct Guardrail
CORRIDOR: Peasley Canyon														
HAL-3	Urban - E. Federal Way PAA	Peasley Canyon Rd & S 321st St	Safety		Low							1	$551	WB right turn lane. WB advanced signal head.
300308	Urban - Not in primary PAAs	Peasley Canyon Rd S & Peasley Canyon Way S	Operations		High							1	$0	See King County Capital Improvement Program (CIP) document or website for detailed project description including scope.
ITS-8	Urban - E. Federal Way PAA	Peasley Canyon Road From Military Rd to West Valley Highway	ITS	High								1	$2,282	Provide Intelligent Transportation System improvements which could include coordinated signals; cameras; vehicle detection

Number	PAA	Location	Need	Priorities: ITS	Safety	Bridge	Reconst.	Guardrail	Operational	Capacity	Nonmotorized	TIER Level	Cost-000	Comments
RC-42	Urban - E. Federal Way PAA	Peasley Canyon Way S From S. Peasely Canyon Rd to Military Rd. S	Preservation				High					1	$590	Retaining wall 10' high
CORRIDOR: S 277 St														
OP-INT-120	Urban - E. Federal Way PAA	40th Ave S & S 272nd St	Operations									1	$311	Add turn lanes on S 272nd St
DR-2	Urban - E. Federal Way PAA	S 277 St & 55 Ave S	Drainage									1	$500	Drainage improvement
300508	Urban - Not in primary PAAs	SE 277th St Bridge #3126 On SE 277th St Crossing Slough	Bridge			High						1	$828	See King County Capital Improvement Program (CIP) document or website for detailed project description including scope.
CORRIDOR: S 288 St														
SW-94	Urban - E. Federal Way PAA	43 Pl S & S 288 St (T J High School)	Operations		Medium							2	$1,494	Intersection Operational Improvement
SW-53	Urban - E. Federal Way PAA	48th Ave S & S 288th St	Operations		High							2	$1,494	Intersection Operational Improvement
HAL-22	Urban - E. Federal Way PAA	34 Ave S & S. 288 St	Safety		High							2	$344	Intersection Operational Improvement

Number	PAA	Location	Need	Priorities: ITS	Safety	Bridge	Reconst.	Guardrail	Operational	Capacity	Nonmotorized	TIER Level	Cost-000	Comments
CORRIDOR: S 360 St														
3P-0012	Urban - E. Federal Way PAA	S 360th St From Enchanted Pkwy S to 21 Pl S	Nonmotorized								Low	2	$1,168	Construct AC shoulder (North Side)
SW-61	Urban - E. Federal Way PAA	28th Ave SE & S 360th St	Operations		High							2	$1,494	Intersection Operational Improvement
OP-RD-48	Urban - E. Federal Way PAA	S 360th St From SR-161 to 28th Ave S	Operations						TBD			2	$4,224	Operational road improvements

Number	PAA	Location	Need	Priorities: ITS	Safety	Bridge	Reconst.	Guardrail	Operational	Capacity	Nonmotorized	TIER Level	Cost-000	Comments
County Subarea: Newcastle														
CORRIDOR: 156 Ave SE														
OP-RD-25	Urban - East Renton PAA	154th Pl SE / SE 142 Pl From SE Jones Rd To 156 Ave SE	Capacity Minor						Low			1	$2,993	Realign Roadway--Widen Roadway
ITS-19	Urban - East Renton PAA	156th Ave SE ITS From Renton City Limts to SR 169	ITS	Medium								1	$211	Provide Intelligent Transportation System improvements which could include cameras; pavement sensors; speed warning system
CORRIDOR: Allen Rd														
NM-5030	Urban - Eastgate PAA	Allen Rd (148 SE) North Side From 146 Ave SE To SE 36 St	Nonmotorized								Low	3	$129	Provide Nonmotorized Facility
NM-9918	Urban - Eastgate PAA	Allen Rd From 13800 block (city limit) to 146 Ave SE	Nonmotorized								High	3	$533	Construct sidewalk (North Side)
CORRIDOR: May Valley Rd														
OP-RD-26	Rural - S/O I-90	May Valley Road From SR-900 To SE 128 WY	Capacity Minor						Medium			1	$6,931	Reconstruct/Spot Pave Shoulders--Improve Sight Distance

Number	PAA	Location	Need	Priorities: ITS	Safety	Bridge	Reconst.	Guardrail	Operational	Capacity	Nonmotorized	TIER Level	Cost-000	Comments
ITS-29	Rural - S/O I-90	May Valley Road ITS From SR 900 to Issaquah Hobart Rd	ITS	Low								1	$307	Provide Intelligent Transportation System improvements which could include vehicle detection; cameras; road weather info system
BR-593C	Urban - Not in primary PAAs	May Creek Bridge #593C	Bridge			Medium						3	$1,294	Construct short-span bridge
OP-RD-24	Rural - S/O I-90	May Valley Rd From Coal Creek Parkway To SR-900	Capacity Minor						Low			3	$17,693	Widen Travel Lanes
CORRIDOR: Misc														
NM-0109	Urban - Eastgate PAA	154th Ave SE From SE 39 St to SE 42 St	Nonmotorized								Low	5	$375	Construct sidewalke (West Side)
3P-0115	Rural - S/O I-90	204th Ave SE / SE 159th St From SE 156 St to 205 Ave SE	Nonmotorized								High	5	$350	Construct AC shoulder (North Side)
ITS-34	Urban - East Renton PAA	164th Ave SE ITS From SE 128th St. to SE May Valley Rd.	ITS	Low								2	$1,633	Provide Intelligent Transportation System improvements which could include cameras; vehicle detection
CORRIDOR: Newport Way														
NM-4009	Urban - Eastgate PAA	Newport Way From 13800 block(Bell. C/L) to 153 Ave SE	Nonmotorized								TBD	2	$132	Improve pathway -- North Side and South Side

Number	PAA	Location	Need	Priorities: ITS	Safety	Bridge	Reconst.	Guardrail	Operational	Capacity	Nonmotorized	TIER Level	Cost-000	Comments
OP-INT-84	Urban - Eastgate PAA	Newport Way & 164 Ave SE	Operations						Low			2	$1,197	Traffic Signal--Turn Channels All Legs
200413	Urban - Eastgate PAA	Newport Way From 150 Ave SE to 152 Ave SE	Nonmotorized									2	$213	Construct 1,000 linear feet of sidewalk
NM-4010	Urban - Eastgate PAA	Newport Way From 152 Ave SE to 161 Ave SE	Nonmotorized								TBD	2	$132	Improve pathway (South Side)
200211	Urban - Eastgate PAA	Newport Way at 16630	Reconstruction				High					2	$3,156	See King County Capital Improvement Program (CIP) document or website for detailed project description including scope.
OP-RD-20	Urban - Eastgate PAA	Newport Way From 138 Ave SE To Eastgate Park Entrance	Capacity Minor						High			2	$2,691	Provide Left Turn Lane
CORRIDOR: SE 128 St														
OP-INT-119	Urban - East Renton PAA	168th Ave SE & SE 128th St	Operations									1	$483	Add turn lanes on SE 128th St
HAL-85	Rural - S/O I-90	175 Ave SE & SE 128 St	Safety		Medium							1	$536	Convert SE 128th Street to a three-lane section.

Number	PAA	Location	Need	Priorities: ITS	Safety	Bridge	Reconst.	Guardrail	Operational	Capacity	Nonmotorized	TIER Level	Cost-000	Comments
ITS-28	Urban - East Renton PAA	SE 128th St. ITS From 148th Ave SE to May Valley Road	ITS	Low								1	$4,694	Provide Intelligent Transportation System improvements which could include cameras; vehicle detection; synchronize signals; communications
HAL-61	Urban - East Renton PAA	160th Ave SE & SE 128th St	Safety		High							1	$1,071	Convert SE 128th Street to 3-lane section from Renton CL (158th Ave SE) to 158th Ave SE, connecting with rural 3-lane section project which extends from urban growth boundary to Lake Kathleen Road. Add dual EB left turn lane at 164th Ave SE by converting through lane, add northbound receiving lane at this intersection by widening.
HAL-43	Urban - East Renton PAA	164th Ave SE & SE 128th St	Safety		High							1	$1,071	Convert SE 128th Street to 3-lane section from Renton CL (158th Ave SE) to 158th Ave SE, connecting with rural 3-lane section project which extends from urban growth boundary to Lake Kathleen Road. Add dual EB left turn lane at 164th Ave SE by converting through lane, add northbound receiving lane at this intersection by widening.

Number	PAA	Location	Need	Priorities								TIER Level	Cost-000	Comments
				ITS	Safety	Bridge	Reconst.	Guardrail	Operational	Capacity	Nonmotorized			
OP-RD-21	Urban - East Renton PAA	SE 128th St From 168 Ave SE To E OF 169 Ave SE	Capacity Minor						High			1	$1,317	Improve Sight Distance--Turn Channels
HAL-90	Rural - S/O I-90	Lake Kathleen Rd SE & SE 128th St	Safety		Medium							1	$536	Convert SE 128th Street to a three-lane section.

Number	PAA	Location	Need	Priorities: ITS	Safety	Bridge	Reconst.	Guardrail	Operational	Capacity	Nonmotorized	TIER Level	Cost-000	Comments
County Subarea: North Highline / West Hill														
CORRIDOR: 1 Ave S														
ITS-26	Urban - North Highline PAA	1st Ave S./Myers Way ITS From SW 100th St. to SW 112th St.	ITS	Low								3	$1,020	Provide Intelligent Transportation System improvements which could include synchronized signals; transit signal priority; cameras; fiber optic communications
NM-0110	Urban - North Highline PAA	1st Ave S From S 102 St to S 108 St	Nonmotorized								High	5	$448	Construct AC shoulder (West Side)
CORRIDOR: 16 Ave SW														
OP-INT-78	Urban - North Highline PAA	16th Ave SW & SW 106 St	Operations						Medium			1	$273	Provide Left Turn Lane--Pedestrian Crossing Signals
300710	Urban - North Highline PAA	17th Ave SW From SW 100th St to SW 104th St	Nonmotorized									5	$0	See King County Capital Improvement Program (CIP) document or website for detailed project description including scope.
NM-5018	Urban - North Highline PAA	SW 104 St From 15 Ave SW To 17 Ave SW	Nonmotorized								High	5	$63	Provide Nonmotorized Facility
NM-5017	Urban - North Highline PAA	SW 102 St From 8 Ave SW To 17 Ave SW	Nonmotorized								High	5	$150	Provide Nonmotorized Facility

Number	PAA	Location	Need	Priorities: ITS	Safety	Bridge	Reconst.	Guardrail	Operational	Capacity	Nonmotorized	TIER Level	Cost-000	Comments
CORRIDOR: 76 Ave S														
NM-9939	Urban - West Hill PAA	76th Ave S From S 120 St to S 124 St	Nonmotorized								Medium	5	$224	Construct sidewalk (East Side)
NM-0004	Urban - West Hill PAA	76th Ave S From S 115 St to S 116 St	Nonmotorized								Medium	5	$79	Construct AC walkway
NM-5021	Urban - West Hill PAA	76th Ave S From S 124 St To S 128 St	Nonmotorized								High	5	$116	Provide Nonmotorized Facility
CORRIDOR: 78 Ave S														
NM-9938	Urban - West Hill PAA	78th Ave S From S 120 St to S 124 St	Nonmotorized								Low	3	$219	Construct sidewalk (East Side)
300214	Urban - West Hill PAA	78th Ave S From S 126 St To Renton Ave S	Nonmotorized						High			3	$103	Add sidewalk to west side of roadway
CORRIDOR: 8 Ave S														
NM-5020	Urban - North Highline PAA	8th Ave SW From SW 108 St To SW Roxbury St	Nonmotorized								High	5	$2,463	Provide Nonmotorized Facility
OP-RD-12	Urban - North Highline PAA	8th Ave S From S Seatlle City Limit To Glendale Way S/S 112 St	Capacity Minor						Low			3	$3,387	Widen Roadway

Number	PAA	Location	Need	Priorities: ITS	Safety	Bridge	Reconst.	Guardrail	Operational	Capacity	Nonmotorized	TIER Level	Cost-000	Comments
CORRIDOR: Meyers Wy - 1 Ave S														
NM-0302	Urban - North Highline PAA	1st Ave S From SW 108 St to SW 112 St	Nonmotorized								High	1	$86	Construct sidewalk (West Side)
OP-RD-50	Urban - North Highline PAA	1st Ave S. & Seattle C/L to Burien C/L	Operations						TBD			1	$7,450	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			3	$2,485	Widen Roadway
CORRIDOR: Misc														
NM-9945	Urban - West Hill PAA	69th Ave S / S 125 St From S 128 St to 70 Pl S	Nonmotorized								Low	5	$165	Construct sidewalk (South Side)
RC-41	Urban - West Hill PAA	68th Ave S From Martin Luther King Way to Renton City Limits	Preservation				Low					2	$2,337	Walls both sides 20ft tall @$30/psf
GR-120	Urban - West Hill PAA	S 128 St From 64 Ave S to 76 Ave S	Safety					High				5	$23	Construct Guardrail
OP-INT-79	Urban - West Hill PAA	87th Ave S & S 124 St	Operations						Low			3	$320	Realign Intersection

Number	PAA	Location	Need	Priorities								TIER Level	Cost-000	Comments
				ITS	Safety	Bridge	Reconst.	Guardrail	Operational	Capacity	Nonmotorized			
300197	Urban - North Highline PAA	South Park Bridge #3179 RTID & 14th/16th Ave S.	Bridge			High						1	$0	See King County Capital Improvement Program (CIP) document or website for detailed project description including scope.
300115	Urban - North Highline PAA	14th Ave SW From SW 110 St to SW 116 St	Nonmotorized								TBD	5	$646	Improve walkway. Sidewalk on east side of roadway. Enclose ditches.
DR-6	Urban - West Hill PAA	S Langston Street to SR-900	Drainage									0	$500	Drainage improvement
NM-4012	Urban - West Hill PAA	80th Ave S From S 114 St to S 118 St	Nonmotorized								TBD	5	$33	Improve and widen shoulder (West Side)
NM-4071	Urban - North Highline PAA	22nd Place S From Des Moines Mem. Dr. S to Burien City Limits	Nonmotorized								TBD	4	$229	Improve walkway
NM-9920	Urban - North Highline PAA	28th Ave SW From SW Roxbury St to SW 102 St	Nonmotorized								Medium	5	$191	Construct AC shoulder (East Side)
NM-9928	Urban - North Highline PAA	11th Ave SW From SW 102 St to SW 106 St	Nonmotorized								Medium	5	$271	Construct AC shoulder (East Side)
NM-9937	Urban - West Hill PAA	S 120th St From 76 Ave S to 80 Ave S	Nonmotorized								Medium	5	$219	Construct sidewalk (South Side)
NM-9936	Urban - West Hill PAA	75th Ave S / S 122 St From Renton Ave S to 80 Ave S	Nonmotorized								Medium	5	$356	Construct sidewalk (South Side)

Number	PAA	Location	Need	Priorities: ITS	Safety	Bridge	Reconst.	Guardrail	Operational	Capacity	Nonmotorized	TIER Level	Cost-000	Comments
CORRIDOR: Rainier Ave S														
300114	Urban - West Hill PAA	Renton Ave S From 68 Ave S to 74 Ave S	Nonmotorized									2	$517	Add a sidewalk along the south side of the roadway
ITS-33	Urban - West Hill PAA	Rainier Ave S ITS From Seattle City Limits to Renton City Limits	ITS	Low								1	$2,449	Provide Intelligent Transportation System improvements which could include synchronize signals; vehicle detection; cameras; transit signal priority
SW-55	Urban - West Hill PAA	Rainier Ave S & Lakeridge Dr S	Operations		Medium							1	$1,494	Intersection Operational Improvement
CORRIDOR: Renton Ave S														
ITS-12	Urban - West Hill PAA	Renton Ave S ITS From Rainier Ave S to Rainier Ave N	ITS	High								2	$5,103	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			2	$818	Turn Channels - North & South Legs
CORRIDOR: Roxbury St														
300215	Urban - North Highline PAA	Roxbury Street From 28 Ave SW to 30 Ave SW	Nonmotorized									1	$129	Add sidewalk to south side of road

