Attachment 3
Staff Report for Resolution 21-5217
2021-2024 MTIP Amendment for the I-5 Interstate Bridge Replacement project and Investment Priority Policies

This attachment is a summary assessment of proposed amendment to the 2021-2024 MTIP to add a Preliminary Engineering phase of the Interstate Bride Replacement (IBR) project. It is provided to inform the amendment decision process regarding consistency with investment priority policies.

#### Policies on Priority Transportation Investments

State and regional policies provide direction on prioritizing investments and when to consider adding motor-vehicle capacity to the transportation system. Oregon Highway Plan (OHP) Policy 1G and Action 1G.1 direct the Oregon Department of Transportation (ODOT) to maintain highway performance and improve safety by improving system efficiency and management before adding capacity. The 2018 RTP Policy 18 states that prior to adding new throughway capacity beyond the planned system of through lanes, demonstrate that system and demand management strategies, including access management, transit and freight priority and congestion pricing, transit service and multimodal connectivity improvements cannot adequately address throughway deficiencies and bottlenecks. Additionally, pages 3-71 and 3-72 of the 2018 RTP regarding the Congestion Management Process state that the RTP calls for implementing system and demand management strategies and other strategies prior to building new motor vehicle capacity, consistent with the Federal Congestion Management Process (CMP), Oregon Transportation Plan policies (including Oregon Highway Plan Policy 1G) and Section 3.08.220 of the Regional Transportation Functional Plan (RTFP).

Consistency with these state and regional policies in prioritizing investments, as provided by project staff, is summarized below.

# Interstate Bridge Replacement Project and Regional Policy Consistency

The Columbia River Crossing (CRC) is the predecessor project to the Interstate Bridge Replacement (IBR) project. Regional leaders identified the need to address the Interstate 5 (I-5) corridor, including the Interstate Bridge, through previous bi-state, long-range planning studies. The CRC had been identified and documented as the transportation solution to address a number of transportation needs on the Interstate 5. The intent of the CRC project was to improve safety, reduce congestion, and increase mobility of motorists, freight traffic, transit riders, bicyclists, and pedestrians. The project did not move forward, however, because the CRC project did not secure adequate state funding to advance to construction and was discontinued in 2014.

In 2019 the bi-state legislative committee requested the Oregon Department of Transportation (ODOT) and the Washington State Department of Transportation (WSDOT) re-initiate the Columbia River Crossing (CRC). The rationale for re-initiating the project is because none of the previously identified needs for the project had been addressed. But the re-initiated project recognizes the landscape has changed and is proposing to refine the design as needed to reflect community priorities and meet community needs.

While the project scope is not fully defined at this stage of project planning, the Interstate Bridge Replacement project has documented consistency with the state and regional policy by focusing the revived project scope on the first three steps of the Oregon Highway Plan (OHP) Action 1G.1. These three steps are:

- 1. Protect the existing system. The highest priority is to preserve the functionality of the existing highway system by means such as access management, local comprehensive plans, transportation demand management, improved traffic operations, and alternative modes of transportation.
- 2. Improve efficiency and capacity of existing highway facilities. The second priority is to make minor improvements to existing highway facilities such as widening highway shoulders or adding auxiliary lanes, providing better access for alternative modes (e.g., bike lanes, sidewalks, bus shelters), extending or connecting local streets, and making other off-system improvements.
- 3. Add capacity to the existing system. The third priority is to make major roadway improvements to existing highway facilities such as adding general purpose lanes and making alignment corrections to accommodate legal size vehicles.

As public documents and presentations on the IBR project to date have shown the known elements to the project includes: bridge replacement, auxiliary lanes, interchange improvements and spacing, active transportation enhancements, high- capacity transit option(s), local street connectivity, and some form of congestion pricing. The scope elements are consistent with the first three steps of the OHP Action 1G.1 in addressing the overarching needs of the Interstate 5 corridor.

