



Community Advisory Group Meeting

December 2, 2021



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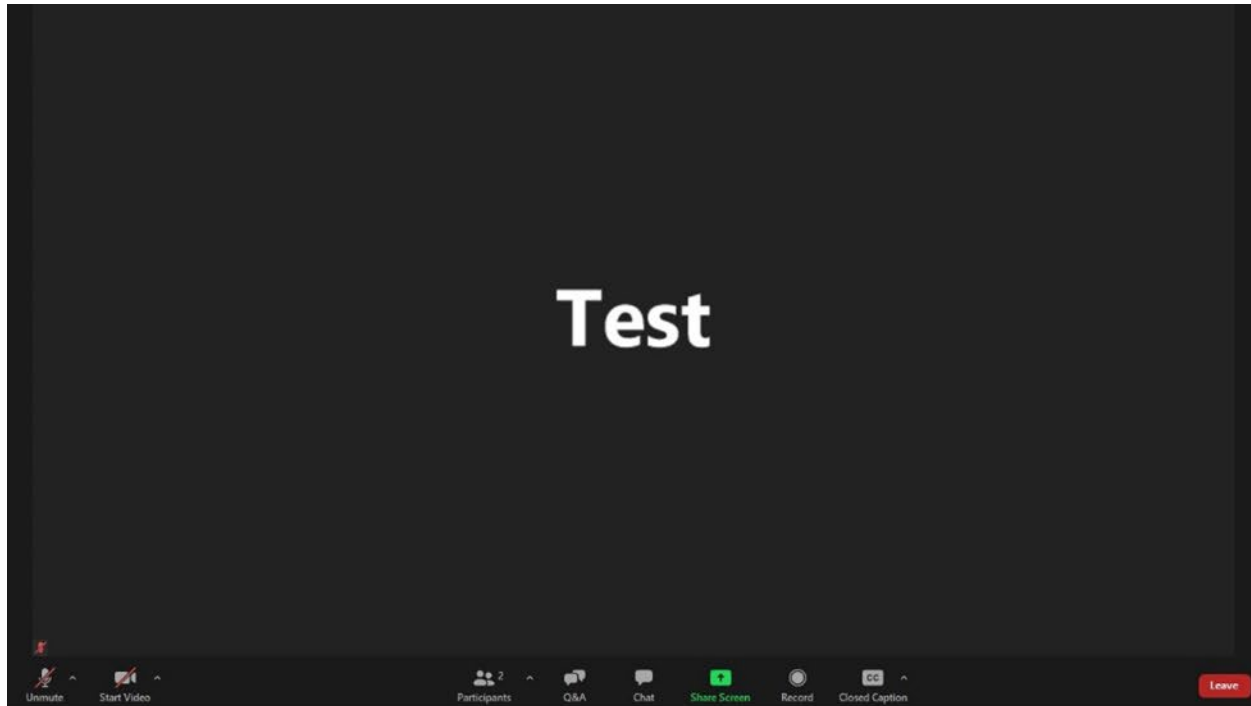
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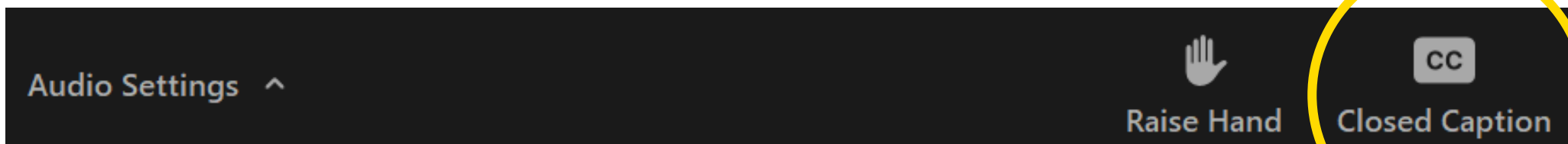
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2. Then click on the "CC" icon and a separate window with captions will appear.



ASL Interpretation

- ▶ In the effort to continue to center equity there is an ASL interpreter in addition to closed captioning.
- ▶ To make sure the interpreter is always visible please right click their video and select spotlight video.
- ▶ For those watching on YouTube, when we screenshare, you will be able to see the slideshow, closed captioning and the ASL interpreter. You will still be able to hear different people speaking but may not see them.

Webinar Participation Tips

- ▶ Thank you for joining us today!
- ▶ Please join audio by either phone or computer, not both. We encourage panelists to turn on your video.
- ▶ Please keep your audio on mute when not speaking.
- ▶ If you experience technical difficulties, please contact program staff at:
(360) 329-6744

Public Input Instructions

- ▶ There will be an opportunity to provide brief public input later in the meeting today (around 5:45PM).
 - To dial in by phone use the following directions:
 - Dial: 1-669-900-6833
 - Meeting ID: 993 5459 6043 Passcode: 674942
 - Dial *9 to raise your hand; After you are invited to speak, dial *6 to unmute yourself.



Public Input Instructions

▶ To submit comment after the meeting:

- Fill out the comment form on the program website or email your comments to **info@interstatebridge.org** with “CAG Public Comment” in the subject line.
- Call **360-859-0494** (Washington), **503-897-9218** (Oregon), or **888-503-6735** (toll-free) and state "CAG Public Comment" in your message.
- Written comments need to explicitly say “**CAG Public Comment**” in the subject line or in the body of the message for them to be identified and distributed to CAG members.
- All written comments must be received prior to 48 hours in advance of each upcoming meeting in order to be distributed to advisory group members. Comments received after that point will be distributed to members in advance of their next meeting.



CAG member commitments & operating norms

- ▶ Put Relationships First
- ▶ Keep Focused on Our Common Goal
- ▶ Notice Power Dynamics in the Room
- ▶ Create a Space for Multiple Truths & Norms
- ▶ Be Kind and Brave
- ▶ Practice Examining Racially Biased Systems and Processes
- ▶ Look for Learning

Meeting Agenda

1. Welcome
2. Program updates
3. Program workplan update
4. Data analysis & Modeling
5. Preliminary list of design options feedback
6. What's Next, public comment, and wrap up

Video: A bridge story

Program Update

Greg Johnson, Program Administrator

Positioning IBR Program for Grant Funding

- ▶ **First, define project scope and progress through NEPA processes**
- ▶ **Work to secure non-federal funding match commitments**
 - Federal agencies typically prefer to offer the “last dollar in” to complete a project. Thus, it can be difficult to assemble project funding that combines grants from several competitive sources.
- ▶ **There are advantages to being one of the first projects to express interest to USDOT/FHWA regarding the new competitive grant programs**
 - This allows the project team to become familiar with the agencies’ thinking and potentially help shape grant guidelines before they are published

Major IIJA Discretionary Grant Programs

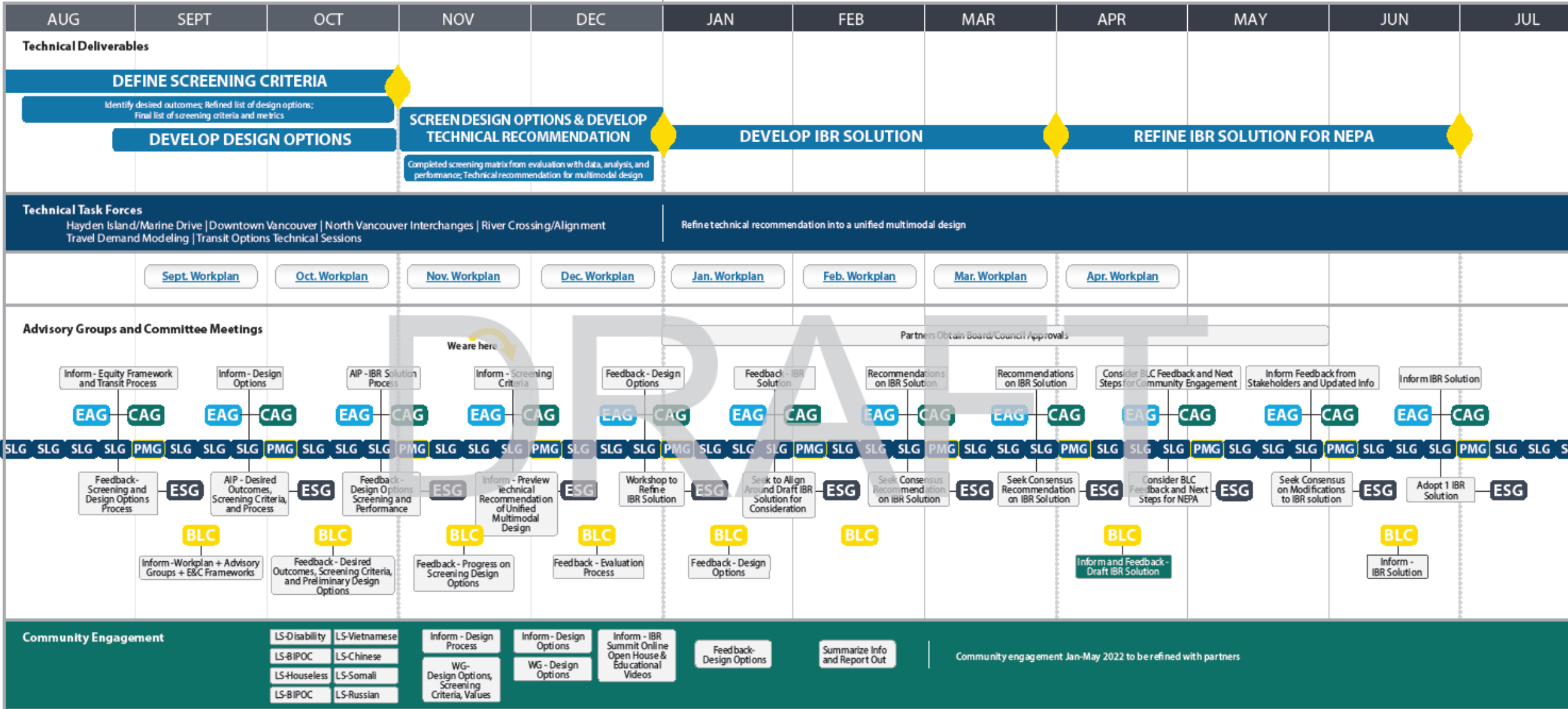
	NEW Competitive Bridge Investment Program	NEW National Infrastructure Project Assistance Program	FTA Capital Investment Grant
Authorized Funding	\$12.5 B, additional \$3.6 B subject to future appropriations	\$5 B over 5 years, half for projects >\$500 M, \$5 B subject to future appropriations	\$8 B, additional \$15 B subject to future appropriations
Maximum Project Award	Up to 50% share	Up to 60% share	Up to 60% share
Eligible Projects	Replacement, rehabilitation, preservation, or protection of bridges	Highways and bridges, freight, intercity rail, public transportation, multimodal	Fixed guideway transit (rail or bus rapid transit)
Selection Criteria	<ul style="list-style-type: none"> To be further defined by FHWA, but will include <ul style="list-style-type: none"> Benefits (11 criteria) Benefit/cost analysis Financial commitment Consistency with asset management plan 	<ul style="list-style-type: none"> To be further defined by USDOT, but will include: <ul style="list-style-type: none"> Support for state of good repair Benefits and cost-effectiveness Total person or freight volume of freight supported National/regional economic benefits of job access + creation Additional considerations (e.g. more than one state benefits) 	<ul style="list-style-type: none"> Project justification rating includes mobility improvements, environmental benefits, congestion relief, cost-effectiveness, economic development, and land use. Local financial commitment rating includes agency capital/operating condition, commitment of funding, and reasonableness of capital + O&M cost estimates.
Procedures	<ul style="list-style-type: none"> Annual submittals Project ratings based on criteria (5- point scale) Secretary of Transportation must recommend the project for funding in an annual report to Congress 	<ul style="list-style-type: none"> Secretary rates projects as highly recommended, recommended, or not recommended based on criteria, and publishes list of selected projects 	<ul style="list-style-type: none"> FTA approval at project milestones Project ratings based on criteria (5- point scale) Annual report to Congress with ratings and funding recommendations

