



# Interstate Bridge Replacement Program

## *Conceptual Financial Plan*

December 1, 2020







December 1, 2020

*(Electronic Transmittal Only)*

The Honorable Governor Inslee

The Honorable Kate Brown

WA Senate Transportation Committee

Oregon Transportation Commission

WA House Transportation Committee

OR Joint Committee on Transportation

Dear Governors, Transportation Commission, and Transportation Committees:

On behalf of the Washington State Department of Transportation (WSDOT) and the Oregon Department of Transportation (ODOT), the Interstate Bridge Replacement Program is pleased to submit the 2020 Interstate Bridge Replacement (IBR) program progress report and draft conceptual finance plan, as directed by Washington's 2019-2021 transportation budget ESHB 1160, Section 306 (24)(e)(iii). The progress report provides an update on the IBR program work from the end of 2019 through 2020 and a brief preview of the upcoming work planned over the next year in 2021. The Conceptual Finance Plan provides an early and high-level overview of initial estimated funding and financing needs and potential sources.

Following the direction from leadership in both states to open a program office to restart work to identify a bridge replacement solution for this nationally significant corridor, recent efforts have focused on reengaging stakeholders and onboarding critical staffing resources. This work included hiring a program administrator to lead the program on behalf of both states and hiring a consultant team to provide a wide range of expertise to support program work. Program work includes technical analysis and engagement with agency partners, stakeholders, and the public to identify a bridge replacement solution.

The Conceptual Finance Plan provides a high-level overview of the potential scale of need and a review of the possible funding options that might be available at the federal, state, and local levels. The plan includes a preliminary cost estimate as a range that would be broad enough to cover various bridge replacement alternative scenarios. This initial conceptual cost estimate range was informed by updated costs from the previous planning effort, which will serve as a starting point for possible IBR estimates until more details about the new program are developed. This information will be refined as the scope of the program evolves to eventually identify a feasible funding plan for the program.

As part of comprehensive community engagement efforts, an Executive Steering Group, a Community Advisory Group, and an Equity Advisory Group are being convened to provide

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regional leadership guidance and recommendations reflecting a diverse range of perspectives on key program issues of importance to the community. A new website and a broad range of public engagement efforts will be launched starting in early 2021 to provide inclusive and ongoing opportunities for the community to meaningfully shape program work.

We thank the Washington and Oregon legislatures for their continued support and collaboration to move this critical program forward. We all share an interest in improving safety, reliability and mobility on our regional transportation system to provide transportation options for all travelers that meet the region's needs now and in the future. We are proud to share the IBR program progress report and Conceptual Finance Plan with you and the public.

Sincerely,

A handwritten signature in black ink, appearing to read "Greg Johnson", written over a light gray rectangular background.

Greg Johnson, P.E.  
IBR Program Administrator

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# 1. EXECUTIVE SUMMARY

Replacing the aging Interstate 5 (I-5) Bridge across the Columbia River with a seismically resilient, multimodal structure that enhances mobility for people and freight is a high priority for the states of Washington and Oregon, the metropolitan areas surrounding the project in Portland, Oregon, and Vancouver, Washington, and the Pacific Northwest region more broadly. As the only continuous north-south interstate on the West Coast of the United States between Mexico and Canada, I-5 is a vital route for regional, national, and international economies and communities.

Whether prioritizing the multimodal transit options that a new crossing could offer or looking forward to a time when driving from one state to the other can be accomplished safely and quickly, residents of both states rely upon this crossing for the continued growth and success of the local communities and economies. “Doing nothing” is simply not an option if this region is to continue to grow and thrive. However, to advance this important program, both states will need to identify, review, and secure viable options for funding and financing, which is the purpose of his preliminary Conceptual Financial Plan (CFP).

In November 2019, Oregon Governor Kate Brown and Washington Governor Jay Inslee signed a bi-state Memorandum of Intent (MOI) to restart work to replace the interstate bridge. The MOI outlines that the Interstate Bridge Replacement Program (IBR Program) will be developed and delivered by a bi-state, multiagency, multimodal team comprising Oregon Department of Transportation (ODOT), Washington Department of Transportation (WSDOT), Clark County Public Transit Benefit Area Authority (C-TRAN), Tri-County Metropolitan Transportation District of Oregon (TriMet), the Southwest Washington Regional Transportation Council (RTC), Oregon Metro (Metro), City of Vancouver, and City of Portland. Although the IBR Program is a new project, with a new team and objectives, extensive work has been done in the past, and it will be important to leverage the relevant portions of past efforts.

As the first step in the IBR Program’s financial planning process, this CFP updates the 2012 cost estimates from the Columbia River Crossing (CRC) Project and provides a high-level overview of initial funding and financing needs and options. These legacy project costs represent the best available information from the process that resulted in a selected alternative that addressed the CRC project’s Purpose and Need and received a federal Record of Decision (ROD) under the National Environmental Policy Act. While the updated CRC cost estimates are the best available for this CFP, these cost estimates may change significantly as the IBR Program progresses. The IBR Program is currently developing a Purpose and Need, which will set a course for the project, with a new scope and design, and thus new cost

This **Conceptual Finance Plan** was prepared to meet the requirements established in the Washington State 2019-2021 Transportation Budget (Engrossed Substitute House Bill [ESHB] 1160). The CFP addresses the ESHB requirements as it:

- Updates the 2012 capital cost estimates for the CRC alternatives to provide a range of conceptual costs for the IBR Program, at the outset of the program;
- Identifies and evaluating potential funding sources and financing mechanisms;
- Prepares conceptual cash flow analyses to determine the funding gap range; and
- Establishes next steps for identifying / securing funding.

estimates. Funding source options and eligibility will also be updated as scope, design, and cost estimates progress.

Specifically, the capital costs for Bus Rapid Transit (BRT) and Light Rail Transit (LRT) alternatives prepared in 2012 for the CRC project were reviewed, updated with minor revisions, and escalated to year of expenditure (YOE) dollars assuming a start of construction in mid-2024. Updated costs estimates were prepared for a high- and low-cost options for both the BRT and LRT transit modes as follows:

- High-cost options — include transit improvements to a terminus at Clark College and full replacement of the North Portland Harbor Bridge; and
- Low-cost options — include transit improvements to a terminus just north of bridge at the Turtle Place Transit Station and seismic retrofit of the North Portland Harbor Bridge.

Based on these assumptions, a preliminary range of capital costs for the IBR Program was approximated at between \$3.2 and 4.8 billion in YOE dollars (Table 1), depending on the scope of the improvements and transit mode. Additional work in the coming months will refine the range of capital costs in concert with the public process to define IBR Program alternatives. As the scope of improvements and their cost estimates evolve, so too will the financial plan.

### ***Preliminary Estimates of Available Funding***

This CFP includes a preliminary assessment of potential funding sources and financing options for the IBR Program. Funding will need to be sought and provided from multiple sources; the two states cannot shoulder the burden alone. More than 80 federal, state, and local/regional funding sources and financing options were reviewed for applicability, probability, and magnitude. The following key funding sources and ranges for the IBR Program emerged from this review, subject to future approvals.

- **\$250 to 930 million from a Federal Transit Administration (FTA) New Starts Capital Investment Grant (CIG) to fund, in part, the transit component of the IBR Program.**
  - The \$930 million high end of this range for New Starts grant funding was estimated using the same principles that FTA utilized in its 2013 \$850 million New Starts funding recommendation for the LRT component of the CRC project, applied to the IBR Program LRT high-cost option.
  - The low end assumes a New Starts CIG worth 40% of the program's transit component, which applied to the BRT low-cost option equates to \$250 million.
  - FTA New Starts CIG funding will only available to the IBR Program if the transit component operates in a fixed guideway and meets certain performance standards, including high service frequency.
  - This discretionary grant program is highly competitive and requires matching non-federal (i.e., state, regional, local, or private) funding to be fully committed before funds are awarded.
- **\$850 million to 1.3 billion in toll funding, including proceeds from toll bonds and/or loans.** The CFP assumes that traffic crossing the new interstate bridge will pay

tolls equivalent in real terms to the variable toll schedule assumed for the CRC project, with future net toll revenues pledged to repay bond and/or loan proceeds.

- Unlike the final CRC finance plan, this CFP does not assume that the existing interstate bridge would be tolled during the construction of the replacement bridge (pre-completion tolling).
- Pre-completion tolling could contribute another \$250 to 300 million in capital funding plus provide revenues to fund reserves, and therefore warrants further consideration.
- **\$244 to 308 million in other existing and anticipated funding.**
  - As of December 1, 2020, existing IBR Program funding commitments include \$50 million from the two states, with \$35 million authorized to WSDOT and \$15 million authorized to ODOT.
  - In addition, the Washington State legislature, in its 2015 Connecting Washington transportation funding package, committed \$97 million to WSDOT for reconstruction of the I-5/ Mill Plain Boulevard interchange, which will now be incorporated into the IBR Program improvements.
  - This CFP anticipates that the IBR would be awarded between \$5 and 20 million from the annual federal discretionary Better Utilizing Investments to Leverage Development (BUILD)<sup>1</sup> grant program or its successor.
  - In addition, this CFP assumes legislation that would grant a deferral of the payment of the state and local sales tax on construction expenses in Washington. Payment would be deferred until 5 years following completion, upon which it would be repaid in 10 equal annual installments from net toll revenues without interest, following the process used on the SR 520 Bridge.<sup>2</sup> While the deferral reduces the funding required during the construction period, it increases the share of the program funded from tolls.

### ***Preliminary Estimates of the Current Funding Gap***

For the preliminary assessment of the funding gap for the IBR Program, scenarios were designed that paired the cost estimates for the two low-scope options with the low funding assumptions, and the high-scope cost estimates with high funding assumptions. A worst-case scenario comparing high-scope/cost estimates with low funding assumptions can be inferred from the information herein but was not analyzed; rather, it is assumed that the scope of the IBR Program improvements would ultimately be scaled to anticipated levels of funding.

As shown in Table 1, the preliminary funding gap for the IBR Program ranges between \$1.8 and 2.3 billion depending on the scope of improvements, transit mode, and funding assumptions.

<sup>1</sup> USDOT, Better Utilizing Investments to Leverage Development (BUILD) grant.

<sup>2</sup> <https://app.leg.wa.gov/RCW/default.aspx?cite=47.01.412>.

Table 1. Overview of the I-5 IBR Program Funding Gap

Scenario	Transit Mode	Cost Assumptions		Funding Assumptions			Funding Subtotal	Funding Gap	
		High/Low	Cost	High/Low	FTA Grants	Toll Funding			Other Funding
1A	LRT	Low	\$3.32 B	Low (More Conservative)	\$0.30 B	\$0.85 B	\$0.25 B	\$1.40 B	\$1.91 B
1B		High	\$4.81 B	High (More Optimistic)	\$0.93 B	\$1.30 B	\$0.31 B	\$2.54 B	\$2.27 B
2A	BRT	Low	\$3.17 B	Low (More Conservative)	\$0.25 B	\$0.85 B	\$0.24 B	\$1.34 B	\$1.83 B
2B		High	\$4.25 B	High (More Optimistic)	\$0.73 B	\$1.30 B	\$0.30 B	\$2.33 B	\$1.92 B

### Options to Eliminate the Preliminary Funding Gap

Over the course of project development, the IBR Program will be refined, with recommendations for the program scope and anticipated funding that evolve toward a balance that eliminates the funding gap. Future financial plan recommendations may address methods to reduce the cost of the program through scope reductions, value engineering, phasing of construction, and/or project delivery methods. Other recommendations may also address methods to increase the funding available to the IBR Program from existing or additional funding sources, such as:

- **Pre-Completion Tolling:** As noted earlier, the toll funding contribution to the IBR Program can be increased by \$250 to 300 million by collecting tolls on the existing bridge while the replacement bridge is being constructed.
- **Federal Discretionary Highway Funding:** The IBR Program is well positioned to compete for additional large highway discretionary grant programs that may be part of future infrastructure bills or the next Congressional transportation reauthorization bill. For example, the Investing in a New Vision for the Environment and Surface Transportation (INVEST) in America Act<sup>3</sup> proposal included a \$9 billion grant program for Projects of National and Regional Significance (PNRS) that could provide substantial funding for the IBR Program. However, federal funding has become more competitive while also contributing to a declining share of project costs, thus requiring larger local commitments.
- **State Funding:** Historically, both Oregon and Washington have successfully passed funding packages to support programs of projects statewide, that have included significant funding for large-scale projects such as the IBR Program.
- **Local/Regional Funding:** Local and regional funding sources are not anticipated to be a major funding component of the IBR Program. However, such sources may be available to fund certain local betterments included in the IBR Program, as well as to fund the operations of the Program’s transit component.
- **Public-Private Partnerships (P3):** There may be the potential to accelerate the delivery of the IBR Program through a P3, which could realize savings through reduced inflation costs or other efficiencies. However, this CFP has not evaluated the potential use of P3 delivery methods and recommends this as an area for further study.

<sup>3</sup>Investing in a New Vision for the Environment and Surface Transportation (INVEST in America) Act; passed the U.S. House of Representatives in July 2020; <https://transportation.house.gov/the-invest-in-america-act>.

## **Additional Actions Required to Seek Program Funding**

In order to apply for federal grants, formal and legally binding agreements between Washington and Oregon will be required detailing how the IBR Program will be constructed, financed, operated, and maintained. WSDOT and ODOT have historically used bi-state agreements to address the construction, operation, and maintenance of jointly-owned structures across the Columbia River. Among other matters, these agreements must address toll rate setting, toll collections and operations, debt issuance, and bridge operations and maintenance (O&M). Legislation may be required to address inconsistencies between Oregon and Washington statutes and to authorize financing of the program. If the bridge is to be constructed and/or operated by a bi-state bridge authority, both states would need to enact enabling legislation.

### **Next Steps**

The IBR Program finance plan will continually evolve as project development work progresses. In the near term, the following next steps are anticipated:

- ▶ **Continually update the financial plan:** As the scope of improvements for the IBR Program is refined in response to public and stakeholder engagement, the financial plan will be refined based on updated risk-based cost estimates, project construction schedules, and project delivery method(s). Each update will be used to further align the scope of improvements with the amount of reasonably available funding.
- ▶ **Assess P3 delivery options:** The IBR Program will develop a white paper to evaluate the advantages and disadvantages of different P3 delivery options. The white paper will address the potential to accelerate delivery, manage construction risks, incorporate innovation, and/or deliver additional financing leverage by engaging in a P3 agreement.
- ▶ **Examine national bi-state projects:** The IBR Program will develop a case study memorandum evaluating the funding plans of other national bi-state bridge projects.
- ▶ **Prepare program for federal funding and financing opportunities:** The IBR Program will prepare a report documenting the processes and work required to position for and satisfy the prerequisites for obtaining a New Starts CIG from FTA, as well as other federal funding and financing programs.
- ▶ **Pursue additional funding opportunities:** Opportunities will be pursued to secure additional funding commitments for the IBR Program through federal discretionary grants and the State Transportation Improvement Programs (STIPs) of both states.
- ▶ **Engage stakeholders to develop consensus:** The IBR Program will work closely with the Bi-State Legislative Committee, the ODOT-WSDOT Executive Steering Group, Oregon State Treasury, Washington Office of the State Treasurer, other elected officials, and the IBR Program Community and Equity Advisory Groups to develop a consensus direction on state and federal funding requests as well as consider the appropriate decision-making structure for the construction and operation of the replacement bridge.
- ▶ **Promote opportunities for the program in the upcoming federal transportation reauthorization bill:** The IBR Program will coordinate closely with ODOT, WSDOT, and the Congressional delegation of both states to identify and secure supportive policies and funding programs in the upcoming federal transportation reauthorization bill.

## 2. OBJECTIVES AND APPROACH

### CURRENT STATUS

In November 2019, Oregon Governor Kate Brown and Washington Governor Jay Inslee signed a bi-state MOI<sup>4</sup> to restart work to replace the Interstate Bridge. The MOI establishes that the IBR Program would be developed and delivered by a bi-state, multiagency, multimodal team comprising ODOT, WSDOT, C-TRAN, TriMet, RTC, Metro, the City of Vancouver, and the City of Portland.

As directed by the Washington State 2019-2021 Transportation Budget<sup>5</sup>, the joint Oregon-Washington project office committed to reevaluating the project's sources and uses of funds and submitting a Conceptual Financial Plan by December 1, 2020.

As stated in the draft progress report presented to the governors and legislative transportation committees of Washington and Oregon in December 2019<sup>6</sup>, completing the Supplemental Environmental Impact Statement (SEIS) will require identifying the funding necessary to construct the IBR Program's new multimodal replacement bridge and related improvements. The progress report also commits to developing a CFP that does the following:

- Identifies possible funding sources and their purpose;
- Analyzes viability of funding sources – likely amount of funding as compared to need, funding criteria and/or selection processes, timing considerations, recent funding outcomes/levels; and
- Reviews previous toll funding capacity assumptions to develop a conceptual range of construction funding from toll revenue.

This CFP is the first step in the financial planning process, which will be advanced in tandem with the environmental and design process. Future work will refine the cost estimates and delivery schedule and will include an expanded assessment of funding options, financing mechanisms, and an analysis of the financial impacts of phasing, accelerating, and/or deferring expenditures on Program elements. Additionally, future financial planning activities will likely include assessing the pros and cons of P3 delivery options for parts or all the IBR Program.

This document presents a preliminary review of the range of Program expenditures, a range of likely primary funding sources, and the resulting funding gap that must be eliminated by ongoing financial and project design activities by the IBR Program.

### EVALUATING FUNDING SOURCES AND FINANCING OPTIONS

To compile and verify a list of the likely primary funding sources, more than 80 funding and financing options at the federal, state, regional, and local levels were reviewed for their

<sup>4</sup><https://www.governor.wa.gov/sites/default/files/FINAL%20OR%20WA%20Memorandum%20of%20Intent%2011.18.2019.pdf>

<sup>5</sup> Engrossed Substitute House Bill (ESHB) 1160

<sup>6</sup> <https://wsdot.wa.gov/sites/default/files/2019/12/09/Interstate-Bridge-Replacement-Program-December-2019-Progress-Report.pdf>

likelihood, magnitude, and applicability for the IBR Program. The review evaluated each funding source and/or financing mechanism based on eight criteria:

1. Eligibility
2. Revenue potential
3. Fund stability/ predictability
4. Likelihood of funding
5. Timing of availability
6. Administrative and collection burden
7. Legal authority/authorization
8. Equity and economic impacts

Appendix Table 18 defines each of these criteria. Each criterion was assigned a percentage share weight to rank or prioritize it by level of importance. For instance, revenue potential and likelihood of funding were weighted the highest as these two criteria are the most important to assess at this early stage in the IBR Program. As the Program advances, criteria weighting could be adjusted to reflect evolving needs and priorities.

Those sources with the highest scores — the best candidates for likely primary funding sources — are discussed in more detail in the Potential Funding Sources and Financing Options section. However, many other potential funding sources may eventually warrant additional consideration. While this conceptual financial plan lays out preliminary options for funding and financing the IBR Program, future work by the IBR Program will refine the funding and financing options, and the Oregon and Washington State Legislatures (in coordination with ODOT and WSDOT) will ultimately determine how the Program is funded and financed.

## REPORT ORGANIZATION AND CONTENTS

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The CFP includes the elements of the conceptual financial analysis completed thus far. Although all analysis results are conceptual in nature, this plan includes the following information:

- **Conceptual Program Costs Estimates:** updated cost estimates from prior planning efforts
- **Potential Funding Sources and Financing Mechanisms:** evaluation of potential funding sources and financing mechanisms
- **Sources, Uses, and Funding Gap:** conceptual cash flow analysis to determine funding gap

An overview of the IBR Program is detailed in Section 3 (Program Description and Funding/Financing Overview).