Number	PAA	Location	Need	Priorities: ITS	Safety	Bridge	Reconst.	Guardrail	Operational	Capacity	Nonmotorized	TIER Level	Cost-000	Comments
OP-RD-2	Urban - North Highline PAA	Roxbury St From 4th Ave SW to 30th Ave SW	Operations						TBD			1	$2,295	Widen from 4 to 5 Lanes; Improve Sight Distance
CORRIDOR: SW 112 St														
NM-4077	Urban - North Highline PAA	SW 112th St From Ambaum Blvd SW to 10 Ave SW	Nonmotorized								TBD	2	$229	Improve walkway
NM-9922	Urban - North Highline PAA	SW 112th St From 16 Ave SW to 26 Ave SW	Nonmotorized								High	5	$500	Construct AC shoulder (South Side)
NM-9930	Urban - North Highline PAA	SW 112th St From 1 Ave S to 4 Ave SW	Nonmotorized								High	5	$145	Construct sidewalk (North Side)

Number	PAA	Location	Need	Priorities: ITS	Safety	Bridge	Reconst.	Guardrail	Operational	Capacity	Nonmotorized	TIER Level	Cost-000	Comments
County Subarea: Northshore														
CORRIDOR: 146 - 156 - 160 PL NE														
OP-INT-81	Rural - N/O I-90	NE 146th Pl & 155 Ave NE	Operations						High			3	$801	Reconstruct Intersection--Improve Sight Distance--Provide Equestrian Facility
RC-48	Rural - N/O I-90	146th Pl NE From SR-202 to 155 Ave NE	Preservation				Medium					3	$123	15ft tall wall
NM-0111	Rural - N/O I-90	NE 145th St From 160 Pl NE to 168 Ave NE	Nonmotorized								Low	5	$454	Construct AC shoulder (North Side)
NM-5029	Rural - N/O I-90	168th Ave NE From NE 143 Pl To NE 140 St	Safety								Low	5	$186	Construct Neighborhood Pathway
NM-9913	Rural - N/O I-90	168th Ave NE From NE 143 St to NE 145 St	Nonmotorized								Low	5	$303	Construct AC shoulder (West Side)
CORRIDOR: Misc														
NM-9903	Rural - N/O I-90	152nd Pl NE / 158 Ave NE From NE 160 St to NE 165 St	Nonmotorized								Low	3	$191	Construct gravel shoulder (West Side)
NM-9901	Urban - Not in primary PAAs	88th Ave NE From NE 198 St to NE 205 St	Nonmotorized								Low	5	$719	Construct AC shoulder (East Side)
NM-5027	Rural - N/O I-90	Du Rocher Rd From 172 Pl NE To Woodinville-Duvall Rd	Nonmotorized								Medium	3	$516	Provide Nonmotorized Facility

Number	PAA	Location	Need	Priorities								TIER Level	Cost-000	Comments
				ITS	Safety	Bridge	Reconst.	Guardrail	Operational	Capacity	Nonmotorized			
NM-0107	Urban - Not in primary PAAs	178th Ave NE From NE 131 St to NE 136 St	Nonmotorized								Low	5	$72	Construct sidewalk (West Side)
CP-11	Urban - Not in primary PAAs	Juanita-Woodinville Way NE From 112th Ave NE to NE 145th St	Capacity Minor							Low		2	$5,182	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.
NM-5024	Urban - Not in primary PAAs	112 Pl NE From Bothell south city limits to 112 Lane NE	Nonmotorized								Medium	3	$387	Provide Nonmotorized Facility
OP-RD-18	Rural - N/O I-90	NE 175 / NE 172 Pl From 164 Ave NE To 174 Ave NE	Capacity Minor						High			3	$2,768	Reconstruct Roadway
NM-9904	Rural - N/O I-90	148th Ave NE From NE 154 St to NE 167 St	Nonmotorized								Medium	5	$402	Construct gravel shoulder (East Side)

Number	PAA	Location	Need	Priorities: ITS	Safety	Bridge	Reconst.	Guardrail	Operational	Capacity	Nonmotorized	TIER Level	Cost-000	Comments
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					High				4	$33	Construct Guardrail
NM-9941	Rural - N/O I-90	308th Ave SE From SE 64 St to SE 87 Pl	Nonmotorized								Medium	4	$1,317	Construct gravel shoulder (East Side)
CORRIDOR: 428 Ave SE-Reinig Rd														
NM-5041	Rural - N/O I-90	Mill Pond Rd From SR-202 To Reinig Rd	Nonmotorized								High	3	$1,724	Provide Nonmotorized Facility
RC-37	Rural - N/O I-90	Mill Pond Rd From SE Stearns Rd to SE Reinig Rd	Preservation				Medium					3	$538	Armor Shoulders @$100/cyd
RC-16	Rural - N/O I-90	Reinig Rd From Mill Pond Rd To 396th Dr SE	Preservation				Medium					3	$337	Armor Shoulders
NM-9942	Rural - N/O I-90	428th Ave SE From SE Reinig Rd to SE 108 St	Nonmotorized								Medium	3	$1,429	Construct AC shoulder (West Side)
GR-67	Rural - N/O I-90	Reinig Rd From Mill Pond Rd To 428th Ave SE	Safety					High				3	$45	Construct Guardrail

Number	PAA	Location	Need	Priorities								TIER Level	Cost-000	Comments
				ITS	Safety	Bridge	Reconst.	Guardrail	Operational	Capacity	Nonmotorized			
CORRIDOR: Cedar Falls Rd														
NM-9958	Rural - S/O I-90	SE 149th St / 442 Ave SE From 437 Pl SE to 443 Ave SE	Nonmotorized								Low	5	$553	Construct AC shoulder (North Side)
OP-RD-38	Rural - S/O I-90	436 Ave SE/Cedar Falls Rd From I-90 To Wilderness Rim	Capacity Minor						Medium			2	$8,787	Realign Roadway
NM-9968	Rural - S/O I-90	Cedar Falls Rd SE From near Rattlesnake Lake	Nonmotorized								Low	3	$791	Construct AC shoulder (West Side)
CORRIDOR: Middle Fork Rd														
200511	Rural - N/O I-90	SE Middle Fork Snoqualmie River Road From east of couplet (MP 2.7) to the campground (MP 12.4)	Preservation				Medium					4	$206	Reconstruct 9.7 miles of roadway
GR-78	Rural - N/O I-90	Middle Fork Rd From North Bend city limits To 496th Ave SE	Safety					Low				4	$14	Construct Guardrail
CORRIDOR: Misc														
DR-5	Rural - N/O I-90	NE 195 St & 324 Ave NE	Drainage									0	$500	Drainage improvement
DR-4	Rural - N/O I-90	NE 106 St & 314 Ave NE	Drainage									0	$500	Drainage improvement

Number	PAA	Location	Need	Priorities								TIER Level	Cost-000	Comments
				ITS	Safety	Bridge	Reconst.	Guardrail	Operational	Capacity	Nonmotorized			
200106	Rural - N/O I-90	Lake Alice Road at 339 Ave SE	Drainage									4	$0	Drainage improvement
NM-9985	Rural - N/O I-90	High Point Regional Trail from Trail intersection w/High Point Way (W) to 300 Ave SE (E)	Nonmotorized									0	$75	Trail construction on road shoulder
BR-5034A	Rural - N/O I-90	Lake Joy Bridge #5034A	Bridge			Low						5	$1,294	Construct short-span bridge
GR-121	Rural - N/O I-90	Raging River Dike Rd (312th Way SE) From Upper Preston Rd SE to Under I-90 Overpass	Safety					Low				5	$20	Construct Guardrail
BR-1086B	Rural - N/O I-90	Coal Creek Bridge #1086B On 378th Ave SE Crossing Coal Creek	Bridge			High						3	$1,294	Construct short-span bridge
RC-38	Rural - N/O I-90	NE 100 St From West Snoqualmie Valley Rd to 284 Ave NE	Preservation				Medium					5	$627	Armor Shoulders @$100/cyd
200512	Rural - N/O I-90	Upper Preston Rd From SE 97th St to SE 97th St	Preservation				High					4	$2,380	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	2	$448	Construct AC shoulder (North Side)

Number	PAA	Location	Need	Priorities: ITS	Safety	Bridge	Reconst.	Guardrail	Operational	Capacity	Nonmotorized	TIER Level	Cost-000	Comments
OP-RD-37	Rural - N/O I-90	Tolt Hill Rd From Tolt Hill Bridge To 500' WEST OF SR-203	Capacity Minor						Medium			2	$1,583	Reconstruct Roadway
GR-98	Rural - N/O I-90	Fish Hatchery Rd From SR-202 To SR-202	Safety					Low				5	$322	Construct Guardrail
RC-34	Rural - N/O I-90	284th Ave NE From NE 100 St to NE Carnation Farm Rd	Preservation				Low					5	$192	Armor Shoulders @$100/cyd
GR-28	Rural - N/O I-90	David Powell Rd From Preston-Fall City Rd SE To End of route	Safety					Low				4	$197	Construct Guardrail
BR-909B	Rural - S/O I-90	Clough Creek (Kimball Creek) Bridge #909B SE 141st St Crossing Clough Creek	Bridge			Low						5	$1,294	Construct short-span bridge
BR-359C	Rural - N/O I-90	Lake Dorothy Overflow Bridge #359C SE Lake Dorothy Rd Crossing Overflow	Bridge			Medium						4	$1,294	Construct short-span bridge
OP-RD-54	Rural - N/O I-90	Middle Fork Snoqualmie River Rd From 476 Ave SE to 496 Ave SE	Safety									4	$3,409	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.

Number	PAA	Location	Need	Priorities								TIER Level	Cost-000	Comments
				ITS	Safety	Bridge	Reconst.	Guardrail	Operational	Capacity	Nonmotorized			
GR-82	Rural - N/O I-90	384th Ave SE From SE 92ND St To North Bend Way	Safety					Low				3	$14	Construct Guardrail
GR-94	Rural - N/O I-90	NE 124th St From SR 203 To End of route	Safety					Low				4	$291	Construct Guardrail
BR-61B	Rural - N/O I-90	Fish Hatchery Bridge #61B SE Fish Hatchery Rd Crossing drainage ditch	Bridge			Low						5	$1,294	Construct short-span bridge
RC-57	Rural - N/O I-90	Old Cascade Highway at Miller River	Preservation				Low					3	$4,917	Overflow is working as designed
200215	Rural - N/O I-90	Tate Creek Bridge #122N On SE 73RD St Crossing TATE Creek	Bridge			High						4	$1,291	See King County Capital Improvement Program (CIP) document or website for detailed project description including scope.
RC-55	Rural - N/O I-90	Money Creek Rd at Money Creek	Preservation				Low					4	$738	20ft tall wall
OP-RD-4	Rural - N/O I-90	Ames Lake Rd From Union Hill To SR-202	Capacity Minor						Medium			2	$8,872	Realign Roadway--Widen Travel Lanes--Pave Shoulders
200313	Rural - N/O I-90	SE Middle Fork Snoq River Rd at HSE 49040	Drainage									4	$594	Drainage improvement

Number	PAA	Location	Need	Priorities: ITS	Safety	Bridge	Reconst.	Guardrail	Operational	Capacity	Nonmotorized	TIER Level	Cost-000	Comments
CORRIDOR: Mt. Si Rd														
NM-5065	Rural - N/O I-90	Mt Si Rd From Mt. Si Trail To NW Corner of Section 8	Nonmotorized								Low	3	$2,808	Provide Nonmotorized Facility
GR-75	Rural - N/O I-90	Mt Si Rd From North Bend city limits To End of route	Safety					Low				3	$14	Construct Guardrail
NM-5064	Rural - N/O I-90	Mt Si Rd From North Bend city limits To Mt. Si Trail	Nonmotorized								Medium	3	$1,071	Provide Nonmotorized Facility
OP-RD-39	Rural - N/O I-90	Mt Si Rd From 452 Ave SE To 800' E	Capacity Minor						Low			3	$446	Realign Roadway
CORRIDOR: NE 80 St														
RC-36	Rural - N/O I-90	NE 80th St From West Snoqualmie Valley Rd to Ames Lake-Carnation Rd	Preservation				Medium					3	$1,400	Armor Shoulders @$100/cyd
OP-RD-40	Rural - N/O I-90	NE 80th St From West Snoqualmie Valley Rd To Ames Lake Rd	Capacity Minor						Low			3	$4,153	Reconstruct Roadway
CORRIDOR: NE Cherry Valley Rd														
BR-5007	Rural - N/O I-90	Kelly Rd Bridge #5007 On Kelly Rd NE Crossing drainage ditch	Bridge			High						2	$1,294	Construct short-span bridge

Number	PAA	Location	Need	Priorities								TIER Level	Cost-000	Comments
				ITS	Safety	Bridge	Reconst.	Guardrail	Operational	Capacity	Nonmotorized			
NM-9916	Rural - N/O I-90	322nd Ave NE From NE Big Rock Rd to NE 130 St	Nonmotorized								Low	5	$526	Construct gravel shoulder (West Side)
CORRIDOR: Neal Rd SE														
200212	Rural - N/O I-90	C.W. Neal Road Bridge #249C On C.W. Neal Rd Crossing drainage ditch	Bridge			High						4	$1,602	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					4	$1,179	Armor Shoulders @$100/cyd
200112	Rural - N/O I-90	C.W. Neal Road Bridge #249B On C.W. Neal Rd Crossing drainage ditch	Bridge			High						4	$1,523	See King County Capital Improvement Program (CIP) document or website for detailed project description including scope.
RC-7	Rural - N/O I-90	Neal Rd SE Sinkhole Repair	Reconstruction				High					4	$329	Work with WSDOT to realign road. Other possiblity includes vacating road.
CORRIDOR: Preston-Fall City Rd														
OP-INT-88	Rural - N/O I-90	Preston-Fall City Rd & SE 43 St	Operations						Low			1	$696	Realign Intersection

Number	PAA	Location	Need	Priorities: ITS	Safety	Bridge	Reconst.	Guardrail	Operational	Capacity	Nonmotorized	TIER Level	Cost-000	Comments
200310	Rural - N/O I-90	Preston-Fall City RD SE Slide Repair	Reconstruction									1	$0	See King County Capital Improvement Program (CIP) document or website for detailed project description including scope.
200209	Rural - N/O I-90	Preston-Fall City / High Pt Way & SE 82nd St	Operations		High							1	$1,500	See King County Capital Improvement Program (CIP) document or website for detailed project description including scope.
NM-5060	Rural - N/O I-90	Preston-Fall City Rd From Regional Trail Crossing to SR-202	Nonmotorized								High	1	$9,753	Provide Nonmotorized Facility
BR-186J	Rural - N/O I-90	Fire Station Bridge #186J On Preston-Fall City Rd Crossing Unimproved undercrossing	Bridge			High						1	$1,294	Construct short-span bridge
ITS-14	Rural - N/O I-90	Preston Fall City Rd ITS From I-90 to SR 202	ITS	Medium								1	$5,919	Provide Intelligent Transportation System improvements which could include cameras; weather monitoring; vehicle detection

Number	PAA	Location	Need	Priorities: ITS	Safety	Bridge	Reconst.	Guardrail	Operational	Capacity	Nonmotorized	TIER Level	Cost-000	Comments
CORRIDOR: W Snoqualmie River Rd														
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								3	$463	Provide Intelligent Transportation System improvements which could include vehicle detection; cameras; pavement condition sensors
BR-228F	Rural - N/O I-90	312th Ave SE Bridge #228F On West Snoqualmie River Rd Crossing drainage ditch	Bridge			High						3	$1,294	Construct short-span bridge
GR-80	Rural - N/O I-90	West Snoqualmie River Rd From SE 24th St To Tolt Hill Rd	Safety					Low				3	$91	Construct Guardrail
RC-17	Rural - N/O I-90	SE 24th St From 309th Ave SE To W. Snoqualmie River Rd	Preservation				Medium					3	$342	Armor Shoulders
RC-18	Rural - N/O I-90	West Snoqualmie River Rd From NE Tolt Hill Rd To SE 24th St	Preservation				Medium					3	$6,558	Armor Shoulders
BR-916A	Rural - N/O I-90	West Snoqualmie River Rd Bridge #916A West Snoqualmie River Rd Crossing slough	Bridge			Medium						3	$1,294	Construct short-span bridge
RC-32	Rural - N/O I-90	Tolt Hill Rd From Tolt Hill Bridge to SR-203	Preservation				Medium					2	$118	Armor Shoulders @$100/cyd

