

## Chapter 7:

# Plan Implementation

## 7.1 Plan Implementation

This chapter provides an overview of the next steps towards exploring funding options and the possible implementation of transportation improvement recommendations within the SR 520 corridor study area.

There are twenty-two multi-modal recommendations identified in this corridor study. Due to limited state funding, the recommendations in this study will need to compete for funding with other proposed improvements around the state based on performance outcome.

A programming matrix was developed by the project team based on the guidelines outlined in WSDOT's 2007 Planning Studies Guidelines and Criteria Report ([www.wsdot.wa.gov/NR/rdonlyres/8B2B613F-D6F1-4515-82E5-23417C7C321D/0/NovFinalTPSGC.pdf](http://www.wsdot.wa.gov/NR/rdonlyres/8B2B613F-D6F1-4515-82E5-23417C7C321D/0/NovFinalTPSGC.pdf)). This matrix, as presented in Table 7.1, lists the recommendations and includes the timeframe of their expected need. (Need does not indicate construction timing.)

**Exhibit 7.1:** SR 520 Improvements Programming Matrix, 20+ years

SR 520 Improvements Programming Matrix				
Project Number		w/in 6 years	w/in 12 years	w/in 20 years
1	<p><b>Operational Enhancements; Intelligent Transportation Systems (ITS) including Active Traffic Management (ATM) and Traffic Signal System Upgrades and Optimization</b></p> <p>Phased implementation of ATM systems including variable message signs, dynamic message signs and lane control signs. General system requirements include full monotube sign structures installed every 1/2 mile with electronic signs at each location.</p> <p>Traffic Signal System Upgrades include employing adaptive signal technologies at key intersections and corridors as well as providing for interoperability of closely spaced traffic signal between neighboring jurisdictions.</p>		√	
2	<p><b>SR 520 Interim Regional Trail Improvements (108th Ave NE to 124th Ave NE)</b></p> <p>Provide limited widening and safety improvements along Northrup Way and NE 24th Street in order to accommodate a 14' wide non-motorized trail in each direction generally within the existing roadway between 108th Ave NE and the western terminus of the existing shared use path at NE 124th Street Interchange.</p>	√		

SR 520 Improvements Programming Matrix				
Project Number		w/in 6 years	w/in 12 years	w/in 20 years
3	<b>New Dedicated SR 520 Regional Trail Alignment (108th Ave NE to 124th Ave NE)</b> Construct a separated 14' wide non-motorized trail on a dedicated alignment between 108th Ave NE and the proposed full directional interchange at 124th Avenue NE.		√	
4	<b>SR 520/124th Avenue NE Full Interchange (incl. Auxiliary lanes)</b> Reconstruct existing half diamond interchange to provide a full interchange. Interchange revision also includes auxiliary lanes between 124th Ave NE and the 148th Ave NE interchange.	√		
5	<b>SR 520/148th Avenue NE Overlake Access Ramp</b> Improve eastbound off-ramp operations and safety by constructing a grade separated ramp for through movements accessing the Overlake area east of 148th Avenue NE.	√		
6	<b>SR 520/148th Avenue NE Trail Connection</b> Construct non-motorized access across the SR 520/148th Ave interchange between the SR 520 Regional Trail and the Overlake area.	√		
7	<b>SR 520 Regional Trail Grade Separation at 148th Ave NE</b> Design and construct a non-motorized tunnel under 148th Ave NE and supporting structures as needed on the north side of the interchange.	√*	√	
8	<b>SR 520 Eastbound Auxiliary Lane (148th Ave NE to NE 40th)</b> Construct a new 12' wide auxiliary lane eastbound between the 148th Ave NE interchange and the NE 40th Street interchange.			√
9	<b>SR 520 Regional Trail Grade Separation at NE 40th Street</b> Construct non-motorized tunnel under NE 40th St on the west side of the interchange.	√		
10	<b>Overlake Village Station Pedestrian – Bicycle Bridge (SR 520/152nd Ave NE)</b> Construct a new bicycle/pedestrian bridge over SR 520 locating the southern landing at the East Link Light Rail Overlake Village Station and Overlake Regional Growth Center with the north landing at the 520 Regional Trail and employment area.	√		
11	<b>Overlake Transit Center Pedestrian-Bicycle Bridge (SR 520/NE 40th Street/156th Ave NE)</b> Design a new bicycle and pedestrian bridge over SR 520 south of NE 40th Street, locating the eastern landing at the East Link Light Rail Overlake Transit Center Station and Overlake Regional Growth Center, with the west landing at the 520 Regional Trail and employment area.	√		

