

**Appendix C**  
**Screening and Evaluation Process**

# Appendix C: Screening and Evaluation Process

---

This appendix supplements the screening process provided in Chapter 4 (Identifying and Screening Potential Improvement Projects) of this Route Development Plan (RDP).

## 1 How were components of the SR 169 Route Development Plan developed?

The process of developing the components of the SR 169 Route Development Plan included the following steps:

1. Compiling and analyzing existing and projected conditions for traffic, roadway design, the natural environment, community resources, population and employment.
2. Identifying and developing potential projects to improve safety and address congestion along the SR 169 corridor.
3. Performing initial fatal flaw<sup>1</sup> screening of proposed improvement projects.
4. Eliminating projects with fatal flaws and then performing a final screening.
5. Developing three improvement options containing packages of complementary projects.
6. Evaluating the three improvement options using a benefit-to-cost analysis.
7. Analyzing the improvement options' impact on traffic operations.
8. Recommending a preferred improvement option for inclusion in this Route Development Plan.

---

<sup>1</sup> A fatal flaw is a term often used when evaluating design options or new routes. If it is found that the proposed design/improvement would have a major engineering, environmental, or community impact which could not be avoided by redesign (or mitigation), the design/improvement would then be considered to have a fatal flaw.

## 2 How were corridor improvement projects identified?

Potential projects in this RDP were identified from a number of sources. Members of the Corridor Working Group (CWG), which included each of the local municipalities along the corridor, King County, the PSRC and WSDOT were asked to identify projects that were being considered or planned. The resulting list included projects at all stages of advancement. Some projects are designed, environmental review is completed, funding sources have been identified, and construction is imminent. Other projects are planned and not funded and have had limited or no design and environmental review. Still other projects were ideas that seemed worthy of consideration in response to identified transportation needs and problems identified along SR 169.

The types of projects considered within the SR 169 corridor included:

- Improvements to the existing roadway.
- Transit service improvements.
- Proposals for new or improved bike, pedestrian, and equestrian trails.

Additional projects were considered whenever they were identified by participants in the RDP process. A total of 90 projects and 4 separate trail projects were initially considered in the SR 169 RDP screening process.

## 3 How were the projects initially screened?

At the onset of the study process, the CWG identified and agreed upon a set of evaluation criteria to be used for initial screening. The purpose of the initial screening was to identify projects for elimination that did little to satisfy the project goals or were estimated to have impacts of sufficient severity to represent a fatal flaw to implementation. These projects would not be given further consideration.

One or more measures were associated with each criterion. The measurements were all qualitative evaluations and with the

---

### Appendix C

Appendix C provides additional information about the screening process.

---

---

### Appendix F

Appendix F contains the evaluation criteria developed by the CWG to screen proposed projects.

---

exception of cost, were based on a three-point scale. The values assigned were based on professional judgment and did not represent rigorous application of a quantitative method. The following sections identify the measures and how they were applied to each project in the initial screening.

**Safety**

Potential safety aspects of each project were evaluated based on facility improvement to meet design standards, potential to reduce collisions, and potential to enhance safety of pedestrians, schoolchildren, and transit users. If a High Accident Corridor (HAC), High Accident Location (HAL), or Pedestrian Accident Location (PAL) designation applied to a project location, the project was assumed to address the problem. The factors used to assign a value from the “+” “0” and “-” scale are shown in the Exhibit C-1.

---

**Initial Screening Criteria**

- Safety
  - Impacts to the natural environment
  - Impacts to historical, cultural, and architectural resources
  - Cost
- 

---

**Criteria Measurement**

- “-” indicates a harmful or negative aspect to the project.
  - “0” indicates unknown or neutral aspect to the project.
  - “+” indicates beneficial or positive aspect to the project.
- 

**Exhibit C.1  
Safety Measuring Criteria**

Safety Measures	Safety Values
Design Standards	Fully meets (+), Generally meets (0), or Significantly departs from (-) WSDOT's design standards
Vehicle Collisions	Decreases (+), has no effect on (0), or increases (-) the likelihood of collisions
Pedestrian Safety	Improves (+), has no effect on (0), or worsens (-) pedestrian safety
Crossings for Schoolchildren	Increases (+), has no effect on (0), or decreases (-) the number of safe pedestrian crossings for schoolchildren
Transit Buses and Crossing	Increases (+), has no effect on (0), or decreases (-) the number of safe pedestrian crossings for transit riders

### Natural Environment

Potential environmental impacts on protected fish, wildlife, and wetlands were rated using corridor maps developed to document existing environmental conditions along the corridor. If a project appeared to intrude into a potential impact zone based on a review of the maps, a conflict or impact was assumed and a “-” score assigned. Otherwise, a neutral “0” value was assigned. A neutral value did not mean that there was no potential conflict or impact, but that there was no known conflict or impact based on the maps developed for the project.

**Exhibit C.2  
Environmental Measuring Criteria**

Environmental Measure	Environmental Values
Fish	Decreases (+), has no effect on (0), or increases (-) the number crossings of salmon and fish bearing streams in the corridor.
Wildlife	Decreases (+), has no effect on (0), or increases (-) the displacement/disturbance of threatened, endangered species and habitat along the corridor.
Wetland	Increases (+), has no effect on (0), or decreases (-) the acreage of wetlands and floodplains along the corridor
Geological	Decreases (+), has no effect on (0), or increases (-) the potential impacts to/from geologically hazardous areas along the corridor

### Historical, Cultural, and Architectural Resources

Impacts to historical, cultural, and architectural resources (HCAR) in the corridor were evaluated on a similar basis to the natural environment. Information used to evaluate the projects may have been incomplete for a variety of reasons, including protection of information related to archaeological site location, incomplete field survey information, or changed conditions since data collection. The evaluation used the available maps showing information developed from existing data sources and from a windshield survey of the corridor.