Number	PAA	Location	Need	Priorities: ITS	Safety	Bridge	Reconst.	Guardrail	Operational	Capacity	Nonmotorized	TIER Level	Cost-000	Comments
CORRIDOR: W Snoqualmie Valley Rd														
OP-INT-122	Rural - N/O I-90	NE 124th St & West Snoqualmie Valley Rd	Operations						High			2	$5,149	Construct right turn pocket and modify existing signalization.
ITS-18	Rural - N/O I-90	West Snoqualmie Valley Rd NE ITS From NE Woodinville Duvall Road to Ames Lake Rd	ITS	Medium								2	$659	Provide Intelligent Transportation System improvements which could include vehicle detection; cameras; flood detection; weather monitoring station
200311	Rural - N/O I-90	West Snoqualmie Valley Rd From NE 80 St To Ames Lake Carnation Rd	Reconstruction			High	High					2	$7,221	See King County Capital Improvement Program (CIP) document or website for detailed project description including scope.
RC-113	Rural - N/O I-90	West Snoqualmie Valley Rd From NE 124 St To NE Novelty Hill Rd	Reconstruction				Medium					2	$335	Reconstruct roadway .28 mile
BR-5009B	Rural - N/O I-90	Snoqualmie Valley Rd Bridge #5009B	Bridge			High						2	$0	Construct short-span bridge. Bridge is funded with CIP #200311
RC-150	Rural - N/O I-90	West Snoqualmie Valley Rd From Snohomish County Line to Woodinville-Duvall Rd	Preservation				High					2	$3,235	10ft wall@$30/psf (Length=4700ft)

Number	PAA	Location	Need	Priorities: ITS	Safety	Bridge	Reconst.	Guardrail	Operational	Capacity	Nonmotorized	TIER Level	Cost-000	Comments
200213	Rural - N/O I-90	Woodinville-Duvall Rd & W. Snoqualmie Valley Rd	Safety		Low				High			1	$3,052	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					2	$3,466	10ft wall@$30/psf (Length=4,700 ft)
200113	Rural - N/O I-90	West Snoqualmie Valley Rd From NE 124th St to NE Woodinville-Duvall Rd	Preservation									2	$2,134	See King County Capital Improvement Program (CIP) document or website for detailed project description including scope.
CORRIDOR: Woodinville-Duvall Rd														
BR-1136B	Rural - N/O I-90	Duvall Slough #1136B On Woodinville-Duvall Rd Crossing Duvall Slough	Bridge			High						1	$2,121	Upgrade bridge rail and repair concrete deck

Number	PAA	Location	Need	Priorities: ITS	Safety	Bridge	Reconst.	Guardrail	Operational	Capacity	Nonmotorized	TIER Level	Cost-000	Comments
County Subarea: Soos Creek														
CORRIDOR: 132-140 Ave SE														
SW-91	Urban - Fairwood PAA	140 Ave SE & SE 184 St (Carriage Crest Elementary School)	Operations		Low							1	$707	Install traffic signal
BR-3109B	Urban - Fairwood PAA	Lake Youngs Way Bridge #3109B SE Lake Youngs Way Crossing Soos Creek	Bridge			High						1	$1,294	Construct short-span bridge
SW-81	Urban - Fairwood PAA	140 Ave SE & SE 200 St	Operations		Low							1	$1,494	Intersection Operational Improvement
CORRIDOR: Lake Holm Rd														
ITS-30	Rural - S/O I-90	Lake Holm Rd ITS From 148th Ave SE to Auburn Black Diamond Rd.	ITS	Low								2	$52	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		2	$933	Widen Roadway
CORRIDOR: Misc														
BR-3109	Urban - NE Kent PAA	Soos Creek Bridge #3109 On SE 224th St Crossing Soos Creek	Bridge			High						4	$1,294	Replace Bridge

Number	PAA	Location	Need	Priorities: ITS	Safety	Bridge	Reconst.	Guardrail	Operational	Capacity	Nonmotorized	TIER Level	Cost-000	Comments
RC-50	Rural - S/O I-90	196th Ave SE From SE 161 St to SE 170 St	Preservation				Medium					2	$996	Retaining wall 10' high
NM-9966	Urban - Fairwood PAA	Lake Youngs Pipeline Pathway From vicinity of 155 Pl SE	Nonmotorized								Low	5	$39	Construct AC walkway
BR-3109A	Urban - NE Kent PAA	Soos Creek Bridge #3109A SE 216th St Crossing Soos Creek	Bridge			High						4	$1,294	Construct short-span bridge
300810	Rural - S/O I-90	Alvord T Bridge #3130	Bridge			High						5	$676	See King County Capital Improvement Program (CIP) document or website for detailed project description including scope.
OP-INT-90	Rural - S/O I-90	196th Ave SE & SE 192 St	Operations						Medium			2	$1,974	Reconstruct Intersection--Improve Sight Distance--Turn Channels
NM-5015	Urban - Not in primary PAAs	Green River Rd SE From S 258 St To SE 277 St	Nonmotorized								Medium	3	$9,422	Provide Nonmotorized Facility
NM-9965	Urban - Fairwood PAA	SE 183rd St From 142 Ave SE to 147 Ave SE	Nonmotorized								Low	5	$252	Construct sidewalk (South Side)
GR-88	Rural - S/O I-90	156th Ave SE From SE 240th St To CITY LIMIT	Safety					Low				5	$14	Construct Guardrail
OP-INT-102	Rural - S/O I-90	148th Ave SE & SE 308th St	Operations						Low			3	$787	Improve Sight Distance

Number	PAA	Location	Need	Priorities: ITS	Safety	Bridge	Reconst.	Guardrail	Operational	Capacity	Nonmotorized	TIER Level	Cost-000	Comments
OP-RD-27	Rural - S/O I-90	164th Ave SE From SE 240 St To SE 248 St	Capacity Minor						Medium			3	$144	Pave Shoulders
DR-9	Rural - S/O I-90	164th Ave SE south of SE 224th St	Drainage									3	$983	Drainage improvement
CORRIDOR: Petrovitsky Rd														
OP-INT-106	Urban - Fairwood PAA	Petrovitsky Rd & SE 192nd St	Operations						Low			1	$787	Provide SE Bound Left Turn Lane
SW-13	Rural - S/O I-90	Petrovitsky Rd & Sweeney Rd	Operations		High							1	$1,494	Intersection Operational Improvement
CP-15	Urban - Fairwood PAA	140th Ave SE & Petrovitsky Rd	Capacity Major						TBD			1	$0	Widen all legs of intersection to increase capacity. For project costs see project HAL-14
OP-INT-85	Rural - S/O I-90	Petrovitsky Rd SE & SE 184 St Crossing	Operations						Low			1	$420	Pedestrian Crossing Signals
HAL-59	Urban - Fairwood PAA	SE 176th St & SE Petrovitsky Rd	Safety		Low							1	$1,951	Eastbound dual lefts and PO phasing
RC-3	Urban - Fairwood PAA	Petrovitsky Rd From 134 Ave SE to 143 Ave SE	Reconstruction				High					1	$2,642	Road Reconstruction
HAL-81	Rural - S/O I-90	196th Ave SE & SE Petrovitsky Rd	Safety		Medium							1	$1,071	Construct Roundabout

Number	PAA	Location	Need	Priorities: ITS	Safety	Bridge	Reconst.	Guardrail	Operational	Capacity	Nonmotorized	TIER Level	Cost-000	Comments
SW-18	Urban - Fairwood PAA	Petrovitsky & 162nd Pl SE	Operations		High							1	$1,494	Intersection Operational Improvement
HAL-14	Urban - Fairwood PAA	140th Ave SE & SE Petrovitsky Rd	Safety		Medium							1	$15,471	Widen all legs of intersection to increase capacity.
CORRIDOR: SE 208-212 St														
SW-17	Rural - S/O I-90	148th Ave SE & SE 208th St	Operations		Medium							2	$1,494	Intersection Operational Improvement
NM-5038	Rural - S/O I-90	SE 208th St From 132th Ave SE To 148th Ave SE	Nonmotorized								Medium	3	$322	Provide Nonmotorized Facility
BR-3110	Urban - NE Kent PAA	Soos Creek Bridge #3110 On SE 208 St Crossing Soos Creek	Bridge			Medium						3	$1,294	See King County Capital Improvement Program (CIP) document or website for detailed project description including scope.
CORRIDOR: SE 224 St														
SW-20	Rural - S/O I-90	148th Ave SE & SE 224th St	Operations		Medium							2	$1,494	Intersection Operational Improvement
NM-5071	Rural - S/O I-90	SE 232 St From 196 Ave SE St To SR-18	Nonmotorized								High	3	$1,144	Provide Nonmotorized Facility
NM-4036	Rural - S/O I-90	SE 224th St From 172 Ave SE to 180 Ave SE	Nonmotorized								TBD	3	$52	Widen walkway

Number	PAA	Location	Need	Priorities: ITS	Safety	Bridge	Reconst.	Guardrail	Operational	Capacity	Nonmotorized	TIER Level	Cost-000	Comments
CORRIDOR: SE 240 St														
NM-5068	Rural - S/O I-90	SE 240th St From 148 Ave SE (south side) To 164 Ave SE	Nonmotorized								Medium	2	$645	Provide Nonmotorized Facility
NM-4033	Rural - S/O I-90	164th Ave SE From SE 224 St to SE 240 St	Nonmotorized								TBD	3	$92	Widen pathway and improve lighting
NM-5069	Rural - S/O I-90	SE 240th St From 164 Ave SE To 180 Ave SE	Nonmotorized								Medium	2	$645	Provide Nonmotorized Facility
NM-5032	Rural - S/O I-90	SE 240th St From 196 Ave SE To SR-18	Nonmotorized								Medium	2	$1,938	Provide Nonmotorized Facility
NM-4041	Rural - S/O I-90	SE 240th St From 156 Ave SE to 172 Ave SE	Nonmotorized								TBD	2	$26	Widen walkway
SW-56	Rural - S/O I-90	164th Pl SE & SE 240th St	Operations		Medium							2	$1,494	Intersection Operational Improvement
DR-10	Rural - S/O I-90	Little Soos Creek at SE 240th St (west of MB #17401)	Drainage									2	$1,525	Drainage improvement

Number	PAA	Location	Need	Priorities: ITS	Safety	Bridge	Reconst.	Guardrail	Operational	Capacity	Nonmotorized	TIER Level	Cost-000	Comments
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	1	$58	Construct pathway (West Side)
RC-125	Rural - S/O I-90	276 Ave SE From SR 18 To SE 200 St	Reconstruction				Medium					1	$1,165	Reconstruct roadway 1.18 mile
400513	Rural - N/O I-90	Carey Creek at 276th Ave SE (Mainstem)	Drainage									1	$3,415	Drainage improvement
RC-126	Rural - S/O I-90	276 Ave SE From SE 200 St To SE 216 St	Reconstruction				Medium					1	$1,348	Reconstruct roadway 1.0 mile
RC-127	Rural - S/O I-90	276 Ave SE From SE 216 St To SE Summit Landsburg Rd	Reconstruction				Medium					1	$3,800	Reconstruct roadway 2.59 miles
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					1	$271	Reconstruct roadway .23 mile
RC-139	Rural - S/O I-90	Auburn-Black Diamond Rd From SE Lake Holm Rd To 148 Way SE	Reconstruction				Medium					1	$3,576	Reconstruct roadway 2.18 miles

Number	PAA	Location	Need	Priorities: ITS	Safety	Bridge	Reconst.	Guardrail	Operational	Capacity	Nonmotorized	TIER Level	Cost-000	Comments
RC-137	Rural - S/O I-90	Auburn Black Diamond Rd From SR 18 To SE Green Valley Rd	Reconstruction				High					1	$243	Reconstruct roadway .18 mile
ITS-27	Rural - S/O I-90	Auburn-Black Diamond ITS From At Kent-Black Diamond Rd and SE Lake Holm Rd	ITS	Low								1	$155	Provide Intelligent Transportation System improvements which could include advanced intersection warning system; slide detection
CORRIDOR: Covington-Sawyer Rd														
OP-RD-41	Rural - S/O I-90	Covington-Sawyer Rd From Thomas Rd To 216 Ave SE	Capacity Minor							Medium		2	$8,874	Realign Roadway
SW-11	Rural - S/O I-90	188 Ave SE & Covington-Sawyer Road	Operations		Low							2	$1,494	Intersection Operational Improvement
400713	Rural - S/O I-90	SE Covington Sawyer Rd from 179 Pl SE to 181 Ave SE	Safety		High							2	$1,034	Add eastbound left turn lane at 181st Ave SE, improve sight distance widen shoulders and add rumble strips. Consider realigning 179th Ave SE intersection, adding two-way left turn lane from 179th Ave SE to 181st Ave SE, and improving superelevation on horizontal curve east of 181st Ave SE.
NM-4054	Rural - S/O I-90	Covington-Sawyer Rd From 188 Ave SE to 192 Pl SE	Nonmotorized								TBD	2	$172	Construct walkway (North Side)

Number	PAA	Location	Need	Priorities: ITS	Safety	Bridge	Reconst.	Guardrail	Operational	Capacity	Nonmotorized	TIER Level	Cost-000	Comments
400613	Rural - S/O I-90	181 Ave SE & SE Covington Sawyer Rd	Safety		High							2	$1,034	Add eastbound left turn lane at 181st Ave SE, improve sight distance widen shoulders and add rumble strips. Consider realigning 179th Ave SE intersection, adding two-way left turn lane from 179th Ave SE to 181st Ave SE, and improving superelevation on horizontal curve east of 181st Ave SE.
3P-9973	Rural - S/O I-90	Covington-Sawyer Rd From 164 Pl SE to 180 Ave SE	Nonmotorized								Low	2	$329	Construct AC shoulder (South Side)
SW-58	Rural - S/O I-90	164th Pl SE & SE Covington-Sawyer Rd	Operations		Medium							2	$1,494	Intersection Operational Improvement
RC-6	Rural - S/O I-90	Covington-Sawyer Rd From Covington C/L to 216 Ave SE	Reconstruction				High					2	$1,254	Road Rehabilitation
NM-9974	Rural - S/O I-90	Covington-Sawyer Rd From east of 181 Ave SE	Nonmotorized								Low	2	$205	Construct AC shoulder (North Side)
CORRIDOR: Green Valley Rd														
400311	Rural - S/O I-90	Green Valley Rd Bridge #3020 SE Greeen Valley Rd Crossing drainage ditch	Bridge			High						3	$1,003	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	TIER Level	Cost-000	Comments
400411	Rural - S/O I-90	Green Valley Rd Bridge #3022	Bridge			High						3	$1,003	See King County Capital Improvement Program (CIP) document or website for detailed project description including scope.
RC-142	Rural - S/O I-90	SE Green Valley Rd From 243 Ave SE To SR-169	Reconstruction				High					3	$1,633	Reconstruct roadway 1.3 miles
CORRIDOR: Issaquah-Hobart Rd														
OP-INT-123	Rural - S/O I-90	Issaquah-Hobart Rd & Cedar Grove Rd	Operations									1	$0	Construct Roundabout. Project costs included in CIP # 400510
OP-RD-53	Rural - S/O I-90	Issaquah-Hobart Rd From Issaquah City Limits to May Valley Rd	Operations									1	$1,071	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					1	$2,027	Reconstruct roadway .98 mile
400510	Rural - S/O I-90	Fifteen Mile Creek Bridge #1384A On Issaquah-Hobart Rd Over Fifteen Mile Creek	Bridge			High						1	$10,135	Conduct Feasibility/Needs Study--Replace Bridge
RC-118	Rural - S/O I-90	Issaquah-Hobart Rd SE From City Limit To SE May Valley Rd	Reconstruction				Medium					1	$680	Reconstruct roadway 1.86 miles

Number	PAA	Location	Need	Priorities: ITS	Safety	Bridge	Reconst.	Guardrail	Operational	Capacity	Nonmotorized	TIER Level	Cost-000	Comments
RC-120	Rural - S/O I-90	Issaquah-Hobart Rd SE From Cedar Grove Rd To SE 156 St	Reconstruction				High					1	$1,740	Reconstruct roadway 1.2 miles
ITS-15	Rural - S/O I-90	Issaquah-Hobart Rd ITS From Cedar Grove Rd to SR 18	ITS	Medium								1	$756	Provide Intelligent Transportation System improvements which could include cameras; vehicle detection; data stations; message signs; weather station
RC-121	Rural - S/O I-90	Issaquah-Hobart Rd SE From SE 156 St To SR 18	Reconstruction				High					1	$2,977	Reconstruct roadway 2.27 miles
200612	Rural - S/O I-90	Issaquah-Hobart Rd SE from SE 111 St to SE 113 St	Safety		High							1	$724	Add a two-way left turn lane and rumble strips.
OP-RD-22	Rural - S/O I-90	May Valley Rd From SE 128 WY To Issaquah-Hobart Rd	Capacity Minor						Medium			1	$8,283	Widen Travel Lanes
OP-INT-124	Rural - S/O I-90	Issaquah-Hobart Rd & May Valley Rd	Operations									1	$0	Construct Roundabout. Project costs included in CIP # 400510
CORRIDOR: Kent-Black Diamond Rd														
NM-5035	Rural - S/O I-90	Kent-Black Diamond Rd From SR-18 To SE Lake Holm Rd	Nonmotorized								Medium	1	$2,155	Provide Nonmotorized Facility

