*The following **Draft Purpose and Need Statement and Community Vision, Critical Objectives, and Values Document** is a WORKING DRAFT and reflects initial discussions with Interstate Bridge Replacement (IBR) program agency partner staff, the Community Advisory Group, and the Equity Advisory Group. This is a draft for preliminary discussion by the Executive Steering Group.*

The 2011 I-5 Columbia River Crossing Record of Decision still remains valid, and the IBR program will utilize and update past work to support efficient decision making, while reflecting current community priorities and changes since the previous planning effort concluded.

Future iterations of the Purpose and Need Statement and Community Vision, Critical Objectives, and Values Document will consider additional comments and feedback from the public, Community Advisory Group, Equity Advisory Group, Interstate Bridge Replacement program agency partner staff, and the Executive Steering Group. This is an initial draft and until reviewed by federal partners should be considered conceptual.

More than a decade of planning and prior studies has evaluated transportation deficiencies and identified a variety of transportation problems in the program area. Regional leaders identified the need to address the I-5 corridor, including the Interstate Bridge, through previous bi-state, long-range planning studies. Prior studies included the Federal Transit Administration/Metro South/North Corridor Project (1998) and a bi-state task force Final Strategic Plan (2002). In 2004, the Washington and Oregon Departments of Transportation formed the bi-state Columbia River Crossing (CRC) project that successfully received a federal Record of Decision in December 2011. At that time, the CRC project did not secure adequate state funding to advance to construction.

Updating the Purpose and Need and establishing the Community Vision and Values are crucial steps in designing and evaluating alternatives. The Purpose and Need identifies the transportation problems that must be addressed, and the approach to addressing them. The Community Vision and Values identifies regional values and goals related to potential transportation improvements, including Critical Objectives that must be met to deliver a successful program. Together, the Purpose and Need and Community Vision, Critical Objectives, and Values set the foundation for screening alternatives that will be analyzed to establish the program's locally preferred alternative. Extensive stakeholder engagement, inclusive community outreach and a transparent public process are fundamental to identify the transportation solutions and community values that will help identify a bridge replacement alternative.

WORKING DRAFT – IBR PURPOSE AND NEED STATEMENT AND COMMUNITY VISION, CRITICAL OBJECTIVES, AND VALUES

DRAFT PURPOSE AND NEED STATEMENT

One of the first and most important steps of any major project is to define why the project has been initiated and what problem(s) it seeks to address. The Purpose and Need statement provides this definition for projects complying with the National Environmental Policy Act (NEPA) and serves as the basis for defining how project alternatives will be developed and evaluated. A reasonable alternative must address the needs specified in the Purpose and Need statement for the alternative to be considered in a NEPA analysis; thus, the Purpose and Need is an influential statement that guides future development of the project.

PROJECT PURPOSE

The purpose of the proposed action is to improve Interstate 5 (I-5) corridor mobility by addressing present and future travel demand and mobility needs in the IBR program area that equitably benefits all travelers. The program area extends from approximately Columbia Boulevard in the south to State Route 500 (SR 500) in the north (*Exhibit 1*). Relative to the No-Build Alternative, the proposed action is intended to achieve the following objectives: a) improve the Interstate Bridge's resiliency to a seismic event; b) improve travel safety and traffic operations on the Interstate Bridge and associated interchanges while reducing greenhouse gas emissions; c) improve connectivity, reliability, travel times, and operations of public transit options in the program area; and d) improve highway, rail, and marine freight mobility and address interstate travel and commerce needs in the program area.

