

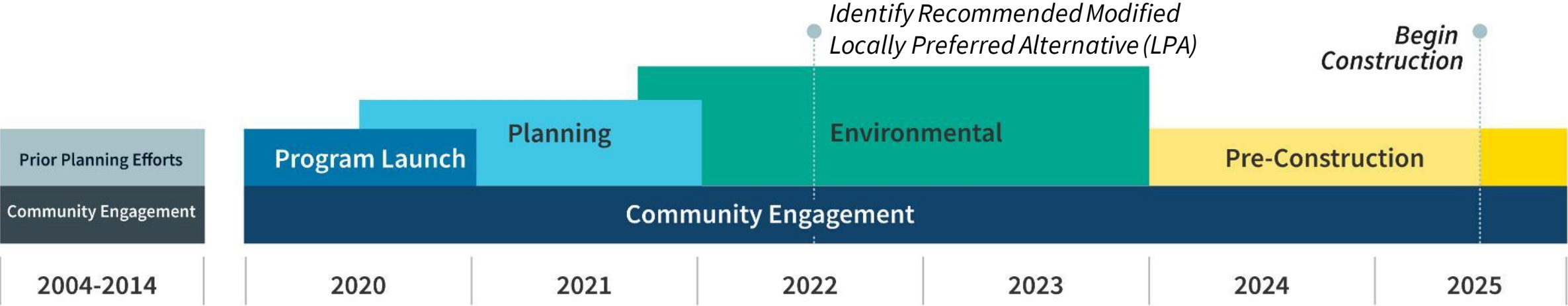


# Interstate Bridge Replacement Program

May 23, 2022



# Program Timeline



# Initiating IBR efforts

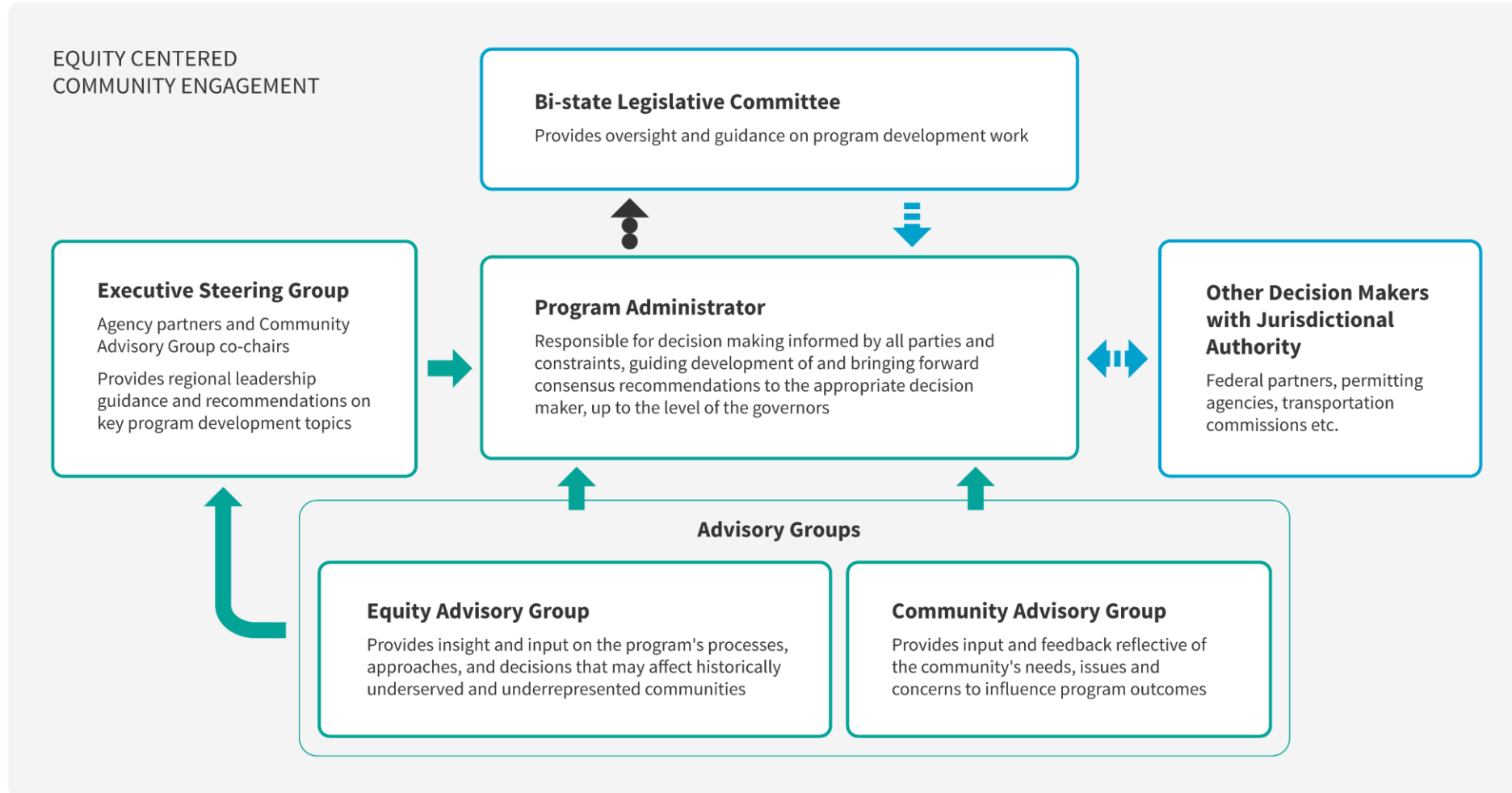
- ▶ Bi-state Memorandum of Intent signed by Governors Brown and Inslee in November 2019
- ▶ \$90 million in combined funding dedicated by OR and WA as of March 2022
  - Move Ahead Washington revenue package allocates \$1 billion to fund Washington's share of the anticipated cost needed to complete the IBR program
- ▶ Bi-state legislative committee oversight and guidance to shape program work
- ▶ ODOT and WSDOT are jointly leading the program work in collaboration with eight other bi-state partner agencies:
  - TriMet
  - C-TRAN
  - Oregon Metro
  - SW WA Regional Transportation Council
  - City of Portland
  - City of Vancouver
  - Port of Portland
  - Port of Vancouver



Photo courtesy of Office of Governor Kate Brown



# Oversight and Advisory Groups



KEY: Recommendations Oversight/Guidance  
 Regular briefings on program work and advisory group recommendations

**NOTE:** Location on graphic does not indicate hierarchy. This diagram is intended as a high-level overview and does not show all engagement points.

# Purpose and Need



**Safety:** Narrow lanes, no shoulders, poor sight distances, bridge lifts, and substandard ramp merging and diverging contribute to accidents.



**Earthquake vulnerability:** In a major earthquake, the bridge would likely be significantly damaged, potentially beyond repair.



**Impaired freight movement:** Congestion and bridge lifts slow down freight carrying goods along I-5, a critical economic trade route on the West Coast.



**Inadequate bike & pedestrian paths:** Narrow shared-use paths, low railing heights, and lack of dedicated pathways impede safe travel.



**Congestion:** Over 143,000 vehicles crossed the Interstate Bridge each weekday in 2019, resulting in 7 to 10 hours of congestion during peak travel times.



**Limited public transportation:** Limited transit options and existing bus service can be unreliable due to traffic congestion and/or bridge lifts.