Further, based on the IBR scope elements known to date, the project has documented consistency with the Portland region's 2018 RTP efforts to maximize transportation demand management (TDM) and transportation system management (TSM), and evaluate when vehicular capacity is needed to meet demand. Specific efforts underway by the IBR program include:

- The development of high-capacity transit and evaluation of multiple scenarios for transit system improvements. These transit scenarios are consistent with the 2018 RTP.
- Evaluation of tolling and congestion pricing; the preliminary tolling structure plans include options for peak period pricing as part of the tolling of the I-5 bridge (tolls are planned to be higher during the peak periods). Congestion (or peak period pricing) is consistent with the Metro Regional Framework Plan and the Portland's Comprehensive Plan.
- The program will be consistent with, and build upon, related and adjacent projects such as the installation of smart technology systems being installed by ODOT and WSDOT on I-5 in the Portland metropolitan region. These include an active transportation management (ATM) system, adaptive ramp meters, bus on shoulder, real-time modal travel time information, as well as existing commuter trip-reduction programs. These tools provide information and travel options to drivers to better manage traffic flow and enhance transit capacity during congested travel periods.

Additionally, the IBR project is consistent with Section 3.08.220 of the Regional Transportation Functional Plan in prioritizing five of the six strategies as part of the project outcomes, which includes:

- 1. TSMO strategies, including localized Travel Demand Management (TDM), safety, operational and access management improvements;
- 2. Transit, bicycle and pedestrian system improvements;
- 3. Traffic-calming designs and devices;

- 4. Connectivity improvements to provide parallel arterials, collectors or local streets that include pedestrian and bicycle facilities, consistent with the connectivity standards in section 3.08.110 and design classifications in Table 2.6 of the RTP, in order to provide alternative routes and encourage walking, biking and access to transit; and
- 5. Motor vehicle capacity improvements, consistent with the RTP Arterial and Throughway Design and Network Concepts in Table 2.6 and section 2.5.2 of the RTP, only upon a demonstration that other strategies in this subsection are not appropriate or cannot adequately address identified transportation needs.

While not explicit in Oregon Highway Plan (OHP) Policy 1G and Action 1G.1, 2018 RTP Policy 18, the Federal Congestion Management Process (CMP), or Section 3.08.220 of the Regional Transportation Functional Plan (RTFP), the IBR project, also supports the Oregon State-wide Planning Goals pertaining to transportation and infrastructure improvements. The project would provide infrastructure located in and supporting growth to urbanized locations. Regional plans, adopted by the Southwest Washington RTC, Clark County and Metro would be supported by new infrastructure and the extension of a high-capacity transit system.

Lastly, the IBR project would provide transportation infrastructure to support the land use plans for Hayden Island. Specifically, the project would support the City of Portland's Hayden Island Plan, adopted in 2009, which seeks to protect the interests of the island, provide guidance to the project, as well as ensure that the amount and type of development on Hayden Island would not overload the proposed freeway improvements.

### Policies on RTP Investment Priorities

The following is an assessment of how the proposed MTIP project amendment advances the 2018 RTP investment priorities of Equity, Safety, Congestion Relief, and Climate. It is based on the similar assessment completed as part of the evaluation and adoption process for the 2021-2024 MTIP. A summary of the evaluation results based on the 2018 RTP investment priorities is provided in Table 1. The detailed analysis by performance measure for each 2018 RTP investment priority is outlined following the summary table.

Table 1. Summary of RTP Investment Priorities Evaluation – Interstate Bridge Replacement Project (Preliminary Engineering Phase Only)

RTP Priority	Measure 1	Measure 2	Measure 3	Measure 4	Measure 5	Measure 6
Equity	^/o	+	0	n/a	n/a	n/a
Safety	۸	0	n/a	n/a	n/a	n/a
Traffic	+/0	+/0	+/0	0	+	-/o
Congestion	,	,	,			,
Climate		/0		n/a	n/2	n/2
Change	7	-/0	U	i i/d	n/a	n/a

# Key:

- o neutral or still to be determined until further details are known
- ^ not addressing the region's priority; has other benefits
- + trending towards the desired outcome for that priority
- trending away from the desired outcome for that priority
- +/o potential to trend toward desired outcome but still to be determined until further details are known
- -/o risk to trend away from desired outcome but still to be determined until further details are known

# Equity

To measure equity in the context of the project, Metro staff assessed whether the project increases access to travel options in Equity Focus Areas and summarize information provided by project staff on how the project has been identified as a priority transportation improvement by BIPOC and low-income persons or communities.