\* preliminary design

SR 520 Improvements Programming Matrix				
Project Number		w/in 6 years	w/in 12 years	w/in 20 years
12	<b>SR 520 Regional Trail Grade Separation at NE 51st Street</b> Construct non-motorized tunnel under NE 51st St on the west side of the interchange.	√		
13	<b>SR 520 Eastbound Shoulder Bus Lane - NE 51st Street to WLSP</b> Construct an eastbound shoulder lane for bus use.	√		
14	<b>SR 520 Eastbound Auxiliary Lane - NE 51st Street to West Lake Sammamish Parkway</b> Add an eastbound lane from NE 51st Street on-ramp to Westlake Sammamish Parkway off-ramp.	√		
15	<b>SR 520 Westbound Auxiliary Lane - West Lake Sammamish Parkway to NE 51st Street</b> Add a westbound lane from Westlake Sammamish Parkway on-ramp to NE 51st Street off-ramp.			√
16	<b>NE 51st Street/NE 40th Street Westbound Exit Ramp Modifications</b> Reconfigure the one lane exit into two separate exits by constructing a new exit for NE 40th Street about 1/2 mile further west of the existing exit.	√		
17	<b>SR 520/West Lake Sammamish Parkway Eastbound Off-Ramp Improvements</b> Construct either a multilane roundabout or exclusive right turn lane at the ramp terminal.		√	
18	<b>SR 520/West Lake Sammamish Parkway/Leary Way Interchange Improvements</b> Construct either a multilane roundabout or double left turn lanes (WLSP southbound to Leary Way eastbound) and add a lane on Leary Way from West Lake Sammamish Parkway to the bridge over the Sammamish River.		√	
19	<b>SR 520 Regional Trail Grade Separation at West Lake Sammamish Parkway</b> Construct a non-motorized overpass at West Lake Sammamish Parkway that connects the end of the SR 520 Regional Trail to the Sammamish River Regional Trail.		√	
20	<b>East Lake Sammamish Parkway Regional Trail Connection (SR 520/SR 202)</b> Construct missing segment of trail system through interchange.			√

SR 520 Improvements Programming Matrix				
Project Number		w/in 6 years	w/in 12 years	w/in 20 years
21	<p><b>SR 520/SR202 Interchange Improvements at WB Ramp/ SR 202 Intersection</b></p> <p>Modify the bridge over Bear Creek to add a vehicular lane, thereby providing a double left turn lane on Redmond Way to improve traffic flow and reduce conflict between motorized and pedestrian and bicycle traffic at the SR 520 and 202 Interchange. In addition, this project will construct a pedestrian and bicycle bridge on the south side of the bridge over Bear Creek to provide safe passage for non-motorized users.</p>	√		
22	<p><b>SR 520/Avondale Road/Union Hill Road Intersection Improvements</b></p> <p>Design and construct either a grade separation of SR 520 over Union Hill Road, or a flyover ramp from westbound Union Hill Road to westbound SR 520.</p>	√*		√

\* preliminary design

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## 7.2 Highway System Plan

The Washington State Highway System Plan (HSP) is the state highway component of the Washington State Multimodal Transportation Plan (SMTP). The SMTP is the state's overall transportation plan that includes an analysis of facilities the state owns and those in which the state has an interest. The HSP is updated every two years and serves as the basis for the six-year highway program and the two-year biennial budget request to the Washington State Legislature. The current HSP was completed in 2007 and covers the years 2007 to 2026. An update is being completed, but was not in place at the completion of this study. The HSP is also aligned to the WTP, which outlines the policies adopted by the Washington State Transportation Commission.