Number	PAA	Location	Need	Priorities: ITS	Safety	Bridge	Reconst.	Guardrail	Operational	Capacity	Nonmotorized	TIER Level	Cost-000	Comments
400600	Rural - S/O I-90	Berrydale Overcrossing #3086OX & 290th	Bridge			High						1	$3,702	See King County Capital Improvement Program (CIP) document or website for detailed project description including scope.
OP-INT-97	Rural - S/O I-90	Thomas Rd & Kent-Black Diamond Rd	Operations						Medium			1	$810	Realign Intersection
400116	Rural - S/O I-90	Kent-Black Diamond Rd at SE 292nd St (Jenkin Creek)	Drainage									1	$1,035	Drainage improvement
BR-3082	Rural - S/O I-90	Covington Creek Bridge #3082 Auburn-Black Diamond Road Crossing Covington Creek	Bridge			High						1	$1,294	Construct short-span bridge
BR-3084	Rural - S/O I-90	Covington Creek Bridge #3084	Bridge			High						1	$1,294	Replace Bridge
CORRIDOR: Kent-Kangley Rd														
OP-INT-92	Rural - S/O I-90	Kent-Kangley Rd & Kanaskat-Retreat Rd	Operations						High			2	$0	Realign Intersection--Turn Channels. For project costs see project HAL-75
RC-133	Rural - S/O I-90	Kent Kangley Rd From Landsburg Rd SE To Retreat Kanaskat Rd SE	Reconstruction				Medium					2	$2,031	Reconstruct roadway 1.18 miles
RC-132	Rural - S/O I-90	Kent Kangley Rd From City Limit To Landsburg Rd	Reconstruction				Low					2	$2,015	Reconstruct roadway 1.14 miles

Number	PAA	Location	Need	Priorities: ITS	Safety	Bridge	Reconst.	Guardrail	Operational	Capacity	Nonmotorized	TIER Level	Cost-000	Comments
400212	Rural - S/O I-90	Kent-Kangley Rd, west of #26428	Drainage									2	$0	Drainage improvement
HAL-72	Rural - S/O I-90	Kent Kangley Rd & Landsburg Rd SE	Safety		High							1	$3,776	Intersection Operational Improvement
HAL-75	Rural - S/O I-90	Kent-Kangley & Retreat-Kanaskat Rd	Safety		Medium							2	$1,071	Realine eastbound and northbound approaches, roundabout
OP-INT-121	Rural - S/O I-90	Kent-Kangley Rd & Landsburg Rd	Operations		High							1	$0	Traffic Signal or roundabout. For project costs see project HAL-72
NM-5051	Rural - S/O I-90	Black Diamond-Ravensdale Rd From SR-169 To Kent-Kangley Rd	Nonmotorized								High	2	$2,327	Provide Nonmotorized Facility
CORRIDOR: Lake Holm Rd														
SW-27	Rural - S/O I-90	Auburn-Black Diamond & Green Valley Rd	Operations		Low							1	$1,494	Intersection Operational Improvement
RC-140	Rural - S/O I-90	Lake Holm Rd From Auburn Black Diamond Rd To 147 Ave SE	Reconstruction				High					2	$1,865	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						5	$1,294	Construct short-span bridge

Number	PAA	Location	Need	Priorities: ITS	Safety	Bridge	Reconst.	Guardrail	Operational	Capacity	Nonmotorized	TIER Level	Cost-000	Comments
BR-3202	Rural - S/O I-90	Maxwell Rd Bridge #3202 225th Ave SE Crossing cattle UX	Bridge			Low						5	$1,294	Construct short-span bridge
CORRIDOR: Misc														
400610	Rural - S/O I-90	Fifteen Mile Creek Bridge #1384B	Bridge			High						4	$1,622	See King County Capital Improvement Program (CIP) document or website for detailed project description including scope.
RC-128	Rural - S/O I-90	Landsburg Rd SE From SE Summit Landsburg Rd To SE Kent Kangley Rd	Reconstruction				Medium					1	$1,657	Reconstruct roadway 1.27 miles
400309	Rural - S/O I-90	Summit-Landsburg Rd From City Limit To Landsburg Rd SE	Reconstruction				High					3	$6,830	See King County Capital Improvement Program (CIP) document or website for detailed project description including scope.
DR-7	Rural - S/O I-90	Dry Creek at NE 40 St	Drainage									5	$500	Drainage improvement
GR-54	Rural - S/O I-90	Lake Francis Rd From Cedar Grove Rd To SE 192nd St	Safety					High				3	$18	Construct Guardrail
NM-5034	Rural - S/O I-90	168th Way (Ave) SE From Kent-Black Diamond Rd To Auburn-Black Diamond Rd	Nonmotorized								Medium	3	$776	Provide Nonmotorized Facility

Number	PAA	Location	Need	Priorities								TIER Level	Cost-000	Comments
				ITS	Safety	Bridge	Reconst.	Guardrail	Operational	Capacity	Nonmotorized			
NM-5050	Rural - S/O I-90	Sweeney Rd SE From 196 Ave SE To SE 232 St	Nonmotorized								High	3	$1,077	Provide Nonmotorized Facility
NM-9980	Rural - S/O I-90	168th Way SE & Covington Creek	Nonmotorized								Medium	3	$59	Widen bridge and construct sidewalk (East Side)
BR-3097	Rural - S/O I-90	Dorre Don Way Bridge #3097 Dorre Don Way Crossing drainage ditch	Bridge			Medium						4	$1,294	Construct short-span bridge
GR-95	Rural - S/O I-90	Courtney Rd From Kanaskat-Kangley Rd To End of route	Safety					Low				4	$14	Construct Guardrail
GR-93	Rural - S/O I-90	SE 200th St From 276th Ave SE To 244th Ave SE	Safety					Low				3	$37	Construct Guardrail
NM-0202	Rural - S/O I-90	195th Ave SE From Lake Morton DR SE to SE 320 St	Nonmotorized								Medium	3	$86	Construct AC shoulder (West Side)
GR-113	Rural - S/O I-90	SE Lake Walker Rd From 316 Ave SE to W Lake Walker Dr SE	Safety									4	$16	Construct Guardrail
GR-57	Rural - S/O I-90	SE 208th St From 276th Ave SE To End of Route	Safety					Low				4	$410	Construct Guardrail
RC-135	Rural - S/O I-90	Black Diamond Ravensdale From SE Kent Kangley Rd To 268 Ave SE	Reconstruction				Medium					2	$686	Reconstruct roadway .6 mile

Number	PAA	Location	Need	Priorities: ITS	Safety	Bridge	Reconst.	Guardrail	Operational	Capacity	Nonmotorized	TIER Level	Cost-000	Comments
OP-INT-98	Rural - S/O I-90	SE 235th Pl & 244 Ave SE	Operations						Low			3	$465	Improve Sight Distance
NM-5047	Rural - S/O I-90	244th Ave SE From SR-18 To SE 196 St	Nonmotorized								Low	3	$551	Provide Nonmotorized Facility
CORRIDOR: Petrovitsky Rd														
ITS-24	Rural - S/O I-90	Petrovitsky/Sweeney Rd SE ITS From 151st Ave SE and SR 18	ITS	Medium								1	$9,042	Provide Intelligent Transportation System improvements which could include vehicle detection; cameras; fiber optic communications, weather station
CORRIDOR: Retreat-Kanaskat Rd														
GR-63	Rural - S/O I-90	Cumberland-Kanaskat Rd From Retreat-Kanaskat Rd To SE 352nd St	Safety					High				2	$136	Construct Guardrail
RC-136	Rural - S/O I-90	Retreat Kanaskat Rd SE From SE Kent Kangley Rd To Cumberland Kanaskat Rd	Reconstruction				High					2	$3,651	Reconstruct roadway 3.04 miles
OP-INT-91	Rural - S/O I-90	Stampede Pass Rail & Hudson Rd RR Crossing	Operations						Medium			4	$88	Reconstruct Intersection--Traffic Signal
OP-INT-72	Rural - S/O I-90	Stampede Pass Rail & Greenriver Headworks Rd	Operations						Low			2	$88	Reconstruct Intersection--Traffic Signal

Number	PAA	Location	Need	Priorities: ITS	Safety	Bridge	Reconst.	Guardrail	Operational	Capacity	Nonmotorized	TIER Level	Cost-000	Comments
GR-11	Rural - S/O I-90	SE 309th St From Cumberland-Kanaskat To End of route	Safety					Low				2	$119	Construct Guardrail
OP-INT-93	Rural - S/O I-90	Kanaskat-Kangley Rd & Cumberland-Kanaskat Rd	Operations						High			2	$431	Realign Intersection
CORRIDOR: SE 216 St														
OP-INT-95	Rural - S/O I-90	SE 216th Way & Dorre Don Way	Operations						Low			2	$334	Turn Channels
RC-129	Rural - S/O I-90	SE 216 Way From SR 169 To 244 Ave SE	Reconstruction				High					2	$1,675	Reconstruct roadway 1.13 miles
RC-130	Rural - S/O I-90	SE 216 St From 244 Ave SE To 276 Ave SE	Reconstruction				High					2	$2,297	Reconstruct roadway 2.0 miles
NM-9967	Rural - S/O I-90	SE 216th Way From SR-169 to Dorre Don Way SE	Nonmotorized								Medium	2	$99	Construct sidewalk (East Side)
NM-5049	Rural - S/O I-90	SE 216th St From Approx. 232 Ave SE To 276 Ave SE	Nonmotorized								High	2	$1,163	Provide Nonmotorized Facility

Number	PAA	Location	Need	Priorities: ITS	Safety	Bridge	Reconst.	Guardrail	Operational	Capacity	Nonmotorized	TIER Level	Cost-000	Comments
County Subarea: Vashon														
CORRIDOR: Misc														
GR-79	Rural - Vashon	Cemetery Rd From Westside Highway SW To Vashon Highway SW	Safety					Low				3	$14	Construct Guardrail
RC-58	Rural - Vashon	Cresent Dr SW From West Side Highway to SW Cove Road	Preservation				Low					2	$615	Rebuild Roadway with New Base
NM-9959	Rural - Vashon	107th Ave SW From SW 228 St to SW 232 St	Nonmotorized								Medium	5	$296	Construct AC shoulder (West Side)
RC-59	Rural - Vashon	Kingsbury Beach Rd From SW 234 St to 80 Ave SW	Preservation				Low					5	$615	Rebuild Roadway with New Base
300413	Rural - Vashon	SW Cemetery Rd / Beall Rd From 107 Ave SW to SW 184 ST	Nonmotorized									2	$762	Construct 5-6 foot wide asphalt pathway
DR-8	Rural - Vashon	SW 171 Place@ 9334 (Gorsuch Creek)	Drainage									5	$850	Drainage improvement
NM-9975	Rural - Vashon	Tahlequah Rd From near Tahlequah Ferry Dock	Nonmotorized								Low	1	$197	Construct AC shoulder (South Side)
NM-4079	Rural - Vashon	Cemetery Rd From Beall Rd SW to # 9303	Nonmotorized								TBD	2	$86	Improve pathway (South Side)

Number	PAA	Location	Need	Priorities								TIER Level	Cost-000	Comments
				ITS	Safety	Bridge	Reconst.	Guardrail	Operational	Capacity	Nonmotorized			
RC-15	Rural - Vashon	Vashon Highway Seawall From 115th Ave SW To SW 240th Pl	Preservation				High					1	$16,718	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.
GR-83	Rural - Vashon	Point Robinson Rd From Dockton Rd SW To End of route	Safety					Low				3	$451	Construct Guardrail
RC-54	Rural - Vashon	Govenor's Lane From 99 Ave SW to 96 Ave SW	Preservation				Low					4	$2,981	Replace seawall @$2500/ft
GR-70	Rural - Vashon	Beall Rd SW From SW Cemetery Rd To SW Bank Rd	Safety					High				3	$19	Construct Guardrail
NM-0106	Rural - Vashon	Bank Rd From 97 Pl SW to Beall Rd SW	Nonmotorized								High	3	$626	Construct AC shoulder (South Side)
GR-65	Rural - Vashon	Cove Road From Westside Highway SW To Vashon Highway SW	Safety					High				2	$24	Construct Guardrail
GR-69	Rural - Vashon	Wax Orchard Rd SW From SW 220th St To Vashon Highway SW	Safety					High				2	$584	Construct Guardrail

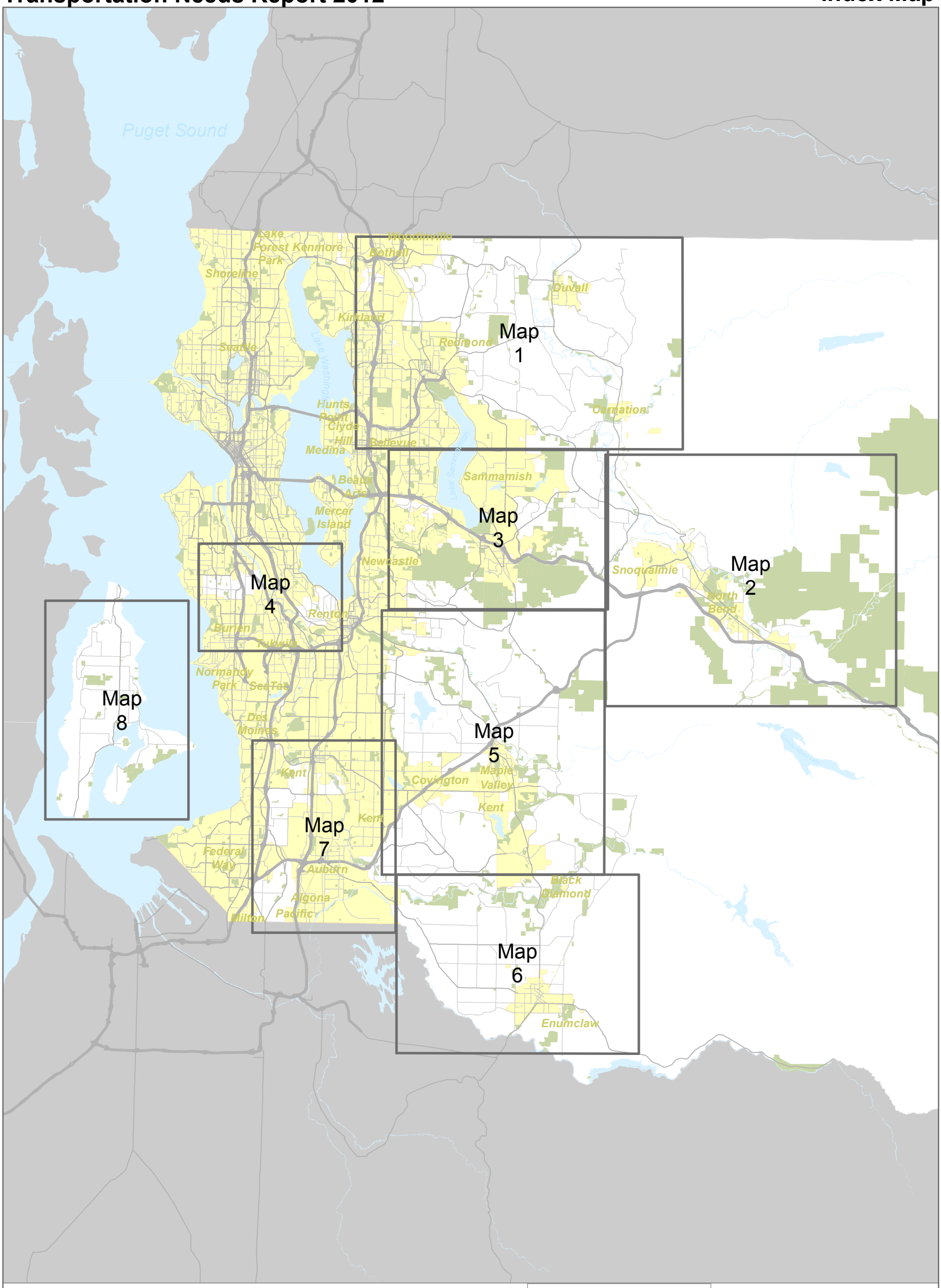
Number	PAA	Location	Need	Priorities: ITS	Safety	Bridge	Reconst.	Guardrail	Operational	Capacity	Nonmotorized	TIER Level	Cost-000	Comments
RC-10	Rural - Vashon	Dockton Road Preservation - Seawall From SW Ellisport Road to Portage Way SW	Preservation				High					5	$33,513	Construct Seawall
RC-27	Rural - Vashon	Quartermaster Drive Seawall From 1/4 mi. east of Monument Rd SW To Dockton Rd SW	Preservation				Medium					2	$406	Replace seawall
GR-97	Rural - Vashon	91st Ave SW From SW 156th St To Gorsuch Rd	Safety					Low				3	$14	Construct Guardrail
GR-106	Rural - Vashon	SW 156th St From 91st Ave SW To Vashon Highway SW	Safety					Low				3	$14	Construct Guardrail
CORRIDOR: Vashon Island Highway-N														
NM-4080	Rural - Vashon	Vashon Island Hwy From #20120 to Metro bus stop	Nonmotorized								TBD	1	$86	Construct separated pathway (East Side)
NM-0203	Rural - Vashon	Vashon Hwy SW / SW Bank Rd From SW 177 St to 98 Pl SW	Nonmotorized								High	1	$86	Construct sidewalk (East and South Sides)
SW-2	Rural - Vashon	Vashon Highway & SW Bank Rd	Operations		High							1	$1,494	Intersection Operational Improvement
SW-96	Rural - Vashon	Vashon Highway & SW Cemetery Rd	Operations		High							1	$1,494	Intersection Operational Improvement