Program workplan update

John Willis, IBR Deputy Program Manager

Getting to the IBR Solution

2021 2022



North Star Targets



Legend

- CAG** Community Advisory Group
- EAG** Equity Advisory Group
- ESG** Executive Steering Group
- PMG** Program Managers Group
- SLG** Staff Level Group
- BLC** Bi-state Legislative Committee
- LS** Listening Session
- WG** Working Groups
- AIP** Agreement in Principle



Transportation Data

Ryan LeProwse, Transportation/Planning Lead

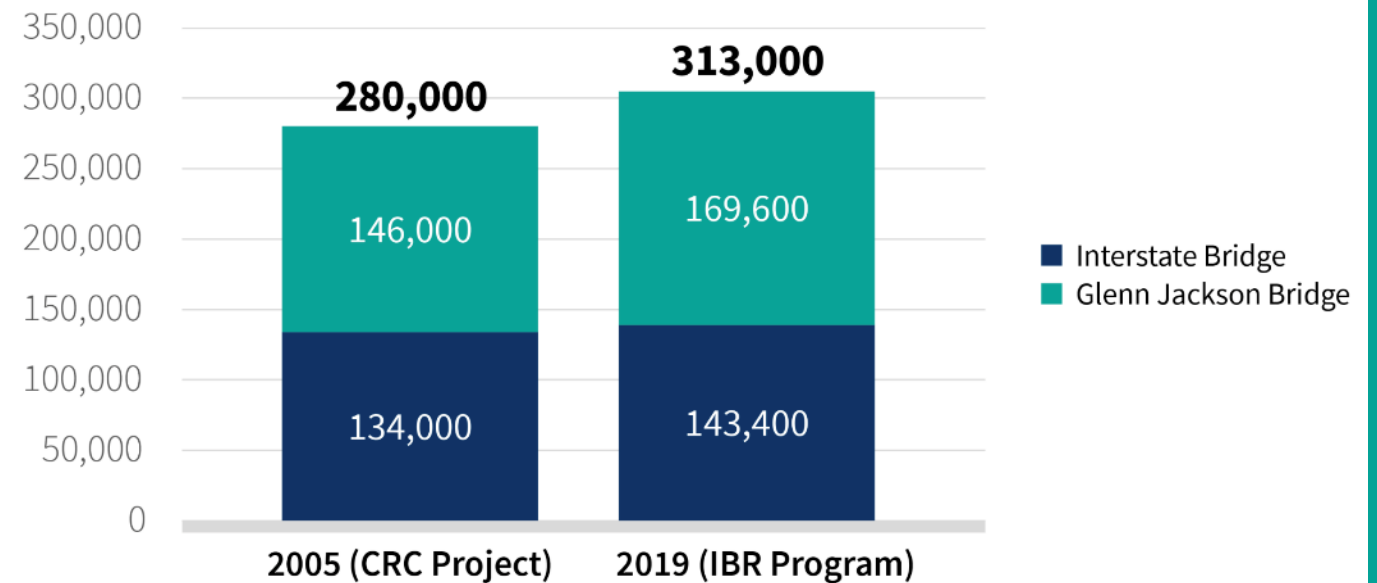
Introduction

- ▶ **Comprehensive and quality data provides the foundation for robust transportation analysis to support program work.**
- ▶ **The baseline data used for the IBR program is similar to data collected during previous project (e.g., transportation and environmental data)**
 - Additional data continues to be incorporated to support new technologies and interest areas since previous planning efforts occurred.
- ▶ **The IBR program is following industry standards by using long term travel forecasts to analyze future conditions which are based on historical trends observed over a long period of time vs short term impacts, such as the COVID-19 pandemic.**
 - The program is using 2019 as the baseline year for all data.
 - Any potentially permanent or long-term changes in travel behavior due to COVID-19 are currently unknown.

Traffic Growth Rates

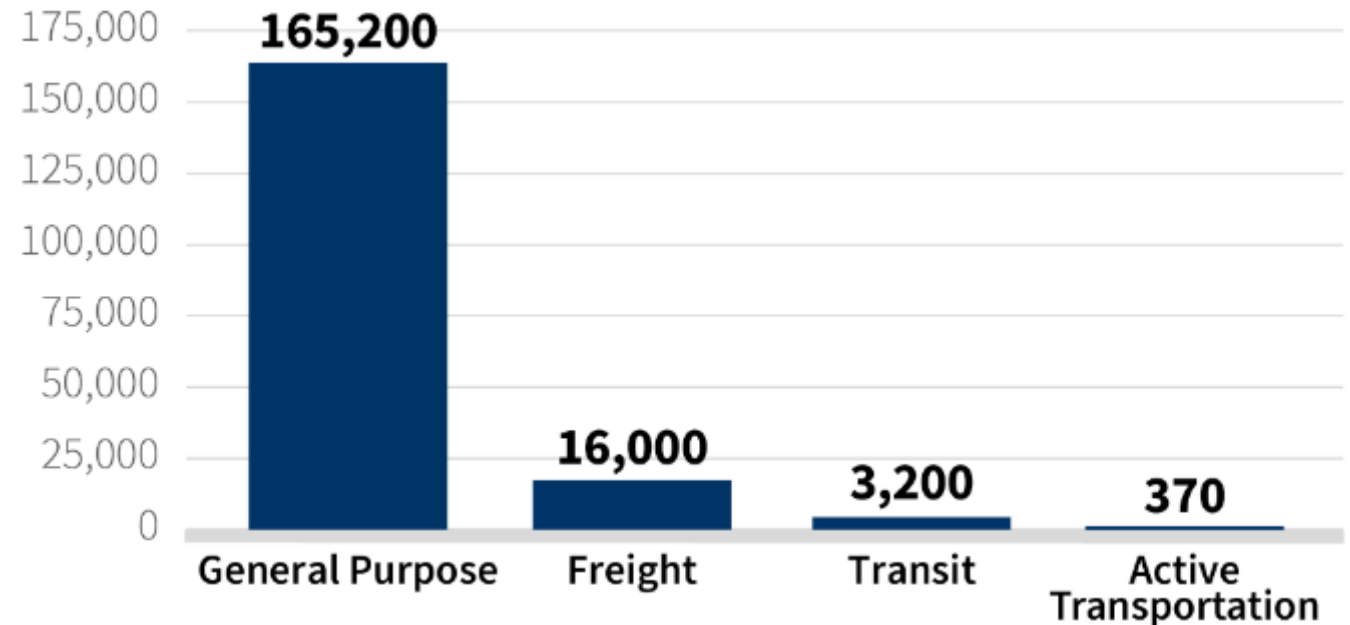
- ▶ Overall average weekday daily traffic (AWDT) increased 12% between 2005 and 2019.
 - The Interstate Bridge AWDT increased 0.3% per year annually.
 - The Glenn Jackson Bridge AWDT increased 1% per year annually.
 - Of the total growth in river crossing trips (33,000 AWDT), 72% of the increase occurred on the Glenn Jackson Bridge due to capacity constraints and extensive congestion over the Interstate Bridge.