### 3. PROGRAM DESCRIPTION AND FUNDING/FINANCING OVERVIEW

#### OVERVIEW AND HISTORY OF THE I-5 INTERSTATE BRIDGE

##### INTERSTATE BRIDGE REPLACEMENT PROGRAM

The existing Northbound span of the I-5 Interstate Bridge between Vancouver, Washington, and Portland, Oregon, opened to horses, motorists, and streetcar services in 1917. It was funded jointly by Multnomah and Clark counties and a 5-cent per-vehicle (or horse and rider) toll, and it was financed with bond sales. The nearly identical Southbound span of the bridge opened in 1958. Tolls for cars, light trucks, heavy trucks, and buses helped to pay off construction over the course of 8 years, by 1966. Both bridges are classified as “functionally obsolete” in the Federal Highway Administration (FHWA) National Bridge Inventory. They are considered bottlenecks for the traffic that travels across them, as well as for the marine traffic that crosses beneath along the Columbia River – U.S. Marine Highway 84.

As the only continuous north-south interstate on the West Coast between Mexico and Canada, I-5 is a vital trade route for regional, national, and international economies. Replacing the Interstate Bridge over the Columbia River has been an ongoing concern of Portland-Vancouver region residents for decades. The northbound bridge turned 100 years old in 2017, while the southbound bridge opened in 1958. Operating and maintaining these aging structures costs around \$1.2 million each year, split evenly between ODOT and WSDOT. Larger maintenance projects to keep the Interstate Bridge in service are expected to cost over \$280 million through the year 2040, not including seismic retrofit.

In 2019, Washington and Oregon dedicated funding to restart Interstate Bridge replacement work and agreed to share planning costs equally. Throughout the development of the IBR Program, Oregon and Washington will share project development costs equally, though the timing and mechanisms of funding allocation and dedication will not likely occur concurrently. The Washington State 2019-21 Transportation Budget<sup>7</sup> allocated \$35 million and the Oregon Transportation Commission (OTC) has approved the allocation of \$15 million as of September 2020 to restart the program. Both governors and legislative leadership in each state directed ODOT and WSDOT to open the bi-state IBR Program office to lead this work. Each state legislature formed a committee with eight representatives to provide direction and oversight to shape IBR Program work. While project development costs are part of overall project capital costs, they do not represent the only expenditures that will need to be made over the next several biennia.

Recent efforts have focused on reengaging regional partner agencies through a facilitated workshop process and bringing on critical staffing resources, including a program administrator and a consultant team, to provide a wide range of specialized expertise. With these resources in place, the program is transitioning to the next phase of work, which will include technical

<sup>7</sup> Chapter 416, Laws of 2019, partial veto (ESHB 1160).



analysis and community engagement with a wide range of stakeholders to identify a bridge solution that reflects community values and can build broad regional support. Program development work will follow a transparent, data-driven process that will include collaboration with federal, state, regional and local partners. Future funding and finance plans for the IBR Program will reflect the updated scope resulting from this process.

## IBR PROGRAM ORIGINS

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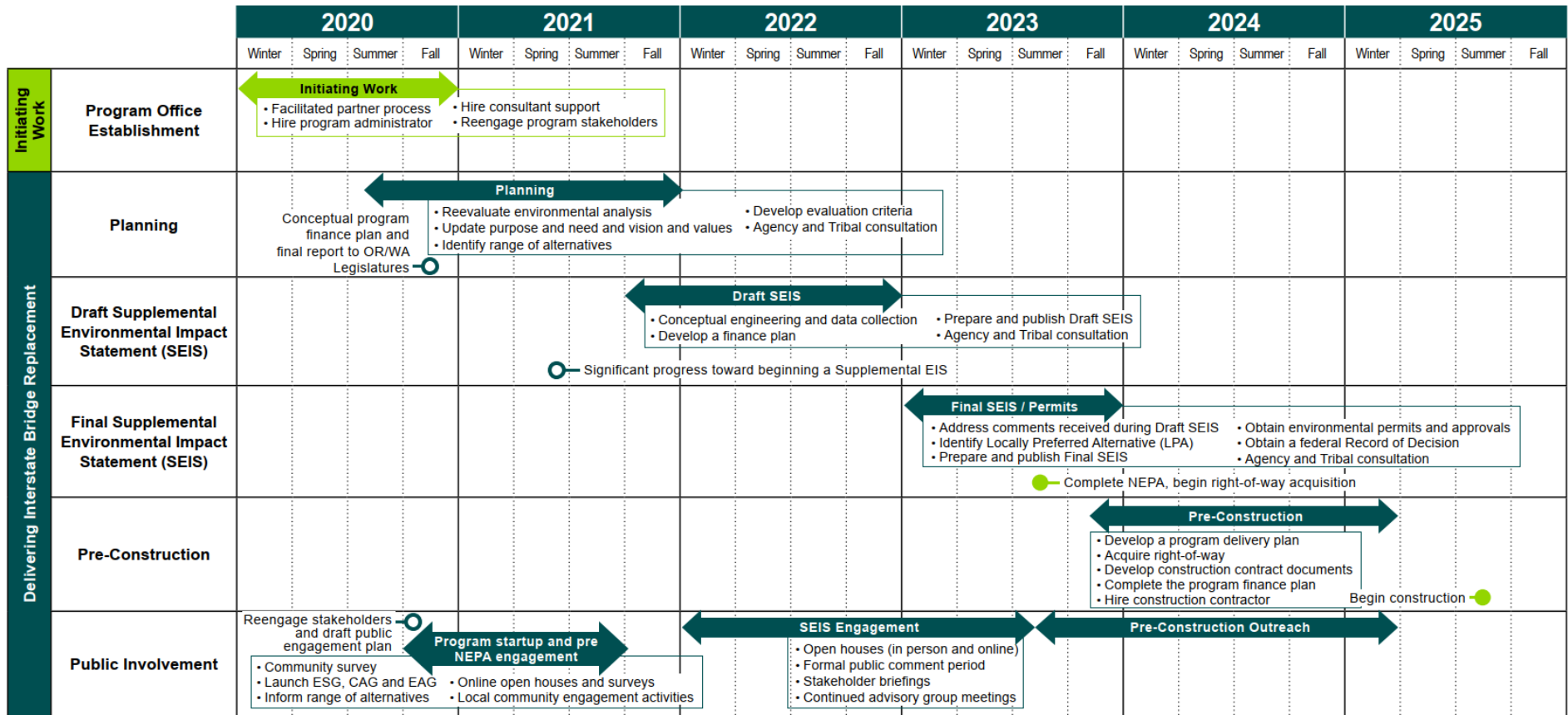
Between 2005 to 2014, the CRC Project successfully completed the environmental process (ROD) and received federal approval to advance to construction but did not secure adequate state funding to move forward. Because the CRC Project did not move forward, the FHWA directed the two states to repay the federal contribution to the environmental work. Acknowledging that both states have demonstrated a clear commitment toward moving a successor program forward, FHWA subsequently granted the states' request for a time extension to September 30, 2024 by which to complete the SEIS and advance program development to begin right-of-way (ROW) acquisition and/or construction in lieu of repayment of federal funds previously expended on the CRC Project.

To achieve this objective, the IBR Program office will leverage past work as appropriate to ensure effective and efficient decision-making that includes new data, as well as public and legislative input to address current and future needs in the forthcoming SEIS.

## IBR PROGRAM CURRENT STATUS

The current IBR Program timeline is shown in Figure 1.

Figure 1. IBR Program Timeline



**KEY** ○ Legislative Milestone ● FHWA Repayment Extension Milestone

**NOTE:** All milestones shown are contingent upon funding and bi-state agreement. FHWA milestones were submitted by ODOT/WSDOT as part of the 2019 federal repayment extension request. FHWA extended the repayment deadline to September 30, 2024.

**OREGON**  
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**WASHINGTON**  
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Title VI Notice to Public: It is the Washington State Department of Transportation's (WSDOT) policy to assure that no person shall, on the grounds of race, color, national origin or sex, as provided by Title VI of the Civil Rights Act of 1964, be excluded from participation in, be denied the benefits of, or be otherwise discriminated against under any of its federally funded programs and activities. Any person who believes his/her Title VI protection has been violated, may file a complaint with WSDOT's Office of Equal Opportunity (OEO). For additional information regarding Title VI complaint procedures and/or information regarding our non-discrimination obligations, please contact OEO's Title VI Coordinator at (360) 705-7090.



[wsdot.wa.gov/projects/i5/interstate-bridge/home](https://wsdot.wa.gov/projects/i5/interstate-bridge/home)

[oregon.gov/odot/projects/pages/project-details.aspx?project=21570](https://oregon.gov/odot/projects/pages/project-details.aspx?project=21570)



## FUNDING AND FINANCING REGULATION IN WASHINGTON AND OREGON

### BI-STATE POLICIES

Both Washington and Oregon have enabled legislation that allows each to enter into a bi-state agreement for a joint transportation project such as the IBR Program. They also both have legislation authorizing a P3 delivery method — although P3s have not been widely used for the delivery for major transportation project — and previously enacted and now expired Washington legislation enabled joint toll rate setting for the I-5 interstate bridge<sup>8</sup>. It should be noted that there remain obstacles to overcome some bi-state policies and key differences. For example, in Washington, only the legislature can authorize tolls on state facilities, and only the Washington State Transportation Commission (WSTC) can set toll rates and policies. But in Oregon, the state is authorized to enter into an agreement with WSDOT or any other properly designated authority to collect tolls on interstate bridges or hire another entity to manage the tolling program. Existing legislation from both states generally support the IBR Program, but new language specific to the Program may need to be adopted.<sup>9</sup>

### IDENTIFICATION OF LEGISLATION ISSUES

The MOI is not a legally binding agreement between the states: it will remain in effect for 5 years but can be terminated at any point with 3 months' notice. Washington and Oregon will require a legally binding interstate agreement defining how the IBR Program will be constructed, financed, operated, and maintained. The two primary options are: (1) the use of Intergovernmental Agreements between WSDOT, ODOT, OTC, and WSTC, often referred to as a bi-state or “joint-powers” agreement, or (2) a legislatively established bi-state authority which requires the legislative approval of both states. The Ownership Agreement Structure Analysis (2006) developed for the CRC project concluded that the use of bi-state agreements would best facilitate the ability of both states to manage, develop, construct the interstate bridge.

Future work for the IBR Program will reassess the interstate agreement requirements and the potential use of a bi-state authority to undertake all or part of the IBR Program, and recommend supportive or enabling legislation in either or both states to facilitate the funding and financing of the IBR Program. Key issues to be addressed include:

- **Toll setting** – The OTC and WSTC will need an Interstate Tolling Agreement that allows them to jointly determine how toll rates will be set in a way that adheres to both Washington and Oregon’s toll statutes and policies, potentially leveraging a similar agreement developed under the CRC project.
- **Toll operations/collection** – An agreement between ODOT and WSDOT will determine the toll collection and operations roles and responsibilities, including which party selects toll systems and vendors, implements and maintains the toll equipment, back-office

<sup>8</sup> <https://app.leg.wa.gov/RCW/default.aspx?cite=47.56.892>.

<sup>9</sup> Additional information related to specific Washington and Oregon legislation can be found in the Appendix.

system software and customer service operations, and collects and distributes the toll revenues.

- **Toll Financing** – The WSDOT-ODOT agreement must specify the IBR Program's debt structure and responsibilities. It will need to specify the toll bonding obligations of each state and how the toll revenues will be administered to ensure repayment of the debt obligations. It will also need to determine the state that will serve as the lead applicant for any federal financing programs, such as a Transportation Infrastructure Finance and Innovation Act (TIFIA) loan.
- **Operations and Maintenance (O&M)** – the WSDOT and ODOT agreement will need to determine if one state will assume all O&M responsibilities for the interstate bridge or if the two states will share this responsibility.
- **Bi-State Bridge Authority** – The IBR Program will consider bridge authority options that require enabling legislation to facilitate or to be used in lieu of the agreements listed above.

## 4. CONCEPTUAL PROGRAM COST ESTIMATES

### METHODOLOGY

Several cost estimates were completed for the CRC Project. Both WSDOT and ODOT agreed that the most recent 2012 cost estimates encompass a full project scope and provide the best foundational basis for developing a high-level preliminary cost estimate range for the IBR Program while also acknowledging that many changes in scope and design may be made as the Program develops. These legacy project costs represent the best available information from the process that resulted in a selected alternative that addressed the CRC project's Purpose and Need and received a federal ROD under the National Environmental Policy Act. The previous CRC project envisioned a state-of-the-art replacement bridge with separate facilities for motor vehicles, mass transit — either BRT or LRT — and a multiuse pedestrian and bicycle pathway across the Columbia River. The 2012 cost estimates used for this CFP were based on this concept.

### COST ESTIMATE ASSUMPTIONS

The capital costs prepared in 2012 for the CRC project, including both BRT and LRT alternatives, were reviewed, updated with revisions noted below, and escalated to YOE dollars assuming a start of construction in mid-2024. The escalation to fiscal year of expenditure dollars was based upon a preliminary schedule extrapolated from the prior CRC project delivery timeline. WSDOT's most recent (2019) cost inflation indices for preliminary engineering (PE) and environmental work activities, ROW acquisition, and construction (CN) were used to escalate the CRC-based cost values from constant fiscal year (FY) 2012 dollars first to constant FY 2020 dollars and then to YOE dollars for FY 2021 through FY 2035.<sup>10</sup>

### COST ESTIMATE REFINEMENT ASSUMPTIONS

The following significant changes that have occurred since 2012 impact the updated preliminary estimate:

- The Oregon State Commercial Activity Tax (CAT) is now levied upon 0.57% of taxable Oregon commercial activity of more than \$1 million for each commercial entity contributing to the Program.
- Because development has occurred since 2012, additional ROW costs have been added, estimated at \$7 million in Oregon and \$30 million in Washington.
- Costs related to river clearance issues added an additional \$30 million to all scenario estimates.
- Travel Demand Management program costs of \$30 million were included in all scenario estimates.
- It is now assumed in the high-cost options that the North Portland Harbor Bridge will be demolished and replaced at an increased cost of \$240 million; the low-cost options

<sup>10</sup> More refined technical specifications and assumptions are detailed in the Appendix.

replicated the CRC Project assumption that the North Portland Harbor Bridge would be seismically retrofitted instead of being replaced.

Though it does not currently operate on a dedicated guideway, C-TRAN’s BRT system in the downtown Vancouver area could be incorporated into the IBR transit concept and could impact the evaluation of transit alternatives in the SEIS.

## CAPITAL INVESTMENT OPTIONS AND ASSUMPTIONS

The IBR Program preliminary cost estimates consist of a high and low capital cost options for both the LRT and BRT transit component alternatives, as shown in Table 2. All of the options include the construction of a highway bridge with a grade-separated bicycle/pedestrian pathway connecting Oregon and Washington, highway improvements between Marine Drive to the south and SR 500 to the north, and improvements at the Marine Drive, Hayden Island, SR 14, Mill Plain Boulevard, and Fourth Plain Boulevard interchanges with I-5. The key differences between the options are summarized in Table 2.

Table 2. Preliminary Capital Cost Estimate Range Assumptions

Scope of Work Options	Cost Assumptions	Transit Mode from:		North Portland Harbor Bridge Improvements	Other Assumptions
		Expo Station to Turtle Place Transit Station	Turtle Place Transit Station to Clark College		
<b>Option 1A:</b> Bridge + Low LRT/Highway	Low	New LRT	Existing C-TRAN “The Vine” BRT	Seismically Retrofitted	<ul style="list-style-type: none"> <li>Fixed guideway LRT across bridge connects to existing C-TRAN “The Vine” BRT at Turtle station; The Vine continues through the downtown Vancouver and north to the Clark Station</li> <li>Elimination of Mill District Parking Structure (420 spaces)</li> </ul>
<b>Option 1B:</b> Bridge + High LRT/Highway	High	New LRT	New LRT	Replaced	<ul style="list-style-type: none"> <li>Potential additional \$28 to 30 million ROW acquisition impact</li> </ul>
<b>Option 2A:</b> Bridge + Low BRT/Highway	Low	New BRT	Existing C-TRAN “The Vine” BRT	Seismically Retrofitted	<ul style="list-style-type: none"> <li>Fixed guideway BRT across bridge connects to the existing C-TRAN “The Vine” BRT at the Turtle station; The Vine continues through Vancouver area north to the Clark Station</li> <li>Elimination of Mill District Parking Structure (420 spaces)</li> </ul>
<b>Option 2B:</b> Bridge + High BRT/Highway	High	New BRT	Upgraded BRT	Replaced	<ul style="list-style-type: none"> <li>Fixed guideway BRT across bridge continues through the downtown Vancouver area and north to the Clark Station and replaces existing BRT</li> </ul>

## CONCEPTUAL IBR PROGRAM COST ESTIMATE RANGES

The conceptual IBR Program cost estimates comprise both highway and transit capital investments. A high-level summary of the IBR Program conceptual cost estimate ranges are shown in Table 3.<sup>11</sup>

Table 3. Preliminary Capital Cost Estimate Ranges

Scope of Work Options	Updated CRC Cost (2012 \$)	Risk Range Adjustments (2012 \$)	IBR Program Conceptual Cost (2012 \$)	IBR Program Conceptual Cost (2020 \$)	IBR Program Conceptual Cost (YOE \$)	Modal Shares of Total Costs
<b>Option 1A: Bridge + LRT Project   Low</b>	<b>+ \$2.71 B</b>	<b>– \$0.36 B</b>	<b>+ \$2.35 B</b>	<b>+ \$2.74 B</b>	<b>+ \$3.32 B</b>	
<i>Transit Project Share</i>	<i>+ \$0.63 B</i>	<i>– \$0.08 B</i>	<i>+ \$0.54 B</i>	<i>+ \$0.63 B</i>	<i>+ \$0.77 B</i>	23%
<i>Highway Project Share</i>	<i>+ \$2.08 B</i>	<i>– \$0.28 B</i>	<i>+ \$1.80 B</i>	<i>+ \$2.11 B</i>	<i>+ \$2.55 B</i>	77%
<b>Option 1B: Bridge + LRT Project   High</b>	<b>+ \$2.96 B</b>	<b>+ \$0.37 B</b>	<b>+ \$3.33 B</b>	<b>+ \$3.96 B</b>	<b>+ \$4.81 B</b>	
<i>Transit Project Share</i>	<i>+ \$0.80 B</i>	<i>+ \$0.10 B</i>	<i>+ \$0.90 B</i>	<i>+ \$1.07 B</i>	<i>+ \$1.30 B</i>	27%
<i>Highway Project Share</i>	<i>+ \$2.16 B</i>	<i>+ \$0.27 B</i>	<i>+ \$2.43 B</i>	<i>+ \$2.89 B</i>	<i>+ \$3.51 B</i>	73%
<b>Option 2A: Bridge + BRT Project   Low</b>	<b>+ \$2.59 B</b>	<b>– \$0.35 B</b>	<b>+ \$2.24 B</b>	<b>+ \$2.62 B</b>	<b>+ \$3.17 B</b>	
<i>Transit Project Share</i>	<i>+ \$0.52 B</i>	<i>– \$0.70 B</i>	<i>+ \$0.45 B</i>	<i>+ \$0.53 B</i>	<i>+ \$0.64 B</i>	20%
<i>Highway Project Share</i>	<i>+ \$2.07 B</i>	<i>– \$0.28 B</i>	<i>+ \$1.79 B</i>	<i>+ \$2.09 B</i>	<i>+ \$2.53 B</i>	80%
<b>Option 2B: Bridge + BRT Project   High</b>	<b>+ \$2.67 B</b>	<b>+ \$0.33 B</b>	<b>+ \$3.00 B</b>	<b>+ \$3.51 B</b>	<b>+ \$4.25 B</b>	
<i>Transit Project Share</i>	<i>+ \$0.64 B</i>	<i>+ \$0.08 B</i>	<i>+ \$0.72 B</i>	<i>+ \$0.84 B</i>	<i>+ \$1.01 B</i>	24%
<i>Highway Project Share</i>	<i>+ \$2.03 B</i>	<i>+ \$0.25 B</i>	<i>+ \$2.29 B</i>	<i>+ \$2.67 B</i>	<i>+ \$3.24 B</i>	76%

<sup>11</sup> More details related to the cost estimate are included in Appendix.