**Exhibit C.3  
Historical, Cultural, and Architectural Resources Measuring Criteria**

HCAR Measure	HCAR Value
Historical, Cultural, and Architectural Resources	Has adverse effects (yes [-] or no [0]) on known historical, cultural, and architectural site resources along the corridor.

### Cost

Project cost was estimated as low, medium, or high. These values correspond to less than \$1 million, between \$1 and \$3 million, and more than \$3 million. No formal project estimates were developed for this evaluation.

---

**Appendix F**

Appendix F lists the 90 projects and 4 trail projects considered in the screening process and shows the results of the screening analysis.

---

**Exhibit C.4  
Cost Measuring Criteria**

Cost Measure	Cost Values
Project Cost	Estimated cost less than \$1 million (LOW), between \$1 and \$3 million (MEDIUM), or more than \$3 million (HIGH)

### Initial Screening Results

None of the projects considered in the initial screening process were found to have so substantial an array of cost, feasibility, or environmental difficulties in the face of limited benefits that they were removed from further consideration. Therefore, all of those projects were carried forward for a more detailed

evaluation in the final screening phase of the process. The initial screening results were endorsed by the CWG.

#### 4 How was the final screening performed?

In the final screening the list of potential RDP projects were subjected to a varied analysis. Each project was evaluated on the basis of its potential transportation benefits, impacts, financial costs, and support in the categories noted to the right. The evaluation was based on scoring each project using the measures identified in the sections below. The measures were adapted from the *SR 169 Corridor Study Evaluation Criteria Technical Memorandum*, (this memorandum is contained in Appendix F). Adaptations were made on the basis of the available data, redundancy among the measures in the memorandum, and additional insight gained during the course of the study into topics needing measurement.

With respect to potential transportation benefits, if a project would provide a potential benefit the project was given a score of “1”. If the project would not provide a potential benefit it was given a score of “0”. With respect to environmental impacts, land use and policy consistency, and public support a project was given a “-1” if it had a negative impact, was inconsistent, or lacked support. Otherwise it was given a “0”. Project cost was assessed with a “-1” for a high cost project, “-0.5” for a medium cost project, and “0” for a low cost project.

The scores were then weighted to account for the relative importance of each measure and any redundancy among the measures. The weights were equalized to normalize (or center) the measurement scale to zero. After equalizing the weights the range of possible scores was -90 to +90. The tables below show the importance and equalization weighting of each measure. Finally, the evaluation scores for each project were totaled.

The projects were screened according to the criteria and measures described below.

---

**Final Screening Criteria**

- Safety Benefits
  - Mobility Benefits
  - Transit Benefits
  - Non-Motorized Benefits
  - Environmental Impacts
  - Land Use and Policy Consistency
  - Costs
  - Public Support
- 

---

**Final Screening Criteria**

- Safety Benefits
  - Mobility Benefits
  - Transit Benefits
  - Non-Motorized Benefits
  - Environmental Impacts
  - Land Use and Policy Consistency
  - Costs
  - Public Support
-

## Safety Benefits

Three safety measures were included in the final screening. They addressed removal of existing roadway design deficiencies, collision reduction, and pedestrian safety as shown in the table below.

Measure	Importance Weight	Equalized Weight
Improves existing design deficiencies	2	6
Reduces likelihood of collisions in a particular area (may include a designated HAC or HAL)	5	13
Improves pedestrian safety	4	11

## Mobility Benefits

Five measures of mobility benefits were included in the final screening. Driveways, particularly when there are several of them located with limited separation, creates potential mobility and safety problems. Additionally, several intersecting roadways, particularly in the more rural areas of the corridor, approach SR 169 at angles other than 90 degrees and present a variety of mobility and safety problems. The first measure in the table below addresses driveway consolidation and the reduction of the number of awkward intersections. The other measures are self-explanatory.

Measure	Importance Weight	Equalized Weight
Decreases number of driveways and skewed intersections	3	8
Improves emergency access in congested areas in peak periods	4	11
Improves freight travel times	3	8
Improves traffic conditions during an event	3	8
Improves operating Levels of Service	5	13

### Transit/HOV Use and Function

A single measure was used for this category as shown in the table below.

Measure	Importance Weight	Equalized Weight
Enhances transit/HOV opportunities	1	4

### Pedestrian, Bicycle, and Equestrian Facilities

A single measure was also used for this category as shown in the table below.

Measure	Importance Weight	Equalized Weight
Enhances non-motorized travel opportunities	3	8

### Environmental Effects

Twelve measures were used to evaluate potential environmental effects. All but one of these measures represents potential environmental impacts of a project and is therefore shown in the table below with negative weights.

Measure	Importance Weight	Equalized Weight
Displaces business or community facilities	-5	-6.5
Displaces dwelling units	-5	-6.5
Creates noise impacts on sensitive receptors	-3	-4.0
Requires additional right-of-way	-2	-3.0
Impacts open space or parks	-3	-4.0
Significantly impacts low income and/or minority communities	-5	-6.5
Potentially adverse effects on historical, cultural, and architectural site resources	-5	-6.5
Impacts salmon and fish bearing stream crossings	-3	-4.0
Displaces/disturbs threatened or endangered species or their habitat	-3	-4.0
Impacts wetlands and floodplains	-4	-5.0
Remediates existing geological hazard	4	5.0
Is located in a geologically hazardous area	-3	-4.0

### Land Use and Policy Consistency

Two measures of land use and policy consistency were used for evaluation purposes.