Overall Average Weekday Volumes by Bridge

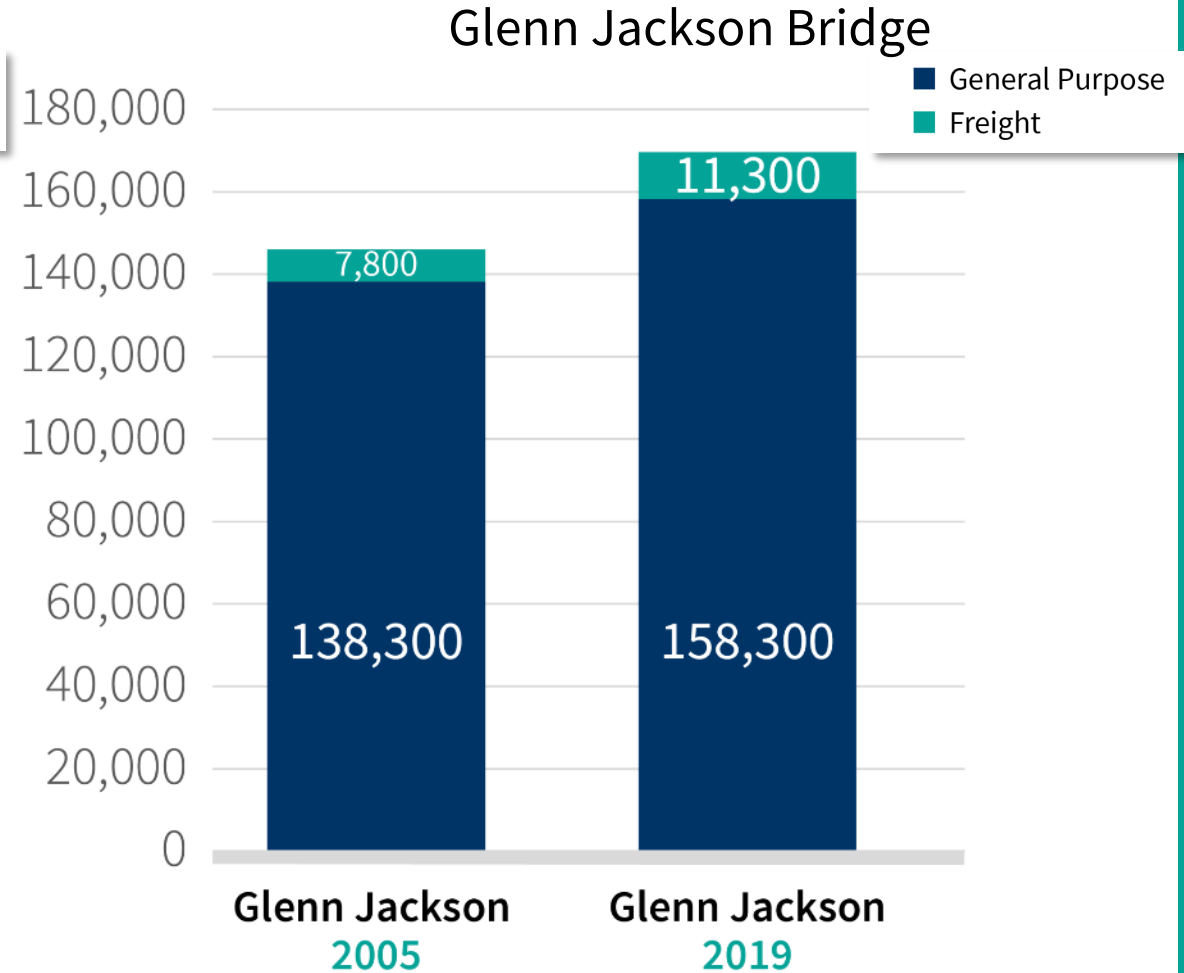
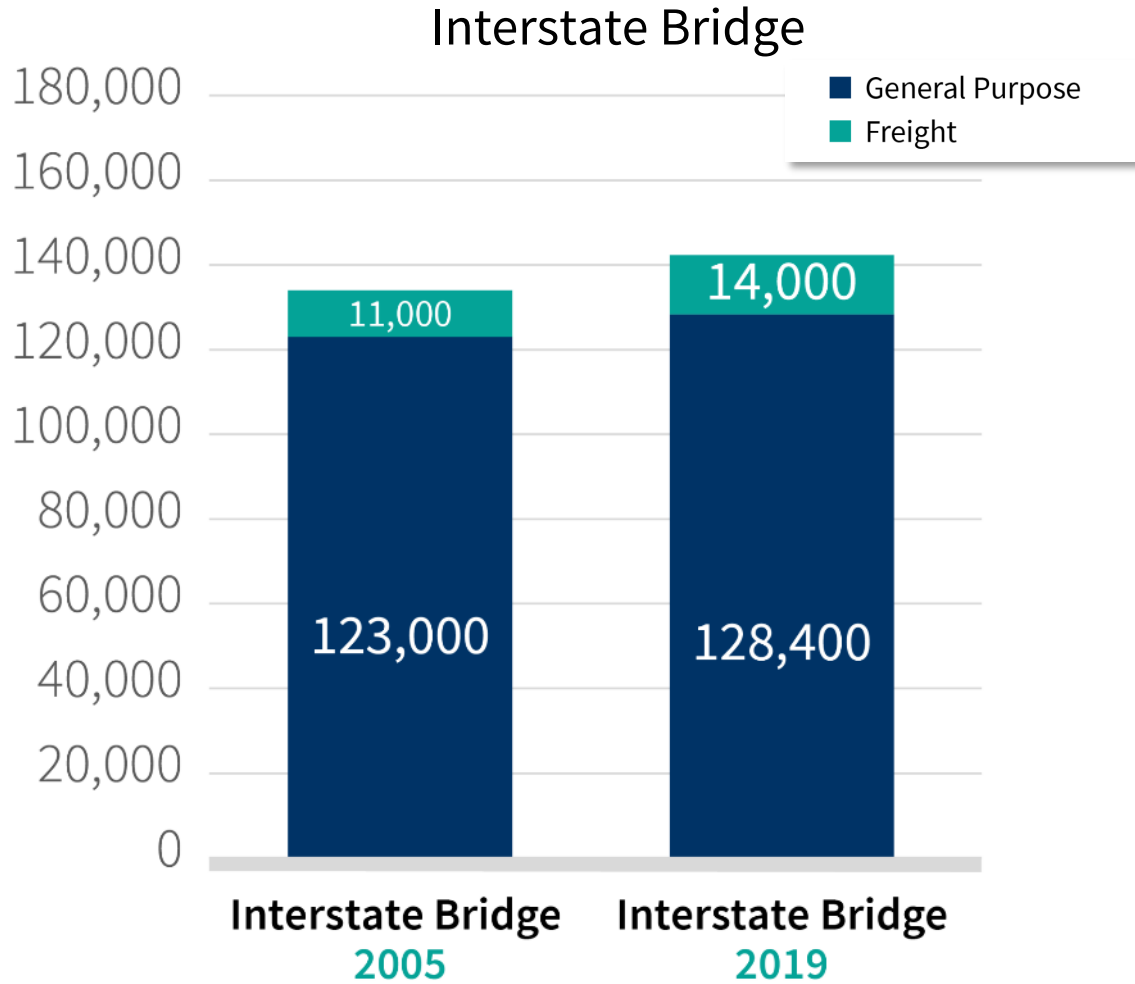


Interstate Bridge Weekday Person Trips by Mode

- ▶ The Interstate Bridge primarily serves general purpose traffic.
- ▶ The lack of dedicated transit facilities limits the ability to provide effective transit service.
- ▶ The limited active transportation facilities and connections in the program area limit the ability for people to use active transportation modes to cross the river.