## 5. POTENTIAL FUNDING SOURCES AND FINANCING OPTIONS

Large infrastructure projects like the IBR Program generally need to secure a variety of funding sources and financing options to move forward. Federal funding has become more competitive despite contributing to a declining share of large project costs, thus requiring larger state/local commitments. More than 80 funding sources and financing options at the federal, state, and regional/local levels were reviewed for likelihood and applicability in preparing this CFP. The following section describes the likely primary funding sources and financing mechanisms that represent the most viable potential options for the IBR Program.

### DISTINCTION BETWEEN FUNDING VS. FINANCING

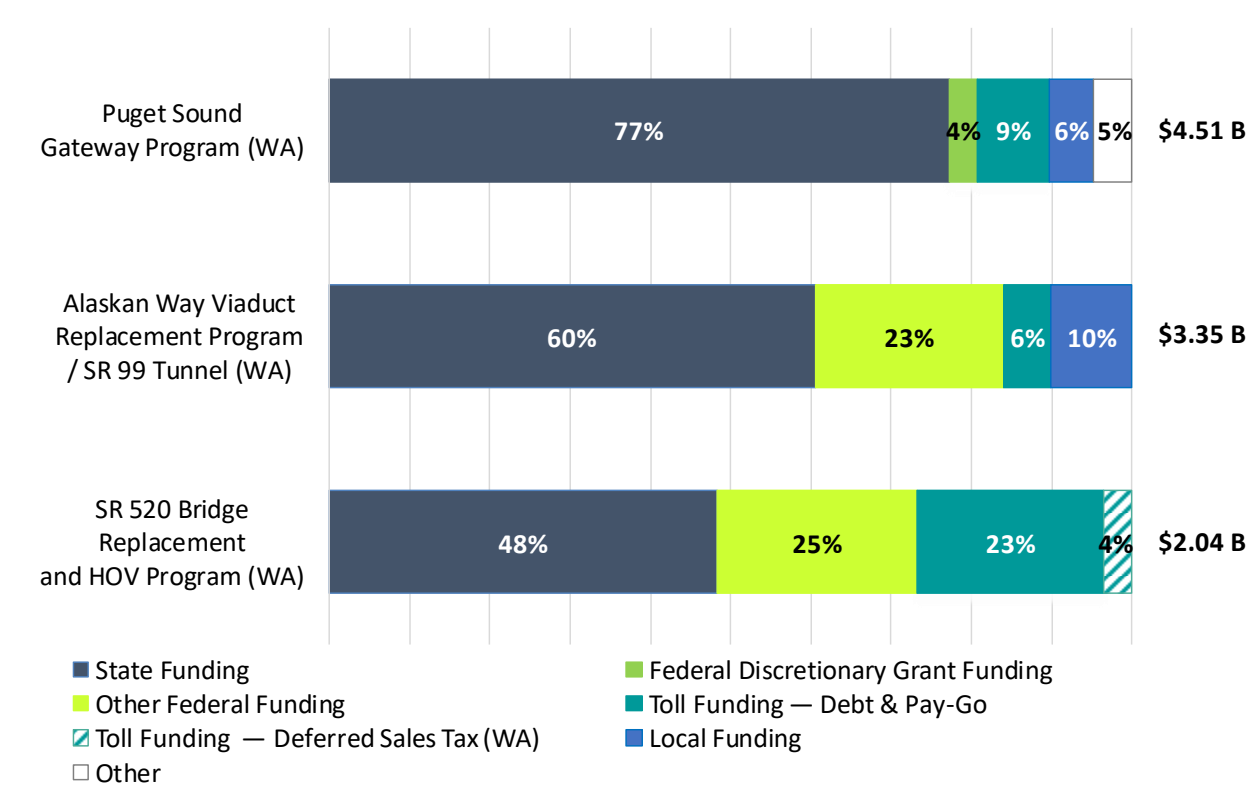
There is a key difference between funding and financing and how each could contribute to the IBR Program. Essentially, funding is a monetary resource that is available to pay for capital investments when needed, whereas financing is a tool that facilitates borrowing against future revenues to convert them into current funding when needed. The borrowed funds must then be repaid with interest in the future.

### MAJOR PROJECT FUNDING EXAMPLES IN WASHINGTON STATE

In preparing this CFP for the IBR Program it is useful to review the types and shares of funding sources from comparably sized transportation projects. Figure 2 presents the mix of funding sources for three comparable transportation projects in Washington (there are no recent or current projects in Oregon of a similar scale where the funding plan is sufficiently advanced to present similar information). The largest source of funding for each of these three example projects comes from the 2003, 2005, and/or 2015 transportation funding packages that primarily leveraged state motor vehicle fuel tax revenues for specific projects approved by the Washington State Legislature. Tolling was also authorized for each of these projects, with tolls contributing \$180 million to more than \$1 billion, depending on the project, via a combination of bonds and pay-as-you-go funding. Federal formula grant funding, discretionary grant funding (an Infrastructure for Rebuilding America [INFRA] grant for the Puget Sound Gateway Program), and Grant Anticipation Revenue Vehicle (GARVEE) bonds (SR 520 Bridge Replacement and high-occupancy vehicle [HOV] Program) demonstrate key forms of federal participation.



Figure 2. Major Project Funding Sources in Washington State



## OVERVIEW OF PUBLIC TRANSIT PROJECT FUNDING IN THE REGION

Large public transit projects are typically funded through a combination of federal discretionary grants and formula funding, along with state, regional, or local matching funds generated from taxes or fees (e.g., sales, property, income, or business taxes). The constitutions of Oregon and Washington limit the use of motor fuel taxes to highway projects. In Oregon, any tax or fee related to the use, operation, or ownership of a vehicle cannot be used for the transit component of the IBR Program.

Building a large transit infrastructure project often requires expending a sizeable amount of funds in a condensed period of time, with financing against future revenues to provide capital funds with the expectation that the borrowed funds will be paid back (with interest) over the course of 15 to 40 years. The projected future revenues that the agency pledges to use for repayment may come from existing revenue streams or new ones created specifically to fund the project as a repayment source.

## FEDERAL FUNDING SOURCES FOR THE IBR PROGRAM

The IBR Program will seek federal funding sources to supplement state, local, and tolling funding and revenue. Funding programs from the federal government require matching funds from non-federal sources (i.e., local, regional, state, or private contributions), and the application

process to compete for such funding typically prioritize projects based upon justification, financial commitment at the state and/or regional level, readiness and other factors.

Oregon and Washington each receive annual apportionments of federal formula funds from FHWA. C-TRAN and TriMet each receive annual apportionments of FTA formula funds. These funds, together with federal formula funds allocated to the regional transportation planning agencies, help fund a wide variety of transportation capital projects and operational programs in the metropolitan region. Although the IBR Program may be eligible for some of these funds, most, if not all, of these funds are already programmed for other projects, and not available for the IBR Program in the near- and medium-terms.

FHWA and FTA also administer several discretionary grant programs, which are very competitive and require, as part of a rigorous application process, the applicant to demonstrate that the non-federal matching funds are fully committed. If sufficient non-federal funds are approved for the IBR Program, it could be well positioned to obtain one or more funding awards from these federal programs, particularly the following programs (or their successors in forthcoming legislation):

- FTA CIG New Starts program
- U.S. Department of Transportation (USDOT) BUILD grant program
- USDOT INFRA grant program

In FY 2013, FTA recommended an \$850 million CIG from its New Starts program to help fund the transit component of the CRC project. FTA awards New Starts CIGs to projects on a discretionary basis based on ratings of project justification, local financial commitment, and project readiness. To be eligible for a New Starts CIG, the project must advance through a prescribed process involving FTA approvals at entry into the Project Development and Engineering phases and prior to issuing a Full Funding Grant Agreement for the New Starts grant. The IBR Program will proceed in accordance with FTA's prescribed process, and, assuming the final IBR Program incorporates a BRT or LRT alternative similar to CRC, is anticipated to secure a New Starts CIG comparable to that recommended in FY 2013 for CRC.

The BUILD grant program is a highly competitive USDOT grant program that supports the capital costs of road, rail, transit, and port projects that have a significant impact on the nation, a region, or a metropolitan area. Funding from this program is eligible for planning, design, and construction phases. From this program in 2020, two projects in Washington state — the Mills to Maritime Cargo Terminal project and the City of Ridgefield Pioneer Street Extension project — were awarded \$17.8 million and \$5.8 million, respectively. Another project shared between the states of Oregon and Washington — the Hood River/White Salmon Interstate Bridge Replacement project — received \$5 million. The states of Oregon and Washington have been successful in securing BUILD (previously Transportation Investment Generating Economic Recovery (TIGER)) program funds almost every year since the establishment of the program in the American Recovery and Reinvestment Act of 2009. The BUILD program can be highly competitive, and the states of Washington and Oregon would need to determine that this was a high priority project to position for these funds since most states only receive one grant each year. If the applications were successful, the BUILD contribution to the IBR Program would be a

small share of the overall cost; but could provide needed federal funds to the project in the near term.

Discretionary INFRA grants help to fund major highway, bridge, port, and railroad projects across the nation. The program aims to leverage federal grant funding to incentivize project sponsors to incorporate innovative technologies project delivery strategies, including P3s. In 2020, the program awarded \$73.7 million to WSDOT to complete the SR 509 and SR 167 projects as the Puget Sound Gateway Program. In 2019, ODOT received \$60.4 million to realign and reroute U.S. Highway 97 in Bend, Oregon. INFRA grants are intended to provide funding to projects that are “shovel ready” and result in construction. Due to the competitive nature of discretionary grant programs, a grant under the INFRA program or its successor is more likely to provide funding for the construction phase of the IBR Program.

Table 4 documents existing formula funding and discretionary grant programs administered by the federal government that could potentially help fund the IBR Program. Additional details can be found in Appendix Table 22.

**Table 4. Potential Existing Federal Funding Opportunities for the IBR Program**

Federal Funding Program	Funding Type	Total Available Funding / Typical Annual Allocation per Project	Eligibility		Funding Potential for IBR
			Highway	Transit	
<a href="#">Infrastructure for Rebuilding America (INFRA)</a>	Discretionary Grant	\$1 B in FY '20 awards / \$6 M to \$135 M (FY '20)	✓	✓	Medium
<a href="#">Capital Investment Grant (CIG) New Starts</a>	Discretionary Grant	\$2.3 B per year through FY '21 / \$20 to \$150 M (FY '20)	–	✓	Medium-High
<a href="#">Better Utilizing Investments to Leverage Development (BUILD)</a>	Discretionary Grant	\$1 B in FY '20 awards / Max. award in FY '19 = \$25 M	✓	✓	Medium
<a href="#">Surface Transportation Program Block Grant (STBG)</a>	Formula Funding	\$145 M in OR; \$127 M in WA in FY '20 / Projects generally receive <\$10 M	✓	✓	Medium
<a href="#">Highway Safety Improvement Program (HSIP)</a>	Formula Funding	\$31 M in OR; \$41 M in WA in FY '20 / Projects generally receive <\$5 M	✓	✓	Low-Medium
<a href="#">National Highway Freight Program (NHFP)</a>	Formula Funding	\$19 M in OR; \$26 M in WA in FY '20 / Projects generally receive <\$5 M	✓	–	Medium
<a href="#">National Highway Performance Program (NHPP) Apportionment</a>	Formula Funding	\$315 M in OR; \$418 M in WA in FY '20	✓	Varies	Low-Medium
<a href="#">Urbanized Area Formula Grants (49 U.S.C. 5307) Apportioned to Transit</a>	Formula Funding	\$42 M for TriMet; \$5.4 M for C-TRAN in FY '20	–	✓	Low
<a href="#">Advanced Transportation &amp; Congestion Management Technology (ATCMTD)</a>	Discretionary Grant	\$60 M in FY '20 awards / Max award in FY '19 = \$12 M	✓	✓	Low-Medium
Various other Federal Funding Programs <sup>12</sup> (e.g., <a href="#">CMAQ</a> , <a href="#">TAP</a> , <a href="#">UASI</a> & <a href="#">SHSP</a> )	Formula Funding	Approx. \$75 M awarded OR & WA in FY '20 / Projects generally receive <\$10 M	Varies	Varies	Low

<sup>12</sup> Other federal funding programs include the following: Congestion Mitigation and Air Quality (CMAQ) FHWA Formula Funds, Transportation Alternatives Program (TAP) FHWA Federal Formula Funds, Urban Area Security Initiative (UASI) DHS/FEMA Formula Funds, and State Homeland Security Program (SHSP) FEMA Formula Funds.

The U.S. House of Representatives passed the INVEST in America Act in June 2020, which contains several promising funding programs that could potentially contribute to the IBR Program if this or similar legislation is eventually signed into law. Congress is expected to restart deliberations on a new transportation funding act when the 117<sup>th</sup> Congress convenes, starting in January 2021. Of the potential grant programs in the INVEST in America Act, the PNRs program, if enacted by the new Congress, would be a large federal discretionary program aimed at projects such as the IBR Program. Under the INVEST in America Act, federal funding from this source would be capped at a maximum of 60% of project costs. Given the national demand for funding from such a program, the practical limit on the PNRs funding share may be significantly lower than the 60% cap. Thus, the need for establishing state, regional, or local funding sources to contribute to the IBR Program will remain vitally important.

Table 5 documents potential future federal grant programs included in the INVEST Act that, if enacted by the new Congress, could potentially be leveraged to help fund the IBR Program.

**Table 5. Potential Future Federal Funding Opportunities for the IBR Program**

Funding Program	Total Available Funding	Typical Allocation per Project	Eligibility		Funding Potential for IBR
			Highway	Transit	
Projects of National and Regional Significance (PNRS)	\$9 B over 5 years	TBD	✓	✓	Medium
Community Transportation Investment Grants	\$3 B over 5 years for local government applicants	Max award = \$25 M	✓	✓	Low-Medium
Metro Performance Program Incursionary Grants	\$750 M over 5 years directed to MPOs	\$10 to 50 M each fiscal year	✓	✓	Low-Medium
Gridlock Reduction Grants	\$250 M over 5 years to reduce urban congestion in large metro areas	\$10 to 50 M	✓	–	Medium
Active Transportation Connectivity Grants	\$250 M over 5 years for pedestrian/bike networks	TBD	Pedestrian & Bicycle Only	–	Medium

Source: [INVEST in America Act Fact Sheet \(2020\)](#)

## STATE FUNDING SOURCES FOR IBR PROGRAM

Large and transformative transportation infrastructure projects like the IBR Program require funding from a variety of sources. Securing timely commitments at the state and regional levels will be essential for competing for the federal funding programs described above. This section details existing and potential future state funding streams in Oregon and Washington that could be used to fund all or some elements of the IBR Program.

## TOLLING

### HISTORY / PREVIOUS IBR PROGRAM TOLL TRAFFIC/REVENUES STUDIES

Tolling alone cannot pay for the IBR Program. However, the proceeds of loans and bonds to be repaid with future toll revenues will likely be a key component of project funding. In 2009, WSDOT, in coordination with ODOT, was directed to conduct a tolling study for the CRC Project by Washington State Legislation. The final study dated January 2010<sup>13</sup> reviewed I-5 toll scenarios that resulted in project funding ranging from \$0.94 to \$2.09 billion, depending on toll rates.

The study examined additional scenarios that tolled both the I-5 and I-205 bridges across the Columbia River, with toll funding ranging from \$2.08 to 3.36 billion. The same report also concluded that allowing tolling to start on the existing bridge while the new bridge was being constructed would have raised up to an additional \$330 million for the project, while also helping to manage traffic during construction.

In 2013, the OTC and WSTC entered into a Bi-State Toll Setting Intergovernmental Agreement to establish the process for setting toll rates for the CRC project, tolling I-5 Bridge only. At the end of that same year, ODOT completed a traffic and revenue study<sup>14</sup> and companion memorandum providing net toll revenue projections.<sup>15</sup> ODOT and the Oregon State Treasury estimated the toll funding contribution range at between \$1.0 and 1.6 billion using the “Draft Environmental Impact Statement (DEIS) tolls,” which were at the lower end of those considered in the 2010 report detailed above. This range assumed that tolls would be in place for 6 years on the existing bridge, with the “pre-completion” tolling netting about \$270 million after paying for O&M costs and prefunding various reserve account to bolster the toll financing.

Historically, tolls have been collected on bridges crossing the Columbia River since 1917. Only the I-205 Glenn L. Jackson Memorial Bridge was built without tolling. Two existing bridges across the river, the modern-day Bridge of the Gods and the Hood River Bridge, are currently tolled. Tolling within the IBR Program will be closely coordinated with ODOT and the current Oregon Toll Program effort that is evaluating the tolling of I-5 and I-205 in the Portland region.

### BENEFITS OF TOLLING

Tolling provides revenue and serves as a tool to optimize system performance by providing congestion management during peak periods. It is important to weigh these benefits with equity considerations. Similar to the CRC project, variable tolling may be considered for the IBR Program. Variable tolling — charging different tolls by time of day, day of week, and/or travel direction according to a set schedule — would allow higher tolls to be charged at peak times and/or directions (e.g., north/southbound on weekday mornings and south/northbound on

<sup>13</sup> [https://www.wsdot.wa.gov/accountability/ssb5806/docs/4\\_Finance/CRC\\_TollingStudyCommitteeReport.pdf](https://www.wsdot.wa.gov/accountability/ssb5806/docs/4_Finance/CRC_TollingStudyCommitteeReport.pdf)

<sup>14</sup> [http://data.wsdot.wa.gov/accountability/ssb5806/Repository/4\\_Finance/Investment%20Grade%20Analysis/Investment%20Grade%20Analysis.pdf](http://data.wsdot.wa.gov/accountability/ssb5806/Repository/4_Finance/Investment%20Grade%20Analysis/Investment%20Grade%20Analysis.pdf)

<sup>15</sup> [https://wsdot.wa.gov/accountability/ssb5806/docs/4\\_Finance/CRC\\_Net\\_Revenue\\_Memo\\_PB\\_12\\_27\\_2013.pdf](https://wsdot.wa.gov/accountability/ssb5806/docs/4_Finance/CRC_Net_Revenue_Memo_PB_12_27_2013.pdf)

weekday afternoons) to help reduce congestion. Lower tolls would be offered at off-peak times and/or directions to attract trips that do not need to occur at high-demand times/directions.

Tolling the I-5 crossing would yield significant future revenues that can be leveraged to fund construction of the IBR Program, as well as cover ongoing bridge O&M costs. Future toll revenues can be pledged for various types of debt financing, including standalone toll revenue bonds, toll revenue bonds backed by one or both states, and/or a USDOT TIFIA loan. It is anticipated that the toll funding available to construct the IBR Program would be at least equivalent to the range reported for the CRC Project in 2013 due to factors that will likely offset any long-term changes in bridge traffic patterns as a result of the current economic conditions.

## EXISTING STATE FUNDING COMMITMENTS

### WSDOT AND ODOT PRELIMINARY ENGINEERING FUNDING

The Washington State Legislature's enacted transportation budget bills for 2019<sup>16</sup> and 2020<sup>17</sup> appropriate a total of \$35 million from state motor vehicle revenues to staff the IBR Program office and restart the early development phases of the project. The OTC has so far approved \$15 million in funding from ODOT to support planning, environmental analysis, and design work. As of December 2020, these contributions combine to provide \$50 million in funding for the IBR Program. ODOT has published a proposal to add another \$30 million to the IBR Program budget; however, the OTC won't act until January 2021. Throughout the development of the IBR program, Oregon and Washington will share project development costs equally, though the timing and mechanisms of funding allocation and dedication will not likely occur concurrently.

### CONNECTING WASHINGTON FUNDING FOR THE MILL PLAIN BOULEVARD / I-5 INTERCHANGE PROJECT

The 2015 Connecting Washington Transportation Funding Package (CWTFP)<sup>18</sup> established a 16-year, \$16.1-billion investment program, primarily funded by an 11.9-cent gas tax increase, to enhance and maintain critical transportation infrastructure. This program dedicates approximately \$97 million to fund improvements to the I-5 / SR 501 Mill Plain Boulevard interchange in downtown Vancouver. Construction funding for this project is budgeted for 2024 through 2029.<sup>19</sup> This CFP assumes that, similar to the CRC Project, these improvements will be constructed as part of the IBR Program, and therefore includes their costs and associated funding in the IBR Program financial plan.