Exhibit 1. Program Area

PROJECT NEED

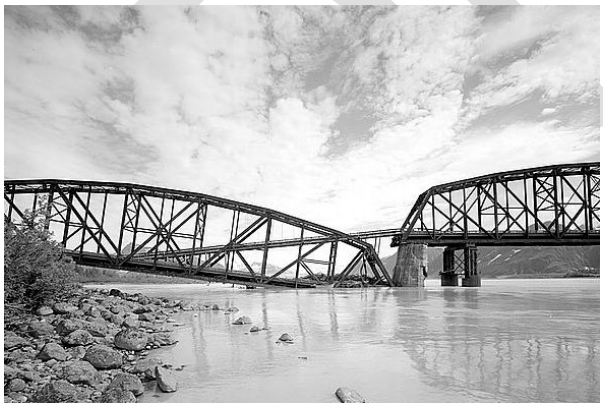
The specific needs to be addressed by the proposed action include:

Seismic vulnerability increases risk of disrupted interstate travel

The Interstate Bridge consists of two spans, which were constructed in 1917 (northbound) and 1958 (southbound); both spans are seismically deficient. Scientific research over the past quarter century reveals Western Oregon and Washington are located in a region of high seismicity. Earthquakes from faults both near and far contribute to a level of seismic hazard that was not considered by designers of the Interstate Bridge.

As one of only two bridges across the Columbia River that connects the greater Portland area and Vancouver/Clark County, the Interstate Bridge provides a critical connection for people to access jobs and services, interstate commerce, and freight movement. The Interstate Bridge's vulnerability to failure in an earthquake presents a risk of severe disruption to the region, particularly to those who depend on the bridge as their primary route, including residents that would be isolated on Hayden Island, as well as in emergency response and region recovery. Replacing the structures with a resilient bridge will go far to support a healthy community, environment, and economy.

Exhibit 2. Soils liquefied and caused the collapse of the Million Dollar Bridge, Copper River, Alaska, during the M9.2 1964 Good Friday Earthquake



Seismic deficiencies of the Interstate Bridge

- The structures lack the ductility of similar, modern bridges. Ductility allows a structure to move back and forth without catastrophic failure and is an important defense against collapse. The trusses, towers, and piers of the Interstate Bridge are brittle elements, and simply do not have the ability to move without ripping apart.
- Both bridge spans are supported by hundreds of timber piles that sit within loose sand that will liquefy during a strong earthquake (CRC 2006). In such an event, sandy, saturated soils become fluid-like and unstable, causing the piles to sink and move horizontally.
- The combined effect—settlement and lateral movement—would prove devastating to the bridge spans, likely triggering their collapse even if the bridge managed to somehow survive the shaking mentioned above. *Exhibit 2* shows an example of such a collapse.

Traffic congestion limits mobility and travel reliability while contributing to greenhouse gas emissions and inequity of transportation costs

The population of the Portland-Vancouver metro region is expected to grow from 2.5 million residents in 2018 to over 3 million in 2040 (23 percent) and over 3.5 million in 2060 (43 percent), further increasing travel demand and worsening existing congestion problems (Census Reporter 2018; Metro 2016). Daily traffic demand over the I-5 crossing has increased steadily over the last decade and is projected to increase in the future by more than <TBD> percent during the next 25 years, with congestion at the Interstate Bridge increasing from 10 hours daily in 2019 to approximately <TBD> hours daily in 2045.

Congestion on a highway occurs when average speeds are below 35 mph.

The duration of congestion on the Interstate Bridge has roughly doubled over the past 14 years. In 2005, there were 4 to 6 hours of congestion daily. By 2019 this had increased to approximately 10 hours.

Congestion in the program area limits mobility and travel reliability within the region and local communities, adversely affecting freight truck, bus, and personal vehicle travel. I-5 at the Interstate Bridge has been identified as one of the region's top recurring bottlenecks during the morning and evening commute periods <citation>.

Travel demand in 2019 exceeded capacity during peak periods on the Interstate Bridge on weekdays and weekends (IBR 202x). In 2019, the total number of vehicles using the bridge was 139,000 average weekday daily traffic (AWDT). Congestion has also steadily increased, with recurring congestion lasting approximately 10 hours each weekday approaching the Interstate Bridge (approximately 3 hours in the morning and 7 hours in the afternoon/evening). The peak periods have also spread into the mid-day period, impacting more bridge users. Other events causing congestion and decreasing travel reliability in the corridor include vehicle crashes, vehicle breakdowns, and bridge lifts (*Exhibit 3*). The cost of congestion on I-5 increased by 18 percent between 2015 and 2017 <to be verified>, increasing to nearly three quarters of a million dollars each day in 2017 (ODOT 2018).