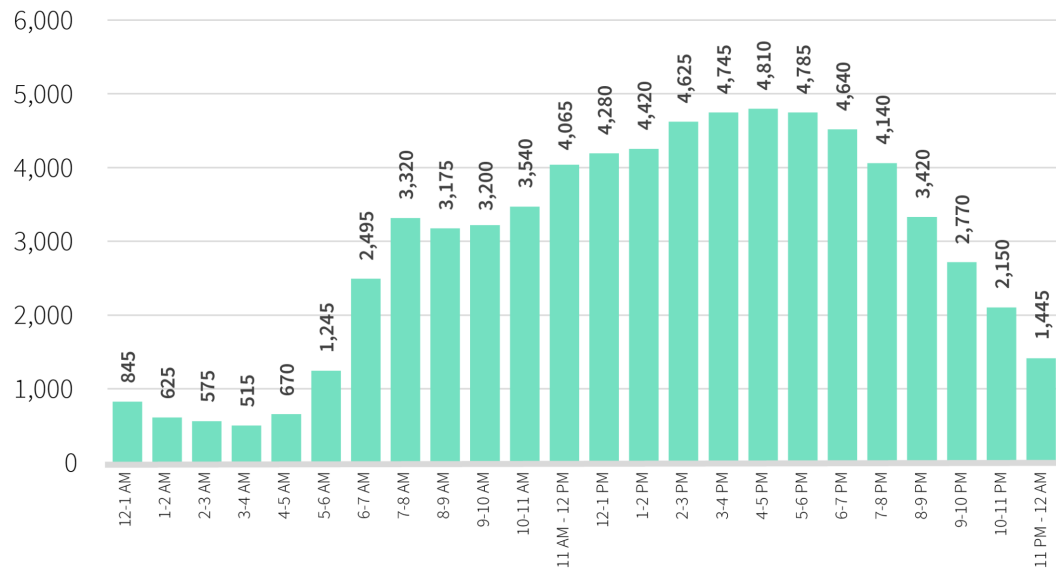


Average Weekday Volumes – Vehicles and Freight

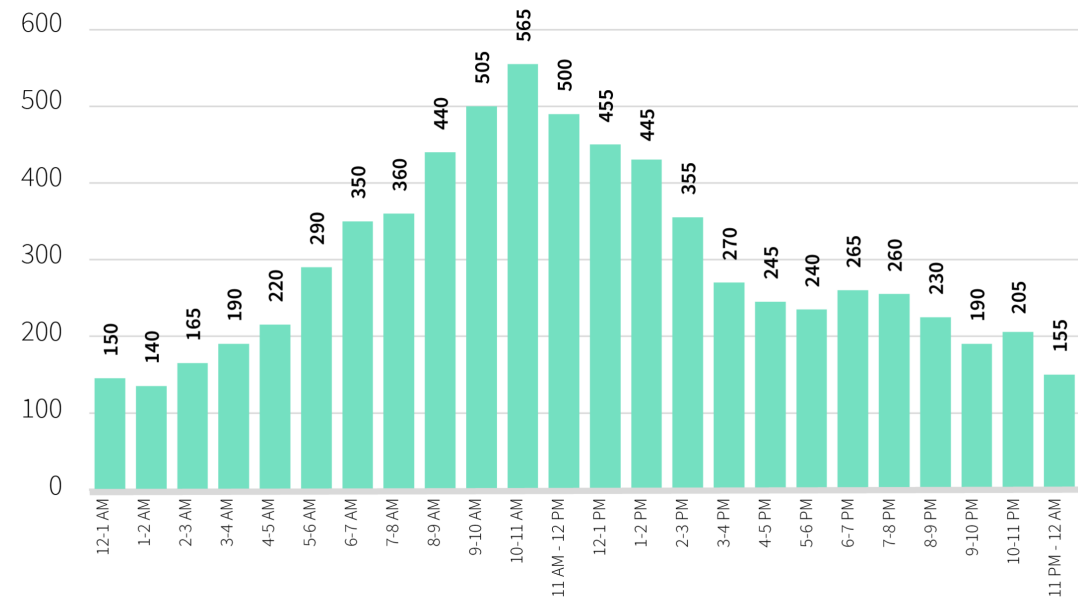


Interstate Bridge Hourly Profiles – Northbound Vehicles and Freight Volumes

Interstate Bridge Hourly Profile - Overall Northbound Weekday Service Volumes

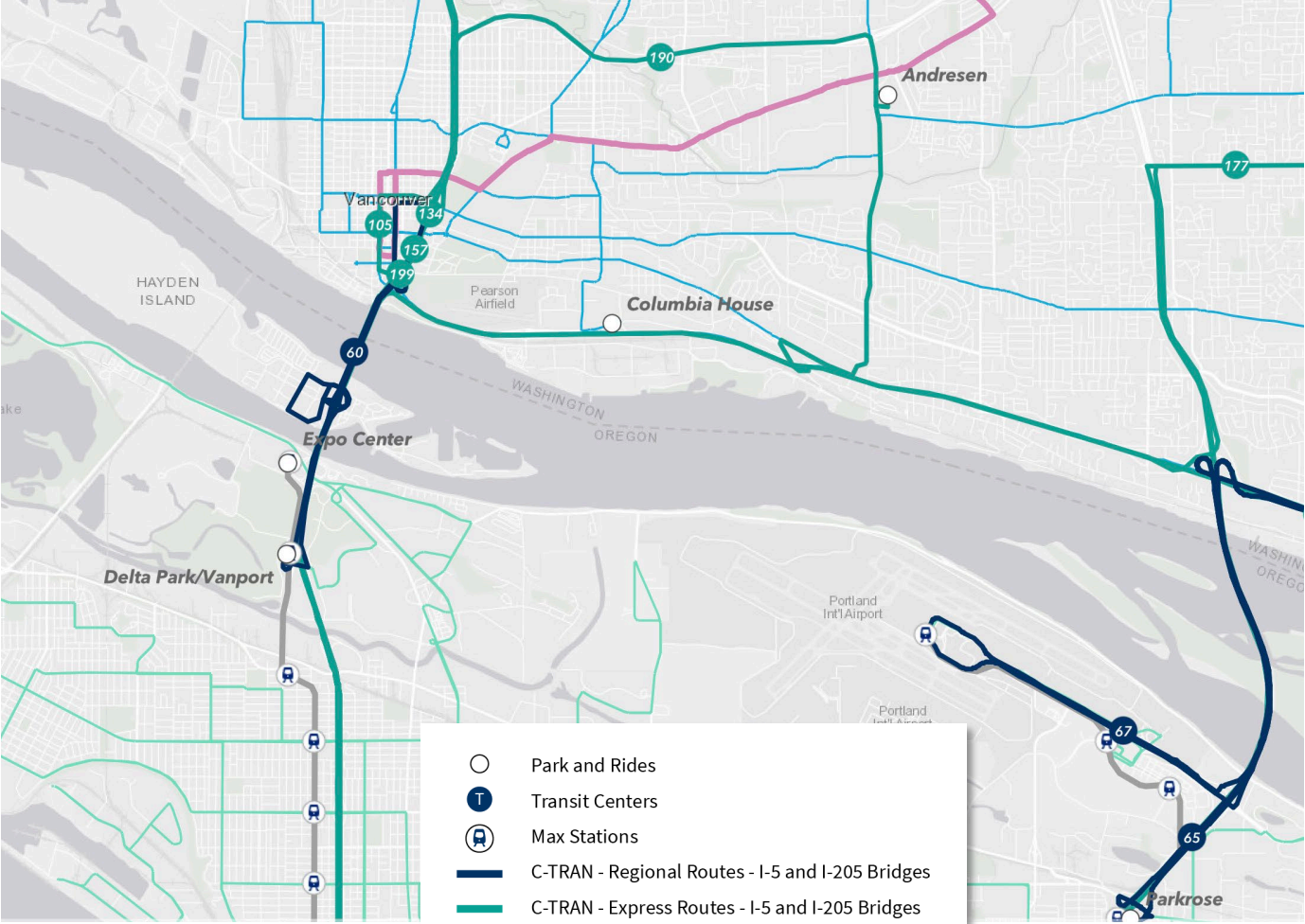


Interstate Bridge Hourly Profile - Northbound Weekday Freight Service Volumes



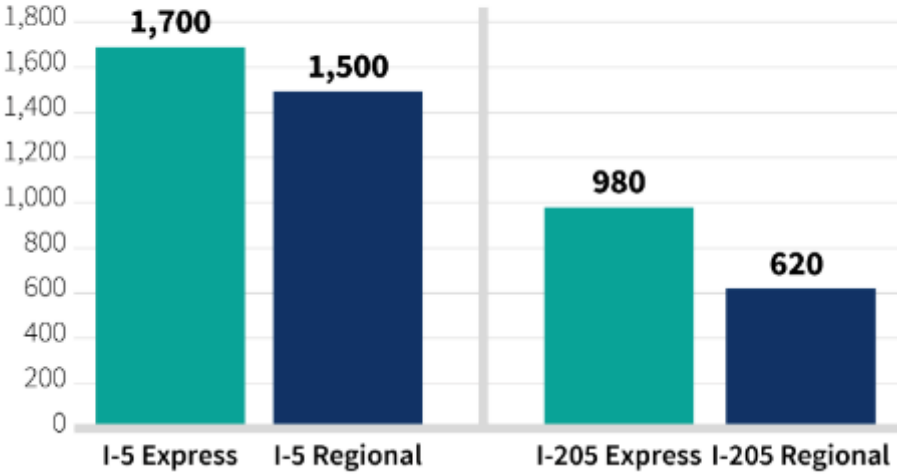
Freight traffic does not peak during typical commute hours (6-9 AM and 3-6 PM). The highest freight volumes occur during the middle of the day, as freight trucks try to avoid the most congested periods of the day.

River Crossing Transit Routes and Ridership

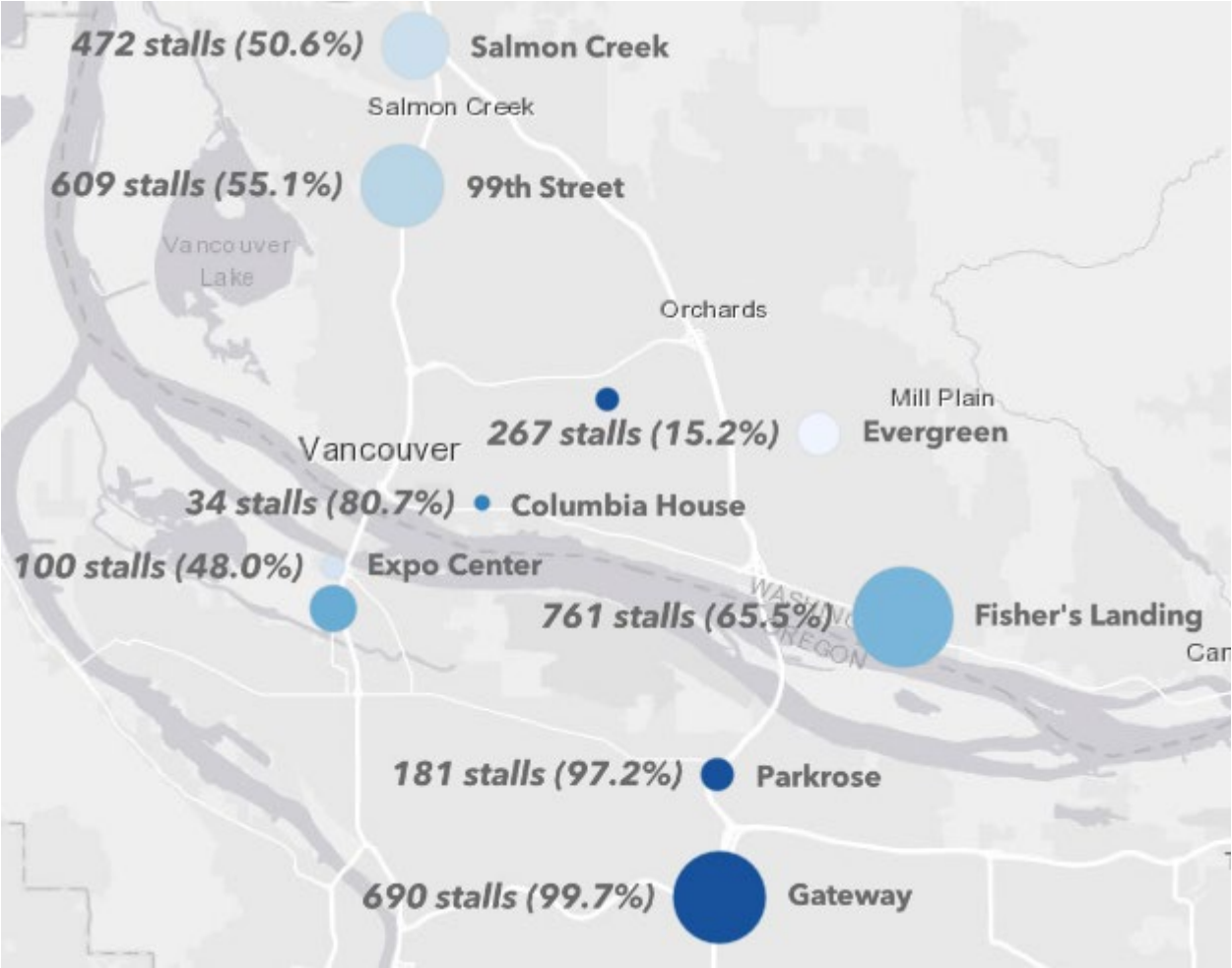


- Park and Rides
- T Transit Centers
- M Max Stations
- C-TRAN - Regional Routes - I-5 and I-205 Bridges
- C-TRAN - Express Routes - I-5 and I-205 Bridges
- C-TRAN - The Vine BRT
- C-TRAN - Other Bus Routes
- TriMet - MAX Lines
- TriMet - Bus Routes

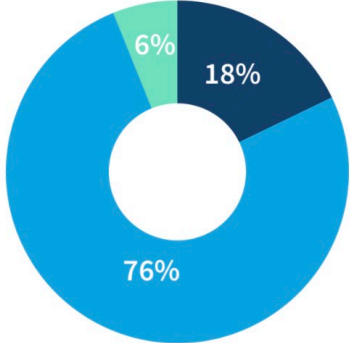
Weekday Transit Ridership Across Bridges by Route Type