Desired Outcomes	Performance Measures	Project Performance Assessment
Increased access to affordable travel options in Equity Focus Areas	1. Description of what the project contributes to building elements of the planned transportation network in equity focus areas per the 2018 RTP planned modal element network maps	Project is not located in an Equity Focus Area and therefore not formally contributing to completing planned transportation network gaps in Equity Focus Areas. As project is only entering PE phase, an analysis of trips to/from Equity Focus Areas is premature. The preliminary engineering phase will further define the scope of the project and provide important details to assess this measure for when future phases of the project request inclusion in the MTIP.
Identified by the	2. Description of whether the project was included in the Regional	As the I-5 Interstate Bridge Replacement project is currently in the project development/project engineering phase, the project staff have built in

community as a priority	Investment Measure project list, or was identified in the creation of a publicly developed plan(s) <sup>1</sup>	numerous process equity components to better identify and address the priorities, needs, and concerns from BIPOC and low-income persons and communities related to the design and construction of the project.
		The IBR program is centering equity in multiple ways. The program developed an Equity Advisory Group (EAG) composed of community leaders and regional partner agency representatives. The EAG is actively engaged in the program development and has defined what equity means as both a process and outcome. In addition, the EAG recently delivered to the Program Administrator an equity-centered screening criteria to be used in evaluating different design options.
		The program continues to elevate the voices of the communities of concern through listening sessions, working with Community Based Organizations, multicultural liaisons, and direct stakeholder outreach.
		Through the help of EAG members and community engagement, IBR project staff have heard the reaffirmation of the need and priority to replace this bridge.
Increased access to jobs and community places	3. Change in accessibility to jobs and community places by households in equity focus areas*	Assessment on this performance measure was not completed for this 2021-2024 MTIP amendment request because the amendment is for preliminary engineering only. The preliminary engineering phase will further define the scope of the project and provide important details, such as high-capacity transit mode, bicycle and pedestrian improvements, and roadway design and street connectivity, for measuring accessibility to jobs and community places. Requests to include future phases in the MTIP will trigger analysis of job and community places accessibility.

# Safety

To measure safety, the project assessment reviews a description of whether the project includes scope elements to address documented safety issues that contribute to crashes resulting in fatal and serious injuries and include proven safety counter measures is provided. An assessment of the scope is also compared against the region's high injury corridors to better understand whether the project

<sup>&</sup>lt;sup>1</sup> Publicly developed plan meets the guidelines of the adopted Metro Public Engagement Guidelines and project sponsor identifies comments from public or community organizations that indicate support of the project or the project's equity benefits.

is addressing the locations with a propensity of crashes leading to fatalities and serious injuries. Additional relevant safety related information as provided by project staff is also summarized.

Desired Outcomes	Performance Measures	Project Performance Assessment
Outcomes  Reduce fatal and serious injury crashes for all modes of travel	1. Change in the amount of investment programmed in the MTIP focused on safety:  - Assess the amount of programmed funding focused on safety located on high injury corridors  - Assess the amount of programmed funding focused on safety located in high injury corridors in equity focus areas	The project area is not located on a high injury corridor. However, a high injury intersection is located at the Interstate 5 and Marine Drive interchange, which is in the southern portion of the project area. Additionally, the project area is not located in an equity focus area.  The project scope anticipates addressing existing design configuration issues which create conflict areas that result in reduced vehicular flow rates, congestion, and crashes that result in injuries, fatalities, infrastructure damage and economic loss. Addressing the design configuration issues will provide general safety benefits, but not necessarily focus solely on addressing the safety conditions of high injury locations, which is the focus of the region's safety goals.
		Lastly, though a measurement of all crash data and not exclusive to fatal or serious injury crashes, ODOT's 2017 to 2019 Safety Priority Index System (SPIS) database identified two locations within the Oregon section of the project area that ranked among the highest 5 percent in the state. The two locations are between mileposts 307.77 and 308.09 (the Hayden Island Interchange), and mileposts 308.15 and 308.38 (just north of the Hayden Island interchange).
	2. Description of whether safety countermeasures focused on fatalities and serious injuries are included as part of the project scope. The safety countermeasures are addressing an identified regional high injury	Known to date, safety countermeasures for this project have not been identified. A number of design features to address facility configuration safety issues have been tentatively identified for the project, including bringing lane widths to current design standards, adding shoulders, and increasing sight distance, but are not listed on FHWA's short list of proven safety countermeasures focused on fatalities and serious injuries.
	corridor or intersection OR an area identified in a safety plan (local or state) for safety improvements*	Further assessment on this performance measure will be necessary to understand whether safety countermeasures are included and should be completed when the scope of the project becomes further defined through the preliminary engineering and the project development process. Requests to