<sup>16</sup> <http://leap.leg.wa.gov/leap/budget/lbns/1921Tran1160-S.SL.pdf>.

<sup>17</sup> <http://leap.leg.wa.gov/leap/budget/lbns/2020Tran2322-S.SL.pdf>.

<sup>18</sup> <http://lawfilesexternal.leg.wa.gov/biennium/2015-16/Pdf/Bills/Session%20Laws/Senate/5987-S.SL.pdf#page=1>.

<sup>19</sup> <https://wsdot.maps.arcgis.com/apps/webappviewer/index.html?id=02b28f10d90b4ffa87e9f1a0c7df4a49>.

## FUTURE STATE FUNDING IDENTIFICATION

### OREGON

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Future IBR Program funding contributions from Oregon will be determined by the 2024-2027 Statewide Transportation Improvement Program (STIP). Throughout this process, the OTC and ODOT coordinate with a diverse set of stakeholders and the general public to develop a fiscally constrained capital improvement plan for state- and federally funded transportation projects. Funding projections for the STIP come from Oregon's federal transportation funding appropriations and statewide revenue programs dedicated to transportation.

Statewide revenue programs to fund transportation projects expanded significantly in 2017. Revenues come from increases to the motor fuel tax, vehicle title and registration fees, and the weight-mile tax on heavy trucks in addition to establishing new revenue sources dedicated to transportation: a privilege tax on new vehicle purchases, a tax on new bicycle purchases, and an employee payroll tax to fund public transit. Although the details have not yet determined, the emerging Oregon Toll Program may be a potential source for Oregon's state contribution to the highway portion of the IBR Program.

One limitation to be mindful of is that the Oregon Constitution (Article IX, Section 3a) is clear that any tax or fee levied on the ownership, operation, or use of a motor vehicle can only be used for roadway construction projects and/or the day-to-day maintenance and operations of the state's roadway system. Therefore, the State Highway Fund or any other revenues generated from motor fuel taxes, vehicle licensing, registration, or titles, tolling, congestion pricing, or road use charges, cannot be used to fund the transit portion of the IBR Program.

The Oregon Lottery Fund<sup>20</sup> may be a viable funding/financing option for the transit portion of the IBR Program. For example, since 2001, the Oregon Legislature has dedicated \$125 million to fund the Westside MAX Light Rail extension project, \$250 million for the Portland-Milwaukie LRT extension, and also committed \$35 million to commuter rail in Washington County.

Table 6 below documents existing Oregon revenue sources that could be leveraged to contribute to the IBR Program. Additional details can be found in Appendix Table 20.

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<sup>20</sup> <https://www.oregonlottery.org/economic-growth/>.

**Table 6. Oregon State Funding Sources potentially applicable to the I-5 IBR Program**

Funding Program	Total Annual Revenues	Eligibility	
		Highway	Transit
Motor Vehicle Fuel Tax	\$625 M / year (FY '19)	✓	–
State Weight-Mile Tax	\$345 M / year (FY '19)	✓	–
Driver and Vehicle Licensing and Registration Fees	\$565 M / year (projected in FY '21 to '23)	✓	–
Oregon State Lottery Fund	Pre-pandemic forecasts about \$126M per year. The pandemic has impacted this forecast	–	✓
Statewide Transportation Improvement Fund (STIF) Formula Fund	\$113 M / year (projected for FY '19 to '21)	–	✓ (cannot be used for LRT capital costs)
Statewide Transportation Improvement Fund (STIF) Discretionary and Statewide Transit Network Program	\$6.4 M / year (projected for FY 19' to '21)		
Other Miscellaneous Taxes and Fees (e.g., vehicle dealer privilege tax, cigarette tax, payroll tax, bicycle tax, etc.)	\$215 M / year (projected in '21 to '23)	✓	✓
Oregon Toll Program	TBD (program in development)	✓	–

## WASHINGTON

The \$35 million in Preliminary Engineering funding discussed previously appears in WSDOT’s Approved 2020-2023 STIP.<sup>21</sup> Future IBR Program funding from Washington will be determined during the next iteration (2021-2023) of the federally-mandated STIP process.

The Washington State Legislature has supported multiple transportation funding measures over the last 20 years: the 2003 Washington State “Nickel” funding package, the 2005 Transportation Partnership Program funding, and the 2015 Connecting Washington transportation funding package. Revenues supporting these three funding packages have relied primarily on motor vehicle fuel tax increases of 5¢, 9.5¢ and 11.9¢, respectively, along with selected additional vehicle weight and license fees. The proceeds from each of these measures were dedicated to specific projects, and it is likely that the revenues from these measures will be encumbered for the foreseeable future to complete the projects designated by the legislature. The legislature allocated \$50 million to the prior CRC Project from the 2005 Transportation Partnership Program funding package. Table 7 below documents existing WSDOT revenue sources that may be applicable to the IBR Program.

A new measure could potentially be formulated to fund the IBR Program through additional increases to vehicle user fees; however the 18<sup>th</sup> Amendment of the Washington State Constitution requires that revenue from fuel tax must be used for highway purposes, so the transit portion of the IBR Program may not be eligible for funding sourced from motor fuel taxes. Additional details can be found in Appendix Table 21.

<sup>21</sup> <https://wsdot.wa.gov/sites/default/files/2009/01/14/LP-STIP-Projects.pdf>.



Table 7. WSDOT Revenue Sources potentially applicable to the I-5 IBR Program

Funding Program	Total Annual Revenues	Eligibility	
		Highway	Transit
Motor Vehicle Fuel Tax	\$1.7 B / year (FY '19 to '21)	✓	–
Driver and Vehicle Licensing and Registration Fees	\$950 M /year (FY '19 to '21)	✓	✓
WSDOT Regional Mobility Grants	\$52 M / year (FY '19 to '21)	–	✓
Transportation Improvement Board (TIB) Urban Arterial Program (UAP) Formula Funding	\$60 M / year (FY '20)	✓	✓
Freight Mobility Strategic Investment Board (FMSIB) Funding	\$25 M total to be distributed from FY '19 to '23	✓	–
Other Miscellaneous Taxes and Fees (e.g., rental car taxes)	\$136 M / year (FY '19 to '21)	Varies	Varies

In Washington State, there is no precedent for toll revenues to pay for non-highway capital improvements, and existing toll authorization statutes by facility outline the acceptable uses for toll revenues that are confined to the highway project funded from tolls. However, it is conceivable that Washington toll revenue and/or bond proceeds could be used for certain transit improvements, provided that the improvements facilitate the efficient utilization and safety of I-5 or its interchanges, and the legislature allows for such use in the statutes authorizing tolls for the IBR Program.<sup>22</sup>

## LOCAL/REGIONAL FUNDING SOURCES FOR IBR PROGRAM

Local and regional jurisdictions in Oregon and Washington have various methods of levying local-option taxes and fees to help fund transportation projects. As of December 2020, these mechanisms have mostly been leveraged to fund local, smaller scale improvements, like off-network roadway maintenance and safety projects, public transit services, and the expansion of sidewalk and active transportation networks. Local and regional funding are not anticipated to be a significant funding source for IBR Program development, construction, and capital costs. Local and regional sources will likely provide funding for O&M of the transit component. The following section outlines some local and/or regional sources for which the IBR Program could be eligible.

### OREGON: CITY OF PORTLAND, PORTLAND METRO, AND MULTNOMAH, WASHINGTON, AND CLACKAMAS COUNTIES

Oregon has created many different local-option tax instruments to fund transportation projects, particularly to help fund public transit and other local priority projects. To expand the capacity of existing local-option taxes or fees to provide a meaningful funding contribution to the IBR Program would require a public vote in most instances. Table 8 below outlines existing revenue sources that are used to fund transportation projects and considerations for expanding these

<sup>22</sup> <http://courts.mrsc.org/supreme/083wn2d/083wn2d0878.htm>.

sources to potentially contribute to the IBR Program. Additional details can be found in Appendix Table 22.

**Table 8. Oregon Local/Regional Funding Sources Potentially Applicable to the IBR Program**

Local/Regional Transportation Funding Program	Total Annual Revenues <sup>23</sup>	Eligibility	
		Highway	Transit
Multnomah County Fuel Tax	\$7 M / year (projected in FY '20)	✓	–
Multnomah County Vehicle Registration Fees (VRF)	Existing funding dedicated to debt pay-off for the new Sellwood Bridge. Fee increase in 2021 (HB 4064) earmarked for Earthquake Ready Burnside Bridge project (\$580-860 M project).	✓	–
Multnomah County Property Tax	\$324 M / year (FY '20)	✓	✓
Regional Employer Payroll Tax (including Self-Employment Tax and State In-Lieu payment)	\$420 M / year (projected for FY '20), makes up 60% of TriMet's operating resources	✓	✓
Port of Portland Transportation Improvement Plan (PTIP) Funding	\$315 M / year general operating fund; \$58 M / year bond construction funds (does not include airline revenue/construction funds)	✓	✓
City of Portland Motor Fuel Tax	\$18 M / year (projected for FY '20)	–	–
Other Local/Regional Taxes and Fees (e.g., Vehicle Rental Taxes, Hotel/Motel/Short-term Rental Taxes, etc.)	Approximately \$30 M / year available for transportation funding (projected in '20)	Varies	Varies

\* Technically an eligible use though the funds are not currently used for this purpose.

## WASHINGTON: CITY OF VANCOUVER, SOUTHWEST WASHINGTON REGIONAL TRANSPORTATION COUNCIL, AND CLARK COUNTY

Local and regional jurisdictions in Washington also have a host of local-option tax instruments to fund transportation projects at their disposal; however, most of them are not presently utilized in the City of Vancouver or Clark County for transportation funding purposes. C-TRAN, the transit provider within Clark County, derives about 80% of its agency budget revenues from a 0.7% local-option sales and use tax. Meanwhile, Clark County property taxes cover approximately 50% of the County's budget for roadway projects, and development impact fees provide a revenue source for the City of Vancouver's transportation funding needs. Several other tax instruments, many of which have been successfully implemented in the Puget Sound region, are not currently assessed in Clark County and would require local voter approval to implement. Table 9 below outlines local and regional transportation funding mechanisms under existing state statutes that can be used to fund transportation projects in Clark County, the City of Vancouver, and its surrounds. Additional details can be found in Appendix Table 23.

<sup>23</sup> Note: projected revenues were produced prior to the COVID-19 pandemic; thus, these values likely overestimate the actual revenues generated by these programs.

**Table 9. Washington Local/Regional Funding Sources Potentially Applicable to the IBR Program**

Local/Regional Transportation Funding Program	Total Annual Revenues <sup>24</sup>	Eligibility	
		Highway	Transit
Sales and Use Tax dedicated for High Capacity Transit	\$60 M / year (projected in '20) (About \$8.8 M per 0.1% sales tax rate increase)		✓
Transportation Benefit District Vehicle Licensing Fee	\$5 M / year ('19) from \$40 vehicle license fee	✓	✓
Clark County Property Tax	\$38 M / year to fund County Roads and Transportation Projects in '20	✓	✓
Clark County Real Estate Excise Taxes (REET) dedicated to capital projects	\$5.4 M /year ('19) from maximum 0.5% real estate transfer tax	✓	✓
Regional Employer Tax	None currently assessed. Max = \$2 / employee / month	✓	✓
Clark County Property Tax Road Levy	Not currently assessed. Max = \$2.25/\$1,000 valuation	✓	–
Local Commercial Parking Tax	None currently assessed.	✓	✓
City/County Fuel Taxes	None currently assessed. Max = Up to 10% of State Rate	✓	–
Local-option Motor Vehicle Excise Taxes (MVET)	Not currently assessed. Max = 1.1% of vehicle value	–	✓

## FINANCING MECHANISMS FOR IBR PROGRAM

The following section details financing mechanisms available to support the IBR Program. These are not additional types of funding, but rather ways to convert (borrow against) the revenue streams discussed elsewhere in this document to provide funding for up-front capital expenditures. In each case, borrowing would need to be tied to a revenue stream that would be pledged to repaying the debt.

### LEVERAGING PROJECT REVENUES

A variety of public, quasi-public, and private financing options exist to help develop and construct large transportation projects in the U.S.

Table 10 documents financing options that could be employed for the IBR Program. These financing mechanisms pledge future project revenues to repay loans or other debt according to predefined contractual terms. Constitutional restrictions in both states disallow motor fuel tax revenues (and in Oregon the proceeds of any tax or fee on the ownership, use, or operations of a motor vehicle) from being used to fund or finance non-highway investments. Additional details can be found in Appendix Table 24.

<sup>24</sup> Projected revenues were produced prior to the COVID-19 pandemic; thus, these values likely overestimate the actual revenues generated by these programs.

**Table 10. Potential Financing Mechanisms for the IBR Program**

Financing Tool	Lender	Repayment Source	Eligibility	
			Highway	Transit
Standalone Toll Revenue Bonds	Bond investors	Net toll revenues	✓	**
State-backed Toll Revenue Bonds	Bond investors	Net toll revenues, then motor fuel tax revenues or other state sources	✓	**
Transportation Infrastructure Finance and Innovation Act (TIFIA) Loan*	USDOT	Net toll revenues	✓	**
Grant Anticipation Revenue Vehicles (GARVEEs) Bonds (FHWA program for highway projects)	Bond investors	Future Federal Aid grant funding	✓	–
Revenue Bond Grant Anticipation Notes (GANs) (FTA program for transit projects)	Bond investors	Future Federal Aid grant funding	–	✓
Lottery Bonds	Bond investors	Lottery revenues from Oregon Lottery Commission	–	✓

\* TIFIA loan amount limited to 33% of eligible program costs.

\*\* Toll revenue may be eligible for use on certain transit improvements that benefit I-5, if authorized under the tolling statute for the IBR Program.

## VALUE CAPTURE TECHNIQUES

“Economic value capture” refers to an innovative public infrastructure financing mechanism: increases in private land values generated by a new public investment are all or in part “captured” through a land-related tax to help pay for that investment, typically by financing against these future property value gains. The potential for the IBR Program to receive this type of financing is generally low.

Table 11 below highlights several value capture techniques that may be applicable to the IBR Program. Additional details can be found in Appendix Table 25.

**Table 11. Value Capture Financing Mechanisms for the IBR Program**

Value Capture Tool	Lender	Repayment Source	Financing Potential for IBR	Eligibility	
				Highway	Transit
Tax Increment Financing (TIF)	Local / Regional Jurisdiction	Future tax revenues	Low	✓	✓
Local Improvement District (LID)	Local / Regional Jurisdiction	Fee levy on proximate property owners	Low	✓	✓
Development Impact Fee (DIF)	City of Vancouver / City of Portland	Fee levy on new development	Low	✓	✓
Other Special Assessment Districts (e.g., Road Improvement District (RID), Community Facility District (CFD), etc.)	Local / Regional Jurisdiction	Special tax or fee levy on property owners in designated district benefiting from improvement	Low	Varies	Varies

## PUBLIC-PRIVATE PARTNERSHIP OPPORTUNITIES AND CONSTRAINTS

The National Council of Public-Private Partnerships defines a P3 as “a contractual agreement between a public agency (federal, state, or local) and a for-profit corporation. Through this agreement, the skills and assets of each sector (public and private) are shared in delivering a service or facility for the use of the general public. In addition to the sharing of resources, each party shares in the risks and rewards potential in the delivery of the service and/or facility.”<sup>25</sup>

P3s are a project delivery mechanism and thus not a funding source. P3 agreements can generally provide greater cost certainty and/or cost efficiencies when the agreement properly allocates various risks to the parties best suited to manage them. P3 projects still require a dedicated revenue stream to leverage such as tolling and tend to have higher finance costs than public projects due to the higher cost of capital associated with private (generally taxable) financing and equity. However, these potentially higher finance costs can sometimes be offset by the private investor’s use of a long-term revenue stream commitment, pledging excess net revenues to repay its equity investment, and taking advantage of tax depreciation in ways that are not available to public entities. For the public sector, key questions remain, including limits on toll rate setting and whether to relinquish the value of long-term toll revenues in exchange for an immediate infusion of cash.

At this time, Washington has enabling legislation broadly permitting P3s. However, the restrictions on private financing regulations and stringent procedures imposed by current Washington statutes hinder P3 project procurement and implementation, effectively limiting P3

<sup>25</sup> <https://ncppp.org/>.

model application to design-build (DB) contracts for large-scale transportation projects like the IBR Program.

Oregon has enabling legislation and procedures permitting P3s. However, ODOT's P3 projects to date have been limited to DB contracts. A 2006 white paper discussing the viability of a P3 for delivering the I-5 Bridge replacement identified Washington law as an impediment.<sup>26</sup> A 2012 study for the Washington State Legislature's Joint Transportation Committee likewise identified limitations with current law, including procedural hurdles that add uncertainty and political risk for any private sector entity bidder.<sup>27</sup>

The IBR Program will further examine P3 options and their applicability as a project delivery and/or financing strategy as the scope of the Program becomes more defined through the course of the project development process. This work will consider all available and appropriate delivery options.

## SUMMARY OF KEY FUNDING OPTIONS FOR THE IBR PROGRAM

Table 12 summarizes the key potential funding options covered in the CFP for the IBR Program. There is significant state investment needed at the beginning phases of large projects.

Table 12. Key Funding Options for the IBR Program

Funding Source	Included in the Conceptual Cash Flow Analysis	Funding Range		Likelihood of Funding
		Low	High	
Existing WA State Funding – Mill Plain I/C	Yes	\$97 M		High
Existing WA State Funding for IBR	Yes	\$35 M		High
Existing OR State Funding for IBR	Yes	\$15 M		High
FTA CIG Grant	Yes	\$250 M	\$930 M	Medium/High
USDOT BUILD	Yes	\$5 M	\$20 M	Medium
Toll funding – debt	Yes	\$850 M	\$1,300 M	High
Toll funding – WA state sales tax deferral	Yes	\$92 M	\$141 M	Medium
Toll funding – pre-completion tolling	No	\$250 M	\$300 M	Not rated
Miscellaneous Regional/Local Funding	No	\$1 M	\$30 M	Low
Potential Future INVEST in America Act Programs (multiple, including PNRs)	No	\$5 M	\$500 M	Low/Medium
FHWA INFRA Grant or successor program	No	\$0 M	\$135 M	Medium
Potential future state funding package in OR & WA	No	TBD	TBD	Not rated

<sup>26</sup> WSDOT. *CRC Funding and Financing Options*. Columbia River Crossing. November 28, 2006.

[https://www.wsdot.wa.gov/accountability/ssb5806/docs/4\\_Finance/CRCFundingAndFinancingOptions\\_112806.pdf](https://www.wsdot.wa.gov/accountability/ssb5806/docs/4_Finance/CRCFundingAndFinancingOptions_112806.pdf).

<sup>27</sup> AECOM. *Evaluation of Public Private Partnerships for State Transportation Projects*. Washington State Joint Transportation Committee. January 19, 2012. [http://leg.wa.gov/JTC/Documents/Studies/P3/P3FinalReport\\_Jan2012Web.pdf](http://leg.wa.gov/JTC/Documents/Studies/P3/P3FinalReport_Jan2012Web.pdf).

## 6. SOURCES, USES, AND THE FUNDING GAP

### CONCEPTUAL CASH FLOW ANALYSIS

This section describes the key assumptions and methodology for reviewing potential funding sources and uses and presents different cash flow scenarios.

### ASSUMPTIONS AND METHODOLOGY

For more detail on the purpose and mechanics of each funding source, refer to Section 5 (Potential Funding Sources and Financing Options).

### SOURCES OF FUNDS

The CFP assumed major sources of funds to include:

- State sources of funds – Existing funding for the project from both the Washington and Oregon state legislatures;
- Federal sources of funds – FTA CIG New Starts Grants and other federal grant programs; and
- Toll funding.

### STATE SOURCES OF FUNDS

The CFP focuses on existing state sources of funds, as the evaluation does not assume any state funding in addition that which Washington and Oregon have already committed for the IBR Program. The Addressing the Funding Gap and Next Steps section describes a strategy to position the project to secure additional funding from both Washington and Oregon in the future.