Park and Ride Utilization

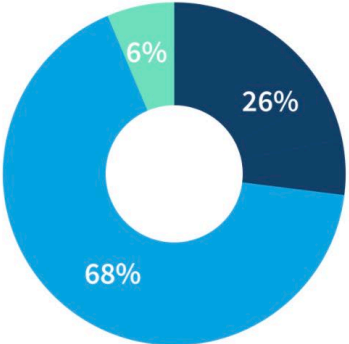


Delta Park / Vanport Park & Ride

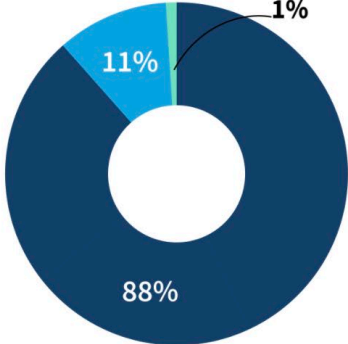


- Oregon
- Washington
- Other

Parkrose / Sumner TC Park & Ride



Gateway / NE 99th Avenue TC Park & Ride

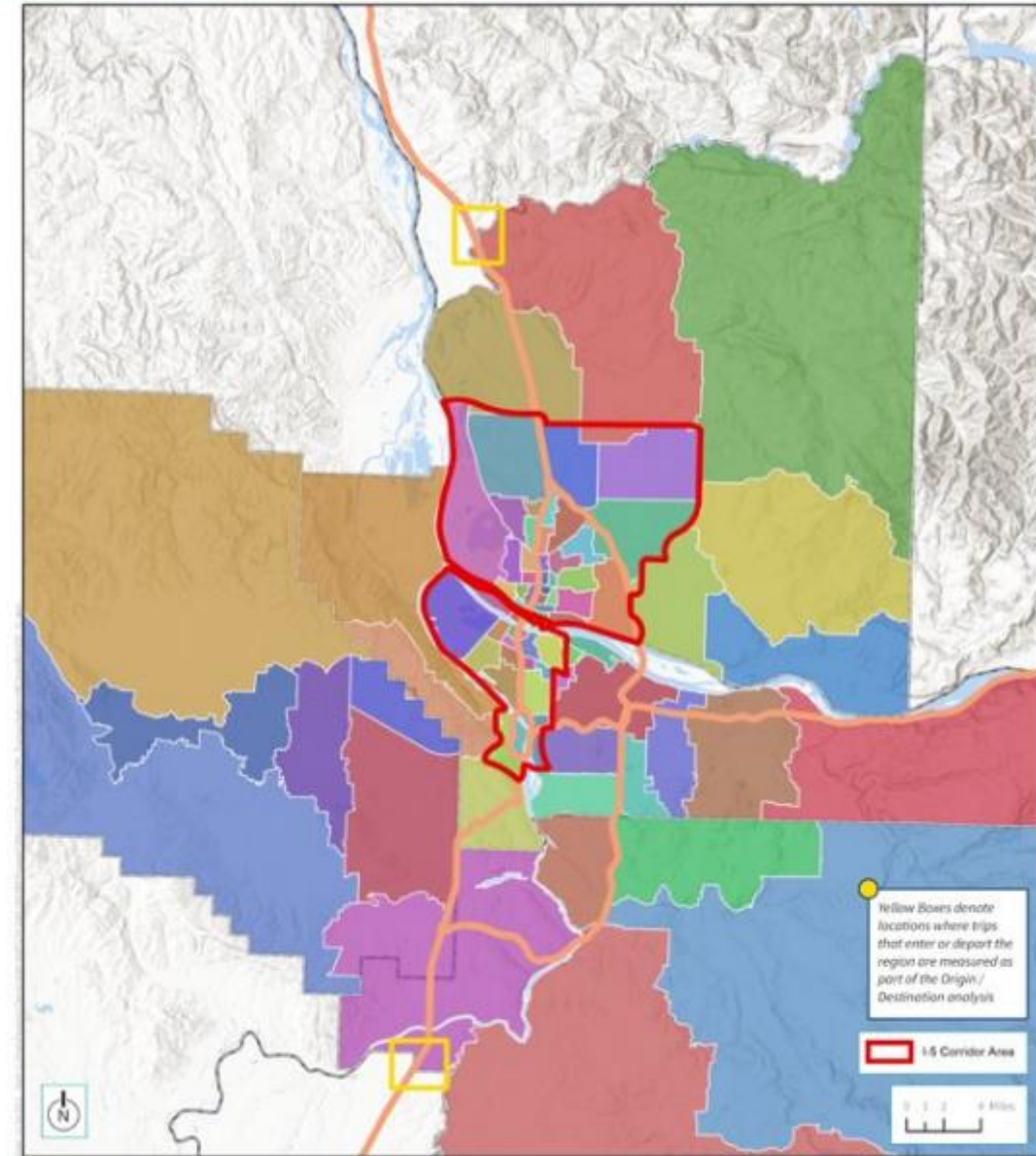


Origin / Destination Travel Patterns

- ▶ **The IBR program is collecting cell phone (Big Data) data available from 2016 to 2021 using a Big Data platform.**
 - Big data uses sampled anonymized location records from smart phones and navigation devices in connected vehicles.
 - This data will be used to address similar questions as the license plate survey completed during previous planning in 2005 (ramp to ramp movements within the IBR program area).
 - It will also be used to provide regional travel pattern information and to validate the Metro/RTC regional travel demand model.

Origin / Destination Travel Patterns

- ▶ Geographical areas
 - 85 zones used for analysis
 - Includes 4 external “zones” that represent movements north and south on Interstate 5 beyond the 4-county area (Clark, Multnomah, Washington, Clackamas).
 - I-5 Corridor area
 - This corridor was defined in the previous CRC work to summarize trips that were part of specific market analysis for use in evaluating alternatives.

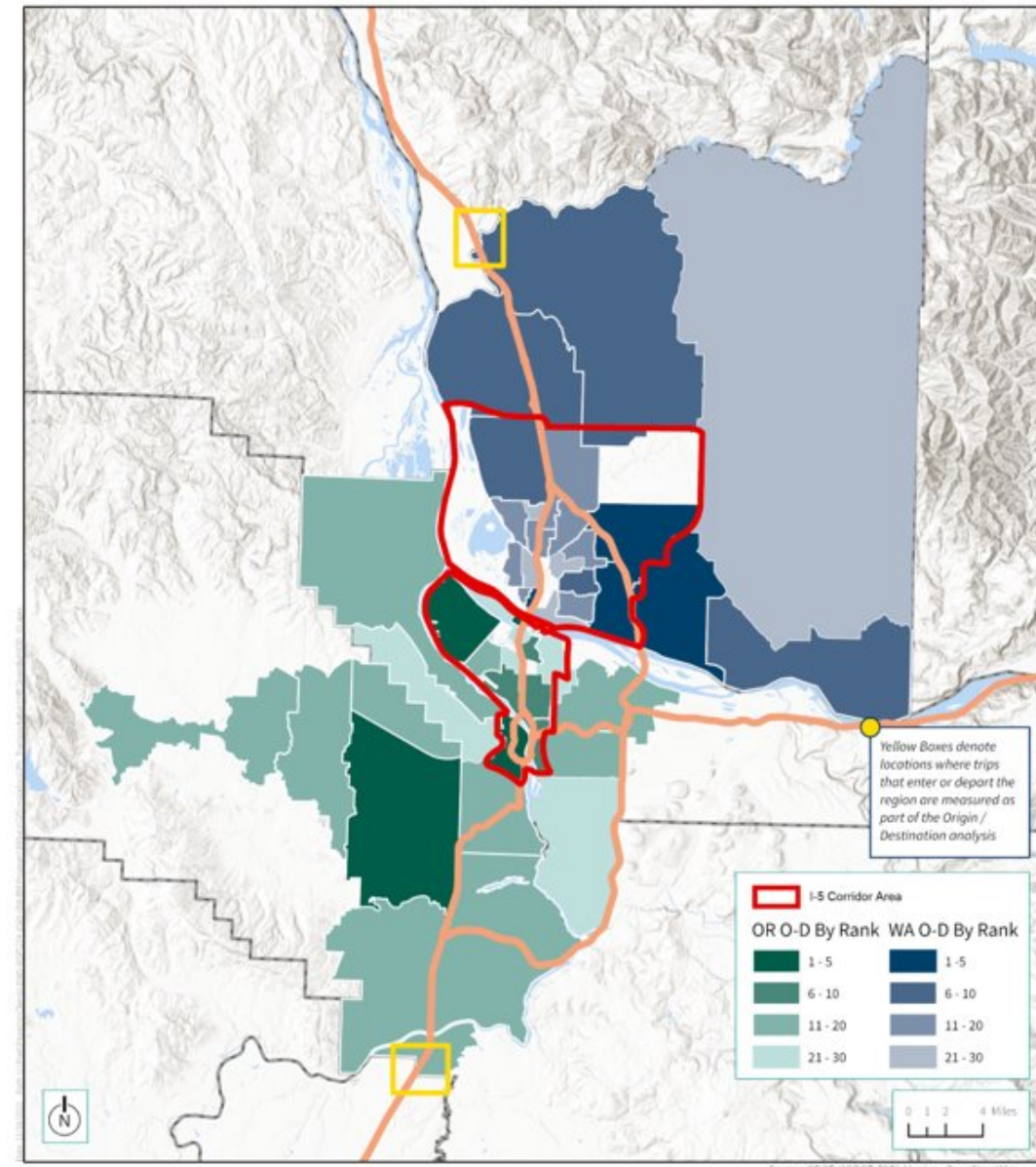


Source: ODOT, WSDOT, ESRI, Mapbox, OpenStreetMap

I-5 Bridge Users

Average Weekday - All Vehicles

- ▶ Nearly two thirds of trips using the I-5 Interstate Bridge have a starting or ending point within the I-5 corridor area.
- ▶ Top 5 Oregon origins/destinations
 - Beaverton/Tigard (9%)
 - Downtown Portland (8%)
 - Hayden Island (7%)
 - Rivergate/N Portland (6%)
 - West/south of downtown Portland (OHSU/South Waterfront) (6%)
- ▶ Top 5 Washington origins/destinations
 - North of Clark County on I-5 (14%)
 - East of I-205 (11%)
 - Orchards (8%)
 - West of I-205 (7%)
 - Downtown Vancouver (5%)