	include future phases in the MTIP, such as right-of-way
	and construction, will necessitate and provide an
	analysis of scope elements, such as whether the
	project scope includes safety countermeasures focused
	on fatalities and serious injuries.

<sup>\*</sup> Areas identified for safety improvements in local or state safety plans may differ from the regional high injury corridors, however, regional safety policy prioritizes addressing locations/conditions that result in fatal and serious injuries crashes. For projects that have not completed PE, the description would be whether the project purpose is to address known safety issues and committed to assess and include appropriate safety counter measures.

# **Congestion Relief**

To measure congestion relief an assessment of whether the project proposes impacts to street connectivity, whether the project includes a robust transportation system management and operations (TSMO) approach and associated project elements, and whether the project includes capital or programmatic elements that may increase automobile trips or options to single occupant motor vehicle travel is provided.

Desired Outcomes	Performance Measures	Project Performance Assessment
Increased reliability	Description of roadway scope elements and impacts to street connectivity; additional connectivity generally improves reliability	Of the scope elements known to date, among the street configurations planned for the IBR project, the following would serve to improve the local connectivity of the street network. These improvements would increase the opportunity for local travel, including for non-motorized use.
		<ul> <li>The IBR program proposes to modify local streets on Hayden Island to improve connectivity and local multimodal access.</li> </ul>
		<ul> <li>The IBR program proposes to improve local connectivity and multimodal facilities in the Bridgeton neighborhood. This would include improved connections to the 40-Mile Loop.</li> </ul>
		<ul> <li>Additional street connectivity elements have been identified on the Washington and Vancouver portion of the project.</li> <li>Further assessment of this performance measure to understand impacts to local street connectivity should be completed when the scope of the project becomes defined through the preliminary engineering and project development work. Not knowing design details related to the roadway network at this time makes this a preliminary assessment of local street connectivity.</li> <li>Requests to include future phases of the project in the MTIP will trigger reassessment of the project street connectivity.</li> </ul>

2. Description of any transportation system management and operations(TSMO) elements of the project that will increase reliability from either recurring or non-recurring causes of congestion

While the Interstate Bridge Replacement project is expected to define the scope of work through preliminary engineering, the project is anticipated to include a roadway pricing mechanism, likely in the form of a bridge toll. The roadway pricing mechanism is a form of demand management, which will have effects on reliability from recurring and non-recurring causes of traffic congestion. The IBR project staff have identified a component of the preliminary engineering work will include a sensitivity analysis to reflect a representative toll scenario. The scenario accounts for tolling on all of I-5 and I-205 from the Columbia River to the I-5/I-205 split near Wilsonville. The IBR program will model a typical weekday, variable toll rate scenario based on a schedule. This is being coordinated with ODOT's tolling program.

Additional transportation system management and operation elements as part of the project remain to be determined and therefore tolling is the only demand management strategy identified to date. However, the IBR project looks to explore additional transportation system management and operations improvements and elements that may be developed through the continued design process. The IBR project intends to evaluate transportation system and operation elements to manage congestion and promote travel reliability in the project area. Additionally, the IBR project looks to rely on and support existing regional efforts to implement transportation system management and operations strategies and leverage those opportunities to build on and support the project, but have not identified additional TSMO elements as part of the project scope.

