2025 State Facilities Action Plan for WSDOT Olympic Region

This chapter takes a broad look at state and federal transportation facilities in the region. Washington State Department of Transportation (WSDOT) is responsible for building and maintaining such facilities, which are an integral and vital part of the region's transportation system.

With a growing population and new technologies, WSDOT and local government approaches to managing the entire transportation system are evolving. Better data improves decisions, helping WSDOT, counties, cities, and towns maximize the transportation system's capacity. Through collaboration, WSDOT and local transportation agencies can better balance transportation, community, economic, and land use needs to manage a comprehensive multimodal transportation system.

We live in a resource-constrained environment. Collaboration between our local governments and WSDOT is key to prioritizing innovative, timely, and cost- effective solutions that help keep us all moving – whether on our local roads or on the region's highways.

WSDOT's Transportation System Policy Goals

The following are WSDOT's policy goals for the planning, operation, performance of, and investment in the state's transportation system.

- **Economic vitality.** To promote and develop transportation systems that stimulate, support, and enhance the movement of people and goods to ensure a prosperous economy.
- **Preservation.** To maintain, preserve, and extend the life and utility of prior investments in transportation systems and services.
- **Safety.** To provide for and improve the safety and security of transportation customers and the transportation system.
- **Mobility.** To improve the predictable movement of goods and people throughout Washington state, including congestion relief and improved freight mobility.
- **Environment.** To enhance Washington's quality of life through transportation investments that promote energy conservation, enhance healthy communities, and protect the environment.
- **Stewardship.** To continuously improve the quality, effectiveness, and efficiency of the transportation system.

Public investments in transportation should support achievement of these policy goals.

WSDOT's Vision and Mission
Vision – Washington travelers have a safe, sustainable, and integrated multimodal transportation system.
Mission – We provide safe, reliable, and cost-effective transportation options to improve communities and economic vitality for people and businesses.
Goals – Diversity, equity, and inclusion, resilience, and workforce development

- **Diversity, Equity, and Inclusion.** Through Inclusion, WSDOT is strengthening its commitment to diversity and engagement in all WSDOT business processes, functions, and services to ensure every voice is heard. This goal has both an internal and an external focus to assure that WSDOT has an inclusive and diverse workforce, while at the same time meeting Disadvantaged Business Enterprise goals and creating opportunities for underrepresented populations to do business with WSDOT.
- **Resilience.** By planning and/or investing resources, WSDOT strives to improve its ability to mitigate, prepare for, and respond to emergencies; combat climate change; and build a transportation system that provides equitable services, improves multimodal access, and supports Washington's long-term resilience. This includes enhancing the resilience of critical infrastructure to seismic events, managing assets to reduce vulnerabilities, and improving climate preparedness. Additionally, WSDOT leads efforts to combat climate change by reducing greenhouse gas emissions both within the agency and across the transportation sector, promoting sustainable and equitable transportation choices that enhances healthy communities.
- **Workforce Development.** WSDOT wants to be an employer of choice by hiring, training, and retaining skilled workers to meet Washington's transportation needs. As part of its Workforce Development goal, WSDOT listens and acts on employee feedback and continues the building of a flexible and mobile work environment through technology and innovation. At the same time, WSDOT evaluates market trends to offer competitive compensation and ensure succession.

Maintaining a State of Good Repair

Maintenance and preservation of the state's transportation assets is a top priority for WSDOT. Doing this work keeps the most heavily used roads in the state open to the traveling public and provides all the benefits of a working transportation system. Maintaining a state of good repair covers everything from clearing snow and ice to keep the economy moving; to repairing pavement and bridges in a timely manner to minimize costs; to painting lines so drivers can see the lanes; and even caring for the plantings alongside the road.

According to WSDOT's 2025-2027 Capital Improvement and Preservation Program Overview, transportation system preservation is a critical unfunded need with current investment at 40 percent of what is really needed. Over the next ten years WSDOT estimates that $3 billion is needed for infrastructure preservation.

Because maintenance needs are not fully funded, WSDOT cannot maintain all its facilities in a state of good repair. This results in lower performance and higher costs for Interstates, US Routes, and State Routes. Every dollar spent on maintenance, keeping a road in good condition, saves between $6 and $14

compared to rebuilding the road.[1] When the initial repair isn't funded and that rebuilding work is not done, drivers will experience more roadways with rough surfaces, more frequent closures for emergency repairs, and some routes may risk complete closure, resulting in lower performance and higher costs to everyone. For drivers, this means even higher costs for vehicle maintenance and reduced fuel efficiency as well as delays and longer routes when traffic is diverted.

Road Pavement

WSDOT uses the lowest life-cycle cost process to maximize the life of assets at the least expense by prioritizing risk-based preservation, rehabilitation and reconstruction projects. With strategically timed maintenance treatments, the lifespan of asphalt pavements can be extended, substantially reducing the average annual cost of maintaining a section of pavement.

For example, a one-lane-mile section of asphalt pavement costs $250,000 to resurface Under certain conditions, spending $20,000 on maintenance can increase the lifespan of a lane-mile of pavement from 12 years to 15, reducing the average annual cost of the pavement by 12 percent.