# Modified Locally Preferred Alternative (LPA)

## What it is

- High-level identification of the foundational components of an alternative such as mode, alignment, and other improvements
- Specialized term for projects with a transit component and/or pursuing CIG funding (compared to preferred alternative in other NEPA documents)
- Early agreement by local agencies

## What it's not

- Fully defined alternative evaluated in the SDEIS
  - Conceptual design that integrates the fundamental components into a corridor-wide alternative
- Final design
  - Fundamental concepts will be refined through a stepwise design process (e.g., 30%, 60%, 90%, Issue for Construction)
- The end of technical analyses
  - More analysis and opportunities to shape what gets built
- Final approval
  - More opportunities to develop and approve final program components

# IBR Recommendation: Modified LPA

Hayden Island/  
Marine Drive:

**Partial  
Interchange**

Transit:  
**Light Rail to  
Evergreen near  
I-5**

River Crossing  
Auxiliary Lanes:

**1**

Variable Rate  
Tolling:

**Yes**




## Partial Interchange Summary



Hayden Island Drive local-only trips and Tomahawk Island Drive extension increase Hayden Island east-west connectivity



Smaller interchange leaves space for a comfortable pedestrian environment and opportunities for open space

Addresses safety and congestion by improving active transportation, adding shoulders, increasing lane widths and improving ramp merges 

## Benefits of Expanding LRT from Expo to Evergreen

**4** Stations\* 

**3,000+** Residents are within a half mile walk

**26%** BIPOC  **41%** Low-income

\*Includes the existing Expo station and 3 new stations.

## Equity - Jobs Accessible via Transit (% increase)\*

**68%** General **73%** BIPOC

**59%** Low-income **71%** People w/ disabilities

\*Increase in jobs accessible from the program area within a 45 minute midday transit ride. Percent Increase determined by adding LRT Expo to Evergreen compared to 2045 No Build.

## Climate - GHG Reduction\*

**36,000** metric tons/year  
or the equivalent of

**7,000** homes' electricity for one year **OR** **89,400,000** miles driven by gas powered car

\*GHG reduction is an estimate calculated from the displacement (or avoidance) in the shift from cars to transit.

## Strategies to Combat Climate Change



- Demand Management, including Variable Rate Tolling (tolling will consider price reductions for low-income users and low-carbon vehicles)
- Increase traffic operation efficiencies (ramp metering and auxiliary lanes)
- Mode shift from cars to active transportation and transit
- Low-carbon emission construction strategies

# How did we get to this recommendation?

- ▶ Develop desired outcomes with input from partners, advisory groups, and the public
- ▶ Identify changes previous planning and develop design concepts to address changes/current priorities
- ▶ Identify screening metrics, gather transportation data, and conduct modeling to inform screening process
- ▶ Identify best performing options and gather feedback
- ▶ Present recommendation



# Transit Investments

# Recommended Transit Investment

- ▶ IBR recommended transit investment components:
  - Mode – Light Rail Transit
  - Alignment – I-5 Running/Adjacent
  - IBR Terminus – Near Evergreen
- ▶ Other components that will be studied further:
  - General station locations
  - General Park & Ride location and size
  - Operations and maintenance facility
  - System improvements to transit speed and reliability



# Hayden Island / Marine Drive Interchanges

# Recommended HI/MD interchange configuration

- ▶ IBR recommended interchange configuration:
  - **Hayden Island - Partial Interchange**
  - **Marine Drive – Full Interchange**
- ▶ Interchange design will minimize impacts while making improvements to freight and workforce traffic and active transportation on Hayden Island and Marine Drive.
- ▶ Design assumptions:
  - North Portland Harbor bridge replacement
  - Local auto access bridge between North Portland and Hayden Island
  - Local pedestrian/bicycle connections with shared use path
  - High-Capacity Transit station on Hayden Island

# Recommendation: Hayden Island/Marine Drive Interchanges

Partial Interchange



Partial Interchange



\*Visualization is intended as a high-level example for illustration purposes only and does not reflect property impacts or indicate that decisions on design options have been made.

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# Hayden Island Partial Interchange

## ► Key Takeaways:

- Smaller footprint over North Portland Harbor.
- Fewer floating home impacts.
- Smaller scale/complexity of I-5 over Hayden Island provides higher quality experience for active transportation and transit access on east-west streets.
- Hayden Island vehicle/freight access to/from Portland via local roads and I-5 ramps that cross under Marine Drive.
- Hayden Island vehicle/freight access to/from Vancouver via Jantzen Drive I-5 ramps.