# Increased travel efficiency

3. Description of whether project scope includes a robust TSMO approach and project attributes/elements to increase efficiency (in addition to meeting Congestion Management Process/Oregon Highway Plan policies)

To date, the IBR project has not identified a specific transportation system management and operations approach for the project. The project does intend to rely on a number of existing regional transportation system management efforts which have and continue to be implemented along the I-5 corridor, such as active traffic management, variable speed signs, and traveler information. The project also intends to rely on the existing transportation demand management programs available in the Portland region, such as employer programs, transit service, carpooling and vanpooling, as part of the project approach, but have not identified any additional TSMO or TDM elements or

increased capacity of existing programs as part of the project scope. Roadway pricing, likely in the form of a toll, will be implemented as part of the IBR project. While the primary objective of roadway pricing for the IBR project is for funding construction and paying for the longterm operations and maintenance of the facility, toll rates are expected to vary by time of day in a manner that would support mobility and relieve traffic congestion, promoting travel time savings and improved reliability. While not specifically a transportation system management and operation approach, at this time the IBR project staff have made clear that the project will be multimodal. This includes high capacity transit option(s) and upgraded bicycle and pedestrian facilities will be part of the scope of the project and support implementation of a robust transportation system management and operations approach, facilitating traveler options and managing demand in the corridor. Assessment on this performance measure was not 4. Change in vehicle miles completed for this 2021-2024 MTIP amendment traveled (VMT) and travel request because the amendment is for preliminary time between major origin engineering only. Through the preliminary engineering and destination pairs in and project development work, design details related vicinity of project\* to the roadway network, high-capacity transit option(s), and pedestrian and bicycle facility enhancements will be determined. As these design details are key pieces of information for evaluating the change in vehicle miles traveled and travel time, the analysis is deferred. Requests for future phases to include in the MTIP, such as right-of-way and construction, will necessitate a reassessment of this performance measure. Increased A high-capacity transit option (or options) and 5. Description of project travel upgraded bicycle and pedestrian facilities will be capital or programmatic options, included as part of the scope of the project, as the elements that will increase decrease starting point for further discussions of the project access to travel options drive-alone scope. The expansion of high-capacity transit as well as upgraded pedestrian and bicycle facilities will further trips promote and facilitate traveler options and manage demand for crossing back and forth between Oregon and Washington. For transit, the IBR project looks to provide the following improvements:

- The planned high-capacity transit corridor would offer ways to avoid congestion on I-5 that are experienced by buses operating in regular service today.
- By using a high-level fixed-span bridge for the new Columbia River Crossing, transit vehicles will no longer be subject to interruptions of service due to river traffic requiring a bridge lift.
- Adding a fixed guideway to be used by highcapacity transit will increase capacity, reliability, and efficiency of the transit system.
- Capacity of the transit system will be substantially higher than that afforded by public transit mixed with other traffic in the existing corridor.

For active transportation, the IBR project key improvements (discussed from south to north within the project area) include:

- Pedestrian and bicycle improvements at the Marine Drive interchange would include connections with multi-use paths along the North Portland Harbor, the Expo light rail transit station, and local streets.
- The multi-use path over the North Portland
  Harbor and the Columbia River would serve as
  a continuous route for bicyclists and
  pedestrians.
- To improve east-west connections on Hayden Island, sidewalks and bicycle lanes would be provided along local streets (e.g., Jantzen Drive, Hayden Island Drive, and Tomahawk Island Drive).
- The bridge over the Columbia River would accommodate a multi-use pathway that would separate pedestrians and bicycle traffic through pavement markings. All bicycle and pedestrian improvements would meet Americans with Disabilities Act accessibility standards.
- Ramps from the north end of the main bridge over the Columbia River would connect the multi-use path to Columbia Way and Columbia Street in Vancouver. The wide multi-use path

would also reduce conflicts between bicyclists and pedestrians by affording enough space to accommodate two-way travel for both.

 Additional pedestrian and bicycle connectivity elements have been identified on the Washington and Vancouver portion of the project.

However, increased access will also be determined by the completion of active transportation facilities nearby and transit accessibility will also depend on final selection of mode(s) (i.e. bus or light rail or both) and transfer connectivity. Further programmatic elements such as new or increased capacity of existing traveler information and education as well as travel options outreach, have not been identified for the project scope to date. Further assessment of this performance measure will be evaluated when future phases of the project are requested to be included in the MTIP.