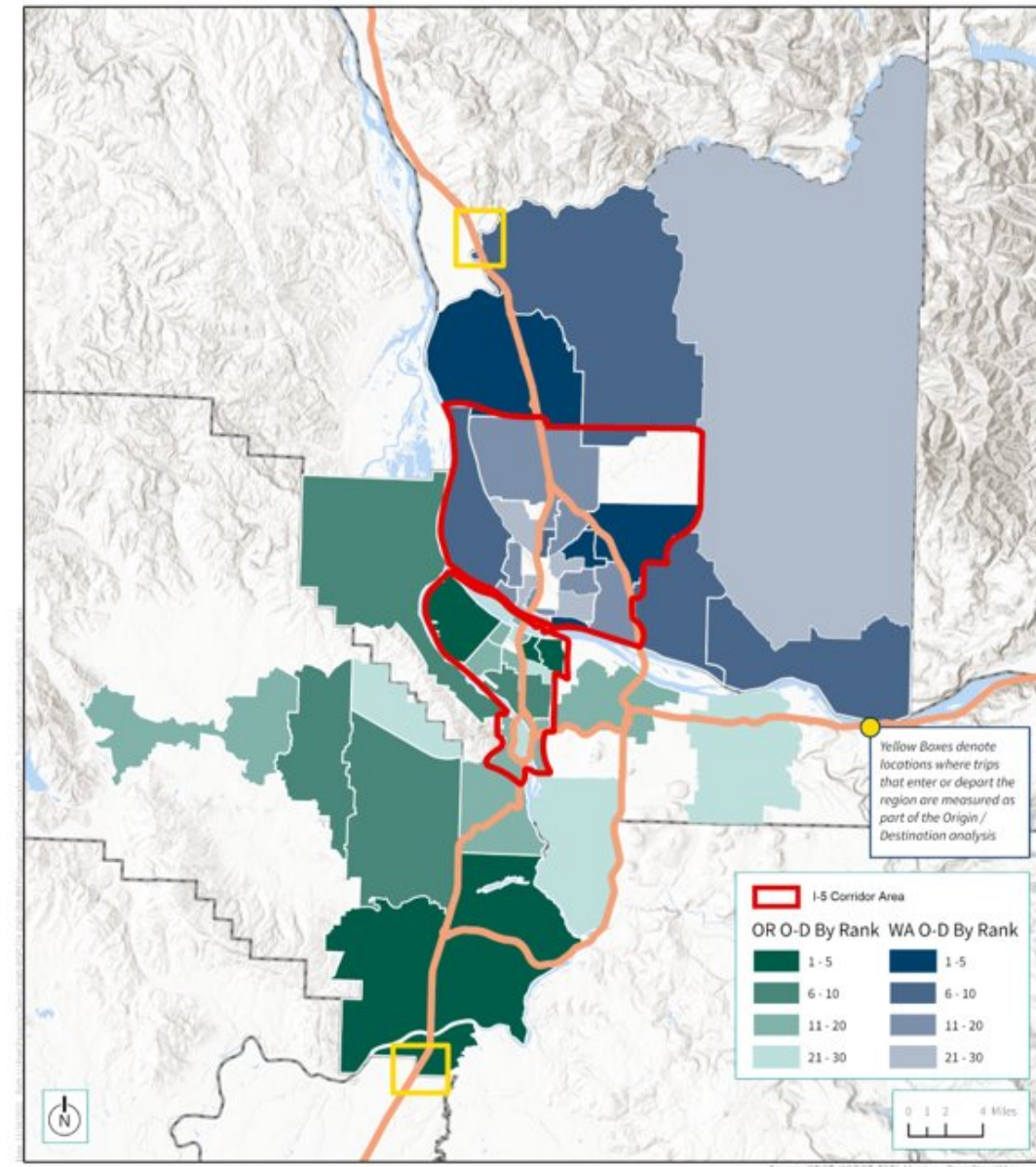


Source: ODOT, WSDOT, ESRI, Mapbox, OpenStreetMap

I-5 Bridge Users

Average Weekday – Commercial Vehicles Only

- ▶ 45% of commercial trips using the I-5 Interstate Bridge start or end in the Oregon portion of I-5 corridor area.
- ▶ 30% of commercial trips using the I-5 Interstate Bridge start or end in Washington portion of I-5 corridor area.
 - Top 5 Oregon origins/destinations
 - South of Tri-County Oregon Region on I-5 (30%)
 - Delta Park (13%)
 - Rivergate (8%)
 - Tualatin/Lake Oswego/Wilsonville (8%)
 - NE Portland east of Delta Park(6%)
 - Top 5 Washington origins/destinations
 - North of Clark County on I-5 (60%)
 - Ridgefield (5%)
 - Minnehaha (4%)
 - Columbia Way/SR-14 (3%)
 - Orchards (3%)

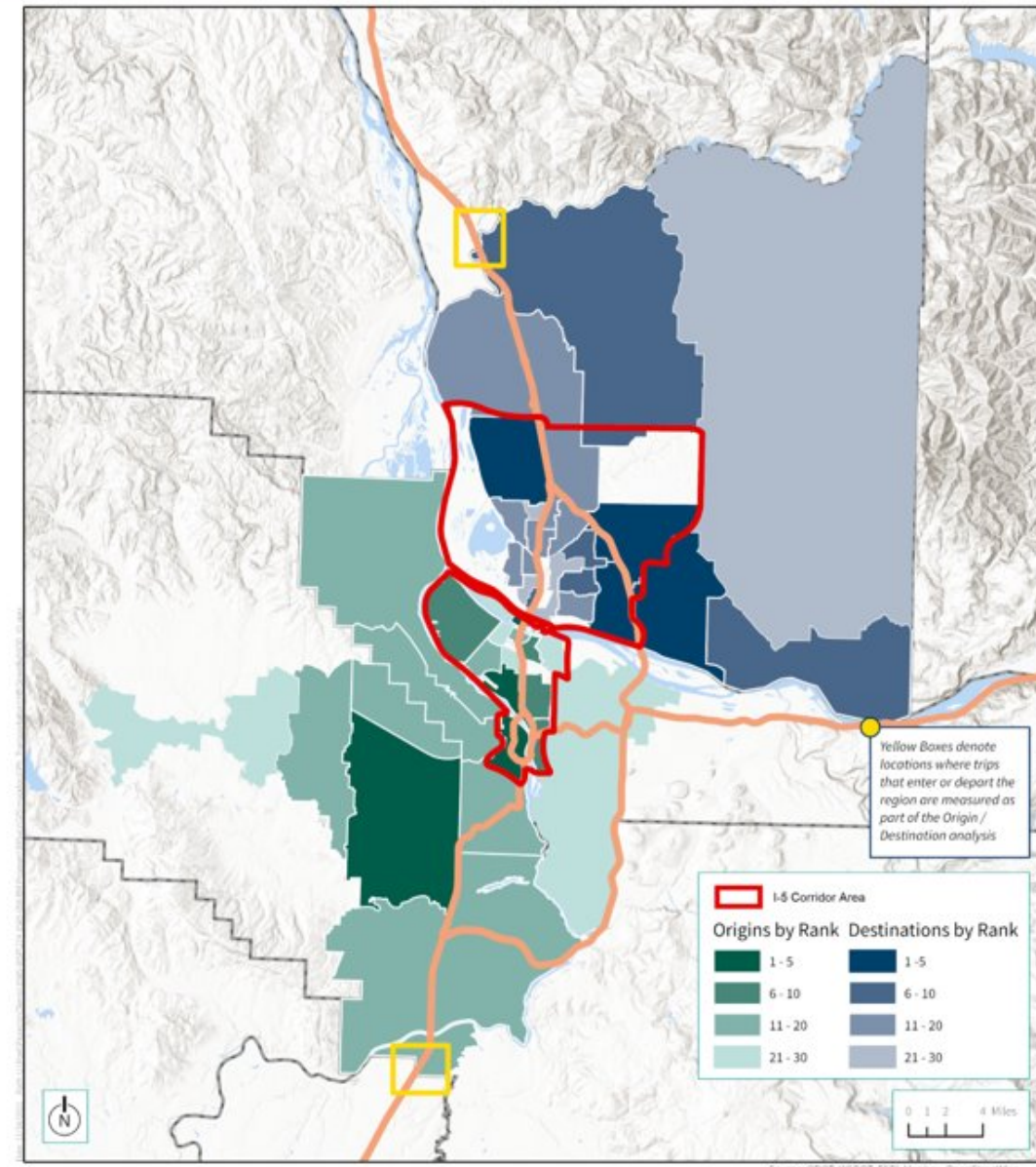


Source: ODOT, WSDOT, ESRI, Mapbox, OpenStreetMap

I-5 Bridge Users

All Vehicles - Average Weekday – Northbound PM 4-HR Peak

- ▶ 70% of trips using the I-5 Interstate Bridge start in the Oregon portion of I-5 corridor area.
- ▶ 65% of trips using the I-5 Interstate Bridge end in Washington portion of I-5 corridor area.
 - Top 5 Oregon origins
 - Downtown Portland (12%)
 - Beaverton/Tigard (8%)
 - N Portland/Swan Island (7%)
 - West/S of downtown Portland (OHSU/South Waterfront) (7%)
 - Hayden Island (6%)
 - Top 5 Washington destinations
 - East of I-205 (12%)
 - North of Clark County on I-5 (9%)
 - Orchards (9%)
 - West of I-205/Burton (6%)
 - NW Salmon Creek Area (5%)