# Auxiliary Lanes



# What are Auxiliary Lanes?

- ▶ **Ramp-to-ramp connections** to facilitate acceleration and deceleration, weaving, merging, and diverging for automobiles and trucks between two or more interchanges.

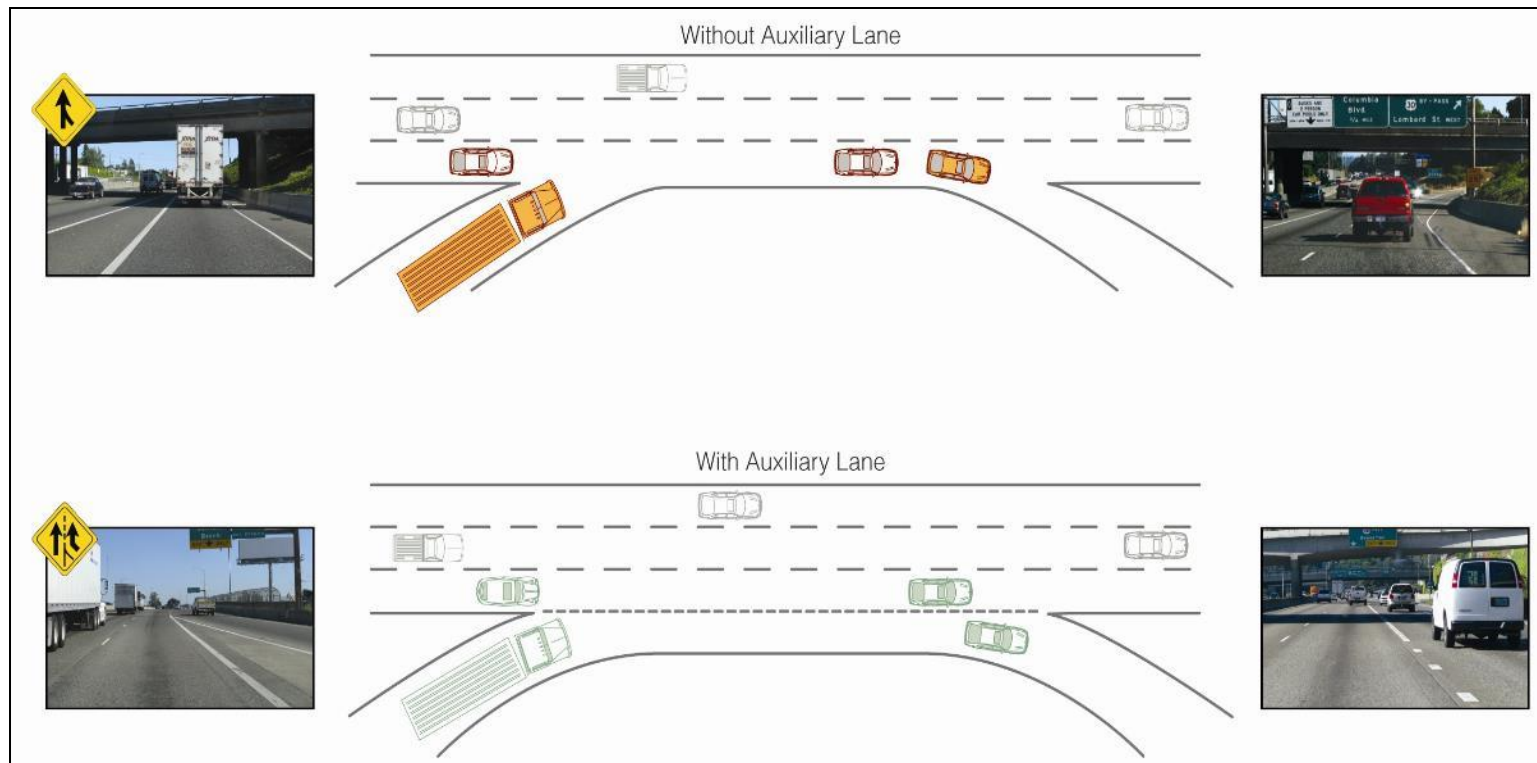
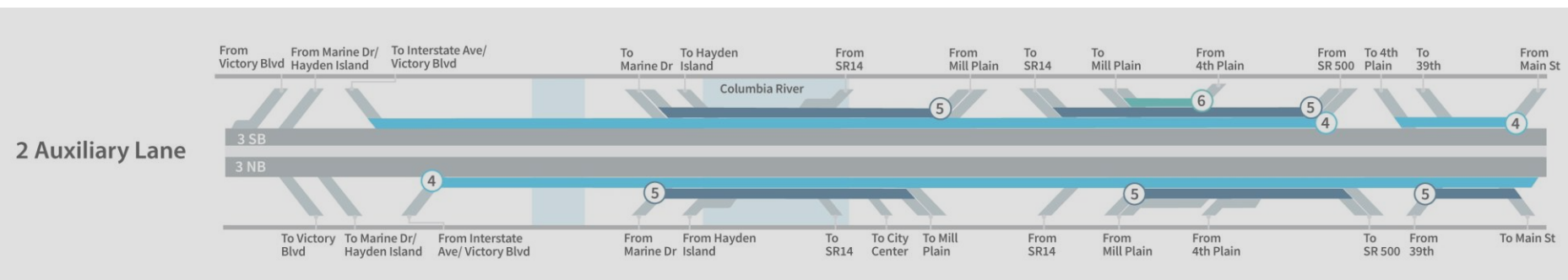
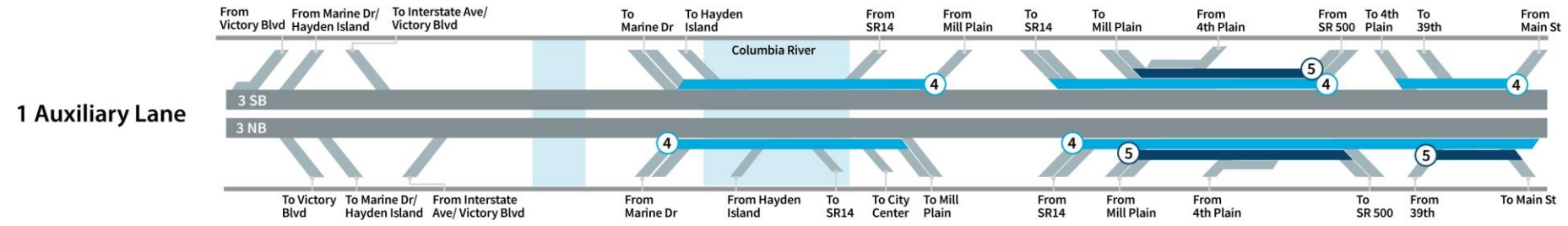
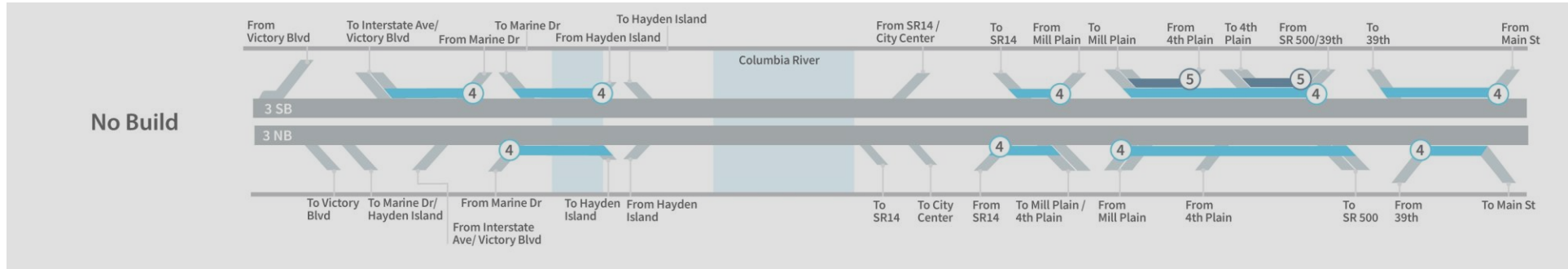