 Description of project elements that may increase motor vehicle travel Depending on the nature of the final project design to move forward, the IBR project is likely to include elements that increases motor vehicle travel beyond the existing facility. Because the project purpose is to address the existing traffic congestion on the facility, in addition to the seismic upgrade to the bridge, the project will likely increase throughput of motor vehicles. The number of auxiliary lanes, the interchanges, and access to Hayden Island will impact the relative amount of motor vehicle throughput compared to existing conditions. These project design elements are to be determined through the preliminary engineering phase.

While multimodal elements, such as high-capacity transit and substantial upgrades to the pedestrian and bicycle facilities, may offset some aspects of increased motor vehicle throughput, the effect on overall motor vehicle travel is yet to be determined.

Lastly, the IBR project has not been assessed for induced demand which can occur with increased throughput of roadway facilities. Once a project design has been determined, understanding the induced demand will be necessary to understand the overall effect of the project on the change in the amount of motor vehicle travel in the region.

<sup>\*</sup>For projects that have completed PE or have clearly defined project elements that can be modeled.

# Climate

To measure climate, the assessment focused on how the project aligns with Metro's Climate Smart Strategy and whether the project includes elements that will increase access to and use of multimodal options or increase motor vehicle travel. When further project scope details are known, an assessment of projected greenhouse gas emissions from the project will also be conducted.

Desired Outcomes Performance Measure		Project Performance Assessment		
Progress towards meeting state mandated greenhouse gas emissions targets  Reduced emissions from vehicles  Reduced drive alone trips	Tess towards ting state dated shouse gas sions targets and pedes scope includes capital or programmatic elements that will increase access to travel options based on adopted Climate Smart strategies at a minimage and increase motor vehicle emissions details of vehicle carbinates and pedes scope of discussion capacity in bicycle father and forth transitian and fort	A high-capacity transit option(s) and upgraded bicycle and pedestrian facility will be included as part of the scope of the project, as the starting point for further discussions of the scope. The expansion of high-capacity transit as well as upgraded pedestrian and bicycle facilities will further promote and facilitate traveler options and manage demand for crossing back and forth between Oregon and Washington. (See full transit and active transportation description in Congestion Management performance measure: Increased travel options, decrease drive-alone trips.) Building out the transit and active transportation networks are both identified strategies in the region's Climate Smart Strategy. Additionally, roadway pricing, while not an explicit Climate Smart Strategy, is a mechanism that has resulted in reducing emissions of greenhouse gases and air pollutants.		
		While yet to be determined, the project scope will replace the existing bridge with another bridge that has at a minimum three general purpose lanes in each direction. There is a significant level of planning analysis and discussion necessary to determine the details of auxiliary lanes – which also increase motor vehicle capacity, the design and placement of the Hayden Island interchange, and other roadway design factors will be included. Motor vehicle emissions based on current detail and information is likely to be similar to existing, but whether levels of motor vehicle emissions are greater or reduced is yet to be determined without design details.  Because the project purpose is the address the existing traffic congestion on the facility, in addition to the seismic upgrade to the bridge, the project will likely increase throughput of motor vehicles by making the facility more efficient. The number of auxiliary lanes, the interchanges, and access to Hayden Island will determine the degree of the throughput and efficiency. The design detail will ultimately determine whether greenhouse gas emissions are anticipated to increase		

or decrease through an evaluation. These project design elements are to be determined through the IBR preliminary engineering phase. While multimodal elements may offset some aspects of increased motor vehicle throughput, the emissions of greenhouse gases, is yet to be determined, but highly likely to increase. Lastly, the IBR project has not assessed for induced demand which can occur from increased throughput of roadway facilities. Once a project design has been determined, understanding the induced demand will be necessary to understand the overall effect of the project on the change in the amount of motor vehicle travel and emissions in the region. Assessment on this performance measure was not 3. Comparison of completed for this MTIP amendment request because greenhouse gas the amendment is for preliminary engineering only. (GHG) emissions Through the preliminary engineering and project with and without development work, important design details will be project in 2024 or determined to inform an emissions analysis. Requests 2027\* to include future phases in the MTIP will trigger analysis of greenhouse gas emissions to be conducted to provide further information.

<sup>\*</sup>For projects that have completed PE or have clearly defined project elements that can be modeled. Would not apply to PE phase as project scope not yet developed enough to perform the analysis. PE phase only projects may have different measure, such as a description of whether GHG emissions analysis is included in the project's PE phase scope of work.