Measure	Importance Weight	Equalized Weight
Impacts land in Agricultural Production Districts or Farmland Preservation Programs	-5	-6.5
Does not maintain consistency with Comprehensive Plans, land use, transportation, and economic development policies	-2	-3.0

### Project Costs

Three measures of cost were used in the evaluation. Capital cost includes the cost of construction. Right-of-way costs include the costs to acquire land needed for the project. In each case costs were evaluated on a low-medium-high scale where a low cost was given a 0 score, a medium cost a -0.5 score, and a high cost a -1 score.

Measure	Importance Weight	Equalized Weight
Capital cost	-5	-6.5
Annual operation and maintenance cost	-3	-4.0
Right-of-way acquisition cost	-5	-6.5

### Public Support

Each project was evaluated to determine whether there was substantial opposition to the project.

Measure	Importance Weight	Equalized Weight
Does not have support from citizens, stakeholders, interest groups, and state, local and tribal representatives	-3	-4.0

## Summary of Final Screening Results

Total weighted and equalized scores were used to determine those projects with substantially more benefits than impacts and costs. The scores for each project are shown in Appendix F. These scores were reviewed and endorsed by the CWG. A small number of projects such as non-motorized trails scored relatively but were retained for further study because the CWG believed that the trail projects merited additional study given their consistency with the RDP goals of providing multi-modal transportation facilities and low impact land use/development.

Not including the trail projects, a total of 90 projects were included in the final screening analysis. Of those, 17 projects were removed from further consideration because they had more negative impacts and high costs than benefits.

### 5 How were the remaining projects packaged?

The 73 remaining projects and 4 trail projects were grouped together in packages to form three separate improvement options for the SR 169 corridor. Each improvement option contained projects addressing safety, operations, and chokepoints along the corridor. Each option builds upon the previous package. For example, Improvement Option 1 contains a specific list of improvements, while Improvement Options 2 and 3 contain all of the improvements listed in Option 1, as well as an additional capacity project in the Renton segment.

#### Improvement Option 1

Improvement Option 1 includes operational, safety, and capacity improvements intended to address the safety and congestion issues along the corridor. Some of these projects are directed at sections of the corridor; other projects will be applied at specific intersections. The types of Corridor Safety Improvements are:

- Access management
- Construct sidewalks
- Improve shoulders
- Extend bike lanes

---

#### Appendix F

Appendix F contains the results of the final screening analysis.

---

---

#### Results of Final Screening

- 90 projects screened
- 17 projects removed
- 73 projects and 4 trail projects retained and packaged into three improvement options.

Appendix D contains the final list of projects and Appendix F shows the screening results.

---

---

#### Appendix D

Appendix D contains a detailed list of the projects included in the improvement options and identifies their specific locations.

---

- Install guardrail
- Install rumble strips
- Install street lighting
- Install crosswalks
- Remove sight obstructions

The Intersection Improvements are:

- Realign approaches
- Access management
- Improve pedestrian crosswalks
- Remove sight obstructions
- Install signals
- Install street lighting
- Widen intersection
- Stabilize steep slopes
- Install bus pullouts
- Install or extend turn pockets

Capacity improvements included in Improvement Option 1 are:

- Add truck climbing lanes from north and south of the Green River (approximately milepost [MP] 4.90 to MP 5.20 and MP 5.33 to MP 6.02).
- Add truck climbing lane on the southbound side of the highway south of Cedar River (approximately MP 14.14 to MP 15.00).
- Widen SR 169 to four lanes from SE 291st Street (MP 10.02) to just north of Jones Road (MP 19.22).

### **What types of projects are included in Improvement Option 2?**

Improvement Option 2 builds upon the list of proposed projects in Improvement Option 1. Improvement Option 2 includes all of the operational, safety, and capacity improvements listed in Improvement Option 1 and it adds:

- a capacity improvement project to widen SR 169 in the Renton segment from four lanes to six lanes between 140th Way SE (MP 22.99) and I-405 (MP 25.26).