### FEDERAL SOURCES OF FUNDS

**FTA CIG New Starts Grants:** This plan assumes that the transit component of the IBR Program would be funded, in part, by a New Starts CIG, and provides a range for potential New Starts funding. For each of the IBR Program LRT and BRT options, the low end of New Starts funding represents 40% of the transit cost of the option from January 2024 forward, the point at which the IBR Program's transit component is expected to enter "project development" as defined by FTA for the CIG program. The high end of the range was estimated by applying the provisions in Section 173 of the FY 2010 Consolidated Appropriations Act<sup>28</sup> to the IBR Program in the same manner used by FTA to make its \$850 million funding recommendation for the CRC project in the FY 2013<sup>29</sup>. Based on this methodology, the amount of New Starts funding potentially available to the IBR Program ranges from just under \$250 million for Option 2A: Bridge + Low BRT/Highway to roughly \$930 million for Option 1B: Bridge + High LRT/Highway. It is anticipated that the total amount of grant funds will be made available in annual

<sup>28</sup> H.R. 3288, December 9, 2009.

<sup>29</sup> FY 2013 Annual Report on Funding Recommendations.

appropriations of between \$75 million per year (low funding case) and as high as \$130 million per year (high funding case), subject to FTA guidelines and approval. The ability to secure a New Starts CIG depends on future IBR Program approvals, most notably the ability to demonstrate to FTA that the other funding required to complete the IBR Program finance plan has been fully committed. Furthermore, if the transit component finally selected for the IBR Program is not consistent with the service quality and standards required for New Starts funds, the IBR Program may only be eligible for a maximum CIG of \$100 million, or potentially not eligible for any CIG award.<sup>30</sup>

**Other Federal Grant Programs:** In addition to the FTA CIG grant, this CFP assumes that the project will secure federal funding from one or more other discretionary grant programs, such as BUILD (described in more detail in Section 5 [Federal Funding Sources for the IBR Program]). Based on information on similar discretionary federal grants for transportation projects in the region between 2009 and 2020, it is reasonable to assume the IBR Program could be awarded a BUILD (or similar successor program) grant of as much as \$20 million. Additionally, the IBR Program would be well positioned to meet criteria of the INFRA program or similar successor program, such as support for regional economic vitality, described in more detail in the Federal Funding Sources for the IBR Program section of Section 5.

It is worth noting that, given FHWA's historic support for a replacement I-5 Bridge, the IBR Program could be well positioned to secure a substantial discretionary award from a potential future federal infrastructure bill or economic recovery stimulus bill. For example, the INVEST in America Act (described in more detail in the Federal Funding Sources for the IBR Program section of Section 5) included a \$9 billion for the PNRS program. If the IBR Program secured a share of such a program proportionate to the combined population of Oregon and Washington, this would provide about \$320 million in project funding. Although the prospects for congressional passage of such a bill and a grant being awarded to the IBR Program are uncertain, the IBR Program will proactively prepare for such opportunities.

The analysis underlying the CFP conservatively includes \$5 million from other federal grant programs for low funding scenarios and \$20 million for high funding scenarios.

## TOLL FUNDING

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Issuing debt against toll revenues will be an important tool to reduce the gap between capital project sources and uses of funding. As detailed in the prior History / Previous IBR Program Toll Traffic/Revenues Studies section, in December 2013, ODOT and the Oregon State Treasury completed an investment-grade traffic and revenue study, companion net toll revenue projections, and financial capacity analysis to estimate the potential toll funding contribution for capital construction of the CRC project. The range of toll funding was similar to estimates jointly prepared by both states in 2012 and early 2013.

The toll funding estimates assumed that the existing I-5 Bridge would be tolled during construction of the replacement (pre-completion tolling), with those net toll revenues to be used on a pay-as-

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<sup>30</sup> BRT headway thresholds include: 10 minute headways during peak period and 20 minute headways during off-peak period over a total of 14 hours per day or 15 minute headways during the full 14 hours per day.



you-go basis for construction (after pre-funding various reserve accounts), and that the net toll revenues from tolling the replacement I-5 Bridge (post-completion tolling) would be pledged to repay funds borrowed for construction funding. Financing structures using standalone toll revenue bonds and state-backed toll revenue bonds were considered, including augmenting the bonds with a USDOT TIFIA loan.

This CFP adopts the 2013 estimated toll funding capacity range, with the exception that pre-completion tolling was not incorporated in the base CFP; instead, it is considered to be a potential option to reduce the funding gap. Even though these estimates did not anticipate the temporary or permanent reductions in travel caused by the COVID-19 pandemic, 2013 toll funding range represents a reasonable, if not conservative, estimate of the toll funding capacity for use in this preliminary analysis for the reasons described below.

The 2013 toll funding capacity analysis did account for reduced travel volumes caused by the 2008-09 recession. The recession caused a substantial decrease in I-5 Bridge traffic volumes. Average weekday traffic volumes crossing the bridge 2009 were about 5% lower than its previous high. However, within 5 years, the average weekday traffic volume crossing the bridge exceeded the earlier high year and continued to grow until impacted by the pandemic.<sup>31</sup> By the last week of October 2020, traffic volumes on the I-5 Bridge were only 9% lower on weekdays and 13% lower on weekends than the same time period in 2019.<sup>32</sup>

Future IBR Program analyses will assess post-pandemic traffic volumes on the I-5 Bridge. A preliminary schedule for the IBR Program would place the completion of the I-5 Bridge in FY 2030, 8 years after the projected CRC completion date, which formed the basis for the 2013 estimates. Eight additional years of underlying regional growth is assumed to approximately offset any permanent changes in traffic resulting from the pandemic's impacts on telecommuting. Even if future forecasts of traffic volumes on the new I-5 Bridge in FY 2030 end up being lower than those forecasted for a FY 2022 CRC opening, the IBR Program's toll funding capacity may still be similar or higher than estimated in 2013 for other reasons.

For tolls under the IBR Program in FY 2030 to be equivalent in real terms to the DEIS tolls assumed for the CRC project completed in FY 2022, the nominal toll rate for the IBR Program would be 18 to 20% higher than the DEIS toll rate to account for eight additional years of inflation; resulting in an equivalent increase in toll revenues and the construction funding capacity available from the tolls.

With the 2013 toll funding study's findings serving as a baseline for the IBR Program, the low range of toll funding for the project is \$850 million and the high range is \$1.3 billion, in YOE dollars. This range excludes the option of tolling the existing bridge for 5 years during construction; if pre-completion tolls were implemented, the toll funding would increase by roughly \$250 million (low case) to \$300 million (high case) on a pay-as-you-go basis in YOE expenditure dollars. Assumptions underlying the toll funding range are summarized in Table 13.

<sup>31</sup><https://www.rtc.wa.gov/data/traffic/bridges/daily.asp#:~:text=Daily%20bridge%20traffic%20volumes%20have,vehicles%20a%20day%20by%201980.&text=Currently%20total%20Columbia%20River%20crossing%20are%20nearing%20300%2C000%20vehicles%20a%20day.>

<sup>32</sup> ODOT, Observed Statewide Traffic Volume Patterns: Related to COVID-19 Monitoring, November 6, 2020.

Table 13. Summary of Assumptions for Low and High Toll Funding Scenarios

Scenario	Low Funding	High Funding
Net Toll Funding	\$850 M	\$1,300 M
Financing Structure and Interest Rate Assumptions	State-Backed Toll Revenue Bonds with higher future rates	State-Backed Toll Revenue Bonds with 2013 interest rates + a TIFIA loan at 4.0%
Pre-Completion Tolling	No	No
Potential Additional Funding from Pre-Completion Tolling	\$250 M	\$300 M

## STATE AND LOCAL TAX DEFERRALS

There is precedent in Washington for projects to defer payment of state and local sales and use tax expended on construction. State and local sales taxes would be deferred costs of the project, to be repaid in 10 equal annual installments without interest, starting 5 years after project completion. Excess net toll revenues after other debt service obligations would serve as the source of funds for repayment, effectively making this an additional component of the toll funding contribution.

The effective sales tax rate in Vancouver, WA and the surrounding county within the transit benefit district (as the applicable point of purchase or place of use) is 8.4%. The estimated total of Washington's state sales tax revenue deferred in the analysis ranges from \$92 million (BRT low-cost scope) to \$141 million (LRT high-cost scope) in YOE dollars.

Oregon does not have a sales tax, but recently passed a CAT. The CAT formula is \$250 plus 0.57% of taxable Oregon commercial activity of more than \$1 million. The estimated maximum construction costs subject to the Oregon CAT is \$1.5 to 2.0 billion YOE dollars (LRT high-cost scope). Assuming the CAT is applied on an annual basis, this could translate to roughly \$10 million in YOE dollars over the construction period. However, computing the CAT is complex, as there are cascading affects resulting from multiple layers of contracting and subcontracting relationships which might result in an effective CAT rate higher than 0.57%. Given the uncertainty in how to estimate CAT revenue, the lack of precedent for deferring CAT payment, and the small total funding potential, the CFP does not currently assume CAT payment deferral as a source of financing.

## USES OF FUNDS

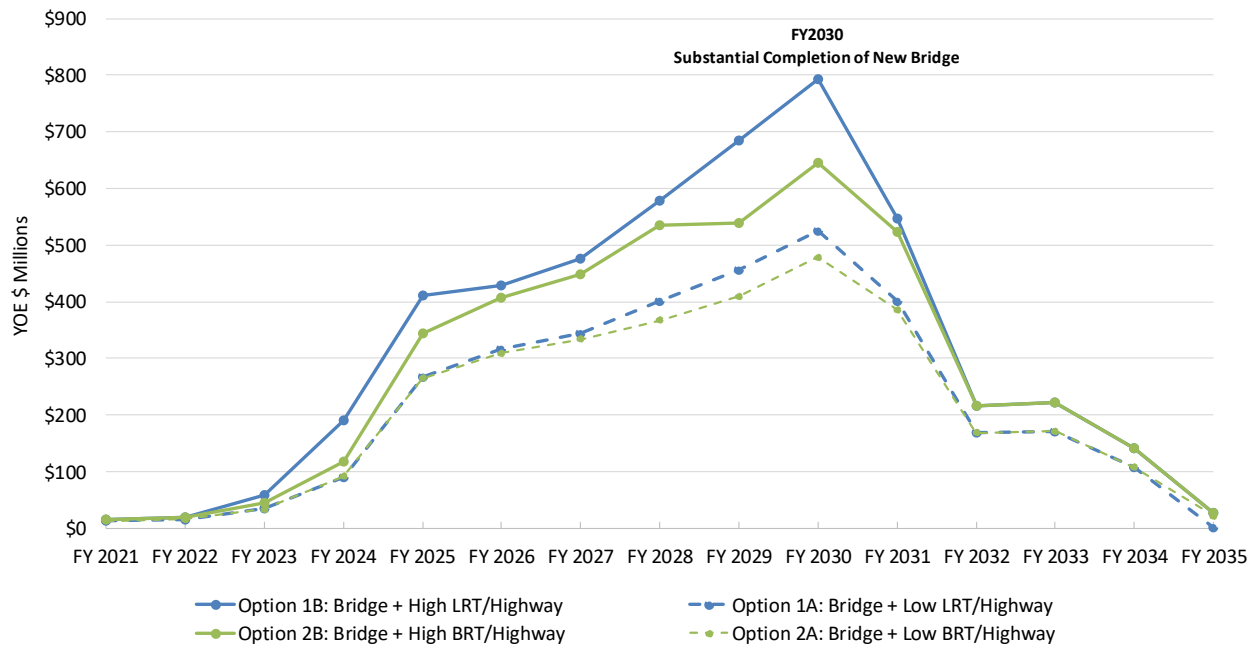
### PE/ROW/CONSTRUCTION CAPITAL COSTS

The analysis considers two different modes and a large scope and small scope for each mode, resulting in a high cost and low cost for each mode. The four cost estimate options include:

- Option 1A: Bridge + Low LRT/Highway
- Option 1B: Bridge + High LRT/Highway
- Option 2A: Bridge + Low BRT/Highway
- Option 2B: Bridge + High BRT/Highway

The key assumptions and methodology underlying each cost estimate are detailed in the Cost Estimate Assumptions. Figure 3 illustrates high and low scope cost estimates for both modes. The spread between the low and high options with LRT is \$1.49 billion, compared with \$1.08 billion between the low and high options with BRT.

**Figure 3. Cost Estimate Ranges for the BRT and LRT Options**



## RANGE OF CASH FLOWS

Scenarios were designed to pair low scope/cost estimates with low funding assumptions and high scope/cost estimates with high funding assumptions, using the low and high ranges for the funding options included in the conceptual cash flow analysis as shown in Table 12 summarizes the key potential funding options covered in the CFP for the IBR Program.

As the public process for the IBR Program proceeds, both the scope and staging of the project and the anticipated funding will evolve and be refined to yield a financially feasible outcome.

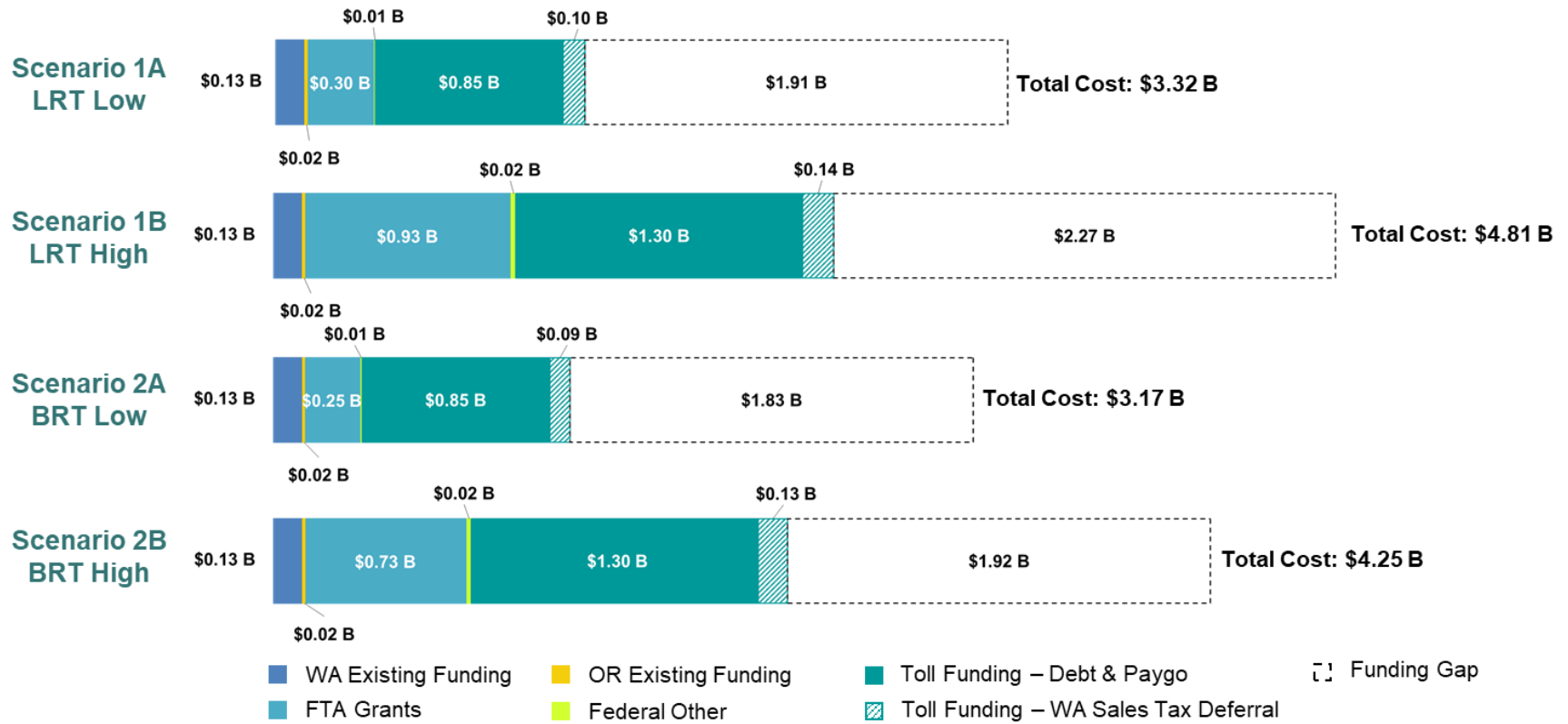
As such, the following scenarios<sup>33</sup> were identified:

- Scenario 1A: Light Rail Transit, Low-Cost Estimate, Low Funding
- Scenario 1B: Light Rail Transit, High-Cost Estimate, High Funding
- Scenario 2A: Bus Rapid Transit, Low-Cost Estimate, Low Funding
- Scenario 2B: Bus Rapid Transit, High-Cost Estimate, High Funding

Applying the LRT transit element, the funding gap to be covered by future state funding could range from \$1.91 to 2.27 billion in YOE dollars. Applying the BRT transit element, the funding gap to be covered by future state funding could range from \$1.83 to 1.92 billion in YOE dollars. All four scenarios are illustrated in Figure 4.

<sup>33</sup> All scenarios include a replacement river crossing and highway improvements from Marine Drive through SR 500.

Figure 4. LRT/BRT Scenario Summaries



## ADDRESSING THE FUNDING GAP AND NEXT STEPS

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Next steps will require an iterative and inclusive public process. As a critical link between the two states and essential for local, regional, and corridor-wide economic success and growth, the ailing I-5 Bridge must be replaced.

To secure capital infrastructure funding for the IBR Program, WSDOT and ODOT will need to work with Washington and Oregon state legislatures, the WSTC and OTC, and regional community leaders and elected officials in the Portland metropolitan area and Southwest Washington to emphasize the importance of the IBR Program to the continued movement of people and goods through this vital corridor. The funding gap needs to be addressed at the statewide level through each state's STIP process, as well as at the local/regional level TIP processes.

For other similarly sized transportation infrastructure projects in the region, both Oregon and Washington have successfully passed revenue bond funding packages to support a collection of projects spread across the state. Washington has historically opted to pass transportation funding packages relying heavily on motor vehicle fuel taxes plus toll-backed financing mechanisms. Oregon's *Keep Oregon Moving* program raised \$5.3 billion from diverse tax and fee increases to provide multimodal project funding and financing support.

The IBR Program's public transit element makes it somewhat unique relative to the regional case study projects discussed in the Major Project Funding examples in Washington State section. Constitutional prohibitions in both states on the use of motor fuel tax revenues (and in Oregon, any fee imposed on the ownership or operation of a motor vehicle, including tolls, is prohibited) for non-highway projects mean that funding the transit component of the IBR Program may require some alternative sources of funding.

Oregon's statewide mechanism for funding and financing public transit projects, the Statewide Transportation Improvement Fund (STIF), previously the Special Transportation Fund, cannot be used for light rail capital projects, so TriMet has relied on federal programs, local/regional funding, and the Oregon Lottery Fund to finance expansion of its MAX system.

In Washington, C-TRAN used locally generated capital funding and a Small Starts grant from FTA in 2019 and other federal funds to expand its BRT system. Voters in the Puget Sound Metropolitan area have passed local-option property tax and motor vehicle excise tax measures to fund the expansion of the Sound Transit system, the latter of which applies to Regional Transit Authorities (two or more contiguous counties with a population of 400,000 or more).

To address the transit funding gap, the IBR Program will need to take the steps necessary to qualify for an FTA CIG New Starts grant, along with identifying potential matching fund options from state, regional, and local streams. Once sources and amounts of non-federal funding has been decided upon, the IBR Program will take steps to secure the approvals and commitments for the non-federal funding that are required to apply for federal grants and for entering bonding and loan agreements.

## 7. FINDINGS

This CFP contextualizes and updates past work and projections and provides a high-level overview of the IBR Program’s initial funding and financing needs and options. While both WSDOT and ODOT agree that the legacy CRC project cost estimates provide a starting point for developing a high-level preliminary cost estimate range for the IBR Program, they also acknowledge that the IBR Program may end up fundamentally different as its scope and design evolve with public input. The IBR Program is currently developing a Purpose and Need, which will set a course for the project, and the financial plan for the Program will evolve with this process.