Vehicle trips (2019)
Of the 305,000 vehicle trips that crossed the Columbia River daily in 2019, 139,000 vehicles utilized the Interstate Bridge while 166,000 used the I-205 Bridge. This total includes trips made in single-occupancy vehicles (SOV), high-occupancy vehicles (HOV), trucks, and transit vehicles (buses).

Exhibit 3. Crash on the Interstate Bridge (or Interstate Bridge Lift)

<insert photo>

The increased number of cars using the corridor and idling vehicles sitting in congestion conditions contribute to increasing greenhouse gas emissions. The Oregon Governor's executive order signed in March 2020 directs the state to take actions to reduce greenhouse gas emissions 45% below 1990 levels by 2035 and 80% below 1990 levels by 2050. The Washington RCW 70A.45.020 directs the state to take actions to reduce greenhouse gas emissions 45% below 1990 levels by 2030 and 95% below 1990 levels by 2050.

Congestion on I-5 leads to increased traffic and safety concerns on local roads. This reduces travel reliability as regional I-5 traffic detours to local arterials on both sides of the river, such as Martin Luther King Jr. Boulevard, Interstate Avenue, Main Street, and other city streets. Due to the duration of congestion on I-5, some travelers and freight trucks detour to the longer, alternate I-205 route across the Columbia River. Still, the I-5 corridor is the roadway of choice for many travelers in the area due to its convenient location and proximity to jobs, commerce, housing, ports, and other popular destinations. <augment with demographics>

The longer the distance of travel in congestion, the greater delay in reaching destinations, increased exposure to emissions, and reduced travel reliability. As affordable housing becomes scarcer, people experiencing low income have moved farther away from major job centers in the region, which lengthens distances traveled, increases time spent commuting to work or obtaining services, and introduces greater risks of job insecurity with less travel reliability. Inequity occurs as those experiencing low income more often have greater transportation costs compared to other travelers that can afford housing closer to job centers thereby reducing the time spent in congestion.

Recent demographic trends

- Median gross rent has increased 35% in Portland and 31% in Multnomah County compared to 22% in Vancouver and 24% in Clark County between 2000 and 2019 (adjusted for inflation) (US Census 2000: 2015-19 ACS)
- The black, indigenous and people of color (BIPOC) population has grown 20% in Portland and 29% in Multnomah County compared to 60% in Vancouver and 62% in Clark County between 2000 and 2019 (US Census 2000: 2015-19 ACS)
- Median household income has increased 15% in Portland and 9% in Multnomah County in contrast to a decrease of 3% in Vancouver and flat growth in Clark County between 2000 and 2019 (US Census 2000: 2015-19 ACS)

"Vancouver has experienced an influx of new residents in recent years with a population growth of 19.3% since 2000. As the cost of living has escalated throughout the region, people have migrated further from Portland's urban core in search of more affordable places to live."

--Reside Vancouver: An Anti-Displacement Plan (City of Vancouver, 2019)

Freight growth and congestion impair movement of goods

I-5 is part of the National Truck Network and is the most important freight highway on the West Coast, linking regional, national and international markets in Canada, Mexico and the Pacific Rim with destinations throughout the western United States. In the center of the project area, I-5 intersects with the Columbia River's deep water shipping and barging marine corridor as well as two river-level, transcontinental rail lines. In addition, the program area provides direct and important highway connections to the Port of Vancouver and Port of Portland facilities located along the Columbia River, as well as the majority of the area's freight consolidation facilities and distribution terminals. The area has seen an increase in freight traffic, freight tonnage, and E-commerce logistics in the past decade due to bi-state and regional logistics activity, including increased traffic from other local ports, major logistics operations at Delta Park, Centennial Industrial Park, and changes in tenancy and operations at the Port of Vancouver and the Port of Portland.