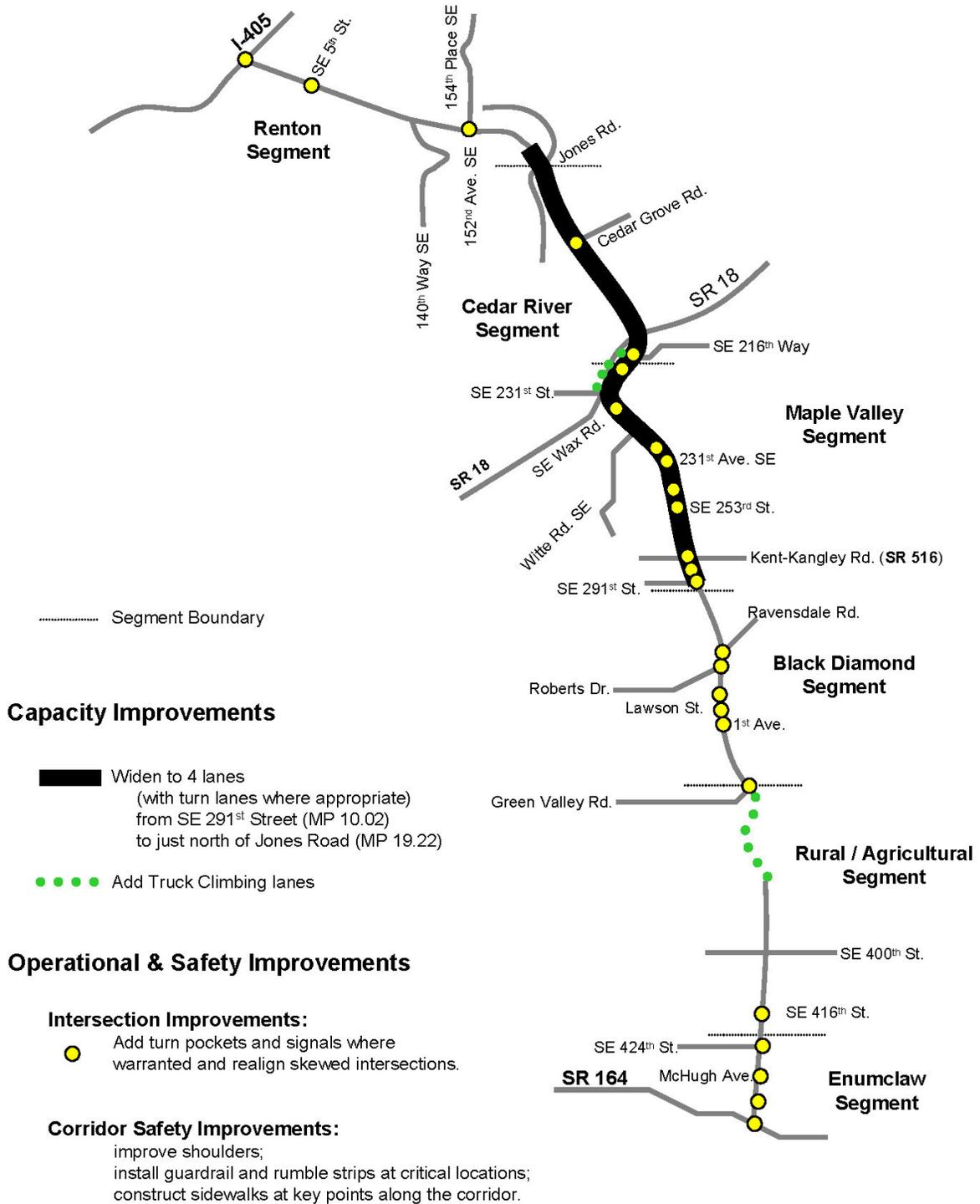
### **What types of projects are included in Improvement Option 3?**

Improvement Option 3 contains all of the operational, safety and capacity improvements provided in Options 1 and 2 and it increases capacity by:

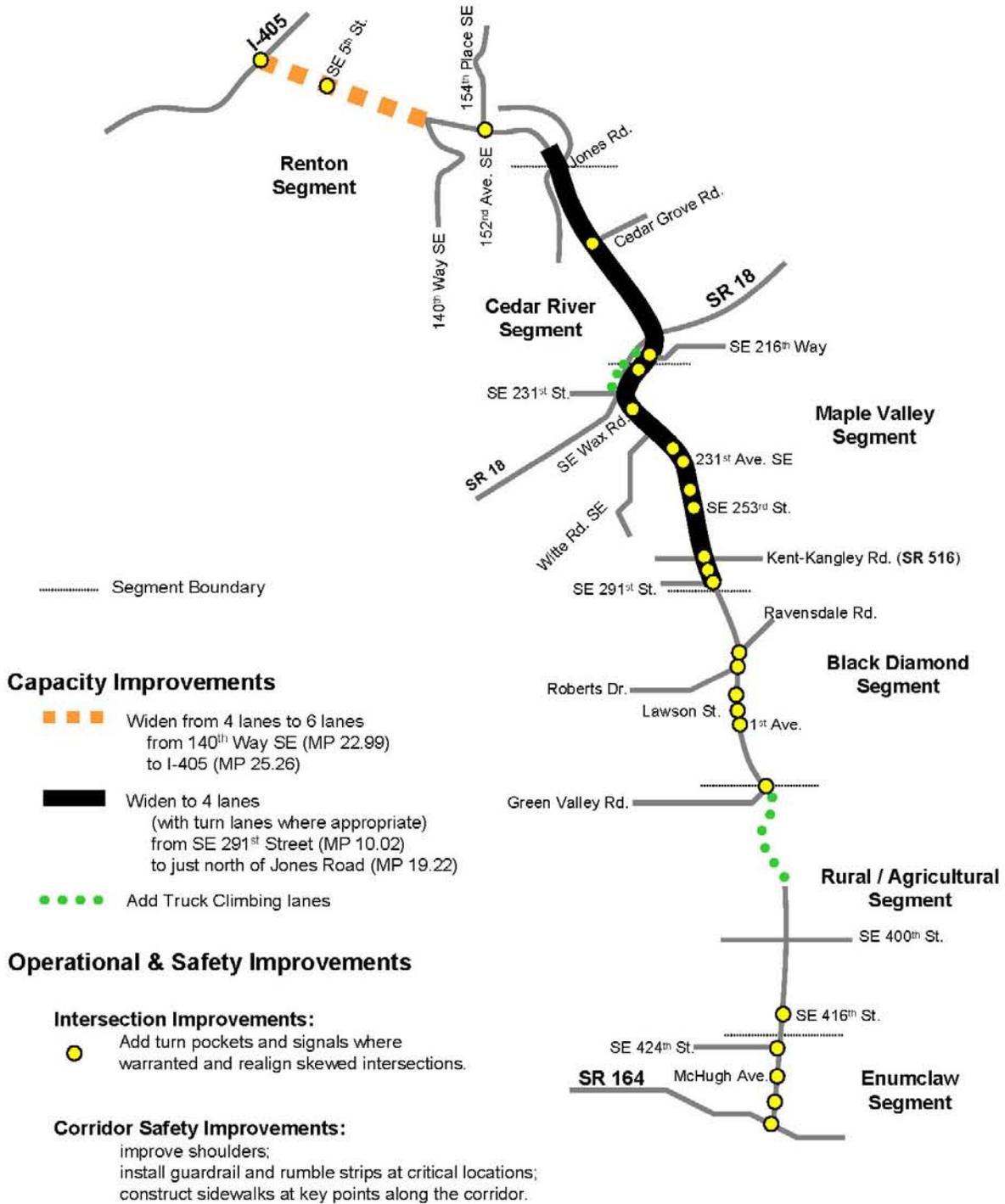
- widening SR 169 from four to six lanes in the Renton segment from 140<sup>th</sup> Way SE (MP 22.99) to Jones Road (MP 25.26).