This CFP also reviewed current funding sources and financing options at the federal, state, and regional/local levels for applicability, probability, and magnitude. Large multimodal infrastructure projects typically need to secure a variety of funding sources and financing to move forward. Federal funding can serve as an important source for projects and could play a critical role in moving the transit components of the IBR Program forward. Federal funding programs for which IBR could compete are both extremely competitive and require matching non-federal (i.e., state, regional, local, or private) funding.

Based on past and current research, it is anticipated that federal discretionary grant programs and toll funding will comprise key shares of the IBR Program funding. Other funding included in the table below includes existing funding from Oregon and Washington, other federal discretionary programs, and Washington sales tax referral. However, there remains a funding gap of approximately \$1.8 to 2.3 billion which will need to be addressed through a combination of state funding, potentially augmented by other federal, regional, local and/or private sources, and reductions in project scope and cost. Table 14 details the near term funding gap range for the upcoming state biennia, inclusive of program development, ROW acquisition and construction costs.

***Near term funding needs for the IBR Program:***

Table 14. Near-term Biennium Needs (as of December 2020)

Biennium	Estimated Funding Gap Low Range	Estimated Funding Gap High Range
2021 – 2023	\$12 M	\$45 M
2023 – 2025	\$173 M	\$338 M

Note: amounts shown include project development, ROW and construction.

Currently, \$50 million has been provided for program development.

Program development work required to advance ROW acquisition and construction is estimated to cost between \$50 and \$100 million and take between 3 to 5 years. These estimated costs and timelines are contingent upon gaining bi-state agreement and consensus for the program scope and receiving funding for ROW and construction. To continue IBR Program success and advance to construction, the near-term funding gap should be considered in developing future biennium budgets.

Table 15 outlines the preliminary results for the analysis scenarios and associated funding gaps, based on the selected mass transit mode, projected construction costs, and funding assumptions.

Table 15. Overview of IBR Program Funding Gap

Scenario	Transit Mode	Cost Assumptions		Funding Assumptions			Funding Subtotal	Funding Gap	
		High/Low	Cost	High/Low	FTA Grants	Toll Funding			Other Funding
1A	LRT	Low	\$3.32 B	Low (More Conservative)	\$0.30 B	\$0.85 B	\$0.25 B	\$1.40 B	\$1.91 B
1B		High	\$4.81 B	High (More Optimistic)	\$0.93 B	\$1.30 B	\$0.31 B	\$2.54 B	\$2.27 B
2A	BRT	Low	\$3.17 B	Low (More Conservative)	\$0.25 B	\$0.85 B	\$0.24 B	\$1.34 B	\$1.83 B
2B		High	\$4.25 B	High (More Optimistic)	\$0.73 B	\$1.30 B	\$0.30 B	\$2.33 B	\$1.92 B

### Next Steps

The IBR Program finance plan will continually evolve as project development work progresses. In the near term, the following next steps are anticipated:

- ▶ **Continually update the financial plan:** As the scope of improvements for the IBR Program is refined in response to public and stakeholder engagement, the financial plan will be refined based on updated risk-based cost estimates, project construction schedules, and project delivery method(s). Each update will be used to further align the scope of improvements with the amount of reasonably available funding.
- ▶ **Assess P3 delivery options:** The IBR Program will develop a white paper to evaluate the advantages and disadvantages of different P3 delivery options. The white paper will address the potential to accelerate delivery, manage construction risks, incorporate innovation, and/or deliver additional financing leverage by engaging in a P3 agreement.
- ▶ **Examine national bi-state projects:** The IBR Program will develop a case study memorandum evaluating the funding plans of other national bi-state bridge projects.
- ▶ **Prepare program for federal funding and financing opportunities:** The IBR Program will prepare a report documenting the processes and work required to position for and satisfy the prerequisites for obtaining a New Starts CIG from FTA, as well as other federal funding and financing programs.
- ▶ **Pursue additional funding opportunities:** Opportunities will be pursued to secure additional funding commitments for the IBR Program through federal discretionary grants and the STIPs of both states.
- ▶ **Engage stakeholders to develop consensus:** The IBR Program will work closely with the Bi-State Legislative Committee, the ODOT-WSDOT Executive Steering Group, Oregon State Treasury, Washington Office of the State Treasurer, other elected officials, and the IBR Program Community and Equity Advisory Groups to develop a consensus direction on state and federal funding requests as well as consider the appropriate decision-making structure for the construction and operation of the replacement bridge.
- ▶ **Promote opportunities for the program in the upcoming federal transportation reauthorization bill:** The IBR Program will coordinate closely with ODOT, WSDOT, and the congressional delegation of both states to identify and secure supportive policies and funding programs in the upcoming federal transportation reauthorization bill.

## 8. APPENDIX

The appendix of this report includes more detailed information not included in the main text of this CFP.

### HIGH-LEVEL COST ESTIMATES

#### GENERAL ASSUMPTIONS:

1. The previously expended dollars for the CRC project are not included in the IBR Program estimate moving forward.
2. This base cost estimate has values accounting for risk/cost uncertainty.
3. Costs from this estimate were derived from the CRC base cost estimate in 2012 dollars.
4. The conceptual construction packages identified in the 2012 estimate have been carried forward for this estimate update.
5. Construction delivery method (i.e., DB, Design-Bid-Build [DBB], General Contractor/Construction Management [GC/CM], Design-Furnish-Install [DFI], etc.) assumed in the 2012 estimate are carried forward as part of this cost estimate.
6. The sales tax in Vancouver, Washington is 8.4% as of 10/1/20.
7. The Oregon State CAT is \$250 plus 0.57% of taxable Oregon commercial activity of more than \$1 million for each commercial entity. On the SR 91 Corridor Improvements Project (\$650 million in construction), there were 36 contractors and trade subcontractors that had budgets of \$1 million or more. All construction packages will have a minimum of 5 commercial entities and as many as 39.
8. Costs in this estimate are displayed in terms of fiscal year/ biennium (e.g. the 2019-21 biennium remains in effect from July 1, 2019 through June 30, 2021).
9. Construction of Marine Drive is scheduled for after Columbia River bridges and approaches are completed. Design and construction of Washington Highway North (SR 14, Mill Plain, Fourth Plain & SR 500 Interchanges) is advanced to coincide with funds from the CWTFP for Mill Plain Blvd. Interchange. The CWTFP funding only funds a portion of the CRC-scoped Washington Highway North package.
10. The Columbia River bridges and approaches construction duration estimated to be 6.5 years per the biological opinion and discussions with U.S. Coast Guard.
11. Contractor professional services for DB projects include:
  - Final Design - 8% of construction except mobilization and artwork
  - Design & construction project management - 4% of construction except mobilization and artwork
  - Bonding & Insurance - 0.5% of construction.
12. Owner professional services for DBB projects include:
  - Final Design - 7% of construction
  - Design & construction project management - 12% of construction.
13. Added estimated costs of ODOT/WSDOT from 7/2019 - 11/2020 (projected Oct/Nov) total \$1,500,000.
14. Added potential ROW impacts in Oregon: \$7 million (2020 \$'s) in highway costs. The factor for converting ROW expenditures from FY 2020 to FY 2012, is 1/1.6847 or 0.5936. This cost occurs in all construction options of CRC. There is an opportunity for a reduction in cost to \$6 million.
15. Added potential ROW impacts in Washington: \$30 million (2020 \$'s) in highway costs. The factor for converting ROW expenditures from FY 2020 to FY 2012, is 1/1.6847 or 0.5936.



This cost occurs in all construction options of CRC. There is an opportunity for a reduction in cost to \$5 million if the property can be avoided if there is a potential alternate alignment.

16. Added \$50 million (2020 \$'s) in transit/park & ride costs. The factor for converting RW expenditures from FY 2020 to FY 2012, is 1/1.6847 or 0.5936. This cost occurs in all construction options of involving LRT and BRT. There is an opportunity for a reduction in cost to \$0 if the property can be avoided through alternate design.
17. High estimate for river clearance issues is \$30 million (2020 \$'s) in highway costs to be shown under CRC package. Low estimate is \$0. Same assumption to be used for all scenarios. Use the PE index for converting from FY 2020 (\$30 million) to FY 2012. Discount factor is 0.8438.
18. Travel demand management was estimated to cost \$30 million (in 2020 \$) in highway costs for CRC, with no range, to be shown under CRC package. Same assumption to be used for all scenarios. Use the PE index for converting from FY 2020 (\$30 million) to FY 2012. Discount factor is 0.8438.
19. The North Portland Harbor Bridge is assumed to be demolished and replaced at a cost of \$115 million. There is an opportunity for a reduction in cost to \$63 million by revising the construction strategy.
20. Included \$125 million in additions due to North Portland Harbor Bridge replacement for ROW, ramp/interchange design, and constructability changes per 2009 refinement analysis.
21. There is an opportunity eliminate the \$30 million (2020 \$'s) cost of the community connector from the SR 14 Interchange Project.
22. Preliminary engineering / professional services costs include the following: overall program management & project controls of the IBR Program, environmental update and review (i.e., Environmental Impact Statement preparation, Biological Assessment (BA), U.S. Coast Guard permitting, traffic and tolling projections, and preliminary engineering), final design of DBB projects or design/construction oversight of DB projects.

## SCOPE OF WORK VARIATION ASSUMPTIONS

### OPTION 1A: BRIDGE + LOW LRT/HIGHWAY:

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1. LRT extends from the TriMet Expo Center Station in Portland to Turtle Station in Vancouver only.
2. Operate the existing (C-TRAN Vine) BRT service between Turtle and Clark College Stations in mixed traffic with minor enhancements.
3. Eliminate Mill District parking structure (420 spaces).

### OPTION 1B: BRIDGE + HIGH LRT/HIGHWAY:

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1. Added potential ROW impact in Washington of \$30 million (2020 \$'s) occurs only in the construction options involving LRT from Turtle Station to Clark College Station. There is an opportunity for a reduction in cost to \$2 million if the property can be avoided through with an alternate alignment.
2. LRT extends from TriMet Expo Center Station in Portland north to Clark College Station in Vancouver.

## OPTION 2A: BRIDGE + LOW BRT/HIGHWAY:

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1. Fixed guideway BRT system added from TriMet Expo Center Station in Portland to Turtle Station in Vancouver.
2. Use the existing C-TRAN Vine BRT system through the downtown Vancouver area and north to the Clark College Station.
3. Eliminate Mill District parking structure (420 spaces).

## OPTION 2B: BRIDGE + HIGH BRT/HIGHWAY:

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1. BRT fixed guideway extends from TriMet Expo Center Station in Portland to Clark College Station in Vancouver.

## HIGH-LEVEL COST ESTIMATES

The updated preliminary estimate identifies costs variances in terms of scope and cost uncertainty. Four scope of work variations have been identified that impact Program costs:

- **Option 1A: Bridge + Low LRT/Highway:** LRT extends only from the Expo Station to the Turtle Station (near the north abutment of the new river bridge). Use the existing C-TRAN BRT between Turtle Station and Clark College Station.
- **Option 1B: Bridge + High LRT/Highway:** LRT extends from the Expo Station to the Clark College Station.
- **Option 2A: Bridge + Low BRT/Highway:** BRT extends from the Expo Station on a fixed guideway to the Turtle Station and then connects to the existing C-TRAN BRT system in the downtown Vancouver area.
- **Option 2B: Bridge + High BRT/Highway:** BRT extends from the Expo Station on a fixed guideway to the Clark College Station.

A summary of the updated IBR preliminary estimate for each of the four scope of work variations is shown in Appendix Table 16.

Appendix Table 16. Updated Preliminary Cost Estimate

Cost Category	Abbreviation	Total
<b>Option 1A: Bridge + Low LRT/Highway</b>		
Preliminary Engineering / Professional Services	PE	\$ 197,000,000
<i>Transit Project Share*</i>	TPE	\$ 44,000,000
<i>Highway Project Share*</i>	HPE	\$ 153,000,000
Right-of-Way	RW	\$ 136,000,000
<i>Transit Project Share*</i>	TRW	\$ 32,000,000
<i>Highway Project Share*</i>	HRW	\$ 104,000,000
Capital / Construction	CN	\$ 2,372,000,000
<i>Transit Project Share</i>	TCN	\$ 550,000,000
<i>Highway Project Share</i>	HCN	\$ 1,822,000,000
Total IBR with LRT Project (Low) Cost		\$ 2,705,000,000
<i>Transit Project Share</i>		\$ 626,000,000
<i>Highway Project Share</i>		\$ 2,079,000,000
Amount subject to WA Sales Tax		\$ 58,000,000
Amount subject to OR CAT		\$ 9,000,000
Total Amount subject to State & Local Taxes		\$ 67,000,000
<b>Option 1B: Bridge + High LRT/Highway</b>		
Preliminary Engineering / Professional Services	PE	\$ 207,000,000
<i>Transit Project Share*</i>	TPE	\$ 56,000,000
<i>Highway Project Share*</i>	HPE	\$ 151,000,000
Right-of-Way	RW	\$ 248,000,000
<i>Transit Project Share*</i>	TRW	\$ 68,000,000
<i>Highway Project Share*</i>	HRW	\$ 180,000,000
Capital / Construction	CN	\$ 2,508,000,000
<i>Transit Project Share</i>	TCN	\$ 675,000,000
<i>Highway Project Share</i>	HCN	\$ 1,833,000,000
Total IBR with LRT Project (High) Cost		\$ 2,963,000,000
<i>Transit Project Share</i>		\$ 799,000,000
<i>Highway Project Share</i>		\$ 2,164,000,000
Amount subject to WA Sales Tax		\$ 1,080,000,000
Amount subject to OR CAT		\$ 1,090,000,000
Total Amount subject to State & Local Taxes		\$ 2,170,000,000

<b>Option 2A: Bridge + Low BRT/Highway</b>		
Preliminary Engineering / Professional Services	PE	\$ 194,000,000
<i>Transit Project Share*</i>	<i>TPE</i>	\$ 39,000,000
<i>Highway Project Share*</i>	<i>HPE</i>	\$ 155,000,000
Right-of-Way	RW	\$ 134,000,000
<i>Transit Project Share*</i>	<i>TRW</i>	\$ 27,000,000
<i>Highway Project Share*</i>	<i>HRW</i>	\$ 107,000,000
Capital / Construction	CN	\$ 2,259,000,000
<i>Transit Project Share</i>	<i>TCN</i>	\$ 456,000,000
<i>Highway Project Share</i>	<i>HCN</i>	\$ 1,803,000,000
Total IBR with BRT Project (Low) Cost		\$ 2,587,000,000
<i>Transit Project Share</i>		\$ 522,000,000
<i>Highway Project Share</i>		\$ 2,065,000,000
Amount subject to WA Sales Tax		\$ 914,000,000
Amount subject to OR CAT		\$ 1,037,000,000
Total Amount subject to State & Local Taxes		\$ 1,951,000,000
<b>Option 2B: Bridge + High BRT/Highway</b>		
Preliminary Engineering / Professional Services	PE	\$ 205,000,000
<i>Transit Project Share*</i>	<i>TPE</i>	\$ 49,000,000
<i>Highway Project Share*</i>	<i>HPE</i>	\$ 156,000,000
ROW	RW	\$ 136,000,000
<i>Transit Project Share*</i>	<i>TRW</i>	\$ 32,000,000
<i>Highway Project Share*</i>	<i>HRW</i>	\$ 104,000,000
Capital / Construction	CN	\$ 2,327,000,000
<i>Transit Project Share</i>	<i>TCN</i>	\$ 555,000,000
<i>Highway Project Share</i>	<i>HCN</i>	\$ 1,772,000,000
Total IBR with BRT Project (High) Cost		\$ 2,668,000,000
<i>Transit Project Share</i>		\$ 636,000,000
<i>Highway Project Share</i>		\$ 2,032,000,000
Amount subject to WA Sales Tax		\$ 1,028,000,000
Amount subject to OR CAT		\$ 1,055,000,000
Total Amount subject to State & Local Taxes		\$ 2,083,000,000

## COST UNCERTAINTY IN PRELIMINARY COST ESTIMATES

Cost uncertainty was included in the 2012 estimate where significant effort went into evaluating uncertainty for individual cost elements. Cost uncertainty was then applied to transit elements and to highway elements. Individual cost uncertainty factors vary from +/- 40% to +/-5% (Appendix Table 17). These cost uncertainty factors should be used to inform the upper and lower limit of the four updated cost estimates mentioned above.

Appendix Table 17. Cost Uncertainty in Preliminary Cost Estimates

Scope of Work Variations	Base Cost*	Uncertainty 10th Percentile		Uncertainty 90th Percentile	
<b>Option 1A:</b> Bridge + Low LRT/Highway	\$ 2,705,000,000	-13.26%	\$(359,000,000)	12.50%	\$ 338,000,000
<b>Option 1B:</b> Bridge + High LRT/Highway	\$ 2,963,000,000	-13.24%	\$(392,000,000)	12.50%	\$ 370,000,000
<b>Option 2A:</b> Bridge + Low BRT/Highway	\$ 2,587,000,000	-13.33%	\$(345,000,000)	12.54%	\$ 324,000,000
<b>Option 2B:</b> Bridge + High BRT/Highway	\$ 2,668,000,000	-13.28%	\$(354,000,000)	12.51%	\$ 334,000,000

## BI-STATE POLICIES

### Washington

The Revised Code of Washington (RCW) §39.34.030<sup>34</sup> broadly authorizes the joint exercise of powers with other states. Authorization for the IBR Program comes in general from RCW §47.04.080<sup>35</sup> which empowers WSDOT to “join financially or otherwise with any other state” for the construction, operation or maintenance of any bridge or other structure for the continuation of any state highway across any body of water.” Additionally, the Transportation Innovative Partnerships Law (in RCW §47.29) authorizes the Washington to enter a P3 agreement, should that project delivery method be pursued for the IBR Program; however, P3s have not yet been used for a major capital transportation project in Washington. Further, RCW §47.29.10<sup>36</sup> permits the State to enter into “working agreements, coordination agreements, or similar implementation agreements, including the formation of bi-state transportation organizations, to carry out the joint implementation of a transportation project.”

For tolling, only the Legislature may authorize the imposition of tolls on state facilities. RCW §47.56.030<sup>37</sup> grants sole authority to set toll rates and policies to the Washington State Transportation Commission (WSTC), which does not have the power to delegate this authority to another entity. A statutory framework to guide decisions regarding tolling was authorized in 2008 by the Washington State Legislature. RCW §47.56.892<sup>38</sup> gave the State authority to enter into agreement with the OTC to jointly set roll rates for the Columbia River Crossing project, setting precedence for the State’s ability to jointly set toll rates with Oregon.

### Oregon

<sup>34</sup> RCW §39.34.030 <https://apps.leg.wa.gov/RCW/default.aspx?cite=39.34.030>.

<sup>35</sup> RCW §47.04.080 <https://app.leg.wa.gov/RCW/default.aspx?cite=47.04.080>.

<sup>36</sup> RCW §47.29.10 <https://app.leg.wa.gov/RCW/default.aspx?cite=47.29.010>.

<sup>37</sup> RCW §47.56.030 <https://app.leg.wa.gov/RCW/default.aspx?cite=47.56.030>.

<sup>38</sup> RCW §47.56.892 <https://app.leg.wa.gov/rcw/default.aspx?cite=47.56.892>.

Oregon Revised Statutes (ORS) §190.010<sup>39</sup> gives authority to local governments to make intergovernmental agreements to jointly manage and operate project and ORS §190.420<sup>40</sup> authorizes the state to enter into bi-state agreements for joint or cooperative actions. ODOT also possesses the authority to enter a P3 and obtain funding via private financing under the toll road statute (ORS § 383.001 to 383.027) or under the Oregon Innovative Partnership Program (OIPP) authorization (ORS § 367.806<sup>41</sup>), which would enable a long-term franchise-type agreement.

With regard to tolling, ORS §381<sup>42</sup> and ORS §383<sup>43</sup> supplements ORS §190<sup>44</sup> and authorizes the State of Oregon to enter into an agreement with WSDOT or any other properly designated authority to collect tolls on interstate bridges or hire another entity to manage a tolling program. ORS §383.023<sup>45</sup> authorizes the issuance of revenue bonds by the state for tollway projects. The State Legislature granted authority to the OTC to set tolling policies in Oregon, but the Oregon Legislature may choose to provide direction on tolling in statute. These legislations would generally support the joint tolling of the IBR Program, but do not directly authorize any specific agreement related to the program. New language specific to the program may need to be adopted.