<Add a sidebar showing CRC freight volumes vs IBR 2019 freight volumes to support statement in text>

The heavy, daily congestion in the I-5 corridor impairs the reliable movement of truck freight. The movement of truck freight is also unpredictable due to crashes on I-5, limited shoulders, and bridge lifts, which ranged from 150-350 lifts per year between 2015 and 2019.

Movement of people and goods is critical to sustain the ability of local businesses to compete in the national economy and support a growing economy. Over 13,500 medium and heavy trucks crossed the Interstate Bridge daily in 2019, accounting for just under 10 percent of daily traffic across the bridge. The freight commodity value crossing the Interstate Bridge in 2017 is $71 million <to be confirmed>. Freight tonnage in the Portland region is expected to double by 2040, with 75 percent of total freight tonnage moved by truck (Metro 2018). Growing demand and congestion will result in increasing delays, costs and uncertainty for all businesses – large and small – that rely on this corridor for freight movement.

Congestion reduces current public transit service reliability and limited infrastructure hinders efficient transit connectivity

Due to limited facilities to support bi-state public transit connectivity and reliability within the program area, a number of economic markets are not well served. These limitations complicate and reduce strategies to implement climate actions. In addition, those who rely most heavily on public transit, including individuals experiencing low-income, people with disabilities, people of color, young people, and older adults, face barriers to accessing living wage jobs, health care, education, and other essential services.

<Add a sidebar with relevant housing/transportation costs to support statement in text>

Travel times for public transit using general purpose lanes on I-5 in the program area are expected to increase substantially by 2040. Growing congestion in the corridor reduces public transit service reliability and travel speed, which can discourage reliance on transit and increases overall transportation costs for people seeking more affordable housing and living wage jobs. Southbound bus travel times in 2019 were up to four times longer during parts of the morning peak period compared to off-peak periods. Northbound bus travel time <TBD>.

Infrastructure to support efficient access, connections and movement of transit is lacking in the program area. Key transit infrastructure is needed to promote and encourage local, regional and state climate actions and to provide equitable access to transportation options.

Safety Issues

Vehicle crashes can cause injuries and fatalities, damage to vehicles and infrastructure, and contribute to non-recurring congestion. The program area experiences crash rates nearly three times higher than statewide averages for comparable facilities. There were six fatal crashes in the I-5 corridor between 2015 and 2019. Crashes are attributed to traffic congestion, narrow lanes, limited sight distance, and bridge lifts that stop traffic on I-5. In addition, crashes result from the short merging, short diverging, and weaving movements associated with closely spaced interchanges. Due to the lack of shoulders on the Interstate Bridge and narrow

shoulders in portions of the I-5 corridor, even minor traffic crashes or incidents cause congestion and chain-reaction crashes. In 2019, crashes were more than twice as likely to occur during peak travel periods compared to off-peak periods.

Other safety issues in the program area include increased traffic on local roads as travelers look for ways to avoid congestion, and active transportation and transit considerations. Inadequate walking/biking/rolling facilities is another safety issue within the program area. Pedestrians and bicyclists face safety concerns on the existing bridges due to the narrow (3.5 to 4 feet wide) shared use paths, a low barrier between the path and the river, and close proximity to vehicle travel lanes. Limited connectivity on either side of the bridge increases the potential for conflicts between vehicles and bicyclists and pedestrians. In addition, transit agencies require adequate facilities to support safety and encourage ridership.

Inadequate bicycle and pedestrian facilities

The existing bridge hinders cross-river active transportation due to lack of connectivity, rider unease, safety issues, and bridge lifts. The shared use paths on the bridges are about 3.5 to 4 feet wide, which is narrower than current standards and not compliant with the Americans with Disabilities Act. Furthermore, the shared use paths are in close proximity to traffic lanes, which increases bicyclist and pedestrian exposure to vehicular traffic, noise and emissions (*Exhibit 4*). The bridge facilities are not accessible for all ages and abilities.