## 7.3 Washington State Transportation Plan

In 2007, the Washington State Legislature and the Governor created five investment policies for planning, operations, performance, and investment in the state's transportation system as outlined in RCW 47.04.280 (derived from Senate Bill 5412). This overarching transportation plan for the state is known as the Washington Transportation Plan (WTP). It is developed by the Washington State Transportation Commission and provides a 20-year blueprint for transportation programs and investments. The WTP 2030 covers various modes in the transportation system and is required by state and federal law. The current plan was produced in December 2010 and covers the period from 2010 – 2030. It can be found at:

<http://wtp2030.wordpress.com/2010/12/30/commissionadopts-wtp-2030/>

A sixth investment policy goal was added by the legislature in 2010. Investment in the state transportation system must support one or more of the following six policy goals:

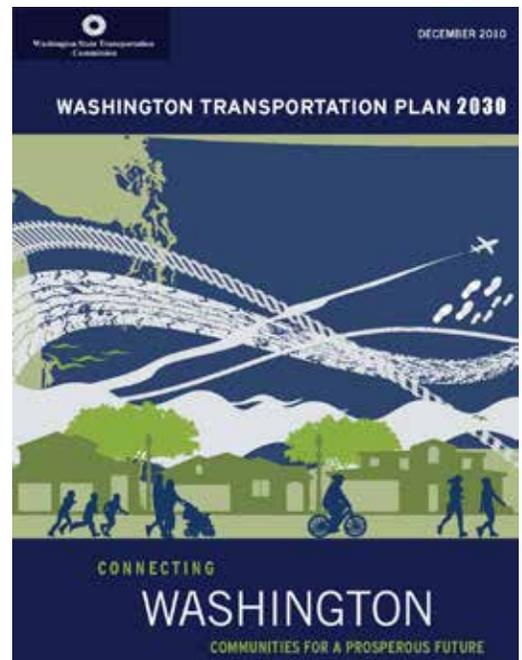
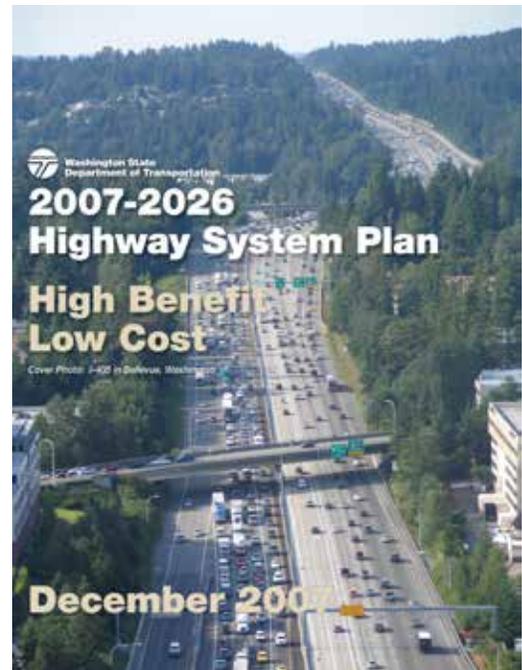
1. **Economic Vitality:** To promote and develop transportation systems that stimulate, support, and enhance the movement of people and goods to ensure a prosperous economy.
2. **Preservation:** To maintain, preserve, and extend the life and utility of prior investments in transportation systems and services.
3. **Safety:** To provide for and improve the safety and security of transportation customers and the transportation system.
4. **Mobility:** To improve the predictable movement of goods and people throughout Washington state.
5. **Environment:** To enhance Washington's quality of life through transportation investments that promote energy conservation, enhance healthy communities, and protect the environment.
6. **Stewardship:** To continuously improve the quality, effectiveness, and efficiency of the transportation system.

## WTP 2030 Funding Analysis

The most recent statewide transportation revenue packages were enacted by the Legislature in 2003 and 2005. In those years, the state raised the motor vehicle fuel tax and other fees and charges to support two WSDOT capital programs: the 2003 Nickel Funding Package and the 2005 Transportation Partnership Act Funding Package. Together, these funding packages invested \$15.5 billion in highway, rail, ferry, transit, and freight projects across the state. By the end of 2010, 347 of 421 projects will be complete or under construction. Future revenues from these two funding packages have been bonded and committed to the 421 projects, which will soon be delivered as shown in Exhibit 4. WSDOT estimates that basic preservation, safety, and environmental needs for the next twenty years will require an additional \$14.8 billion.