## HISTORY OF MAJOR PROJECT FUNDING IN THE REGION

### SR 520 BRIDGE REPLACEMENT AND HOV PROGRAM

The SR 520 Bridge Replacement and HOV Program's total cost was \$4.5 billion and the funding sources included:

- State Funding (\$2.18 billion)
  - 2015 Connecting Washington legislation, a \$16 billion, 16-year transportation funding package
  - 2005 Transportation Partnership Program, a \$7.1 billion, 16-year transportation funding package
  - 2003 Washington State “Nickel” funding package, a 10-year, \$3.9 billion transportation funding package
- Other federal funding and financing (\$1.12 billion)
  - GARVEE bonds
  - USDOT TIFIA loan
  - Other non-discretionary federal funds
- Toll Funding (\$1.21 billion)

<sup>39</sup> ORS §190.010 <https://www.oregonlaws.org/ors/190.010>

<sup>40</sup> ORS §190.420 <https://www.oregonlaws.org/ors/190.420>

<sup>41</sup> ORS §367.806 <https://www.oregonlaws.org/ors/367.806>

<sup>42</sup> ORS §381 <https://www.oregonlaws.org/ors/chapter/381>.

<sup>43</sup> ORS §383 <https://www.oregonlaws.org/ors/chapter/383>.

<sup>44</sup> ORS §190 <https://www.oregonlaws.org/ors/chapter/190>.

<sup>45</sup> ORS §383.023 <https://www.oregonlaws.org/ors/383.023>.

- \$1.05 billion from debt and pay-as-you-go funding, the former via State-backed toll revenue bonds and a \$0.30 billion TIFIA loan
- \$0.16 billion in deferred sales tax on construction to be repaid in the future from net toll revenues

## SR 99 TUNNEL (ALASKAN WAY VIADUCT REPLACEMENT PROGRAM)

The SR 99 Tunnel's (Alaskan Way Viaduct Replacement Program) has a total cost of \$3.4 billion, funding through:

- State Funding (\$2.03 billion)
  - \$ 2003 "Nickel" funding package, a 10-year, \$3.9 billion transportation funding package
  - 2005 Transportation Partnership Program, a \$7.1 billion, 16-year transportation funding package
  - Other state funding
- Other Federal funding (\$0.79 billion)
  - Non-discretionary federal funds
- Toll Funding – Debt & Pay-Go (\$0.20 billion)
  - Funds motor fuel tax / general obligation bonds reimbursed from net toll revenues
- Other Local Funding (\$ 0.34 billion)
  - The Port of Seattle
  - The City of Seattle

## PUGET SOUND GATEWAY PROGRAM (SR 509 / SR 167)

The \$2.04 billion Puget Sound Gateway Program's funding sources include:

- State Funding (\$1.57 billion)
  - The 2015 Connecting Washington transportation funding package
- Discretionary Federal Funding (\$0.07 billion)
  - Discretionary federal funds through the Infrastructure for Rebuilding America (INFRA) discretionary grant
- Toll Funding (\$0.18 billion)
  - Toll funding from state-backed toll revenue bonds and pay-as-you-go funding (note that the legislature has provided bond authorization for up to \$0.34 billion)
- Other Local Funding (\$ 0.12 billion)
  - Local contributions
- Other (\$ 0.10 billion)
  - The source for the remaining nearly \$0.10 billion (less than 5%) has not yet been determined.

## EVALUATING FUNDING SOURCES AND FINANCING OPTIONS

This CFP reviewed over 80 funding sources and financing options at the federal, state, regional, and local levels to compare the likelihood of funding for the IBR Program. The review evaluated each funding source and/or financing mechanism based on eight criteria: (1) eligibility; (2) revenue potential; (3) fund stability/ predictability; (4) likelihood of funding; (5) timing of availability; (6) administrative and collection burden; (7) legal authority/authorization; and (8) equity and economic impacts. Appendix Table 18 below defines each of these criteria points. When a definitive answer can be given, such as the case with eligibility, that will be used. However, many qualitative criteria will be reviewed as high (3), medium (2), or low (1).

Further, each criteria category was given a weight percentage to quantify the prioritization of the criteria. Revenue potential and likelihood of funding were weighted the highest as these two criteria are the most important to assess at this stage in the IBR Program. As the IBR Program advances, criteria weighting should be adjusted to evaluate the needs of the Program at that point in time. As the program progresses, timing of fund availability, stability/predictability, and legal authority may become more relative importance, for example. Social and economic equity is also a very important factor in evaluating funding and financing mechanisms in this project initiation phase and will remain an important factor in the progression of the IBR Program throughout the project development, construction, and operations and maintenance stages, and beyond.

Sources that rose to the top as the most viable potential funding sources for the IBR Program are discussed in more detail in the Potential Funding Sources and Financing Options section. Appendix Table 18 provides a description of each option and its corresponding criteria ratings for each alternative.

**Appendix Table 18. Funding Source and Financing Mechanism Criteria Guide**

Criteria	Relative Weight	Value	Definition
Eligibility	n/a	✓	Highway or Transit elements of project are eligible for funding from this program
		–	Highway or Transit elements of project are NOT eligible for funding from this program
Revenue Potential	25%	3	Equal to or greater than \$75 million (USD)
		2	Between \$26 million and \$74 million (USD)
		1	Equal to or below \$25 million (USD)
Stability / Predictability	10%	3	Known continuation and stability of funding source
		2	Likely continuation and stability, but possible changes to a funding source
		1	Likely elimination of a program or no future funds available during the project period
Likelihood of Funding for IBR	30%	3	High chance of securing funding through this source (~75% or greater)
		2	Possible to secure funding
		1	Highly unlikely the project will secure funding through his source (~25% or lower)
Timing of Availability	5%	3	Funding is available within a year
		2	Funding will be available in the next 1-7 years
		1	Funding will potentially be available in next 8-15 years
Administrative and Collection Requirements	5%	3	The fee or tax is already being collected at some level or otherwise has a low cost of collection and/or the project sponsor has a dedicated staff person who oversees grant reporting requirements



		2	Administration and collection requirements would entail some degree of incremental hours but not dedicated staff
		1	Administration and collection require the creation of a costly new mechanism and/or involves many dispersed points of collection with higher associated staffing costs
Legal Authority	10%	3	Authorized at a State level and WSDOT/ODOT have legal authority to implement a tax or fee and/or apply to funding program
		2	The funding source has been authorized within the States, but WSDOT/ODOT are not directly authorized to use it and/or they must partner with another project sponsor to be eligible to apply to the funding program
		1	The funding source has not been authorized within the States and, as such, WSDOT/ODOT has no authority to implement the tax or fee and/or they are ineligible to apply for a federal or state funding program as it is currently structured
Equity and Economic Impact	15%	3	Progressive fee structure whereby burdens increases with income level
		2	Measure is progressive or regressive, but the implementation of the measure could include items that would allow for the measure to be applied more regressively/progressively (e.g., toll exemptions for low-income users, corporate exemptions for a head tax for small businesses, etc.)
		1	Regressive fee structure that disproportionately impacts low-income communities

## POTENTIAL FUNDING SOURCES AND FINANCING OPTIONS

In this section of the Appendix, more details are provided for the funding sources and financing options potential available to support the IBR Program, as listed in Section 5 (Potential Funding Sources and Financing Options).

### POTENTIAL FEDERAL FUNDING SOURCES

Appendix Table 19. Potential Existing Federal Funding Opportunities for the IBR Program

Federal Funding Program	Funding Type	Total Available Funding / Typical Allocation per Project	Matching Requirements	Eligibility		Funding Potential for IBR
				Highway	Transit	
<a href="#">Infrastructure for Rebuilding America (INFRA)</a>	Discretionary Grant	\$1 B in FY '20 awards / \$6 M to 135 M (FY '20)	Can cover up to 60% of future eligible project costs. Federal assistance may not exceed 80% of future eligible project costs	✓	✓	Medium
<a href="#">Capital Investment Grant (CIG) New Starts</a>	Discretionary Grant	\$2.3 B per year through FY '21 / \$20 to \$150 M (FY '20)	Can fund up to 60% of capital expenditures for major fixed guideway transit investments, although the CIG share has tended to be below 50%. 20% state/local match required. CIG funds can be supplemented with other federal funds to raise federal share to 80%.	–	✓	Medium-High
<a href="#">Better Utilizing Investments to Leverage Development (BUILD)</a>	Discretionary Grant	\$1 B in FY '20 awards / Max. award in FY '19 = \$25 M	For urban projects, minimum of 20% non-Federal match may be public and/or private sector funding	✓	✓	Medium
<a href="#">Surface Transportation Program Block Grant (STBG)</a>	Formula Funding	\$145 M in Oregon / \$127 M in Washington in FY '20 / Individual projects generally receive <\$10 M	None	✓	✓	Medium
<a href="#">Highway Safety Improvement Program (HSIP)</a>	Formula Funding	\$31 M in Oregon / \$41 M in Washington in FY '20 / Individual projects generally receive <\$5 M	None	✓	✓	Low-Medium
<a href="#">National Highway Freight Program (NHFP)</a>	Formula Funding	\$19 M in Oregon / \$26 M in Washington in FY '20 / Individual projects generally receive <\$5 M	None	✓	–	Medium
<a href="#">National Highway Performance Program (NHPP) Apportionment</a>	Formula Funding	\$315 M in Oregon / \$418 M in Washington in FY '20	None	✓	Varies	Low-Medium
<a href="#">Urbanized Area Formula Grants (49 U.S.C. 5307) Apportioned to Transit</a>	Formula Funding	\$42 M for TriMet / \$5.4 M for C-TRAN in FY '20	None	–	✓	Low

<a href="#">Advanced Transportation &amp; Congestion Management Technology (ATCMTD)</a>	Discretionary Grant	\$60 M in FY '20 awards / Max award in FY '19 = \$12 M	Can cover up to 50% of the cost of the project	✓	✓	Low-Medium
Various other Federal Funding Programs <sup>46</sup> (e.g., <a href="#">CMAQ</a> , <a href="#">TAP</a> , <a href="#">UASI</a> & <a href="#">SHSP</a> )	Formula Funding	Approximately \$75 M awarded Oregon and Washington in FY '20 / Individual projects generally receive <\$10 M	Varies	Varies	Varies	Low

## FUTURE STATE FUNDING IDENTIFICATION

Appendix Table 20. ODOT Funding Sources Available to the IBR Program

Funding Program	Total Annual Revenues	Eligibility		Considerations
		Highway	Transit	
Motor Vehicle Fuel Tax	\$625 M / year (FY '19)	✓	–	<ul style="list-style-type: none"> <li>Legislature holds tax/fee increase authority and approved increase in 2017 with passage of HB 2017.</li> <li>The amount of state highway funds from these sources have been significantly impacted by COVID-19 pandemic.</li> <li>Formulas set in state statute distribute 40% of State Highway Fund revenues (after deducting the costs of collecting the revenue) to cities and counties.</li> </ul>
State Weight-Mile Tax	\$345 M / year (FY '19)	✓	–	
Driver and Vehicle Licensing and Registration Fees	\$565 M / year (projected in FY '21 to '23)	✓	–	
Oregon State Lottery Fund	Pre-pandemic forecasts of the amount of lottery bonds that can be issued annually for specific projects, after other constitutional and statutory requirements are met, is about \$126M per year. The pandemic has impacted this forecast.	–	✓	<ul style="list-style-type: none"> <li>Lottery bonds are authorized in specified amounts to specific projects or programs by legislative action.</li> <li>Lottery bond proceeds have been used for the Westside LRT Project (\$125M), Milwaukie LRT Project (\$250M), and WES (about \$36M).</li> <li>While there is no legal prohibition to funding highway projects with lottery bonds, this has not been done before.</li> </ul>
Statewide Transportation Improvement Fund (STIF) Formula Fund	\$113 M / year (projected for FY '19 to '21)	–	✓	<ul style="list-style-type: none"> <li>HB 2017 holds that proceeds from statewide payroll tax (assessed starting July 2018) will be deposited into the STIF and 90% of funds will be distributed via formula to transit providers throughout the state.</li> <li>STIF may be used for public transportation purposes that support the effective planning, deployment, operation, and administration of</li> </ul>

<sup>46</sup> Other federal funding programs include the following: Congestion Mitigation and Air Quality (CMAQ) FHWA Formula Funds, Transportation Alternatives Program (TAP) FHWA Federal Formula Funds, Urban Area Security Initiative (UASI) DHS/FEMA Formula Funds, and State Homeland Security Program (SHSP) FEMA Formula Funds.

				public transportation programs; however, STIF funding cannot be used for light rail capital expenses.
Statewide Transportation Improvement Fund (STIF) Discretionary and Statewide Transit Network Program	\$6.4 M / year (projected for FY '19 to '21)	–	✓	<ul style="list-style-type: none"> <li>The Oregon Transportation Commission will decide which projects to award funding.</li> <li>STIF funding is NOT available for light rail capital expenses.</li> </ul>
Other Miscellaneous Taxes and Fees (e.g., vehicle dealer privilege tax, cigarette tax, payroll tax, bicycle tax, etc.)	\$215 M / year (projected in '21 to '23)	✓	✓	<ul style="list-style-type: none"> <li>Some miscellaneous taxes/fees could contribute to the IBR Program with petition/lobby for allocation to project or legislative action to create/increase new funding source.</li> </ul>

**Appendix Table 21. WSDOT Revenue Sources Available to the IBR Program**

Funding Program	Total Annual Revenues	Eligibility		Considerations
		Highway	Transit	
Motor Vehicle Fuel Tax	\$1.7 B / year (FY '19 to '21)	✓	–	<ul style="list-style-type: none"> <li>Legislature holds tax/fee increase authority and approved increase most recently in 2015 with passage of Connecting Washington.</li> </ul>
Driver and Vehicle Licensing and Registration Fees	\$950 M /year (FY '19 to '21)	✓	✓	
WSDOT Regional Mobility Grants	\$52 M / year (FY '19 to '21)	–	✓	<ul style="list-style-type: none"> <li>Individual projects generally receive &lt;\$9 M.</li> <li>Supports local efforts to improve connectivity between counties and regional population centers and reduce transport delay.</li> </ul>
Transportation Improvement Board (TIB) Urban Arterial Program (UAP) Formula Funding	\$60 M / year (FY '20)	✓	✓	<ul style="list-style-type: none"> <li>Individual projects generally receive &lt;\$5 M.</li> <li>Program focused on arterials and sidewalks. Funded project scopes are generally limited to street improvements, road widenings, and safety improvements. Program funding subject to WA State budget process.</li> </ul>
Freight Mobility Strategic Investment Board (FMSIB) Funding	\$25 M total to be distributed from FY '19 to '23	✓	–	<ul style="list-style-type: none"> <li>Annual call for projects. Applicants can apply for funding for projects on designated strategic freight corridors that will further FMSIB's goals of facilitating freight movement and lessening its impact on local communities.</li> </ul>
Other Miscellaneous Taxes and Fees (e.g., rental car taxes)	\$136 M / year (FY '19 to '21)	Varies	Varies	<ul style="list-style-type: none"> <li>Legislature holds tax/fee increase authority</li> </ul>

## OREGON: CITY OF PORTLAND, PORTLAND METRO, AND MULTNOMAH, WASHINGTON, AND CLACKAMAS COUNTIES

**Appendix Table 22. Oregon Local/Regional Transportation Funding Sources Available to the IBR Program**

Local/Regional Funding Program	Total Annual Revenues <sup>47</sup>	Eligibility		Considerations
		Highway	Transit	
Multnomah County Fuel Tax	\$7 M / year (projected in FY '20)	✓	–	<ul style="list-style-type: none"> <li>Rate has not changed since it increased from \$0.01 to \$0.03 per gallon in 1981.</li> </ul>
Multnomah County Vehicle Registration Fees (VRF)	Existing funding dedicated to paying off debt for the construction of the new Sellwood Bridge. Fee increase in 2021 (HB 4064) earmarked for Earthquake Ready Burnside Bridge project (\$580-860 M project).	✓	–	<ul style="list-style-type: none"> <li>To obtain funding for IBR Program would require an additional increase in the fee rate.</li> </ul>
Multnomah County Property Tax	\$324 M / year (FY '20)	✓	✓	<ul style="list-style-type: none"> <li>Multnomah County uses its permanent property tax base for critical social programs; these funds would not be available to IBR. Multnomah County (or Portland or Metro) can levy a local-option property tax, subject to voter approval.</li> <li>The levy must be limited to five years (at which time a new levy election is required).</li> <li>The actual amount of revenue collected could be dramatically impacted by “compression,” which affects local option levies before impacting permanent levies. Thus, local option levies are not generally useful for large infrastructure projects.</li> </ul>
Regional Employer Payroll Tax (including Self-Employment Tax, and State In-Lieu payment)	\$420 M / year (projected for FY '20), makes up 60% of TriMet's operating resources	✓	✓	<ul style="list-style-type: none"> <li>Existing rate is 0.7737% of wages paid by an employer, or self-employed net income. Proceeds used for TriMet operations, vehicle procurement, and capital improvement program. Proceeds significantly impacted by pandemic.</li> <li>Metro sought voter approval for an additional payroll tax of up to 0.75% of wages to produce over \$5 B over 20 years for transportation projects. The measure was rejected by voters in 2020 (package did not include IBR Program).</li> </ul>

<sup>47</sup> Note: projected revenues were produced prior to the COVID-19 pandemic; thus, these values likely overestimate the actual revenues generated by these programs.

Port of Portland Transportation Improvement Plan (PTIP) Funding	\$315 M / year general operating fund; \$58 M / year bond construction funds (does not include airline revenue/construction funds)	✓	✓	<ul style="list-style-type: none"> <li>• IBR Program is listed in the PTIP as an unfunded project. Funding allocations from the PTIP can only be used for associated improvements on Port of Portland property.</li> </ul>
City of Portland Motor Fuel Tax	\$18 M / year (projected for FY '20)	–	–	<ul style="list-style-type: none"> <li>• Voters passed Measure 26-209 in May 2020 to renew \$0.10/gallon city tax on gasoline to fund repaving, pothole repair, and street safety fixes.</li> <li>• These funds have not been used for any project on an Interstate Highway to date are not likely to be applicable to the IBR Program, with the possible exception of limited bicycle or pedestrian safety improvements.</li> </ul>
Other Local/Regional Taxes and Fees (e.g., Vehicle Rental Taxes, Hotel/Motel/Short-term Rental Taxes, etc.)	Approximately \$30 M / year available for transportation funding (projected in '20)	Varies	Varies	<ul style="list-style-type: none"> <li>• Must originate with the City of Portland or counties.</li> </ul>

\* Technically an eligible use though the funds are not currently used for this purpose.