Improvement Options 1, 2, and 3 are shown in Exhibits C.5, C.6, and C.7.

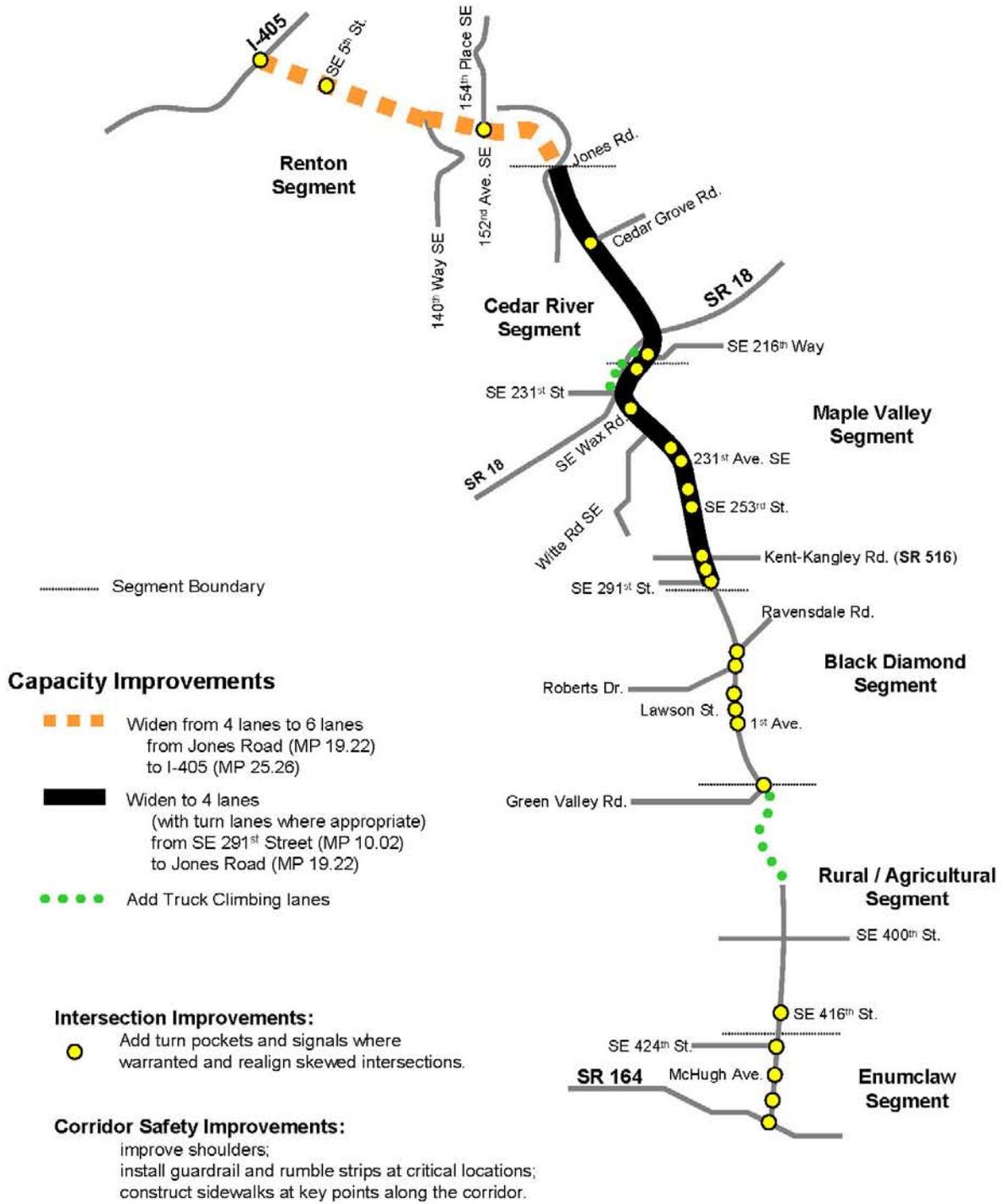
**Exhibit C.5  
SR 169 Improvement Option 1**



**Exhibit C.6  
SR 169 Improvement Option 2**



**Exhibit C.7  
SR 169 Improvement Option 3**



## **6 How were the benefits of the three improvement options compared to the costs?**

The next step in the evaluation process involved determining the benefit-to-cost (B/C) ratio for each of the improvement options. The B/C analysis compared the benefits of an improvement option project to the project's costs. The resulting ratio was used to compare the three improvement options. If the B/C ratio is near one, the benefits and costs are about equal. The higher the B/C ratio, the more the potential benefits outweighed the costs. The calculation of project costs and benefits is described below.