Figure shows typical highway Merge and Diverge Conditions, with (top) and without (bottom) an auxiliary lane.

# Recommended Number of Auxiliary lanes

- ▶ **IBR recommends:**
  - **1 auxiliary lane in each direction (northbound and southbound)**
  - **Located between Marine Drive and Mill Plain Blvd to accommodate the safe movement of vehicles and freight**
- ▶ **Maintain the 3 existing through traffic lanes in each direction to remain consistent with the existing system on either side of the bridge.**

# IBR Program - Auxiliary Lane Options



All options, have 3 lanes thru traffic Northbound and Southbound

- Through lanes
- Auxiliary lane 4
- Auxiliary lane 5
- Auxiliary lane 6
- Collector-distributor roads and ramps

# Auxiliary Lanes

- ▶ **Benefits of one auxiliary lane compared to 2045 No Build:**
  - **Travel time improvements:**
    - *SB AM travel time is reduced by 3 minutes (5% faster) between I-5/I-205 split and I-405.*
    - *NB PM travel time is reduced by 11 minutes (30% faster) between Broadway Ave and SR-500.*
  - **Reduces overall congestion:**
    - *While congestion is similar in the AM/PM peak, there are off-peak benefits, including weekends.*
    - *Less diversion to local streets.*
    - *Faster congestion recovery from crashes and incidents.*
    - *Decrease in crashes, improving safety.*
  - **Mode shift**—daily transit share is expected to increase from 7% in No Build to 11% in the Build.
  - **Fewer lane changes required** (i.e. lane balance).
  - **Climate**—GHG reduction due to less congestion, VMT reduction, mode shift, and tolling.
  - **Large safety improvements:**
    - *Lane widths to allow for current vehicle widths, turning, and comfort.*
    - *Fewer sideswipe crashes.*
    - *Full shoulders to recover from breakdowns and allow for emergency vehicle access and Bus on Shoulder.*
    - *Improved visibility.*
    - *No bridge lifts.*

# Other Components of the Modified LPA

- ▶ **Assumptions that are expected to be included in the recommendation for the Modified LPA:**
  - Replace the current I-5 bridge over the Columbia River with a seismically sound bridge
  - Replace the North Portland Harbor Bridge with a seismically sound crossing
  - The construction of three through lanes northbound and southbound throughout the BIA (Bridge Influence Area)
  - Include active transportation and multi-modal facilities that adhere to universal design principles and facilitate safety and comfort for all ages and abilities
  - Study improvements of other interchanges within the BIA
  - Implement a variable rate toll on motorists using the river crossing, with a recommendation to the Oregon and Washington State Transportation Commission to consider a low-income toll program, including exemptions and discounts
  - Establish a GHG reduction target relative to regional transportation and land use impacts, and to develop and evaluate design solutions that contribute to achieving program, regional, and state-wide climate goals
  - Evaluate program design options according to their impact on equity priority areas including developing a Community Benefits Agreement



# Historical and Cultural Resource Impacts



# Analysis of Existing Conditions

- ▶ **CRC Documentation and Reports**
- ▶ **OR and WA Windshield Survey Reports**
- ▶ **Annotated Bibliography**
  - A living document that will be added to as more research is conducted.
  - Sent to Consulting Tribes for their review.
- ▶ **Archaeology Summary Report**
- ▶ **Contextual Development**
  - Section 106 Consulting Party Outreach for Info.