Number	PAA	Location	Need	Priorities: ITS	Safety	Bridge	Reconst.	Guardrail	Operational	Capacity	Nonmotorized	TIER Level	Cost-000	Comments
NM-5054	Rural - Vashon	Bank Rd From 107 Ave SW To Vashon Highway	Nonmotorized								High	3	$645	Provide Nonmotorized Facility
CORRIDOR: Westside Highway														
GR-73	Rural - Vashon	Westside Highway SW From SW 144th St To SW 196th St	Safety					Low				2	$110	Construct Guardrail
GR-76	Rural - Vashon	Westside Highway SW From SW 220th St To SW 196th St	Safety					Low				2	$34	Construct Guardrail
RC-56	Rural - Vashon	Westside Highway SW From Cresent Dr SW to Cresent Dr SW	Preservation				Low					2	$491	Rebuild Roadway with New Base

TNR Project Maps

Transportation Needs Report 2012

Index Map



Map 1 - Bear Creek/Northshore
Map 2 - Snoqualmie Valley/Skykomish
Map 3 - East Sammamish/Newcastle
Map 4 - North Highline/West Hill
Map 5 - Tahoma/Raven Heights/North Soos Creek
Map 6 - Enumclaw
Map 7 - Federal Way/South Soos Creek
Map 8 - Vashon

Parks in King County

King County Incorporated Areas

N

King County

For More Information:
your.kingcounty.gov/kcdot/roads/planning/tnr

1 in = 5 miles

Map produced by KC RoadsGIS: rdsgisgrp@kingcounty.gov

Transportation Needs Report 2012

Bear Creek/Northshore

Map 1

N

- Bridge
- Capacity
- Drainage
- HAL (high accident location)
- Operational
- Signal Warrants
- Capacity
- Guardrail
- ITS (intelligent transportation system)
- Operational
- Pedestrian
- Reconstruction
- Safety (HARS)
- Parks in King County
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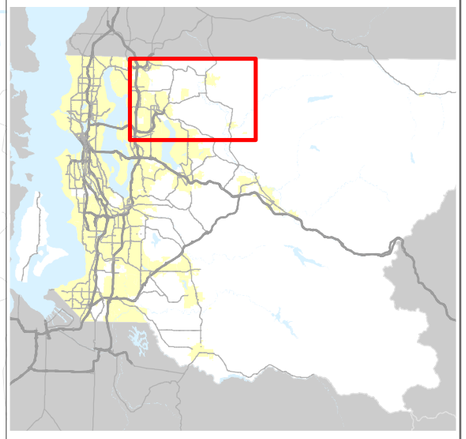
1 in = 1 miles



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Transportation Needs Report 2012

Snoqualmie Valley/Skykomish

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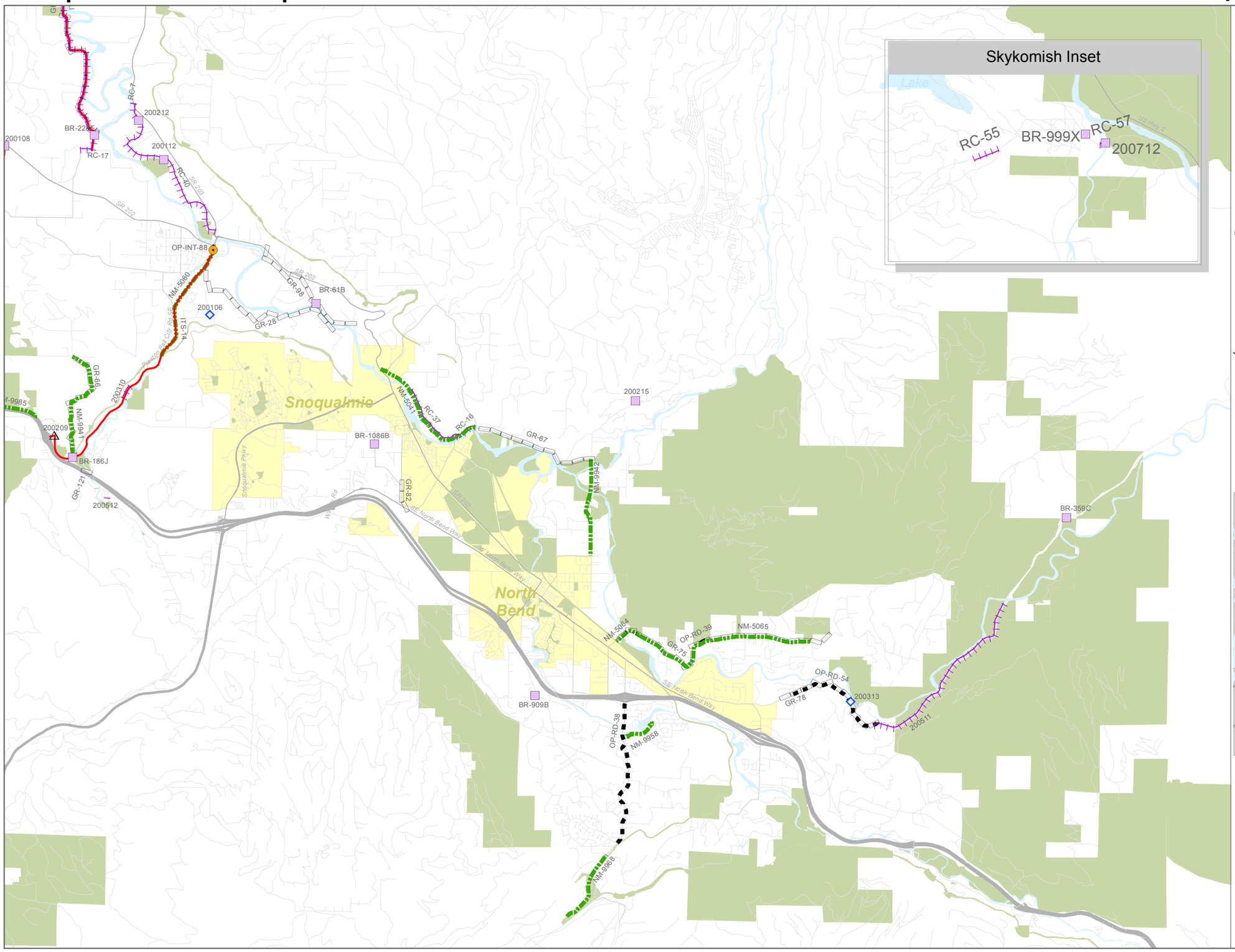

Map 2

- Bridge
- Capacity
- Drainage
- HAL (high accident location)
- Operational
- Signal Warrants
- Capacity
- Guardrail
- ITS (intelligent transportation system)
- Operational
- Pedestrian
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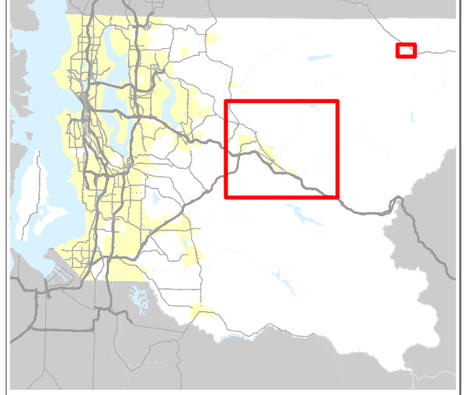
1 in = 1 miles



King County

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Transportation Needs Report 2012

Attachment E to Ordinance 17485
Technical Appendix C: Transportation Needs Report
12-3-12

East Sammamish/Newcastle

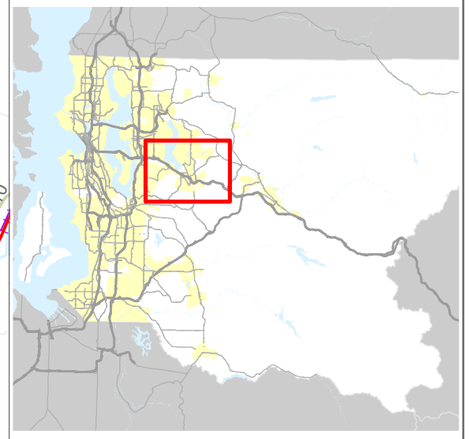
Map 3

N

- Bridge
- Capacity
- Drainage
- HAL (high accident location)
- Operational
- Signal Warrants
- Capacity
- Guardrail
- ITS (intelligent transportation system)
- Operational
- Pedestrian
- Reconstruction
- Safety (HARS)
- Parks in King County
- King County Incorporated Areas

For More Information:
your.kingcounty.gov/kcdot/roads/planning/tnr

1 in = 1 miles



King County

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Bellevue
Lake Sammamish
Sammamish
Issaquah
Newcastle
Renton
Pine Lake
Beaver Lake
NE 8th St
148th Ave NE
148th Ave SE
228th Ave NE
228th Ave SE
Richards Rd
SE Eastgate Way
SE 43rd Way
Lakehorn Blvd SE
E Lake Sammamish Pkwy SE
NW Sammamish Rd
Issaquah Pine Lake Rd SE
Highlands Dr NE
6th Ave NE
NW Maple St
Newcastle Golf Club Rd
Coal Creek Pkwy SE
Duvall Ave NE
SR 202
SR 900
NE 4th St
SE 128th
NM-9918
NM-5030
NM-4009
NM-0109
NM-4010
OP-RD-20
200413
OP-INT-84
200211
ITS-31
OP-RD-11
CP-17
HAL-32
200108
GR-80
ITS-25
BR-2285
RC-17
NM-9985
200209
GR-66
NM-9941
200310
BR-186J
GR-121
200512
OP-RD-24
BR-593C
ITS-34
OP-INT-119
HAL-61
HAL-43
HAL-85
HAL-90
OP-RD-26
200612
OP-RD-53
RC-118

Transportation Needs Report 2012

North Highline/West Hill

Map 4

N

- Bridge
- Capacity
- Drainage
- HAL (high accident location)
- Operational
- Signal Warrants
- Capacity
- Guardrail
- ITS (intelligent transportation system)
- Operational
- Pedestrian
- Reconstruction
- Safety (HARS)
- Parks in King County
- King County Incorporated Areas

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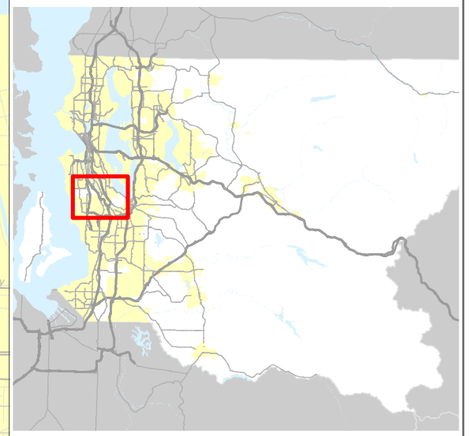
1 in = 1 miles



King County

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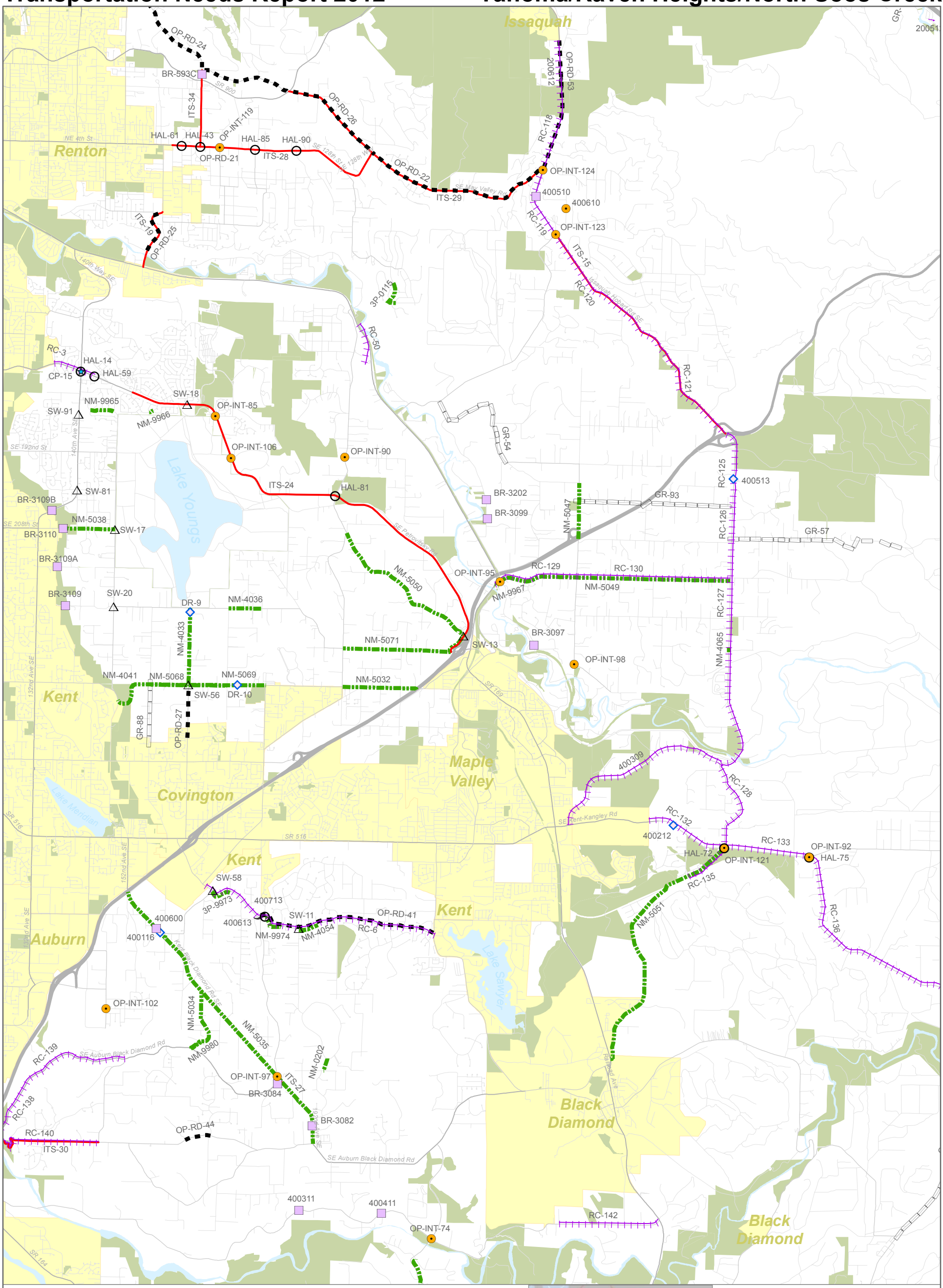
300197
300215
OP-RD-2
NM-9920
300710
NM-5017
NM-5020
NM-9928
NM-5018
OP-INT-78
NM-0302
NM-0110
ITS-26
OP-RD-12
NM-4071
NM-9922
NM-4077
NM-9930
300115
OP-RD-50
OP-RD-14
Mercer Island
Seattle
Lake Washington
ITS-33
SW-55
NM-0004
300214
NM-4012
ITS-12
300114
NM-9939
NM-9937
NM-9936
DR-6
NM-9945
OP-INT-76
NM-9938
OP-INT-79
GR-120
NM-5021
RC-41
Tukwila
Burien
SeaTac
Renton
Normandy Park
Puget Sound

