

CONSTRUCTION PROGRAM BUSINESS PLAN

October 2017



**Washington State
Department of Transportation**

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Message from the Secretary of Transportation

As our state invests billions of dollars into critical transportation improvements over the next 16 years, the Construction Program Business Plan is designed to guide effective project delivery in a changing construction landscape.

Central to these changes is the Washington State Department of Transportation's desire to improve our delivery of construction projects by finding opportunities to take full advantage of the design-build method and use of consultants. This delivery effort is designed to maximize efficiencies, and will allow WSDOT to be a better steward of state dollars and deliver projects faster. The focus on design-build also has important implications not only for how we carry out projects, but also how we forecast staffing levels and anticipate workforce development needs.

The Legislature directed WSDOT to develop this plan through the Connecting Washington revenue package via Second Engrossed Substitute Senate Bill 5997 in 2015. Throughout the plan development, we relied heavily on ideas from a Stakeholder Advisory Committee led by representatives from the Professional and Technical Employees Local 17, American Council of Engineering Companies of Washington, Associated General Contractors of Washington, and WSDOT's engineering staff.

The Plan outlines goals and associated strategies for delivering a successful multi-year construction program. The goals include:

- Retaining a **strong owner role**, which involves partnerships with industry and addressing employee recruitment, training, career development, retention, and competitive compensation.
- Ensuring **sustainable staffing levels** for state-employed engineering staff, including projections updated each biennium to support our capital improvement and preservation program.
- Incorporating recommendations from the Joint Transportation Committee's 2016 design-build study into future **project delivery**.

We are entering a challenging and exciting new era of transportation investments that are sure to transform the way that residents, businesses, and visitors move around our state. I invite you to review the Construction Program Business Plan and learn more about our framework for building the future of our state.

Best,



Roger M. Millar, PE, AICP

Secretary of Transportation

Message from the Stakeholder Advisory Committee

Washington state residents and businesses depend on a safe, reliable, and efficient public transportation system. WSDOT is the steward of that system, repairing roads and highway facilities, building capacity, and designing systems to improve the way we travel.

As partners with WSDOT, we believe it is in all our interests that WSDOT remain a strong, capable steward of the transportation system. Through our participation in the Plan development, we found WSDOT faces multiple challenges:

- **Establishing a sustainable staffing level to avoid attrition of experienced engineering staff.** The rapid upsizing and downsizing of staff to support delivery of the last two transportation funding packages—the 2003 Nickel and 2005 Transportation Partnership Programs—resulted in WSDOT losing well-trained senior engineering staff. It also resulted in an exodus of mid-level engineers, who left the agency for jobs that promised more stability.
- **Retaining and recruiting a strong talent pool in a strong job market.** Investing in recruiting and retaining a strong talent pool benefits WSDOT, taxpayers, and industry partners. High-quality staff provide competent, decisive leadership that leads to better productivity and more successful contracting relationships. However, WSDOT faces a competitive job market for engineers, especially within the Puget Sound corridor.
- **Addressing the gap in salary levels for WSDOT engineers compared to both public and private sector positions in Washington state.** Salary levels for WSDOT engineers are ranked at or near the bottom of the comparison group at every pay juncture, jeopardizing WSDOT's ability to recruit and retain skilled staff. The pay increase passed in the 2017 Legislative Session will help minimize the gap for some engineering positions, but does not address salaries at the management level. Compounding the problem, the State of Washington does not have a mechanism to address pay increases until WSDOT can demonstrate there is an issue with recruitment and retention after experienced staff have already left the agency. This is too late in the dynamic process of delivering transportation projects.
- **Providing effective training for WSDOT staff to effectively deliver the construction program.** A greater number of future WSDOT contracts will use the design-build contracting method, adding complexity. WSDOT staff will need additional skills and training to provide effective oversight of these projects.

Given these challenges, these are our top four priorities for this Plan:

1. WSDOT must continue to take action to prevent significant staffing fluctuations and provide more predictability to staff and industry.
2. It is essential for WSDOT to invest in recruiting and retaining a strong talent pool to provide predictability for industry and stability for staff.
3. The state of Washington should create and implement a proactive strategy for providing competitive salaries for WSDOT's engineering and technical workforce.
4. WSDOT must invest in expanding its training and professional development program.

The Plan that follows this letter fully addresses these priorities. This partnership approach to developing this Plan represents a sea change in how WSDOT and partners work together—by finding common solutions, rather than asserting our priorities as individual organizations. It is our intent that this collaboration continues as WSDOT implements the plan and we measure our progress.

We believe it is in the best interest of the public and industry that WSDOT moves forward quickly to implement the Construction Program Business Plan. We lend our full support to the Plan and look forward to continuing to advise WSDOT as it is enacted over the coming years.