# Programmatic Agreement

- ▶ Memorandum of Agreement (MOA) last step in Section 106 process
- ▶ CRC MOA executed in 2011
- ▶ Project PA will terminate existing MOA
- ▶ CRC mitigation to IBR PA





# Section 106 Consulting Parties

- ▶ Invitations were sent out to 47 Section 106 Consulting Parties in March.
- ▶ The Cultural Resources Team will host a monthly meeting with Consulting Parties, which will provide general progress updates on cultural efforts for the IBR program and discuss materials for review.
  - Meeting date and time: Fourth Tuesdays of every month at 9:30 AM.
  - Recordings of the meeting will be shared with parties.
- ▶ Of the 47 organizations invited, 26 accepted the invitation, four declined, and 17 did not respond.



# Tribal Consultation – History Listening Sessions

- ▶ IBR Program offered Listening Sessions to all consulting Tribes.
- ▶ Four tribes presented on foundational knowledge and historical context of the project area in February and March 2022.
- ▶ Themes heard:
  - Importance of Hayden Island
  - The interconnectedness of cultural resources and natural resources
  - Columbia River as a connector of people and trade
  - Guiding principles for mitigation



# Fieldwork: Built Environment Surveys

- ▶ Based on the previous CRC Section 106 efforts and modified LPA footprint.
- ▶ Fieldwork to begin this summer.
- ▶ Cultural team estimates that there are ~200 resources in WA and ~50 resources in OR.



# Costs, Funding and Next Steps

# Costs and Funding

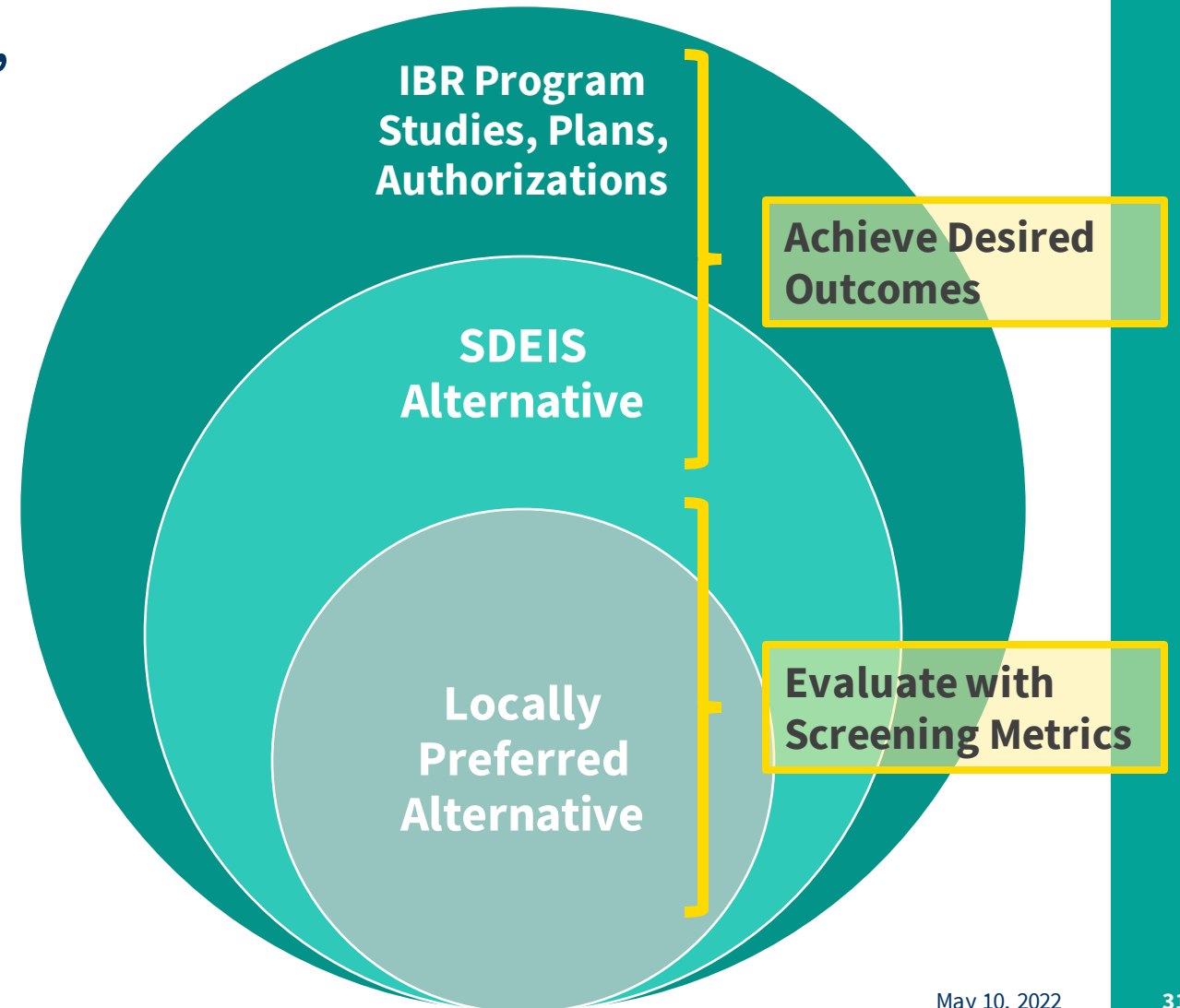
- ▶ **The program identified a conceptual cost estimate as a preliminary range of \$3.2 to \$4.8 billion.**
  - Cost estimates will be updated this fall once a Modified LPA is identified.
- ▶ **The program is pursuing a variety of funding sources including state, federal, and tolling sources.**
  - The Move Ahead Washington transportation package, recently signed by the Governor, allocates \$1 billion in IBR construction funding.
  - IBR anticipates applying for federal grant funding beginning in 2023.
  - The FTA Capital Investment Grants (CIG) Program, along with the Competitive Bridge Investment Program and/or the National Infrastructure Project Assistance Program appear to be the best fit for IBR to apply.