WSDOT uses strategic maintenance to cost- effectively increase pavement life spans. Pavement treatments are divided into three categories:

- **Maintenance treatments**, such as crack sealing, are the least expensive, but also provide the shortest extension of pavement life.
- **Rehabilitation treatments**, such as resurfacing asphalt pavement, is more expensive than maintenance but can extend pavement life by 10 to 20 years, depending on surface type.
- **Reconstruction treatments**, the most expensive option, extends pavement life by between 15 years (for asphalt pavement) and 50 years (for concrete pavement).

Maintaining road pavement in good working order requires an integrated approach to preservation. Most pavement maintenance deals with cracking, rutting, faulting, and road roughness. WSDOT times preservation activities to maintain a state of good repair to extend pavement's life cycle and – where possible – avoid a state where repair is unaffordable. To this end, WSDOT strategically maintains road pavement through preventive, strategic, emerging, and reactive preservation:

- **Preventive Preservation.** Planned and coordinated maintenance programs performed after recent paving to extend pavement life 1 to 6 years include Strategic Preservation and Emerging Preservation.
- **Strategic Preservation.** Maintenance performed to prevent signs of wear. Examples of preventive maintenance include sealing cracks in asphalt pavement and laying asphalt and aggregate (chip sealing) only in wheel paths where ruts in the road typically form.
- **Emerging Preservation.** Maintenance performed without which pavement is predicted to fail in the next year. Emerging preservation is intended to reduce the need for future reactive

[1] National Academies of Sciences, Engineering, and Medicine 2012. Communicating the Value of Preservation: A Playbook. Washington, DC: The National Academies Press. http://www.trb.org/Publications/Blurbs/168322.aspx

preservation activities, thereby extending pavement life. Examples include smoothing out the road surface, fixing potholes, and addressing other pavement defects.

- **Reactive Preservation.** Unplanned maintenance performed to correct immediate needs. Reactive preservation is typically a short-term fix used until more extensive pavement work is performed.

Figure 4-1: Wheel-path Chip Sealing



Source: WSDOT Wheel-path chip sealing is a preventive maintenance treatment used to extend pavement service life by applying asphalt to wheel paths where cracks, ruts, pot holes, and other defects are most likely to occur. Aggregate is applied immediately following application of emulsion (an asphalt cement suspended in water).

WSDOT reports pavement condition on National Highway System (NHS) roads to the Federal Highway Administration to ensure progress is being made related to maintaining pavement condition. To avoid penalty, pavement on Interstate roadways must not exceed 5 percent in poor condition. In 2021, only 1.9 percent of statewide Interstate roadway pavement was rated in poor condition.

Bridges

Like road pavement, bridges are an integral part of the road network. They provide crossings for and over roads, railroads, pedestrian pathways, rivers and creeks, and other natural and engineered features. Maintaining a state of good repair for bridges requires considering the bridge's age, whether it is functionally obsolete, and the overall condition of the bridge structure.

Age. When a bridge has been in use for 80 or more years, WSDOT must consider whether it is necessary and appropriate to replace it.

Condition. Through biennial inspections, engineers look at the state of each bridge's deck, superstructure, and substructure. Bridges in poor condition are not considered unsafe for travelers or in

danger of collapse, but WSDOT must address advanced wear and tear to prevent bridge closure due to safety concerns.

Seismic Preparedness and Resilience

WSDOT actively participates in emergency management and resilience programs, routinely working with the federal government, neighboring states, tribal governments, regional agencies, and local stakeholders. Through collaboration, WSDOT and other partners are able to maximize resilience across transportation modes and networks. The 2012 Resilient Washington State Report included a recommendation to strengthen regional transportation networks:

- Define critical state routes into and out of ports, airports, and other key areas. In a collaborative manner, identify priority routes for retrofitting/hardening and perform site risk evaluations, ensuring all affected governments are consulted in the decision-making process.
- Facilitate collaboration between state and local jurisdictions to identify regional lifeline routes and prioritize retrofitting of city and county roads and bridges. Incorporate this into the Transportation Improvement Program.
- Develop interagency agreements between WSDOT and local jurisdictions to facilitate the rerouting of traffic following an earthquake.
- Require that transit agencies (both large and small) develop robust continuity of operations plans.

Emergency Management

Other examples of WSDOT's participation in emergency management include:

- **Continuity of Operations Plan (COOP)** – WSDOT has a plan to provide continuing operations in the event of a large disaster.
- **WA State Emergency Management Division (EMD)** – WSDOT participates in several EMD planning efforts and work groups including development of a Catastrophic Incident Plan, the Statewide Catastrophic Incident Planning Team, and the Infrastructure Resilience Sub-Committee.(https://www.mil.wa.gov/emergency-management-division)
- **Seismic Safety Committee** – WSDOT is part of the multi-jurisdictional committee under the guidance of the Emergency Management Council.

Needed Investments

Infrastructure investments must be delivered in a balanced manner that considers regional transportation system demand.

WSDOT must plan out projects to ensure enough time and staff to accomplish the needed work – whether it is maintenance, rehabilitation, or reconstruction. Too much work in any given year means additional staffing/contract costs. The state must balance needs to lower overall preservation costs.

Investments must be planned and balanced geographically to minimize construction fatigue for drivers and other facility users. Asset management can only ensure a balanced delivery with sufficient funding.