Sincerely,



Van Collins
American Council of
Engineering Companies of
Washington (ACEC)



Tyler Kimberley
Associated General
Contractors (AGC)
of Washington



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EXECUTIVE SUMMARY

The Washington State Department of Transportation developed the Construction Program Business Plan (the Plan) to guide how the agency will continue to improve delivery of transportation projects. In response to direction from the Legislature, the Plan outlines how WSDOT will strike a balance between sustainable staffing levels of engineering, technical employees, and consultants. The Plan also addresses how WSDOT will continue to provide a high-quality workforce to deliver billions of dollars of transportation programs and projects funded by Connecting Washington, while fully developing design-build.

In 2015, the Legislature passed Second Engrossed Substitute Senate Bill 5997, directing the Joint Transportation Committee (JTC) to review WSDOT's implementation of design-build. The bill further directed WSDOT to develop the Plan in coordination with a Stakeholder Advisory Committee, made up of representatives from the Professional and Technical Employees Local 17, American Council of Engineering Companies of Washington (ACEC), Associated General Contractors (AGC) of Washington, and WSDOT.

After the JTC completed its design-build recommendations in December 2016, WSDOT convened the Stakeholder Advisory Committee in January 2017 and collaborated over six months to develop this Construction Program Business Plan. The Stakeholder Advisory Committee was charged with defining key elements of WSDOT's strong owner strategy related to recruitment, training, retention, and competitive compensation while also outlining sustainable staffing levels and reporting on how WSDOT is addressing the results of JTC's study.

The committee's recommendations were informed by and help respond to the findings in the following studies:

- **JTC's Review of Washington State Department of Transportation's Implementation of Design-Build Project Delivery:** JTC identified recommendations for WSDOT to maximize efficiencies in cost and schedule by effectively employing design-build.
- **WSDOT's Recruitment and Retention Study:** this study outlined challenges and recommended how to strengthen the agency's recruitment and retention of the engineering and technical workforce.

As a first step, the committee reviewed and discussed data to understand WSDOT's past and future needs related to managing staffing levels, supporting the capital improvement and preservation program workforce, and future project delivery. Informed by these findings, the Stakeholder Advisory Committee is proposing the following goals for WSDOT's future construction program and strategies to adopt them.

- **Goal 1: Strong owner and stewardship**
WSDOT continues to be a good steward of the state transportation infrastructure by strengthening the agency's role as a strong owner.
- **Goal 2: Sustainable staffing**
WSDOT will ensure the agency has the right balance of staff and consultants it needs to deliver a successful and efficient capital improvement and preservation program by addressing staffing needs in a productive, sustainable, and predictable way.
- **Goal 3: Project delivery**
Enact and accomplish the majority of recommendations of the Joint Transportation Committee's design-build study.

(Executive Summary continued)

What does WSDOT mean by “strong owner?”

The State of Washington represents taxpayers by taking care of public lands and infrastructure. In this role, the State of Washington assigns responsibility to WSDOT to facilitate safe and efficient movement of people and goods. WSDOT maintains the state’s role as a strong owner by:

- Serving as a steward of Washington’s state-owned multimodal transportation system.
- Providing quality staff who are capable and knowledgeable about building, maintaining, and operating the state’s transportation system.
- Taking thoughtful, nimble, and decisive actions, guided by state and taxpayer interests.
- Providing solutions and performance through effective budget and schedule control on capital improvement and preservation projects.
- Recognizing and embracing flexibility and alternative ideas within industry.

Goal 1: Strong owner and stewardship

Goal	<ul style="list-style-type: none"> • WSDOT continues to be a good steward of the state transportation infrastructure by maintaining and strengthening the agency’s role as a strong owner.
Strategies <i>Within the framework of the capital improvement and preservation program, WSDOT will advance the strong owner role through these strategies focused on workforce development and partnerships.</i>	<ul style="list-style-type: none"> • Achieve buy-in into the strong owner approach from staff, industry, and the Legislature by developing and implementing a communication and outreach plan for WSDOT’s Executive Leadership. • Provide a strong, capable, and high-quality engineering workforce by developing and managing a workforce development plan. • Maintain the trust of the taxpayers, traveling public, and Legislature by forming and sustaining partnerships with industry to plan and deliver the capital improvement and preservation program and communicate with the Legislature and public.
Key considerations	<ul style="list-style-type: none"> • Recruitment is challenging due to the competitive local job market, an extended timeline to hire qualified engineers, and a lack of information about future staffing needs. WSDOT is already taking steps to improve recruitment. • Many diverse training options are available, including new trainings to help staff adapt to design-build. • Gaps include a lack of trained entry-level staff and staff with PE licensures to fill the openings created by future retirement. • Resignations are higher in specific regions and among employees with six to ten years experience. • The Recruitment and Retention Study considered issues affecting program oversight and delivery, including issues that may hinder the recruitment and retention of a quality workforce for engineering and technical employees. • Compensation for engineering positions is below the Washington state average and ranks at or near the bottom compared to other local governments. • Salary increases will help some positions (Transportation Engineers 1, 2, and 3), but without the eligibility for overtime pay at higher positions (Assistant Project Engineer and Project Engineer), it results in reduced incentive for people to advance. • WSDOT has created multiple distinct groups or committees to engage industry partners that work on agency projects in the development of applicable policies and specifications.