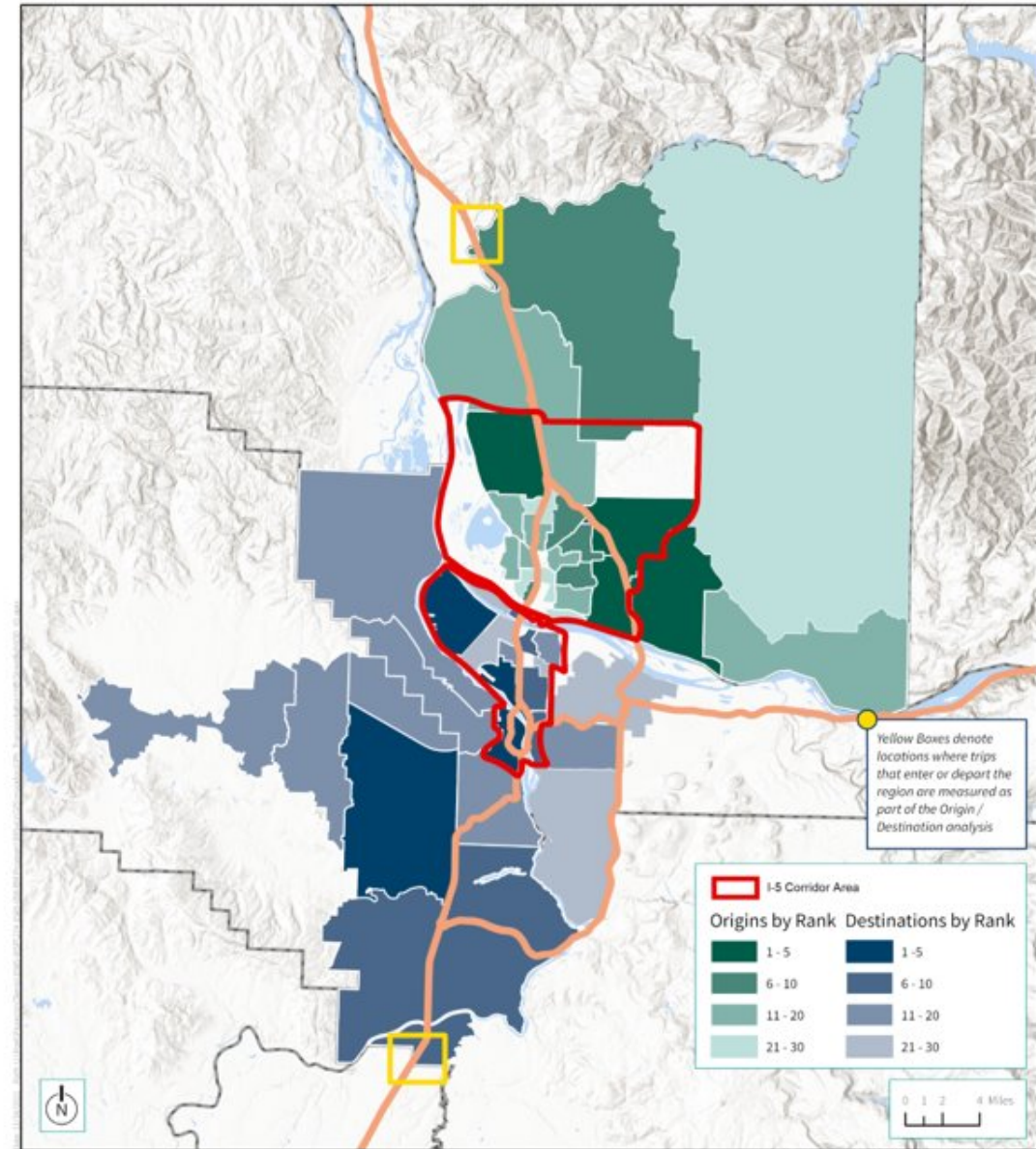


Source: ODOT, WSDOT, ESRI, Mapbox, OpenStreetMap

I-5 Bridge Users

All Vehicles - Average Weekday – Southbound AM 4-HR Peak

- ▶ 70% of trips using the I-5 Interstate Bridge start in the Washington portion of I-5 corridor area.
- ▶ 65% of trips using the I-5 Interstate Bridge end in Oregon portion of I-5 corridor area.
 - Top 5 Washington origins
 - Orchards (11%)
 - East of I-205 (10%)
 - North of Clark County on I-5 (9%)
 - NW Salmon Creek area (5%)
 - West of I-205/Burton (5%)
 - Top 5 Oregon destinations
 - Downtown Portland (11%)
 - Beaverton/Tigard (9%)
 - West/south of downtown Portland (OHSU/South Waterfront) (8%)
 - Rivergate N Portland (8%)
 - N Portland/Swan Island (7%)



Source: ODOT, WSDOT, ESRI, Mapbox, OpenStreetMap

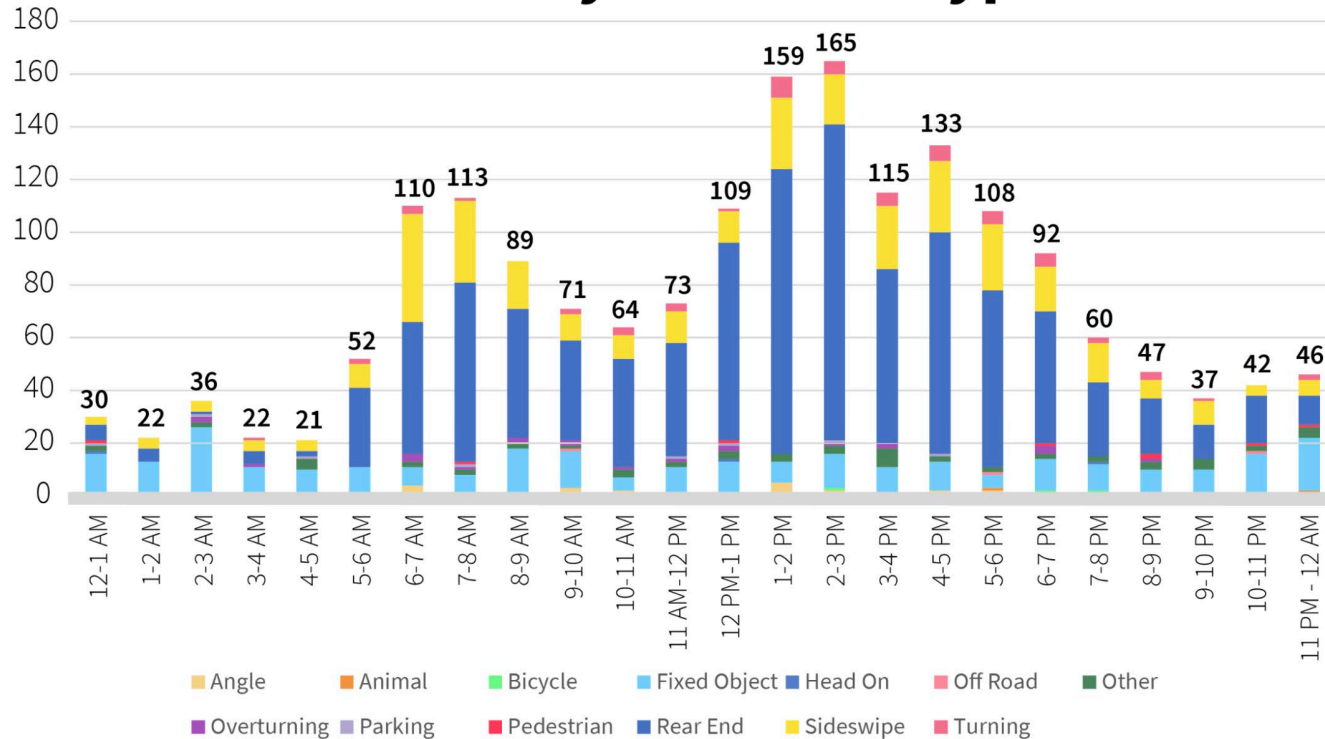
Bottleneck Locations in the Program Area

- ▶ There are multiple bottleneck locations within and influencing the IBR Program Area.
- ▶ These include:
 - **Northbound I-5** – Capitol Hwy to Interstate Bridge for 7 hours from 12:30-7:30 PM
 - **Southbound I-5** - Main Street to Interstate Bridge for 3.5 hours from 6-9:30 AM.
 - **Southbound I-5** – Marine Drive to Going Street for 4 hours from 7-11 AM.