Transportation Needs Report 2012

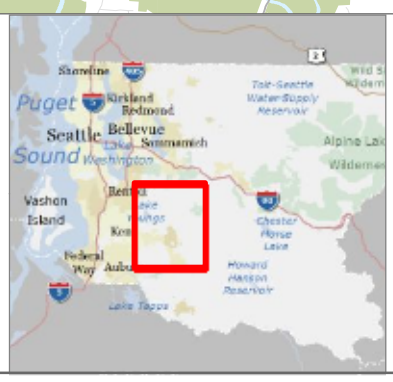
Tahoma/Raven Heights/North Soos Creek



Map 5

- Bridge
- Capacity
- Drainage
- HAL (high accident location)
- Operational
- Signal Warrants

- Capacity
- Guardrail
- ITS (intelligent transportation system)
- Operational
- Pedestrian
- Reconstruction
- Safety (HARS)



King County

For More Information:
your.kingcounty.gov/kcdot/roads/planning/tnr

1 in = 1 miles

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Transportation Needs Report 2012

Attachment E to Ordinance 17485
Technical Appendix C to 2012 Comprehensive Plan
12-3-12

Enumclaw

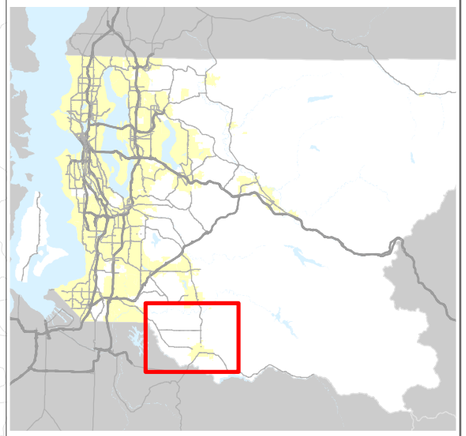
Map 6

N

- Bridge
- Capacity
- Drainage
- HAL (high accident location)
- Operational
- Signal Warrants
- Capacity
- Guardrail
- ITS (intelligent transportation system)
- Operational
- Pedestrian
- Reconstruction
- Safety (HARS)
- Parks in King County
- King County Incorporated Areas

For More Information:
your.kingcounty.gov/kcdot/roads/planning/tnr

1 in = 1 miles



King County

Map produced by KC RoadsGIS: rdsgisgrp@kingcounty.gov

Auburn
Black Diamond
Enumclaw
Lake Tapps
Mud Mountain Lake
SE Auburn Black Diamond Rd
SE 400th St
SR 410
SR 410 Ramp
SR 164
SR 169
400311
400411
OP-INT-74
RC-142
NM-5009
GR-84
NM-9983
BR-3030
HAL-83
BR-3056A
NM-5010
NM-5007
400210
NM-5012
NM-5013
GR-103
NM-5008
DR-3
GR-104
GR-92
GR-96
BR-3060
BR-3052
BR-3051
400314
GR-86
RC-53
GR-113
GR
30

Transportation Needs Report 2012

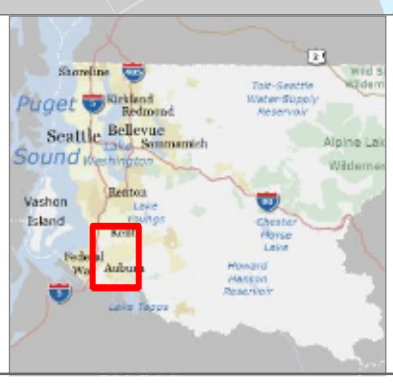
Federal Way/South Soos Creek

SeaTac
Des Moines
Kent
Federal Way
Auburn
Algona
Pacific
Milton
Lake Meridian
SR 99
SR 181
SR 515
SR 516
SR 164
W Meeker St
W Smith St
E Smith St
Washington Ave S
68th Ave S
132nd Ave SE
S 272nd St
S 272nd Way
S 277th
S 336th St
Military Rd S
Pacific Hwy S
Auburn Black Diamond Rd
S Peasley Canyon Rd
300810
300508
300308
300408
OP-INT-120
OP-INT-116
OP-INT-100
OP-INT-105
HAL-22
HAL-2
HAL-3
HAL-92
SW-94
SW-53
SW-21
SW-73
SW-61
SW-57
SW-27
CP-1
CP-2
CP-5
RC-24
RC-42
RC-49
RC-137
RC-138
RC-139
RC-140
ITS-8
ITS-30
OP-RD-3
OP-RD-48
3P-0012
GR-71
NM-9970
NM-9971
NM-4042
NM-9976
NM-4066
NM-4067
NM-5014
NM-5015

Map 7

- Bridge
- Capacity
- Drainage
- HAL (high accident location)
- Operational
- Signal Warrants
- Capacity
- Guardrail
- ITS (intelligent transportation system)
- Operational
- Pedestrian
- Reconstruction
- Safety (HARS)

N



King County

For More Information:
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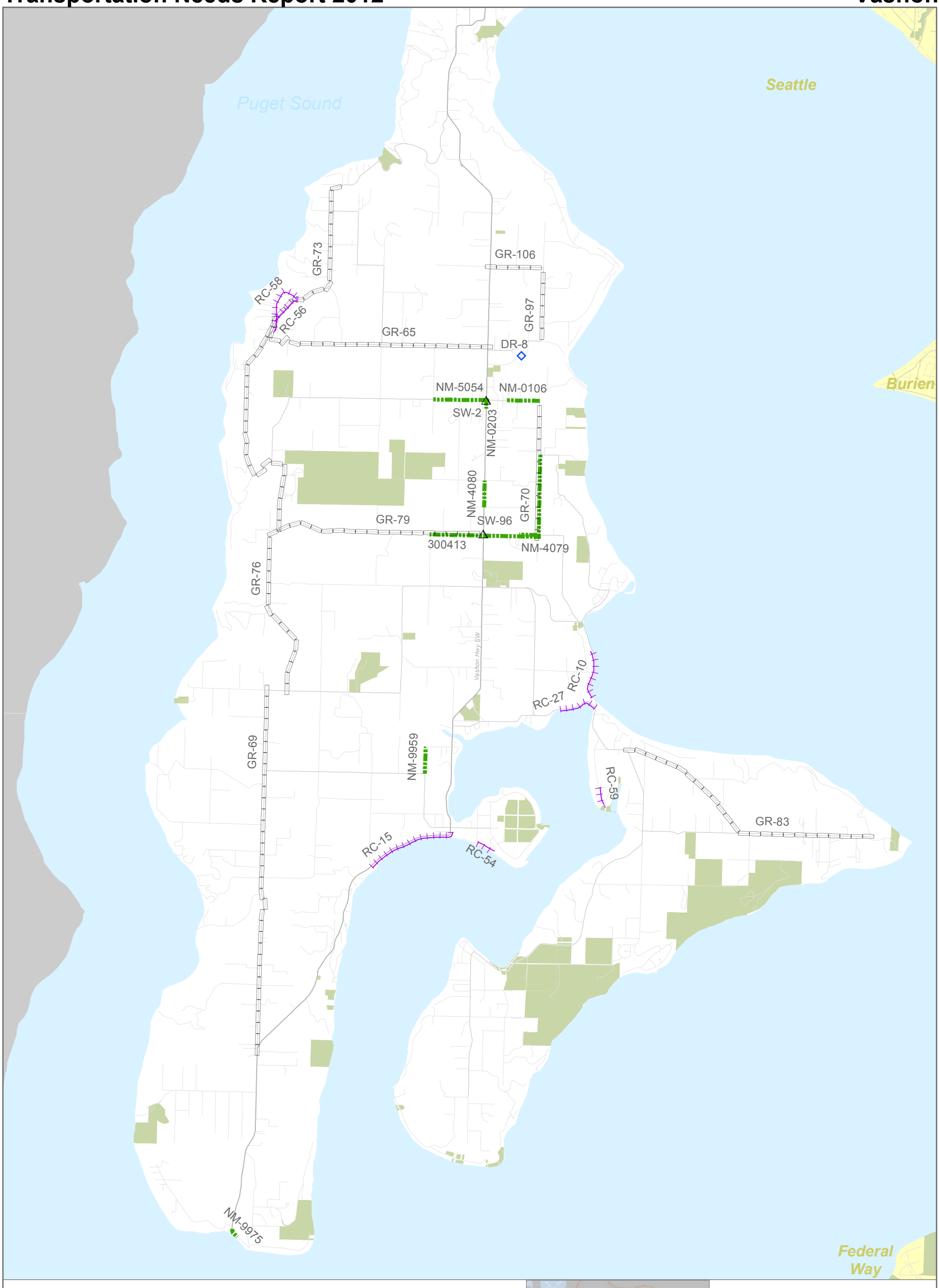
1 in = 1 miles

Map produced by KC RoadsGIS: rdsgisgrp@kingcounty.gov

Transportation Needs Report 2012

Vashon



Map 8

- Bridge
- Capacity
- Drainage
- HAL (high accident location)
- Operational
- Signal Warrants
- Capacity
- Guardrail
- ITS (intelligent transportation system)
- Operational
- Pedestrian
- Reconstruction
- Safety (HARS)

N

King County

For More Information:
your.kingcounty.gov/kcdot/roads/planning/tnr

1 in = 1 miles

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TNR

Project

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Page Number by Project Number

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GR-73	67
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GR-80	45
GR-82	41
GR-83	65
GR-84	16
GR-86	15
GR-88	49
GR-92	16
GR-93	61
GR-94	41
GR-95	61
GR-96	16
GR-97	66
GR-98	40
HAL-14	51
HAL-2	18
HAL-22	22
HAL-26	3
HAL-3	21
HAL-32	13
HAL-35	9
HAL-38	2
HAL-43	27
HAL-59	50
HAL-61	27
HAL-72	59
HAL-75	59
HAL-77	8
HAL-78	2
HAL-81	50
HAL-83	15
HAL-85	26
HAL-86	8
HAL-87	5
HAL-90	28
HAL-91	7
HAL-92	18
HARS-12	8
ITS-11	6
ITS-12	33
ITS-14	44
ITS-15	57
ITS-16	5
ITS-18	46
ITS-19	24
ITS-20	6
ITS-24	62
ITS-25	45
ITS-26	29
ITS-27	54
ITS-28	27
ITS-29	25
ITS-30	48
ITS-31	13
ITS-33	33
ITS-34	25
ITS-35	9
ITS-8	21
NM-0004	30
NM-0106	65
NM-0107	36
NM-0109	25
NM-0110	29
NM-0111	35
NM-0202	61
NM-0203	66
NM-0302	31
NM-4009	25
NM-4010	26
NM-4012	32
NM-4033	52
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NM-5002	10
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NM-5038	51
NM-5041	37
NM-5047	62
NM-5049	63
NM-5050	61
NM-5051	59
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Appendix A

Growth Targets

JURISDICTION	2006-2031 HH Target	2006-2031 Empl Target
Algona	190	210
Auburn	9,620	19,350
Beaux Arts	3	3
Bellevue	17,000	53,000
Black Diamond	1,900	1,050
Bothell	3,000	4,800
Burien	3,900	4,600
Carnation	330	370
Clyde Hill	10	0
Covington	1,470	1,320
Des Moines	3,000	5,000
Duvall	1,140	840
Enumclaw	1,425	735
Federal Way	8,100	12,300
Hunts Point	1	0
Issaquah	5,750	20,000
Kenmore	3,500	3,000
Kent	7,800	13,200
Kirkland	7,200	20,200
Lake Forest Park	475	210
Maple Valley	1,800	2,000
Medina	19	0
Mercer Island	2,000	1,000
Milton	50	160
Newcastle	1,200	735
Normandy Park	120	65
North Bend	665	1,050
Pacific	285	370
Redmond	10,200	23,000
Renton	14,835	29,000
Sammamish	4,000	1,800
SeaTac	5,800	25,300
Seattle	86,000	146,700
Shoreline	5,000	5,000
Skykomish	10	0
Snoqualmie	1,615	1,050
Tukwila	4,800	15,500
Woodinville	3,000	5,000
Yarrow Point	14	0
CITIES TOTAL	**217,227**	**417,918**
KING-Seashore	**1,360**	**2,530**
PAA's	***12,930***	***3,950***
BCUPD's	***910***	***3,580***
Unclaimed Urban unincorp	***650***	***90***
UNINC KING CO	***15,850***	***10,150***
KING CO TOTAL	**233,077**	**428,068**

Appendix B

City and State Projects

KC Traffic Model
Future Year Road Network
Project List

On	From	To	Network Edit	Lead Sponsor	Main County
"I" Street NE Corridor	52nd St	Harvey Rd	Add new 5-lane arterial	Auburn	King County
A Street	W Main St	14th St S	Add new 3-lane arterial	Auburn	King County
F St. SE	4th Ave SE	Auburn Way S	Widen to 3 lanes	Auburn	King County
M St NE	E Main St	8th St NE	Widen to 5 lanes	Auburn	King County
M St SE	E Main St	Auburn Way S	Widen to 5 lanes	Auburn	King County
S 277th St	Auburn Way N	Green River	Widen to 5 lanes	Auburn	King County
106th/108th Ave NE	Main Street	NE 12th St	3 GP & 1 HOV NB on 108th, 3 GP SB on 106th	Belleuve	King County
110th Avenue NE	NE 4th St	NE 8th St	Widen to 5 lanes	Bellevue	King County
150th Ave SE	SE 36th St	SE Newport Wy	Widen to 7 lanes	Bellevue	King County
Bellevue Way	South Bellevue P&R	I-90	Add HOV lanes in each direction	Bellevue	King County
NE 10th St	112th Ave NE	116th Ave NE	Add new 3-lane arterial	Bellevue	King County
NE 2nd St	Bellevue Way	112th Ave NE	Widen to 5 lanes	Bellevue	King County
NE 8th St	108th Ave NE	106th Ave NE	Add WB GP lane	Bellevue	King County
Northup Way	120th Ave NE	124th Ave NE	Widen to 5 lanes	Bellevue	King County
Annexation Road	Auburn-Black Diamond Rd	future South Connector	Add two-lane arterial	Black Diamond	King County
Lake Sawyer Extension	Auburn-Black Diamond Rd	Annexation Road	Add two-lane arterial	Black Diamond	King County
Lawson Connector/Southeast Loop Connector	SR-169 @ Roberts	SR-169 @ Railroad Ave	Add two-lane arterial	Black Diamond	King County
North Connector	SR-169	Morgan St	Add two-lane arterial	Black Diamond	King County
Pipeline Rd	Auburn-Black Diamond Rd	SR-169	Add two-lane arterial	Black Diamond	King County
South Connector	Annexation Road	SR-169	Add two-lane arterial	Black Diamond	King County
SR-169	Lawson St	Baker St	Widen to three lanes	Black Diamond	King County
NE 195th Street	North Creek Pkwy	I-405	Add WB lane	Bothell	King County
Ambaum Blvd SW / S. 156th St.	S 153rd St	Des Moines Dr.	Road diet to 3 lanes	Burien	King County
168th Ave SE extension	SR-516	Convington Way SE	Add new 3-lane roadway	Covington	King County
172nd Ave SE	SE 240th St	SR-516	Add new 2-lane collector (no connection w. SR-18)	Covington	King County
180th Ave SE Ext.	SE 267 Pl	SR-516		Covington	King County
Covington Way	SR-18	Wax Rd.	Widen to 4 lanes	Covington	King County
SE 256th St	160th Av SE	168th Pl SE	Widen to 5 lanes	Covington	King County
SR-516	Wax Rd	192nd Ave SE	Widen to 5 lanes	Covington	King County
Wax Rd	SR-516	Covington Way	Widen to 4 lanes	Covington	King County
Kent-Des Moines Rd (SR-516)	Marine View Dr	Pacific Hwy S	Add TWLT lane	Des Moines	King County
SR 410	244th Ave SE	Farman St	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
32nd Ave S	Military Road	S 320th St	Extend and widen to 3 lanes	Federal Way	King County
Military Rd S	S 288th St	S 304th St	Widen to 3 lanes	Federal Way	King County
S 272nd St	Military Rd	26th Ave S	Add TWLT lane	Federal Way	King County
S 288th St	18th Ave S	Military Rd S	Widen to 5 lanes	Federal Way	King County
S 288th St	Military Road	I-5	Widen to 5 lanes	Federal Way	King County
S 312th St	23rd Ave S	28th Ave S	Widen to 5 lanes	Federal Way	King County
S 312th St / I-5 Interchage	28th Ave S	51st Ave S	Add 5-lane road with interchange at I-5	Federal Way	King County
S 320th St	1st Ave S	8th Ave S	Add HOV lanes in each directio	Federal Way	King County
S 320th St	8th Ave S	SR 99	Add HOV lanes in each direction	Federal Way	King County