(Executive Summary continued)

Goal 2: Sustainable staffing levels

Goal	<ul style="list-style-type: none"> WSDOT will ensure the agency has the right balance of staff and consultants it needs to deliver a successful and efficient capital improvement and preservation program by addressing staffing needs in a productive, sustainable, and predictable way.
Strategies	<ul style="list-style-type: none"> Develop a staffing forecast through 2023 that avoids significant increases or reductions in staffing levels, communicate projections with staff, and update every biennium. The staffing forecast will include a target range of WSDOT full-time employees and staffing levels per biennium to support the capital improvement and preservation program. Provide information to the Legislature about what WSDOT needs to respond to a competitive job market and sustain required staffing levels for program and project delivery. Identify and proactively communicate opportunities for the consultant workforce to support program delivery by offering WSDOT flexible staffing and expertise.
Key considerations	<ul style="list-style-type: none"> Staffing levels at WSDOT have widely fluctuated, resulting in losing experienced staff. WSDOT is using resources across regions to assist with project delivery and mentoring staff in regions with limited experience with design-build. The future construction program is more complex, with new methods of project delivery and providing coordination with Sound Transit 3. Nearly half the WSDOT engineering and technical workforce will be eligible to retire by 2022.

Goal 3: Project delivery

Goal	<ul style="list-style-type: none"> Enact and accomplish the majority of recommendations of the Joint Transportation Committee's Design-Build Study.
Strategies	<ul style="list-style-type: none"> Prioritize and implement recommendations from the JTC Design-Build Study in coordination with industry teams and report back on outcomes.
Key considerations	<ul style="list-style-type: none"> JTC developed 27 recommendations to improve WSDOT's implementation of design-build. Design-build contract value will account for approximately 70 percent of the overall budget.

Next steps

In November, WSDOT will reconvene the Stakeholder Advisory Committee to identify how they will guide the progress of the Construction Business Plan, including providing biennial reports to the Legislature. Throughout 2017 and 2018, WSDOT task leads will move forward with implementing their strategies and tracking their objectives. WSDOT will provide the first biennial progress report to the Legislature on September 30, 2018.

CHAPTER 1

About the Construction Program Business Plan

Washington residents and businesses rely on safe, reliable, and cost-effective transportation options to improve livable communities and economic vitality for people and businesses. Our multimodal transportation network includes nearly 19,000 miles of state highways and the nation's largest ferry system, all designed, built, operated, and maintained by the Washington State Department of Transportation.

The 2015 Connecting Washington transportation revenue package invests billions of dollars in statewide transportation programs and projects over 16 years. WSDOT's role is to implement a six-year plan for highway preservation and improvement projects, updated with Connecting Washington revenue. The six-year plan is updated following each legislative session.

To effectively design and construct projects to preserve and improve our state's transportation network, WSDOT needs a strong, stable workforce prepared to adapt to changing conditions as the agency transitions from a more traditional contracting mechanism (design-bid build) to increased use of design-build. In July 2015, Governor Inslee signed into law Second Engrossed Substitute Senate Bill 5997, directing the Joint Transportation Committee (JTC) to review WSDOT's implementation of design-build and WSDOT to develop the Construction Program Business Plan.

In accordance with the legislation, the Construction Program Business Plan describes mechanisms to:

- Provide appropriate oversight of contracted services through a strong owner strategy that addresses employee recruitment, state employee training, career development, retention, competitive compensation, and partnership with industry.
- Outline a sustainable staffing level of state-employed engineering staff.
- Report how WSDOT is incorporating recommendations from the design-build study, which were informed by comparisons of Washington state to national trends and methods.

Every two years, WSDOT will also prepare Plan implementation progress reports, beginning September 30, 2018 through September 30, 2030.

JTC Design-Build Implementation Study

In 2016, the JTC issued a Review of Washington State Department of Transportation's Implementation of Design-Build Project Delivery, which informed the Construction Business Plan. The study was completed in December 2016 and provides an overview of design-build, identifies best practices for design-build, examines WSDOT's implementation of design-build, recommends opportunities for improvement, suggests strategies for WSDOT and industry to adopt recommendations, and provides updates to legislators and stakeholders. The study is provided in Appendix A and the work plan for the implementation of the study recommendations is included in Appendix F.

Why design-build?

Design-build is a method of project delivery in which WSDOT executes a single contract with one entity (the Design-Builder) for design and construction services to provide a finished product. Since the design-build process creates efficiencies by providing both engineering and construction services under one contract, the design/build method can be more cost-effective and time-efficient than other methods.