Washington has made significant investments in the state transportation system since 2003, investing \$15.5 billion in state funding on highway, rail, ferry, transit, and freight projects. However, Washington State faces tremendous transportation needs statewide; it is estimated that at least \$175 billion to \$200 billion is needed to meet all statewide transportation needs over the next 20 years. Although an estimate, this range is consistent with a constrained 30 year need (\$189 billion) identified in Transportation 2040 adopted by the Puget Sound Regional Council and the 2008 constrained plan developed by the Spokane Regional Transportation Council (\$7.5 billion). To meet these challenges effectively, an integrated, systemwide view of the state's transportation network is required. This systemwide view recognizes the central role that transportation plays in our economic and social well-being and establishes a policy framework against which projects and investments can be assessed and prioritized.

Due to the difficulty of identifying needs so far in the future, the Commission asked WSDOT, the Association of Washington Cities, the Washington State Association of Counties, and the Washington State Transit Association to help estimate their individual 20 year transportation needs. WSDOT estimates their 20 year need for the state transportation system portion is \$63.8 billion.



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## 7.4 Regional Plans

Metropolitan Planning Organizations (MPO) and Regional Transportation Planning Organizations (RTPO) have specific responsibilities under both federal and state law relating to transportation and growth management planning. The organization that performs these planning functions within the study area is the Puget Sound Regional Council (PSRC), which is both the MPO and RTPO for Kitsap, King, Pierce, and Snohomish Counties.

Destination 2030 was the transportation plan adopted by PSRC in 2001 and updated in 2007. Transportation 2040, the region's new 30-year transportation plan, was adopted in spring 2010 and replaced Destination 2030. The current regional plan focuses on transportation system investments needed to provide an integrated, multimodal transportation system in Central Puget Sound. For transportation projects to receive federal funding, they must be consistent with and included in these regional transportation plans.

## 7.5 Local Comprehensive Plans and Long Range Transit Plans

Local jurisdictions and transit agencies act as partners with WSDOT for the purpose and execution of transportation corridor planning. Local partners help strengthen the corridor plan by incorporating corridor plan recommendations into local comprehensive plans and long range transit plans in the corridor planning study area. Agreement between corridor plans and long range transit plans demonstrates to funding agencies that the corridor plan has support at state, regional, and local levels. Agreement between plans also addresses a critical requirement under the Growth Management Act, requiring plans to be consistent between and among jurisdictions.

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## 7.6 Funding

### **How will we pay for the projects identified in the SR 520 Multi-modal Corridor Planning Study?**

The SR 520 Multi-modal Corridor Planning Study identifies twenty-two proposed improvement recommendations ranging between \$500,000 and \$265,000,000 (2012 planning level cost estimates).

With the exception of the 124th Avenue NE full interchange and auxiliary lanes project; and the 148th Avenue NE interchange Overlake Access ramp and trail connections, none of the other recommendations have been identified for funding. However, the 2012 legislature did allocate \$4.5 million to begin an Interchange Justification Report for the SR 520/124th NE Avenue interchange and a 30% preliminary design for the SR 520/148th Avenue NE interchange.

### **What funding sources are available for these projects?**

Federal, state, and local governments offer a variety of funding sources that can be utilized to fund individual projects along the SR 520 corridor. Partner agencies can use the list of recommendations in this corridor plan to solicit funding from local, state, and federal sources and the private sector to fund project design, environmental review, right-of-way acquisition, and construction.. As a result of total corridor needs, in all likelihood, all sources will be needed to meet the identified transportation needs identified in the SR 520 Multi-modal Planning Study. Some of the potential funding sources are described below.

**Federal Funds** – On July 6, 2012, the President signed into law the Moving Ahead for Progress in the 21st Century Act (MAP-21) which funds surface transportation programs at over \$105 billion for fiscal years (FY) 2013 and 2014. The funding levels and programs are about the same as before, with some inflation adjustments added. Some of the changes from SAFETY-LU to MAP-21 include fewer formula programs, most discretionary programs eliminated, and no earmarks. For Washington State in fiscal year 2013, the surface Transportation program is funded at \$175M and the CMAQ program has \$35M. The Highway Safety Improvement Program for Washington State is funded at \$42M.