### **Costs**

Planning level cost estimates were prepared by WSDOT for each of the SR 169 improvement options. The planning level cost estimate methodology was developed as part of Congestion Relief Analysis (CRA) for Washington State's three metropolitan areas – Central Puget Sound, Spokane, and Vancouver. The methodology is intended to provide cost estimates for projects that are conceptual, often with minimal engineering design. The methodology was developed to estimate costs for a variety of projects including roadway and bridge widening, new roadway and bridge construction, and interchange construction and modification.

A unit price approach is used that accounts for regional differences, as well as differences in land use types and development density within a region. Quantities per lane mile and unit costs have been developed from historical data on WSDOT projects. Some unit costs are adjusted for differences in area prices, terrain, ground conditions, and design assumptions. Little geotechnical information is assumed.

The right-of-way cost is estimated based on the amount of right-of-way needed and unit prices that vary by county, development density, and land use. Due to lack of design and construction details, costs of a number of items are estimated as percentages of project construction cost. These items include mobilization of construction equipment and crews to a construction site, utility relocation, construction staging, traffic

control, preliminary engineering, construction engineering, and sales tax.

Because many of the improvements identified for SR 169 lacked engineering design, a set of uniform assumptions were made by type of improvement. The cost estimates developed provide a reasonable order-of-magnitude of the likely cost of constructing improvements and a reasonable basis for comparing options. Once a specific option is selected for advancement, more detailed engineering design and cost estimates will be developed.

Costs include a variety of components such as engineering, materials (asphalt, drainage pipe, catch basins, concrete, rebar, steel bridge beams, light posts, traffic signals, pavement striping, fill, etc.) and mitigation. Total construction costs were calculated for the different components of each option. The different components were then aggregated into four categories based on the life expectancy of each component.

The B/C analysis period was 20 years, and the cost forecasts were not “out-of-pocket” construction costs but costs as depreciated over 20 years. Depreciated costs are the amount of original construction value used up in 20 years. For example, bridges have a life expectancy of 35 years. Therefore, a bridge that costs \$35 million to construct will have only used up \$20 million of its construction value in the first 20 years of its life. Consequently bridge costs are reduced to 57 percent ( $20/35 = 0.57$ ) of total construction cost to reflect the amount of their value consumed in the 20 year analysis period. Similar adjustments were made for other project components that have a life expectancy other than 20 years.

**Benefits**

Benefits were calculated based on reductions in collisions and travel delay forecast over the course of a 20 year period. Collision benefits were based on expected collision reductions resulting from specific types of roadway improvements. Each collision that can be alleviated by an option results in a savings as shown on the right. A minimum three-year collision data set along with appropriate AASHTO (American Association of

---

**20-Year Depreciation Factors**

- Right-of-Way at 0.55
- Structures at 0.57
- Drainage and grading at 0.60
- All other costs at 1.00

---



---

**Value of Collision Reduction**

<u>Collision Type</u>	<u>Unit Benefit</u>
Fatality:	\$1,100,000
Disabling Injury:	\$1,100,000
Evident Injury:	\$70,000
Possible Injury:	\$35,000
Property Damage Only:	\$6,500

---

State Highway and Transportation Officials) reduction factors was used to generate collision reduction benefits for the 20-year benefit period for each option.

Travel delay reduction benefit calculations were based on:

- Average vehicle occupancy (AVO)**Error! Bookmark not defined.**
- Truck percentage
- Traffic volume
- Growth rate
- Posted speed

Operating speeds were used to calculate travel-time savings based on build and no build conditions. Dollar values for these time savings were then assigned to each vehicle. Values varied for different vehicle types. Each passenger vehicle was assigned a value of \$14.07 and each truck \$56.26 for each vehicle hour reduction in travel time. Benefits were calculated for the 20-year analysis period based on 260 working days per year.

The sum of the monetary savings over 20 years from collision reduction and travel time savings is the benefit of the project for purposes of the B/C analysis.

### Benefit-Cost Results

The value of the 20-year benefits is divided by the 20-year project costs to obtain the B/C ratio. The B/C ratios for the three options are shown in Exhibit C.8.