Deficient pedestrian and bicycle facilities in the program area limit modal choice. The facilities lack direct connectivity to pedestrian and bicycle facilities on either side of the river, are complicated by complex, substandard and difficult wayfinding, and constrain active transportation access to development along the Columbia River. In addition, there is currently no way for pedestrians or bicyclists to travel to and from Hayden Island without using the substandard bicycle/pedestrian facilities. Current constraints on walking, biking, and rolling limit access to public transit, increasing the burden of transportation costs and decreasing effective local opportunities to reduce greenhouse gas emissions.

Exhibit 4. Bicycle and Pedestrian Path on the Interstate Bridge

<insert photo>

DRAFT VISION, CRITICAL OBJECTIVES AND VALUES

With the recommendation of the Executive Steering Group and input from the Equity Advisory Group and Community Advisory Group, the IBR program developed a draft vision for addressing the program's Purpose and Need as well as two critical objectives that elevate the importance of identifying a locally preferred alternative that promotes equitable benefits to the community and contributes to reducing the adverse impacts of climate change. Additional community values were developed to achieve other desirable outcomes of the program. These critical objectives and values, along with the Purpose and Need, are instrumental in developing evaluation criteria used to screen alternatives and identify a locally preferred alternative.

Program vision

The Interstate Bridge Replacement Program Vision provides the foundation for assessing how criteria and performance measures will be used to screen alternatives and determine whether new options are needed to meet the program purpose and address program needs. The IBR program will be delivered with a critical focus on 1) promoting equity through design solutions, program benefits and mitigation for adverse program effects; and 2) advancing local opportunities to reduce impacts from and improve resiliency to global climate change. Moreover, the IBR program will include the following considerations in the NEPA analysis of river crossing infrastructure; multimodal transportation and connectivity; public transit; land use; funding; community and business interests; commuter and freight mobility; maritime mobility; and the environment.

Critical objectives

Critical objectives must be met to deliver a successful program. How these objectives influence program delivery, community engagement, alternatives development, analysis of impacts and benefits, and development of mitigation strategies are listed below.

Equity

- Commit to equity of both outcomes and processes throughout the delivery of the program.
- Ensure historically marginalized communities have meaningful access to program activities, jobs, and other program benefits ~~for historically marginalized communities~~.
- ~~Seek~~ Minimize ~~equitable distribution of~~ transportation costs for historically marginalized communities associated with the program.
- ~~Strive to ensure~~Ensure access to program benefits while minimizing impacts to historically marginalized and underserved communities, including neighborhoods adjacent to the program area.
- Consider historical impacts to black, indigenous, and people of color (BIPOC) as well as economically vulnerable populations when determining equitable outcomes for the program.

<Add definition of "Process Equity" and "Outcome Equity" per EAG (pending)>

- Engage historically marginalized communities to ensure program design reflects cultural context and area history.
- Provide meaningful opportunities for women and minority owned firms, including Disadvantaged Business Enterprises in all procurement.
- ~~Through design, m~~Minimize displacements within communities of concern through design.
- Enhance transportation and public transit access to jobs, services, affordable housing and housing choice relevant to historically marginalized communities.

Climate change

- Support federal, state and local directives and planning goals related to climate resiliency; consider forecasted climate conditions such as future potential of rising river levels, increased flood risk, and other conditions into the design and construction of the locally preferred alternative.
- Support federal, state and local directives and planning goals to reduce greenhouse gas emissions associated with inefficient use of transportation infrastructure, congestion and idling while increasing active transportation facilities and public transit capacity.
- Incorporate greenhouse gas reduction strategies throughout every phase of program delivery, including materials, construction methods, and future performance (energy demand) to minimize carbon impact.
- Provide modal choices for cross-river travel and emphasize mobility and managing demand to reduce greenhouse gas emissions in the program area.
- Adapt to technological advances in energy saving and other sustainable practices.
- Increase and enhance natural areas, tree canopies, and landscaped areas.