KC Traffic Model
Future Year Road Network
Project List

On	From	To	Network Edit	Lead Sponsor	Main County
S 320th St	1st Ave S	21st Ave SW	Add HOV lanes in each direction.	Federal Way	King County
S 320th St	25th Ave S	32nd Ave S	Add HOV lanes	Federal Way	King County
S 336th	26th Pl SW	Hoyt Rd SW	Widen to 5 lanes	Federal Way	King County
S 336th / S 348th St	1st Ave S	21st Ave SW	Add HOV lanes in each direction	Federal Way	King County
S 348th St	9th Ave S	SR 99	Add HOV lanes in each direction	Federal Way	King County
S 348th St	1st Ave S	9th Ave S	Add HOV lanes in each direction	Federal Way	King County
SR 161	SR 18	Milton Road	Add HOV lanes in each direction	Federal Way	King County
SR 99	S 284th St	SR 509 (Dash Pt Rd)	Add HOV lanes in each direction	Federal Way	King County
SR 99	SR 509 (Dash Pt Rd)	S 312th St	Add HOV lanes in each direction	Federal Way	King County
SR 99	S 340th St	S 356th St	Add HOV lanes in each direction	Federal Way	King County
SR-509	47th Ave SW	Pierce Co Line	Add TWLTL	Federal Way	King County
SR-509	1st Ave S	21st Ave SW	Add TWLTL	Federal Way	King County
SR-509	30th Ave S	47th Ave SW	Add TWLTL	Federal Way	King County
SR-99	S 284th St	S. 272nd St.	Add 1 HOV lane in each direction	Federal Way	King County
17th Ave NW	NW Sammamish Rd	I-90	Add 1 SWB lane	Issaquah	King County
E Lake Sammamish Pkwy	SE 56th St	I-90	Widen to 5 lanes	Issaquah	King County
E Lake Sammamish Pkwy	I-90	Issaquah-Fall City Rd	Add NB GP lane	Issaquah	King County
I-90 crossing (221st Pl. SE)	SE 56th St	NE Gilman Blvd	Add new 3-lane arterial	Issaquah	King County
Maple St	SR 900	Newport Way	Add new 5-lane road	Issaquah	King County
Newport Way	W. Sunset Wy	NW Maple St	Widen to 3 lanes	Issaquah	King County
NW Juniper St.	Newport Way	Rainier Blvd.	Widen to 3 lanes	Issaquah	King County
SE Newport Way	SR-900	SE 54th St	Widen to 3 lanes	Issaquah	King County
SR-900	Newport Way	S. of Talus Dr.	Widen to 5 lanes	Issaquah	King County
SR-900	Newport Way	I-90	Widen to 5 lanes	Issaquah	King County
SR-900	NW Maple	NW Gilman Blvd	Add 1 NB lane	Issaquah	King County
68th Ave NE	Simonds Rd	SR 522	Add NB HOV lane	Kenmore	King County
68th Ave NE	Sammamish River Bridge	NE 175th St	Widen to 5 lanes	Kenmore	King County
Juanita Drive NE	NE 170th St	NE 145th St	Widen to 3 lanes	Kenmore	King County
NE 181st St @ 68th Ave NE			Realign east leg to create a four-way intersection.	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
84th Ave S	SR-167	S 212th St	Widen to 6 lanes	Kent	King County
S 208th St	84th Ave SE	96th Way SE	Wide to 5 lanes	Kent	King County
S 228th St	Military Rd	64th Ave S	Add new 5-lane arterial, and widen Military Road to 5 lanes south to SR-516.	Kent	King County
S 272nd St	26th Ave S	SR-99	Add HOV lanes in each direction	Kent	King County
SR-181 Widing	Meekder St	Aprox S 208th St	Widen to 7 lanes	Kent	King County
W Meeker St	Washington Ave	64th Ave S	Widen to 5 lanes	Kent	King County
W Meeker St	Green R Bridge	SR 516	Widen to 5 lanes	Kent	King County
W Valley Hwy	SR-516	Green River Bridge	Widen to 4 lanes	Kent	King County
W Valley Hwy	Hawley Rd	S 272 St	Widen to 5 lanes	Kent	King County
Issaquah-Fall City Road	SE 48th St	Klahanie Blvd	Widen to 5 lanes	King County	King County

KC Traffic Model
Future Year Road Network
Project List

On	From	To	Network Edit	Lead Sponsor	Main County
Issaquah-Hobart Road	SE 125th Pl	100' s/o SE 127th St	Widen to 3 lanes	King County	King County
Novely Hill Road	Redmond ECL	Redmond Ridge UPDs		King County	King County
Snoqualmie Ridge Drive	I-90	SE 96th St	Widen to 4 lanes	King County	King County
120th Ave NE	NE 128th St	NE 132nd St	Widen to 5 lanes	Kirkland	King County
124th Ave NE	NE 85th St	NE 116th St	Widen to 3 lanes	Kirkland	King County
124th Ave NE	NE 116th St	NE 124th St	Widen to 5 lanes	Kirkland	King County
NE 120th St extension	Slater Ave NE	124th Ave NE		Kirkland	King County
NE 124th St	116th Ave NE	132nd PL NE	Add 1 HOV lane in each direction	Kirkland	King County
NE 128th St extension (NE 128th St Interchange)	116th Ave NE	Totem Lk Blvd	Add new 3-lane arterial w HOV connectn to I-405	Kirkland	King County
SR-169	SE 271st St	SR-516	Widen to 5 lanes	Maple Valeey	King County
SE 272nd St Bypass	232nd Ave SE	SR-169		Maple Valley	King County
SR 169	SR 516	SE 264th	Widen to 5 lanes	Maple Valley	King County
SR-169	Witte Rd	S 253rd St	Widen to 5 lanes	Maple Valley	King County
SR-169	SE 264th St	SE 253rd St	Widen to 5 lanes	Maple Valley	King County
Coal Creek Pkwy (Phase I & II)	SE 72nd St	SE 95th St (Renton City Limits)	Widen to 5 lanes	Newcastle	King County
W Valley Hwy	Pacific north city line	Jovita Blvd	Add TWLT lane	Pacific	King County
160th Pl NE	NE 90th St	SR-202	extend arterial	Redmond	King County
185th Ave NE/188th Ave NE	Union Hill Road	SR-202	Add two new n-s arterials, and e-w local roads (see NHR sensitivity test).	Redmond	King County
Bear Creek Pkwy Extension	Leary Way	159th Pl NE	Add new 2-lane principal arterial	Redmond	King County
Bel-Red Rd	NE 30th St	NE 40th St	Widen to 5 lanes	Redmond	King County
Cleveland St	SR-908	SR-202	Convert to 1 lane each direction	Redmond	King County
East Lake Sammamish Pkwy	Redmond Way	187th AVE NE	Widen to 3 lanes	Redmond	King County
NE 116th St	167th Pl NE	179th Pl NE	Widen to 3 lanes	Redmond	King County
NE 85th Street	154th Ave NE	164th Ave NE	Reduce to 3 lanes	Redmond	King County
Old Redmond Road	132nd Ave NE	136th Ave NE	Add 2-way LTL	Redmond	King County
Redmond Way	159th Pl	170th Ave NE	Convert to 1 lane each direction	Redmond	King County
Woodinville-Redmond Rd	160th Ave NE	NE 124th ST	Widen to 3 lanes	Redmond	King County
Duvall Ave NE	NE 4th St	SE 95th Wy (Renton City Limit)	Widen to 5 lanes	Renton	King County
Lind Ave SW	SW 16th St	SW 43rd St	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	Provide EB HOV lane	Renton	King County
SR 169	140th Way SE	I-405	Widen to 6 lanes (4 GP + 2 HOV)	Renton	King County
SR-900	Mill Ave	Park Ave	Widen to 5 lanes	Renton	King County
SW 27th St @ SR-167 / Strander Blvd Extention	SR 167	SR 181	Add HOV lanes to SW 27th fm Oaksdale to SR-167, Add new HOV IC, Add 5-lane connection to Strander	Renton	King County
244th Ave NE	SE 8th St	NE 8th St	Add new 3-lane arterial	Sammamish	King County
East Lake Sammamish Pkwy	Inglewood Hill Rd	NE 26th	Widen to 3 lanes	Sammamish	King County

KC Traffic Model
Future Year Road Network
Project List

On	From	To	Network Edit	Lead Sponsor	Main County
Issaquah-Pine Lake Rd	Klahani Blvd	SE 32nd St	Widen to 3 lanes	Sammamish	King County
28th/24th Ave S	S 200th St	S 216th St	Add new 5-lane road	SeaTac	King County
S 154th St	SR-518	24th Ave S	Widen to 4 lanes	SeaTac	King County
Greenwood Avenue N	N 105th St	N 112th St	Widen to 5 lanes	Seattle	King County
Mercer Street	Fairview	Dexter	Redesignate as 2-way 6-lane arterial, connect with Aurora	Seattle	King County
SR-99	Battery Street Tunnel	N 105th St (except Aurora Bridge	Add BAT lanes	Seattle	King County
SR 99 (Aurora Ave N)	N 145th St.	N 165th St.	Add 1 HOV lane in each direction	Shoreline	King County
SR 99 (Aurora Ave N)	N 165th St.	N 205th St.	Add 1 HOV lane in each direction	Shoreline	King County
Interurban Ave	Southcenter Blvd	144th St	Add TWLT lane	Tukwila	King County
Southcenter Parkway	S 180th St	S 200th Street	Add new 5-lane arterial	Tukwila	King County
124th Ave NE	NE 145th	SR 202	Widen to 3 lanes	Woodinville	King County
SR-202	131st Ave NE	127th Pl NE	Widen to 4 lanes	Woodinville	King County
SR-202	SR-522	NE 175th St	Widen to 7 lanes	Woodinville	King County
SR-202	127th Pl NE	148th Ave NE	Widen to 4 lanes	Woodinville	King County
Woodinville-Duvall Road	156th Ave NE	171st Pl SE	Widen to 3 lanes	Woodinville	King County
Woodinville-Snohomish Rd	NE 175th St	140th Ave NE	Widen to 3 lanes	Woodinville	King County
Woodinville-Snohomish Rd	NE 185th St	NE 195th St	Widen to 3 lanes	Woodinville	King County
Woodinville-Snohomish Rd	NE 195th St	NE 205th St	Widen to 5 lanes	Woodinville	King County
Avondale Road	Avondale Way	Novelty Hill Road	Add HOV SB lane	WSDOT	King County
Coal Creek Pkwy	Forest Drive	I-405	Add HOV lanes in each direction	WSDOT	King County
I-405	SR-169	SR 167	Add 2 GP lanes in each direction	WSDOT	King County
I-405	SR 167	I-5 Tukwila	Add 2 GP lanes in each direction	WSDOT	King County
I-405	I-90	SR-169	Widen to 4 SP lanes in each direction	WSDOT	King County
I-405	44th	SR 900	Add NB lane from SR-900 to 30th	WSDOT	King County
I-405	NE 85th St	NE 124th St	Add 1 GP lane in each direction	WSDOT	King County
I-405	112th Ave SE/Lake Washington Blvd	I-90	Add 1 NB GP lane	WSDOT	King County
I-405	I-90	SE 8th St	Add 1 GP lane in each direction	WSDOT	King County
I-405	SE 8th St	I-90	Add 2nd SB HOV lane	WSDOT	King County
I-405	NE 85th St	SR-520	Add 1 SB GP lane	WSDOT	King County
I-405	NE 70th St	NE 85th St	Add 1 NB GP lane	WSDOT	King County
I-405	NE 124th St	SR-522	Add 1 GP lane in each direction	WSDOT	King County
I-405	NE 8th St	SR-520	Add 1 NB GP auxilary lane	WSDOT	King County
I-405	SR-520	NE 70th St	Add 1 GP auxilary lane in each direction	WSDOT	King County
I-405	NE 85th St	NE 124th St	Add 1 GP lane in each direction	WSDOT	King County
I-405	I-90	SR-520	Widen to 6 NB and 5 SB GP lanes	WSDOT	King County

KC Traffic Model
Future Year Road Network
Project List

On	From	To	Network Edit	Lead Sponsor	Main County
I-405	SR-181	SR-167	Add 1 GP auxilary lane in each direction	WSDOT	King County
I-405 @ Lind			Add half diamond interchange (facing north or south?)	WSDOT	King County
I-405 @ NE 132nd St			Add new half diamond IC pointing north	WSDOT	King County
I-405 @ NE 8th Street (Renton)			Provide HOV direct access ramp connecting to NE 8th Street	WSDOT	King County
I-405 @ SR-515			Add half diamond interchange (facing north or south?)	WSDOT	King County
I-5	Pierce County Line	South 288th St Vicinity	Add HOV lanes in each direction	WSDOT	King County
I-5 @ Airport/Industrial Way			Add HOV direct access from NB HOV lanes to Industrial Way	WSDOT	King County
I-5 @ SR-18 @ SR-161			Triangle connection	WSDOT	King County
I-90	Rainier Ave	I-405	Add 1 HOV lane in each direction	WSDOT	King County
I-90	Eastgate	Front Street	Add 1 HOV lane and 1 auxillary lane in each direction	WSDOT	King County
Southcenter Pkwy	Tukwila Pkwy	Strander Blvd	Add TWLT lane	WSDOT	King County
SR 167	I-405	S 180th St	Add 1 SB auxilary GP lane	WSDOT	King County
SR 167	I-405	S 180th St	Add 1 NB GP lane	WSDOT	King County
SR 167	SR 410 (Sumner)	S. 180th St (Renton)	Add 1 GP lane in each direction?	WSDOT	King County
SR 18	Issaquah-Hobart Rd	I-90	Widen to 4 lanes	WSDOT	King County
SR 202	E Lake Sammamish Pkwy	Sahalee Way	Widen to 5 lanes w/o 187th, 4 lanes to east	WSDOT	King County
SR 509	SW 210th	Sea Tac International Airport	Extend 6-lane freeway (4 GP + 2 HOV). Add 1 GP lane to I-5 in each direction from SeaTac to S 320th St. Include IC to S 200th, 24th/28th Ave, & South Access Freeway.	WSDOT	King County
SR 520	W Lake Sammamish Pkwy	SR-202	Widen to 8 lanes, 6 GP and 4 HOV	WSDOT	King County
SR 520	I-405	I-5	Add HOV lanes in each direction	WSDOT	King County
SR 522 @ NE 195th St			Complete full diamond IC	WSDOT	King County
SR 900	SE 78th St	Newport Way	Widen to 5 lanes	WSDOT	King County
SR 99	N 105th St	N 145th St (Seattle - NCL)	Add HOV lanes in each direction	WSDOT	King County
SR-518	Airport Freeway	I-5	Add EB GP lane	WSDOT	King County
SR-520	SR-202	Union Hill Road	Widen to 4 lanes	WSDOT	King County
SR-520 @ UW Bothell Campus			Move centroid a little to the east, and add centroid connection to SR-520.	WSDOT	King County
SR-304	SR-3	Farragut Ave	Add WB HOV lane	Bremerton	Kitsap County
SR-304	Farragut Ave	Bremerton Ferry Dock	Widen to 5 lanes	Bremerton	Kitsap County