**Exhibit C.8  
Benefit-to-Cost Analysis Results<sup>1</sup>**

Option	20-Year Benefits			Costs		20-Year B/C Ratio <sup>2</sup>
	Travel Time	Safety	Total	Construction Costs	Total Costs w/20-Year Depreciation	
Improvement Option 1	\$246	\$34	<b>\$280</b>	\$212	<b>\$162</b>	1.7
Improvement Option 2	\$379	\$39	<b>\$418</b>	\$259	<b>\$197</b>	2.1
Improvement Option 3	\$527	\$46	<b>\$573</b>	\$303	<b>\$232</b>	2.5

1. All costs are estimated in 2005 dollars and do not include inflation

*2. The B/C Ratio equals the total 20-year benefits divided by the total costs with depreciation*

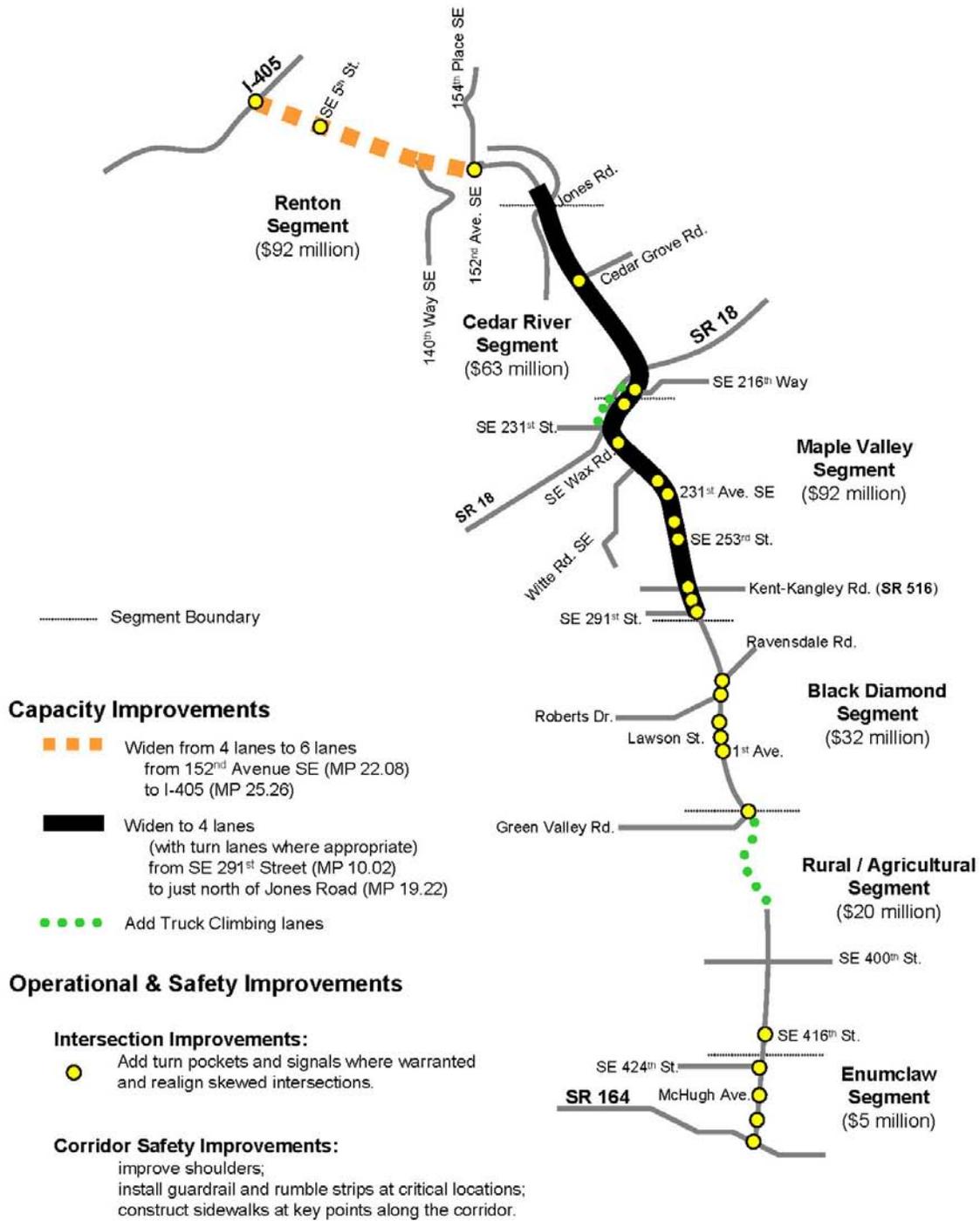
## **7 Which improvement option is recommended by the Corridor Working Group?**

Upon review of the project benefits and costs, and B/C ratio information the CWG recommended a hybrid of Improvement Options 2 and 3. The only difference between Options 2 and 3 of proposed widening on SR 169. Option 2 proposes to widen SR 169 from four to six lanes from 140th Way SE to I-405; whereas, Option 3 proposes to widen SR 169 from four to six lanes from Jones Road to I-405. The hybrid option proposes to widen SR 169 from four to six lanes from 152nd Ave. SE to I-405, which is roughly halfway between 140th Way SE and Jones Road as shown in Exhibit C-9.

Based on the B/C analysis performed, the CWG determined that Options 2 and 3 offered greater benefits to the SR 169 corridor than just the improvements proposed with Option 1. However, the CWG looked closely at the additional benefit gained between Options 2 and 3 to see if a hybrid option might offer a more cost effective improvement at this time. After looking at costs, benefits, traffic, and engineering issues between Options 2 and 3, the CWG determined that widening SR 169 to 152nd Avenue SE offered the best combination of safety and mobility improvements for the SR 169 corridor. However, the CWG also determined that the need to widen SR 169 up to Jones Road should be reassessed in the future to confirm that widening up to 152nd Avenue SE meets future traffic demand.

Exhibit C.9 shows the CWG's recommended improvement option and the estimated costs for improvements proposed within each segment.