# Variable Rate Tolling

- ▶ IBR program and ODOT toll program are separate but related efforts
- ▶ Tolling objectives include revenue generation, managing congestion, and improving multimodal mobility in the corridor
- ▶ Expected to vary by time of day, and day of week based on a set schedule so the cost is predictable for the traveler.
- ▶ The program is committed to recommending an equitable tolling system informed by national best practices for tolling in urban areas
  - Oregon Transportation Commission and the Washington State Transportation Commission will determine exemptions and discounts
- ▶ Soonest tolling could begin on Interstate Bridge is in late 2025/early 2026

# Next Steps – How They Fit Together

- ▶ Program requires numerous studies, plans, analyses, authorizations, etc.
- ▶ Supplemental Draft Environmental Impact Statement (SDEIS) is a study where benefits and impacts of the Modified Locally Preferred Alternative will be evaluated for public review and comment.
  - A Locally Preferred Alternative (LPA) identifies the foundational elements of the alternative to be studied in the SDEIS process.



# Timeline

## ▶ This summer

- Gather feedback from program partner boards, councils, and commissions regarding recommended Modified LPA
- Executive Steering Group consider adoption of Modified LPA recommendation
- Bi-state Legislative Committee consider and respond to Modified LPA

## ▶ Fall/winter 2022

- Begin SDEIS process
- Update conceptual finance plan

## ▶ 2023

- Additional tolling and funding discussions as part of the 2023 legislative sessions
- Anticipate applying for federal grant funding opportunities



# Questions and Discussion



For more information contact:

info@interstatebridge.org

360-859-0494 or 503-897-9218

888-503-6735

<https://www.interstatebridge.org>

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# Thank you!

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