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**State Funding** – The state of Washington also administers a number of funding programs that may be used for transportation projects. The most common source of state grant funds for transportation projects is the Transportation Improvement Board (TIB). The Washington State Legislature created the TIB to foster state investment in quality local transportation projects.

The TIB distributes grant funding, which comes from the revenue generated by three cents of the statewide gas tax, to cities and counties for funding transportation projects. For the SR 520 improvements, TIB funds can be used by the incorporated cities to lead selected improvement projects within their jurisdictions, such as intersection improvements or parallel street improvements than can divert traffic from the state highway along the corridor.

**Local Agency Funding** – To be eligible for and competitive in most grant programs, local matching dollars are required: the more local participants are involved in and support a project, the more competitive a grant application can become. Private funding through developer mitigation payments for impacts to the highway could also be a source of matching funds.

**Development Impact Fees** – The use of development impact fees to fund public facilities that are necessary to provide services for new development and maintain acceptable level-of-service has been widely used in Washington and across the U.S. Development impact fees are one-time charges applied to new developments. Their goal is to raise revenue for the construction or expansion of capital facilities necessary to support and mitigate the impact of new developments.

Impact fees are assessed and dedicated principally for the provision of additional water and sewer systems, roads, schools, libraries, parks, and recreational facilities made necessary by the presence of new residents and/or businesses in the area. As new developments are approved, consideration should be given to their impact on the operation of local, county, and state highways within the proximity of the new development.

Additional jobs and population growth are planned within the SR 520 study area. This growth is consistent with the intent of the State Growth Management Act (GMA) to concentrate growth within urban areas and designated regional urban centers (e.g. Downtown Bellevue and Overlake). In addition, the number of jobs present today and projected along the corridor are necessary for the State's economic vitality. The complete list of study recommendations are needed to support this long-term planned growth.

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The most critical recommendations are those in the near-term that have a demonstrated need today. The recommendations in this corridor study also include lower-cost options, in addition to the long-term investments. The lower cost recommendations may be implemented faster while still showing some benefit to traffic and safety in the SR 520 Multi-modal Corridor Planning Study area.

The next steps for this corridor study are for the partner agencies to pursue various funding from local, federal, and private sources for the recommendations in this corridor plan.

## 7.7 Initiate Project Development Process

As funding becomes available, WSDOT and/or its partner agencies will need to complete necessary project development steps. The lead agency will determine the appropriate level of state and federal documentation for each proposed project and conduct public involvement throughout the project development process. Any change in access to SR 520 will require an Interchange Justification Report. Some key elements required during the project development process are:

**Project Scoping Phase** – A scoping document is prepared that includes a scope of work, justification for the project, identifies risks, operational and environmental issues, key schedule milestones, a capital cost summary cash flow, and financial plan.

**Design Phase** – Preliminary engineering to determine and refine project plans.

**Right-of-Way Studies Phase** – Records are reviewed to determine property ownership and boundaries surrounding the proposed project. The findings are then assessed to determine if property needs to be secured to construct the project.

**Environmental Phase** – The purpose of the environmental process is to meet federal and state regulations by evaluating project alternatives and identifying ways to avoid and minimize negative effects to the community and the environment. The process evaluates project alternatives against some or all of the following environmental topics: earth, air, water, plants and animals, energy and natural resources, environmental health, land and shoreline use, transportation, and public services and utilities.

**Public Involvement and Outreach Phase** – The public is informed and engaged during project development to review project plans and provide feedback on potential impacts and/or benefits.

**Construction Phase** – The project is constructed.

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## 7.8 Next Steps

The SR 520 Multi-modal Corridor Planning Study identifies Corridor needs that are based on adopted WSDOT thresholds have been identified in this study. While completion of this study does not guarantee funding, it does allow for future consideration for funding requests to be focused on areas of greatest need in this corridor. These identified areas will compete with other similar locations around the state for funding based on performance outcome.

Because most of the recommendations were identified prior to the start of this study, they are already included in the appropriate state, regional, and local plans. Additional follow-up is needed to ensure that all the recommendations are included and accurately described in the following plans:

- the State Highway System Plan
- Transportation 2040
- County and city comprehensive plans (where appropriate)
- Transit agency plans.

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