**Exhibit C.9  
SR 169 Recommended Improvements and Estimated Costs\***



\* Cost estimates are in 2005 dollars, assume no inflation, and were developed with limited engineering

## 8 How is this Plan consistent with the Washington Transportation Plan (WTP) and Highway System Plan (HSP)?

The Washington State Highway System Plan (HSP) is the element of Washington’s Transportation Plan (WTP) that addresses the state’s highway system. The HSP includes a comprehensive assessment of existing and projected 20-year deficiencies on our state’s highway system. It also lists potential solutions that address these deficiencies. This RDP is one of the primary methods in which the strategies identified in the HSP are refined. A number of HSP strategies indicate that further study of the route is needed to identify the appropriate action. This RDP provides the needed detailed analysis to help identify refinements to the HSP strategies.

Exhibit C.10 provides an overview of the HSP Objectives and Action Strategies applicable to the SR 169 RDP.

**Exhibit C.10  
Consistency of SR 169 RDP and the Highway System Plan (HSP) hasn’t the HSP been updated and is this consistent with that update?**

Improvement Category	Objective	Applicable Action Strategies	Proposed Improvements
Maintenance	Maintain the effective and predictable operations of the transportation system to meet customer’s expectations.	Maintain and operate bridges and tunnels to achieve a statewide annual average level of service C+.	The RDP recommends repairing and repaving the Green River / Dan Evans bridge.
Operations	Increase the efficiency of operating the existing systems and facilities.	Optimize the efficiency of the highway system through traffic management techniques (e.g., ramp metering in peak hours, service patrols and incident response, signal timing and coordination).	Signals will be synchronized in key locations including the area between the new Cedar River Park entrance and I-405; and an HOV queue jump at the I-405 northbound ramp.
Preservation	Preserve transportation infrastructure to achieve the lowest life cycle cost and prevent failure.	Pavements will be programmed targeting the lowest life cycle cost per the Washington State Pavement Management System “due” date. Existing safety features shall be restored to provide basic design level standards.	Several sections of SR 169 will be repaved to preserve the existing roadway.
		Stabilize 100% of unstable slopes.	A number of projects are proposed to stabilize steep slopes.

**Exhibit C.10  
Consistency of SR 169 RDP and the Highway System Plan (HSP) hasn't the HSP been updated and is this consistent with that update?**

Improvement Category	Objective	Applicable Action Strategies	Proposed Improvements
Mobility	Reduce person and freight delay on WTP corridors.	Access Management within developed corridors - along corridors, which are fully developed, reduces the travel delay by utilizing access management techniques where appropriate.	Access management improvements are proposed in the Maple Valley, Cedar River and Renton segments.
	Improve existing travel patterns.	Where adopted congestion thresholds are surpassed on non-HSS facilities, partner with regional and local governments to make targeted transportation investments.	Many of the immediate term projects are partially funded and constructed by local governments, and it is assumed that a number of the recommended short and long term projects will also be partially funded by local and regional sources.
	Create links and remove barriers between transportation facilities and services.	Develop bicycle/pedestrian corridors where they support public transportation facilities and are viable commute options.	A number of pedestrian/bicycle related projects are recommended to improve pedestrian and bicycle linkages.
	Improve connections at multi-modal transportation facilities.	Improve connections at multi-modal transportation facilities.	Transit and pedestrian improvements are proposed to the Maple Valley Park and Ride lot and the RDP recommends expanding the Park and Ride lot at SE 7th Street.
	Support statewide economic development through targeted transportation investments.	By 2020 increase the number of completed local bicycle and pedestrian networks by completing missing links along or across state highways.	A number of pedestrian/bicycle related projects are recommended to improve pedestrian and bicycle linkages.
Support statewide economic development through targeted transportation investments.	Construct periodic passing or climbing lanes where slow moving vehicles degrade the general mobility within State and Regional corridors.	Truck climbing lanes are proposed near Witte Road, and north and south of the Green River bridge.	

**Exhibit C.10  
Consistency of SR 169 RDP and the Highway System Plan (HSP) hasn't the HSP been updated and is this consistent with that update?**

Improvement Category	Objective	Applicable Action Strategies	Proposed Improvements
Safety	Reduce and prevent deaths and the frequency and severity of disabling injuries, and reduce the societal costs of collisions.	Eliminate high accident corridors (HACs) using standards based on highway safety solutions.	A number of safety-related projects are recommended along the corridor to address HACs.
		Construct intersection channelization and/or signals in compliance with federal guidelines to improve safety.	A number of channelization and signal projects are recommended along the corridor to improve safety.
		Improve roadways where geometrics, traffic volumes and speed limits indicate a high collision potential by instituting standards based on highway safety solutions.	A number of projects improve the roadway geometrics to address safety issues, such as roadway widening or realignment, radius improvements, shoulder widening, lighting, center left turn lanes, roundabouts, and closing access at skewed intersections.
		Proactively address pedestrian safety along state highway segments that exhibit high pedestrian use and the potential for future collisions.	A number of pedestrian related projects are recommended to improve pedestrian safety.

**9 How is this Plan Consistent with Local Plans?**

The limits of the *SR 169 Route Development Plan* fall within five jurisdictions, including Enumclaw, King County, Black Diamond, Maple Valley, and Renton.

All of the jurisdictions’ comprehensive plans require that their transportation plans are coordinated with regional plans. All five of the jurisdictions were represented as part of the CWG throughout the entire study process. Some suggestions for corridor improvements came directly from jurisdiction’s comprehensive plans. The recommended projects were endorsed by those CWG members, indicating consistency with the local plans.