KC Traffic Model
Future Year Road Network
Project List

On	From	To	Network Edit	Lead Sponsor	Main County
SR 104	Lindvog Rd	Kingston Ferry and Couplet	Add 1 GP lane in each direction	WSDOT	Kitsap County
SR 166	SR 16	Blackjack Creek bridge	Widen to 4 lanes	WSDOT	Kitsap County
SR 3	SR 16 spur at Gorst	Gorst USG RR Bridge 3/105 Vicinity	Widen to 5 lanes	WSDOT	Kitsap County
SR 3	Gorst USG RR Bridge 3/105 Vicinity	SR 3/SR 304 Interchange	Add HOV lanes in each direction	WSDOT	Kitsap County
SR 3	Mason/Kitsap County Line	SR 16 spur at Gorst	Widen to 4 lanes	WSDOT	Kitsap County
SR 305	Poulsbo South Corporate Limit Vicinity	Bond Road	Add HOV lanes in each direction (HOV will revert to GP during OP)	WSDOT	Kitsap County
Gravelly-Thorne Connector	Gravelly Lake Drive U-xing	Thorne Lane	Add SB 1 lane arterial	Lakewood	Pierce County
Milton Way	28th Ave	20th St E	Add TWLT lane	Milton	Pierce County
176th St E	SR-7	SR-161	Widen to 5 lanes	Pierce County	Pierce County
176th St E	SR-161	Calistoga Ave	Add new road?	Pierce County	Pierce County
8th St E	E Valley Hwy E	W Valley Hwy	Widen to 5 lanes	Pierce County	Pierce County
Canyon Rd E	SR 167	Pioneer Way	Add new 4-lane arterial	Pierce County	Pierce County
Canyon Rd E	106th St E	192nd St E	Widen to 7 lanes	Pierce County	Pierce County
Canyon Rd E	72nd St E	106th St E	Widen to 5 lanes	Pierce County	Pierce County
Canyon Rd E	Mountain Hwy (SR 7)	192nd Street E	Add new arterial - 5 lanes n/o 224th St E, and 2 lanes to the south	Pierce County	Pierce County
Millitary Rd	Waller Rd E (B St)	Spanaway Loop Rd	Widen to 4 lanes	Pierce County	Pierce County
Old Military Rd	Shaw Rd	SR-162	Widen to 4 lanes	Pierce County	Pierce County
Shaw Rd	E Pioneer	39th Ave SE	Widen to 4 lanes	Puyallup	Pierce County
Shaw Rd	SR-410	Orting-Kapowsin Hwy	Provide 4-lane arterial	Puyallup	Pierce County
SR 410	SR 167	Bonney Lake	Add 1 WB and 2 EB GP lanes	Sumner	Pierce County
Valley Avenue	SR-410	Elm Street	Widen to 3 lanes	Sumner	Pierce County
Norpoint Way	49th Av NE	Nassau Ave	Widen to 3 lanes	Tacoma	Pierce County
I-5	Port of Tacoma Vicinity	SR-16	Add HOV lanes in each direction	WSDOT	Pierce County
I-5	Pierce County Line	Port of Tacoma Vicinity	Add HOV lanes in each direction	WSDOT	Pierce County
I-5	SR 16	72nd St Vicinity	Add HOV lanes in each direction	WSDOT	Pierce County
I-5	S 72nd St	SR-512	Add HOV lanes in each direction	WSDOT	Pierce County
SR 16	I-5	South 19th St	Add HOV lanes in each direction	WSDOT	Pierce County
SR 16	South 19th St	SR 163-Pearl St Vicinity	Add HOV lanes in each direction	WSDOT	Pierce County
SR 16	SR 163 - Pearl St Vicinity	Tacoma Narrows Bridge	Add HOV lanes in each direction	WSDOT	Pierce County
SR 16	Tacoma Narrows Bridge	Rosedale Rd Vicinity	Add HOV lanes in each direction	WSDOT	Pierce County
SR 16 (Tacoma Narrows Bridge)	Approx. Skyline Dr	Approx. 36th St NW	Widen to 6 lanes, 4 GP lanes and 2 HOV	WSDOT	Pierce County
SR 161	36th St E	Jovita Blvd.	Widen to 5 lanes	WSDOT	Pierce County
SR 161	234th St E	204th St E	Widen to 5 lanes	WSDOT	Pierce County
SR 161	204th St East	176th Street East	Widen to 5 lanes	WSDOT	Pierce County
SR 167	SR-410	Auburn	Add HOV lanes in each direction	WSDOT	Pierce County
SR 167	SR 161	SR-410	Add HOV lanes in each direction	WSDOT	Pierce County
SR 167	I-5	Port of Tacoma	Add new 4-lane freeway	WSDOT	Pierce County

KC Traffic Model
Future Year Road Network
Project List

On	From	To	Network Edit	Lead Sponsor	Main County
SR 167	I-5	Puyallup	Add new 4-lane freeway	WSDOT	Pierce County
SR 410	214th Ave E Vicinity	234th Ave E Vicinity	Widen to 4 lanes	WSDOT	Pierce County
SR 99	Porter Way	King County Line	Add TWLT lane	WSDOT	Pierce County
SR-704 (Cross-Base Hwy)	Fredrickson	I-5 @ Thorne Lake	Add 4-lane principal arterial	WSDOT	Pierce County
Orting Hwy	SR-410	Orting CL	Widen to 4 lanes		Pierce County
39th Ave SE	SE 228th St	SE 240th St	Add new 3 lane arterial	Bothell	Snohomish County
39th Ave SE extension	SE 228th St	SE 240th St	Add new 3-lane arterial	Bothell	Snohomish County
SR 524	SR-527	9th Ave SE (Bothell CL)	Widen to 5 lanes	Bothell	Snohomish county
Evergreen Way	112th SW	Airport Rd	Widen to 7 lanes	Everett	Snohomish County
196th St SW	48th Ave W	37th Ave W	Widen to 7 lanes	Lynnwood	Snohomish County
200th St SW	SR-99	48th Ave W	Widen to 5 lanes	Lynnwood	Snohomish County
36th Ave W	Maple Rd	164th St SW	Widen to 4 lanes	Lynnwood	Snohomish County
44th Ave W	S 200th St	S 196th St	Add 1 NB lane	Lynnwood	Snohomish County
Maple Road Extension	36th Ave W	Alderwood Mall Pkwy	Extend 3-lane arterial	Lynnwood	Snohomish County
88th St NE	State Ave	67th Ave NE	Widen to 5 lanes	Marysville	Snohomish County
State Ave	100th St NE	116th St NE	Widen to 5 lanes	Marysville	Snohomish County
Airport Way	SR 9	Lowell-Snoqualmie River Rd	Widen to 3 lanes	Snohomish County	Snohomish County
Beverly Park-Ferndale Rd	SR-525	Airport Rd	Widen to 5 lanes	Snohomish County	Snohomish County
I-405	NE 195th St	SR-527	Add 1 NB GP lane	WSDOT	Snohomish County
I-5	SR 526	SR 2	Add HOV lanes in each direction, and 1 GP lane in each direction from 41st to SR-2	WSDOT	Snohomish County
I-5	220th St SW	44th Ave W	Add NB GP lane	WSDOT	Snohomish County
SR 2	SR 522 I/C	Monroe ECL	Construct two lane bypass of Monroe on new alignment.	WSDOT	Snohomish County
SR 522	SR-9	Snohomish River	Widen to 4 lanes	WSDOT	Snohomish County
SR 524	I-5	SR 527	Widen to 5 lanes	WSDOT	Snohomish County
SR 531	I-5	SR 9	Widen to 5 lanes	WSDOT	Snohomish County
SR 9	SR 522	176th St SE	Widen to 5 lanes	WSDOT	Snohomish County
SR 9	SR 2	SR 92	Widen to 5 lanes	WSDOT	Snohomish County
SR 9	176th St SE	Marsh Rd	Widen to 4 lanes	WSDOT	Snohomish County
SR 9	Marsh Rd	SR 2	Widen to 4 lanes	WSDOT	Snohomish County
SR 99	SR 525	Airport Rd	Widen to 5 lanes	WSDOT	Snohomish County
SR-522	Snohomish River	SR-2	Widen to 4 lanes	WSDOT	Snohomish County

Appendix C

Priority Processes

Capacity
HAL / HARS
Bridges
Short-Span Bridges
Guardrail
Traffic Signals
Pedestrian
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. A 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 2006 conditions using existing land use data, roadway information, and empirical traffic count data. Detailed documentation of this model is available from the King County Department of Transportation, Roads Services Division.

A forecast year of 2031 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, GMPC 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 likely to be in place by 2031. 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 listed in the 20-year time horizon of the regional plan, Transportation 2040. 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. Capacity needs information was identified by analyzing model results using forecast traffic volumes, forecast ratios of traffic volumes to roadway capacity.

The resulting identified needs represent the roadway capacity needs. 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 3.

Since capacity needs exceed available revenues, a priority scoring methodology was developed to help balance needs with available revenue. This methodology incorporated existing, empirical data; including forecast data for 2031. The following data elements were collected, calculated, and scored:

- Average weekday traffic
- Existing traffic volume to roadway capacity ratios
- 2031 forecast volume to capacity ratios
- Arterial Classification of the project need

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

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 2006 – 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

Year 2031 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

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 HALs and HARSs for review and analysis. A 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. 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 expected 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 of all county roadway bridges. The inspection program implements the National Bridge Inspection Standards (NBIS) and calculates a sufficiency rating (SR) for each bridge. The SR is based on such factors as 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). The SR score is used to establish eligibility for federal bridge replacement and rehabilitation funds. Bridges with a sufficiency rating less than or equal to 50 that are either functionally obsolete or structurally deficient, are eligible for replacement funds. Any bridge with a sufficiency rating less than or equal to 80 that is functionally obsolete or structurally deficient is eligible for rehabilitation funds. In Washington federal bridge funds are allocated to local agencies through WSDOT using a competitive process. WSDOT is focusing on funding local agency bridges that are classified as structurally deficient with a sufficiency rating of 40 or less for replacement, and structurally deficient with a sufficiency rating of 80 or less for rehabilitation projects.

Though the sufficiency rating establishes eligibility for federal funding, 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 King County Bridge Priority Process establishes the need for individual bridge replacement by score and rank using criteria approved by the King County Council (Ord. 11693). In fall 2011, King County Road Services moved forward with implementing Tier Service Level Criteria for all unincorporated King County Roads. Tier Service Levels are now applied in addition to the Priority Process to help establish priority ranking. The results of the bridge priority process are published annually and reported in the Annual Bridge Report.

Priority process rankings are used in the development of the annual six-year Roads CIP. Recommendations for adding bridge projects to the CIP are guided by the following goals: add the highest priority bridges requiring replacement or rehabilitation, establish a preventative maintenance program including routine painting of steel bridges, and provide for major maintenance and repairs that cannot be accomplished by county maintenance staff.

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 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 collision 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 nine signal warrants are 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 collision history, focusing attention on accidents correctable by signalization (left-turn and right-angle types). Two warrants examine pedestrian activity to determine if pedestrian volumes warrant signalization. Two warrants examine whether signalization would improve traffic flow in a coordinated signal system or roadway network. The final warrant examines the proximity to a grade (rail) crossing.

Five primary warrants are used to prioritize (rate and rank) all intersections. The remaining warrants are also considered in the evaluation process by are less apt to apply to the suburban and rural nature of unincorporated King County.

The five 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 6 – Coordinated Signal System
5. Warrant 7 – Crash Experience

To these five 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 of the five primary warrants. Values are summed by intersection, and the list of intersections is sorted to separate those that meet a least one signal warrant from those that do not. Intersections that meet one or more 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 locations to signalize.

Intersections on the top of the priority array undergo extensive evaluation of alternatives to signalization listed in M.U.T. C. D. Section 4B.04. The list of alternatives includes, but is not limited to, the construction of additional lanes, revising the intersection geometrics to channelize movements and realign intersections, 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 collision recurring at the intersection. The evaluation also includes existing and forecast traffic operational analyses to determine the effectiveness of each alternative and development of estimates for cost comparisons. A committee of engineers 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, *Signal, Intersection Control Beacons and Pedestrian Crosswalk Priority Process,* King County Road Services Division, Department of Transportation, January 31, 2005 [updated per December 2009 M.U.T.C.D. revisions].

NONMOTORIZED NEEDS

As part of the Healthscape program effort, the County worked with a consultant in 2007 to develop a "Transportation Programming Tool" (TPT) which evaluates the effectiveness of nonmotorized projects and their potential for increasing nonmotorized 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

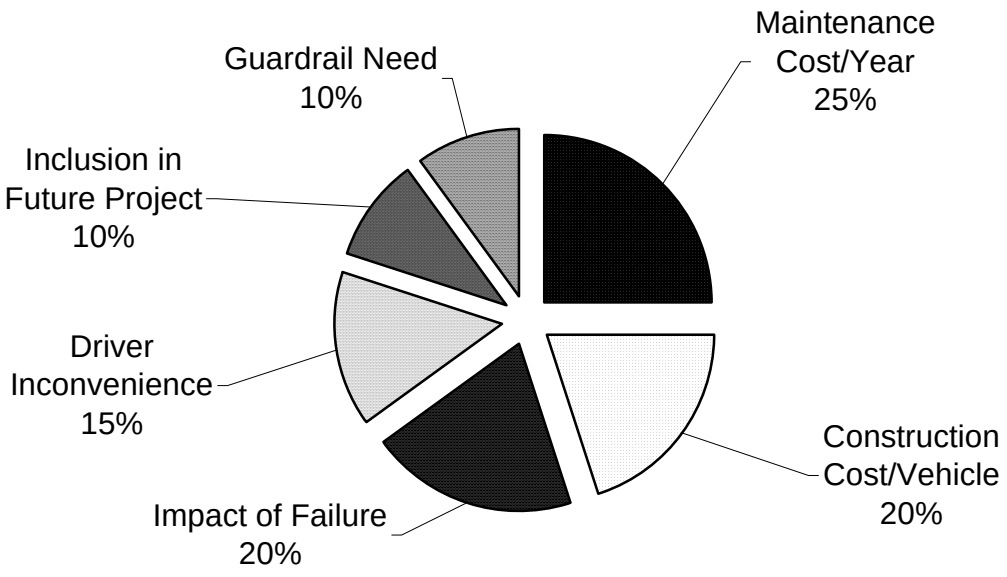
The Vulnerable Roadway Segments (VRS) study was instituted in 2005 to identify and address specific roadway funding needs throughout the County. A vulnerable road segment was defined as a road segment that requires abnormally expensive and/or frequent repairs. This includes roads with failing retaining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



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.

$$Factor = 20 - \frac{C / ADT}{1500} \times 20$$ *(Factor = 0 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 2012

August, 2012

Financial Forecast in Constant 2012 Dollars
All columns other than Road Fund in thousands of dollars

Year	Road Fund	Fed BRAC	Fed TP/ITS/ CMAQ	Fed HEF/HES	State TIB	State RAP	MPS	Other	Property Sales
2013	$22,820,386	$750	$2,000	$250	$1,000	$750	$500	$350	$500
2014	$20,951,714	$750	$2,000	$250	$1,000	$750	$500	$350	$500
2015	$21,292,161	$750	$2,000	$250	$1,000	$750	$500	$350	$500
2016	$20,734,225	$750	$2,000	$250	$1,000	$750	$500	$350	$500
2017	$20,397,642	$750	$2,000	$250	$1,000	$750	$500	$350	$500
2018	$19,276,711	$750	$2,000	$250	$1,000	$750	$400	$350	$500
2019	$18,386,687	$750	$2,000	$250	$1,000	$750	$300	$350	$500
2020	$17,515,979	$750	$2,000	$250	$1,000	$750	$300	$350	$500
2021	$16,653,019	$750	$2,000	$250	$1,000	$750	$300	$350	$500
2022	$15,801,266	$750	$2,000	$250	$1,000	$750	$300	$0	$500
2023	$14,958,991	$750	$2,250	$300	$0	$750	$300	$0	$500
2024	$14,126,072	$750	$2,250	$300	$0	$750	$300	$0	$500
2025	$13,305,021	$750	$2,250	$300	$0	$750	$300	$0	$500
2026	$12,494,366	$750	$2,250	$300	$0	$750	$300	$0	$500
2027	$11,692,281	$750	$2,250	$300	$0	$750	$300	$0	$500
2028	$10,902,428	$750	$2,250	$300	$0	$750	$300	$0	$500
2029	$10,120,798	$750	$2,250	$300	$0	$750	$300	$0	$500
2030	$9,349,344	$750	$2,250	$300	$0	$750	$300	$0	$500
2031	$8,588,261	$750	$2,250	$300	$0	$750	$300	$0	$500
	$299,367,354	**$14,250**	**$40,250**	**$5,200**	**$10,000**	**$14,250**	**$6,800**	**$3,150**	**$9,500**

Total estimated revenue to the year 2031 = $402,767,000

Project Needs

Need	2012---2031 Project Costs
Bridge	$74,350
Capacity Major	$76,198
Capacity Minor	$149,551
Drainage	$11,402
ITS	$53,062
Nonmotorized	$106,558
Operations	$68,792
Preservation	$119,461
Reconstruction	$58,759
Safety	$90,402
Total Needs	**$808,535**
Other CIP Needs	**2012 -2031 CIP NEEDS**
Overlay	$141,516
ADA	$1,760
Debt Service	$113,780
Total	**$257,056**
(-) Other Needs	**$257,056**
FUNDS AVAILABLE FOR CIP	**$145,711**
SHORTFALL	**$662,824**

Allocation of Available Funds

Need	2012---2031 Allocation
Bridge	$34,200
Capacity Major	0
Capacity Minor	0
Drainage	$8,872
ITS	$5,455
Nonmotorized	$2,370
Operations	$1,500
Preservation	$9,342
Reconstruction	$17,207
Safety	$66,765
TOTAL	**$145,711**