## WASHINGTON: CITY OF VANCOUVER, SOUTHWEST WASHINGTON REGIONAL TRANSPORTATION COUNCIL, AND CLARK COUNTY

Appendix Table 23. Washington Local/Regional Transportation Funding Sources Available to the IBR Program

Local/Regional Funding Program	Total Annual Revenues <sup>48</sup>	Eligibility		Considerations
		Highway	Transit	
Sales and Use Tax dedicated for High Capacity Transit	\$60 M / year (projected in '20) (About \$8.8 M per 0.1% sales tax rate increase)	–	✓	<ul style="list-style-type: none"> <li>• Additional increase (beyond 0.7%) would require voter approval.</li> <li>• Voters approved additional 0.2% sales tax in 2005 and 2011, rejected another in 2012 to fund C-TRAN's share of light rail operating costs for the CRC project.</li> </ul>
Transportation Benefit District Vehicle Licensing Fee	\$5 M / year ('19) from \$40 vehicle license fee	✓	✓	<ul style="list-style-type: none"> <li>• Revenues raised may only be spent on transportation projects and programs identified by the respective Transportation Benefit District Board from the most currently adopted Six-Year Transportation Improvement Program and the annual Pavement Management Plan.</li> </ul>
Clark County Property Tax	\$38 M / year to fund County Roads and Transportation Projects in '20 (covers approximately 50% of County Road budget for '20)	✓	✓	<ul style="list-style-type: none"> <li>• There is a 1% annual levy increase limit without voter approval. Voter approval is necessary for increases beyond the levy limit.</li> <li>• These funds are already a possibility to fund the IBR Program through the City of Vancouver's general revenues. These funds are already being collected and may</li> </ul>

<sup>48</sup> Note: projected revenues were produced prior to the COVID-19 pandemic; thus, these values likely overestimate the actual revenues generated by these programs.

				be used via general funds to help this project. Any increase to raise funds specifically for this project is unlikely.
Clark County Real Estate Excise Taxes (REET) dedicated to capital projects	\$5.4 M /year ('19) from maximum 0.5% real estate transfer tax	✓	✓	<ul style="list-style-type: none"> <li>Requires local voter approval.</li> <li>Can be used for planning, acquisition, reconstruction, repair, replacement and rehabilitation or improvement of certain public facilities listed in the capital facilities plan.</li> </ul>
Regional Employer Tax	None currently assessed. Max = \$2 / employee / month	✓	✓	<ul style="list-style-type: none"> <li>Within any jurisdiction funds are allocated to HOV lanes or High Capacity Transportation systems, but not both.</li> <li>Voter approval of a finance plan that includes the taxes to be imposed is required.</li> </ul>
Clark County Property Tax Road Levy	Not currently assessed. Max = \$2.25/\$1,000 valuation	✓	–	<ul style="list-style-type: none"> <li>Requires local voter approval. Levy can be diverted for other purposes, but doing so makes the county ineligible for County Road Administration Board (CRAB) road grants.</li> </ul>
Local Commercial Parking Tax	None currently assessed.	✓	✓	<ul style="list-style-type: none"> <li>Typically, very small source of revenue.</li> <li>Other than SeaTac transit area the greatest amount of revenue generated is approx. \$250,000/year.</li> </ul>
City/County Fuel Taxes	None currently assessed. Max = Up to 10% of State Rate	✓	–	<ul style="list-style-type: none"> <li>Requires local voter approval.</li> </ul>
Local-option Motor Vehicle Excise Taxes (MVET)	Not currently assessed. Max = 1.1% of vehicle value	–	✓	<ul style="list-style-type: none"> <li>Requires voter approval.</li> <li>In 2016, voters in the Sound Transit district approved an increase in the Regional Transit Authority (RTA) MVET from 0.3% to 1.1% to fund the mass transit expansion.</li> </ul>

## FINANCING MECHANISMS FOR IBR PROGRAM

Appendix Table 24. Project Revenue-based Financing Mechanisms for the IBR Program

Financing Tool	Lender	Repayment Source	Eligibility		Considerations
			Highway	Transit	
Standalone Toll Revenue Bonds	Bond investors	Net toll revenues	✓	–	<ul style="list-style-type: none"> <li>Toll bonds (in concert with TIFIA) were proposed to make up 1/3 of capital costs of original CRC project</li> </ul>
State-backed Toll Revenue Bonds	Bond investors	Net toll revenues, then motor fuel tax revenues or other state sources	✓	–	
Transportation Infrastructure Finance and Innovation Act (TIFIA) Loan	USDOT	Net toll revenues	✓	✓	<ul style="list-style-type: none"> <li>TIFIA can provide very favorable terms for a loan that generally does not exceed one-third of the project cost.</li> <li>Requires competitive, multi-year application to FHWA; requires creditworthiness review and stable repayment mechanism.</li> <li>Several major transit, bridge and roadway projects in the Puget Sound</li> </ul>

					Region have been financed with TIFIA loans.
State General Obligation (GO) Bonds	Bond investors	State taxing authority revenues, which still allows for specific sources like net toll revenues to reimburse	✓	✓	<ul style="list-style-type: none"> <li>Washington and Oregon legislatures can authorize state GO bonds with voter approval.</li> </ul>
Grant Anticipation Revenue Vehicles (GARVEEs) Bonds  FHWA program for highway projects	Bond investors	Future Federal Aid grant funding	✓	–	<ul style="list-style-type: none"> <li>Pledges future formula federal funds to generate up-front capital for major highway projects that a state may be unable to construct using pay-as-you-go funding.</li> <li>Washington issued GARVEE bonds in support of the SR 520 Bridge Replacement and HOV Program in 2011 and 2012.</li> <li>GARVEE bonds with a 12-year repayment period may be available for the IBR Program project starting in 2024 when the SR 520 bonds are retired.</li> </ul>
Revenue Bond Grant Anticipation Notes (GANs)  FTA program for transit projects	Bond investors	Future Federal Aid grant funding	–	✓	<ul style="list-style-type: none"> <li>Generates up-front capital for major transit projects that an agency may be unable to construct in the near term using pay-as-you-go funding approaches</li> <li>Proceeds raised by a GAN can be used to satisfy CIG New Starts requirements for non-New Start funding other than the minimum local match requirement.</li> </ul>

## VALUE CAPTURE TECHNIQUES

Appendix Table 25. Value Capture Financing Mechanisms for the IBR Program

Value Capture Tool	Lender	Repayment Source	Financing Potential for IBR	Eligibility		Considerations
				Highway	Transit	
Tax Increment Financing (TIF)	Local / Regional Jurisdiction	Future tax revenues	Low	✓	✓	<ul style="list-style-type: none"> <li>TIF is not currently available in Washington.</li> <li>In Oregon, TIF can be used for projects located within an urban renewal area that are included in the urban renewal plan.</li> <li>While TIF has been used for streetcar and light rail projects, the Interstate Corridor Urban Renewal Area, TIF funds are allocated to other programs, and IBR is not part of the urban renewal plan.</li> </ul>
Local Improvement District (LID)	Local / Regional Jurisdiction	Fee levy on proximate	Low	✓	✓	<ul style="list-style-type: none"> <li>LIDs may fund improvements that, in Washington, “confer special benefits on property” or, in Oregon, that “provides a special benefit only to specific</li> </ul>



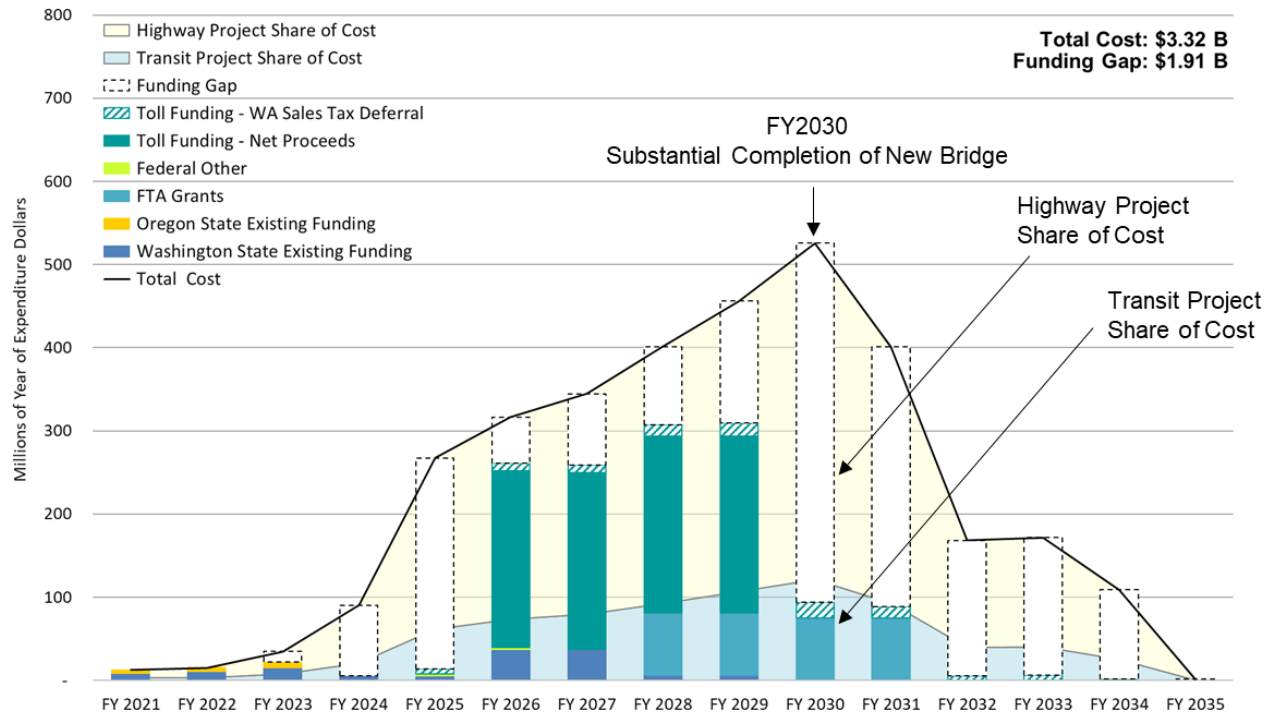
		property owners				<p>properties or rectifies a problem caused by specific properties.”</p> <ul style="list-style-type: none"> <li>• LIDs have been used for streetcar projects in both states.</li> <li>• LIDs have very limited application to IBR since its benefits are bi-state/regional rather than special and specific to any particular properties; except perhaps for localized transit improvements in downtown Vancouver.</li> </ul>
Development Impact Fee (DIF)	City of Vancouver / City of Portland	Fee levy on new development	Low	✓	✓	<ul style="list-style-type: none"> <li>• The City of Vancouver (WA) and the City of Portland (OR) both collect development impact fees to fund local transportation improvements, but the IBR program is not being undertaken to support specific development projects, so the potential contribution to the IBR Program would be both small and unlikely.</li> </ul>
Other Special Assessment Districts (e.g., Road Improvement District (RID), Community Facility District (CFD), etc.)	Local / Regional Jurisdiction	Special tax or fee levy on property owners in designated district benefiting from improvement	Low	Varies	Varies	<ul style="list-style-type: none"> <li>• Requires a petition of property owners (100% of affected property owners in the case of a CFD).</li> </ul>

## CONCEPTUAL SCENARIO CASH FLOWS

This section includes conceptual annual cash flows for the four scenarios underlying the CFP. Recall, these scenarios<sup>49</sup> include:

- Scenario 1A: Light Rail Transit, Low-Cost Estimate, Low Funding (Figure (Appendix) 1)
- Scenario 1B: Light Rail Transit, High-Cost Estimate, High Funding (Figure (Appendix) 2)
- Scenario 2A: Bus Rapid Transit, Low-Cost Estimate, Low Funding (Figure (Appendix) 3)
- Scenario 2B: Bus Rapid Transit, High-Cost Estimate, High Funding (Figure (Appendix) 4)

Figure (Appendix) 1. Scenario 1A: LRT Low Cost, Low Funding



<sup>49</sup> All scenarios include a replacement river crossing and highway improvements from Marine Drive through SR 500.

Figure (Appendix) 2. Scenario 1B: LRT High Cost, High Funding

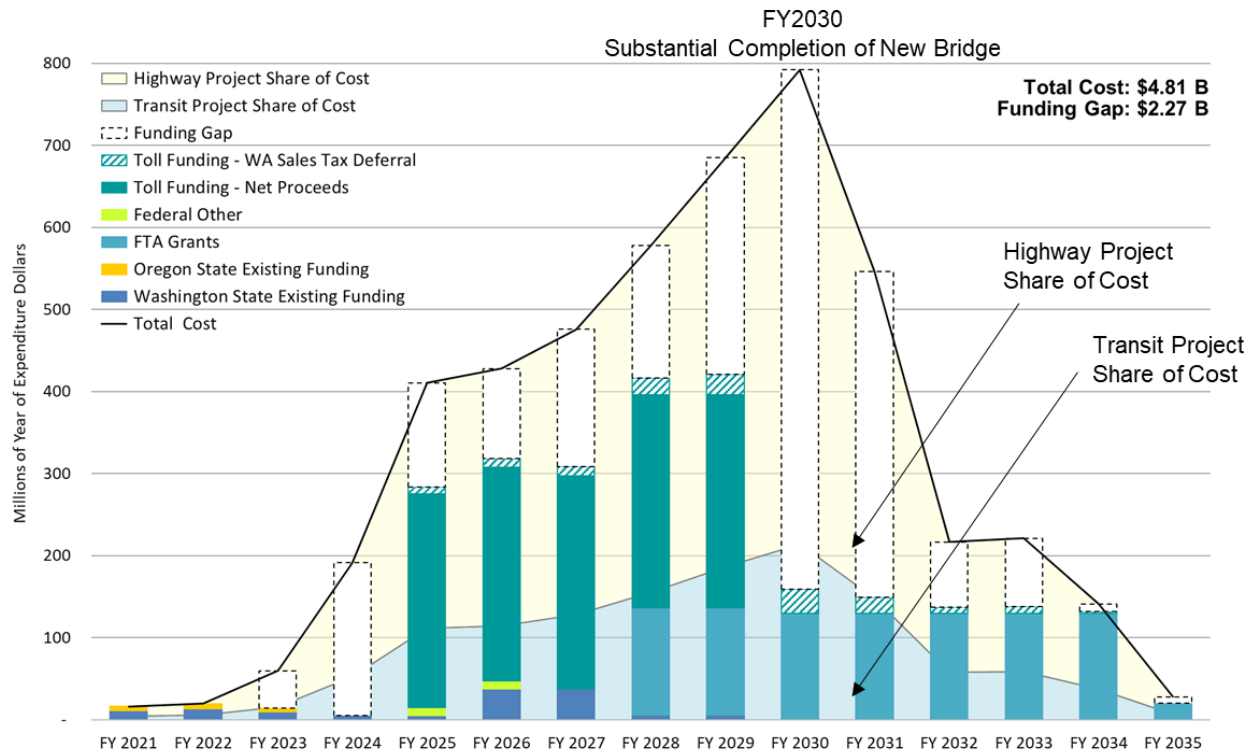


Figure (Appendix) 3. Scenario 2A: BRT Low Cost, Low Funding

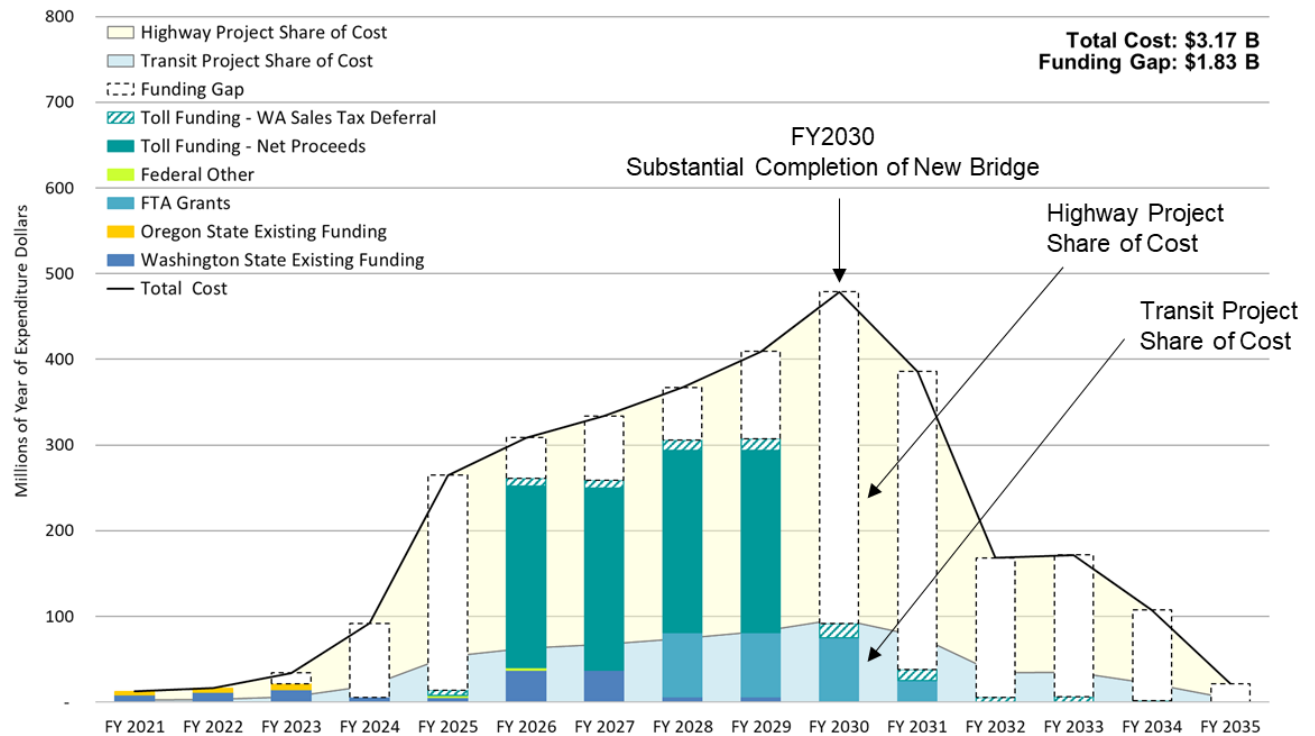
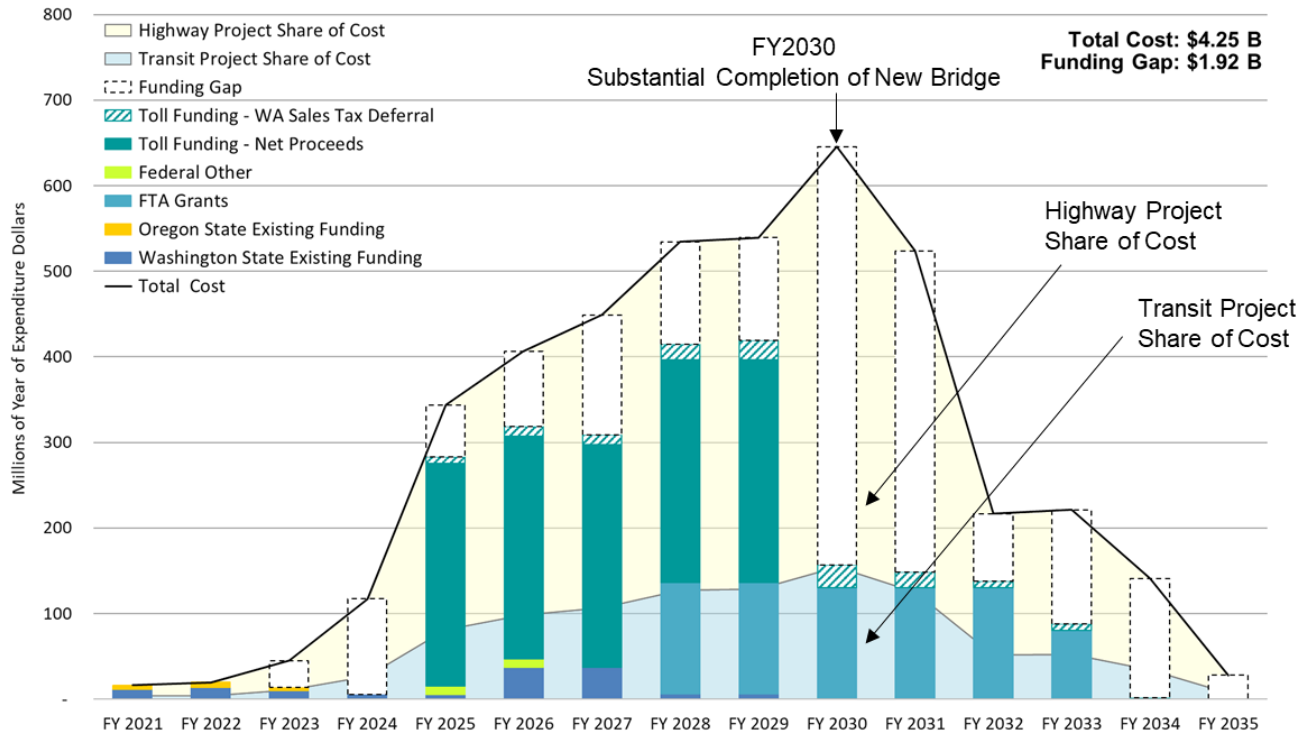


Figure (Appendix) 4. Scenario 2B: BRT High Cost, High Funding



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