Community values

Quality of life

- Support a healthy and vibrant land use blend of mixed income residential, commercial, industrial, recreational, cultural, and historic areas.
- Provide access to transportation options and an active lifestyle.
- Reduce adverse impacts from the program that harm community health.
- Maximize transportation and public transit's link to affordable housing and jobs.
- Create a regional landmark through design that incorporates aesthetic qualities and reflects the area's cultural landscape.
- Improve community cohesion and avoid neighborhood disruption.
- Preserve or enhance parks, historic and cultural resources, and green spaces.

Mobility, travel reliability, and congestion reduction

- Recognize and plan for anticipated travel conditions over the lifespan of the bridge.

- Increase the capacity of the bi-state river crossing to move more goods and people on all modes.
- Provide more efficient mobility, while improving reliability and accessibility for all users.
- Explore congestion pricing tools combined with transit options to help manage travel demand and improve freight and person mobility.
- Provide an efficient transportation system that accommodates transportation system management with tools such as active traffic management, ramp metering, and incident management.
- Promote transportation demand management through increased transit and other strategies such carpooling, vanpooling, commute trip reduction programs, and park and rides.
- ~~Recognize the requirements of local, regional, and interstate movement.~~
- Address bottlenecks throughout the program area.
- Enhance the I-5 corridor as a global trade gateway by addressing the need to move freight efficiently and reliably through the program area, while allowing for river navigational needs.

"Mobility" refers to the ability to easily move between different locations.

"Travel reliability" refers to consistency or dependability in travel times, as measured from day-to-day and/or across different times of the day.

Modal choice

- Provide modal choice, including ~~highway~~motor vehicle, transit, high-capacity transit, and active transportation modes.
- Improve local connectivity for all modes and connections to the regional system.
- Reduce barriers to accessing different modes.

"Modal" refers to the various methods (or modes) of transportation, such as motor vehicle, transit, walking, cycling, rolling, or other means.

Safety

- Improve safety for all users including vehicles, freight, transit ~~users~~, and those who walk, bike, or roll.
- ~~Improve short-term and long-term resiliency of the bridge to a seismic event~~Provide a seismically resilient bridge, ~~that is~~ consistent with local, state, and federal policies promoting resiliency.
- Design smart roads to accommodate future technological advances (e.g., autonomous vehicles, smart tolls).
- Implement safety features to reduce congestion (e.g., fewer crashes causing delays).

~~Regional economy~~Economic Empowerment

- Support access to jobs for a sound regional economy and job growth.
- Optimize opportunities for local job creation related to program materials and construction.
- Reinforce the program area's role as part of an important interstate trade corridor.

Environment

- Respect, protect, and enhance natural resources, including fish, wildlife habitat, and water quality.
- Support improved air quality and water quality.
- Minimize impacts of noise, light, and glare on people, the historic landscape, and natural resources.

- Support energy efficiency through design, construction, and use.

Funding and cost-effectiveness

- Ensure cost-effectiveness in design, construction, maintenance, and long-term operation.
- Ensure a reliable funding plan for the program, recognizing future funding challenges.
- Ensure alignment with State and Federal funding programs to maximize funding.
- Ensure the ability of the program to be phased as needed.

Bi-state and local cooperation

- Foster regional cooperation and planning, creating space for a common voice between the bi-state program partners to improve program outcomes.
- Support existing growth management plans.
- Support balanced job growth.
- Support alignment with partner agency policies to the extent practicable.

Community engagement

- Provide ongoing opportunities for meaningful, equitable and transparent community engagement.
- Focus on equity-centered engagement, including with communities of concern and historically marginalized communities.
- Incorporate community feedback to influence key decisions regarding the range of improvements, design, impacts to the community and environment, and mitigation strategies.