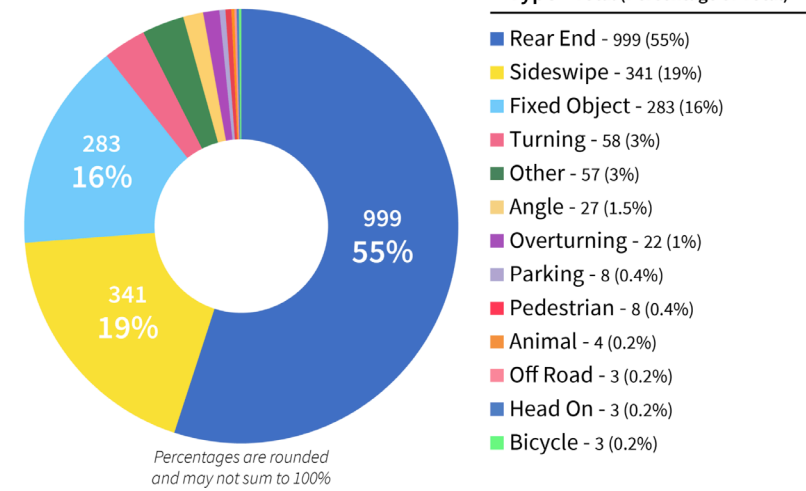


Crash Data by Type

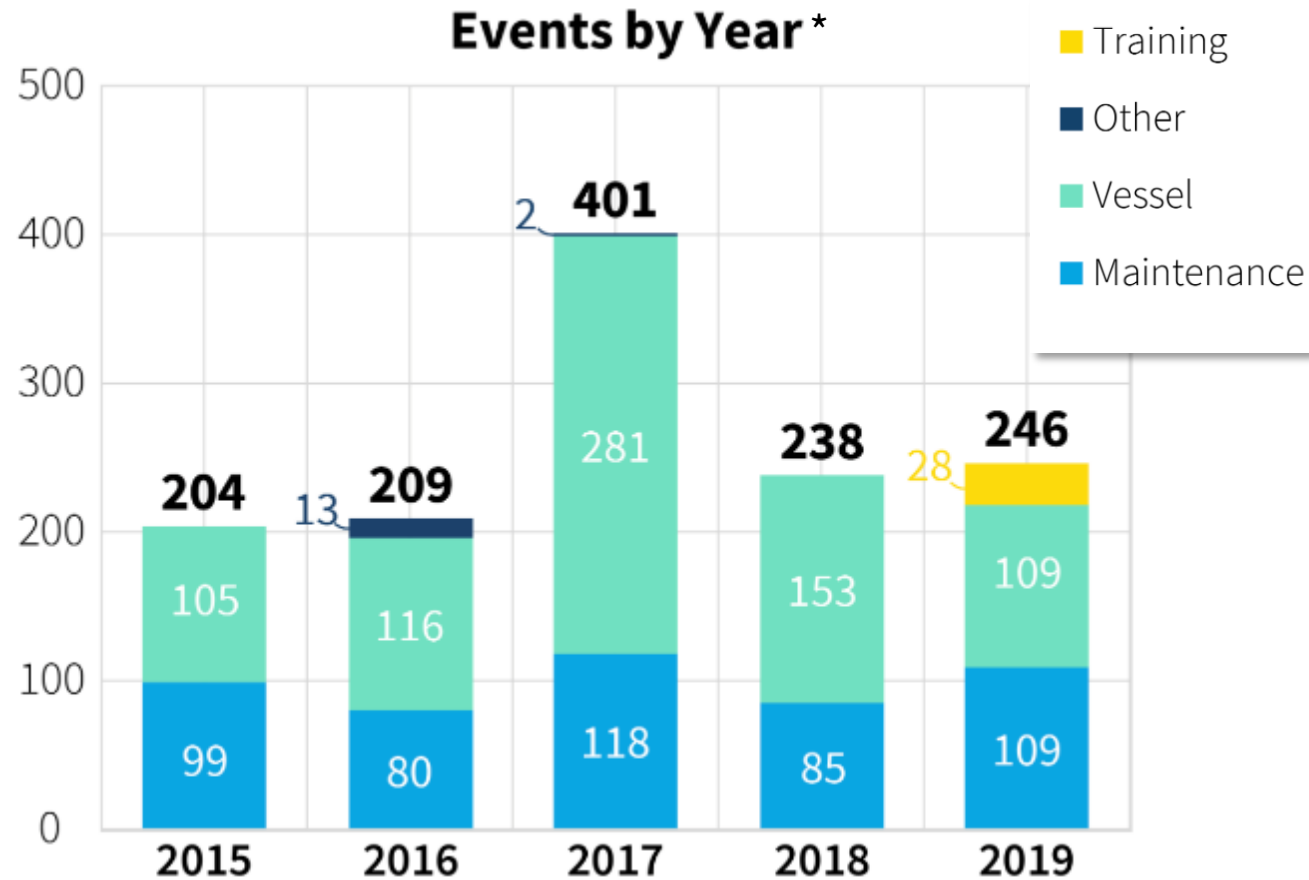
Crashes by Hour and Type



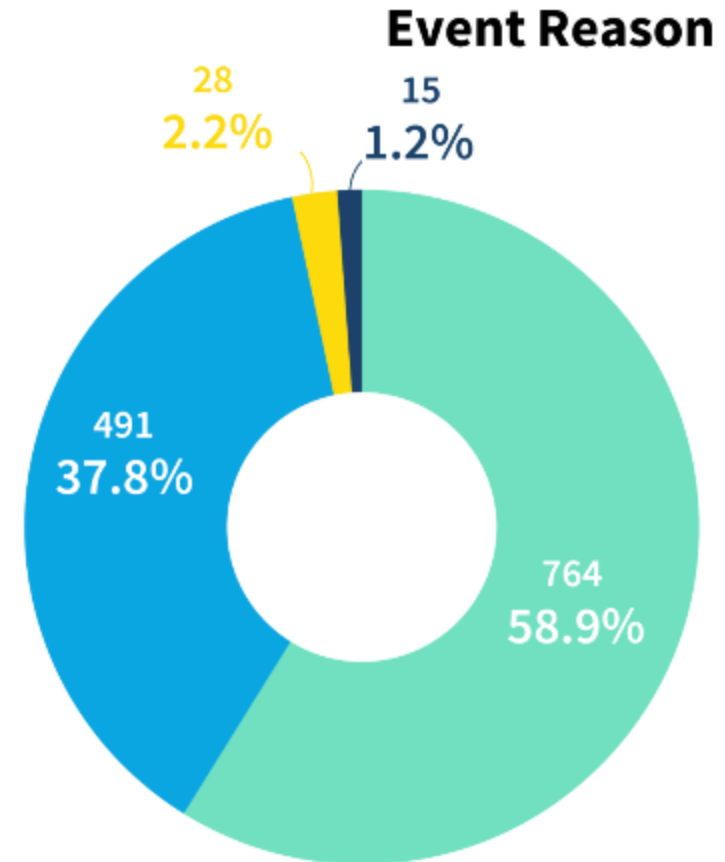
Crash Type



Bridge Lift Events



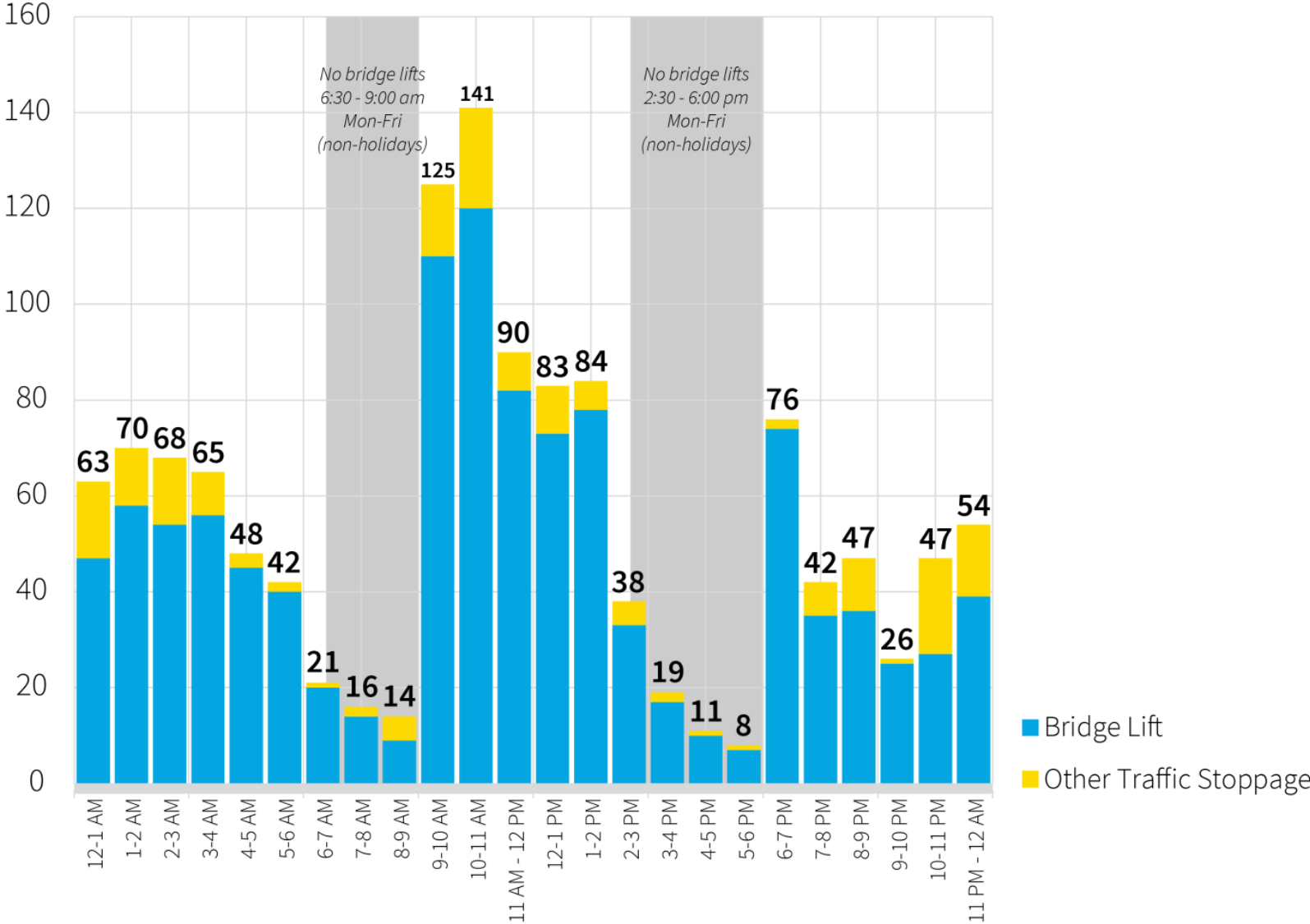
*1,298 Total Bridge Events



Percentages are rounded to the nearest tenth and may not sum to 100%

Bridge Lift Events

Events by Hour





Preliminary list of Design Options, CAG feedback

Brad Phillips, IBR Design Lead

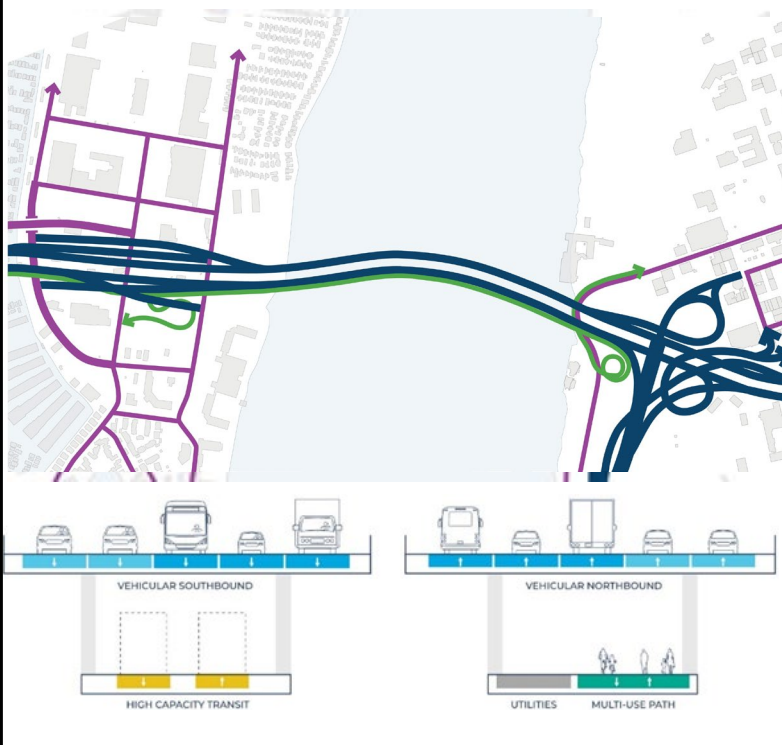
List of Design Options in Response to Changes

- ▶ In the years since the previous planning efforts, the baseline conditions, regulatory and policy context, and community priorities have changed.
- ▶ The program, in collaboration with agency partners, developed high-level design options to respond to changes while incorporating current regional values and priorities into the IBR Solution.
- ▶ The design options pertain to the following program areas:
 - ▶ Bridge Crossing over the Columbia and Alignment
 - ▶ Downtown Vancouver
 - ▶ Vancouver Interchanges
 - ▶ Hayden Island and Marine Drive Interchanges
 - ▶ Transit
 - ▶ Active transportation improvements are integrated into design options for all the above areas

Bridge Crossing over the Columbia

- ▶ Variety of options that differ in constructability and bridge footprint
- ▶ All options provide dedicated transit guideway and wide multi-use path
- ▶ Future design work, informed by data, partners, and community engagement, will determine the bridge height and bridge type

Option 1: 2013 LPA



Option 2: Straight Alignment

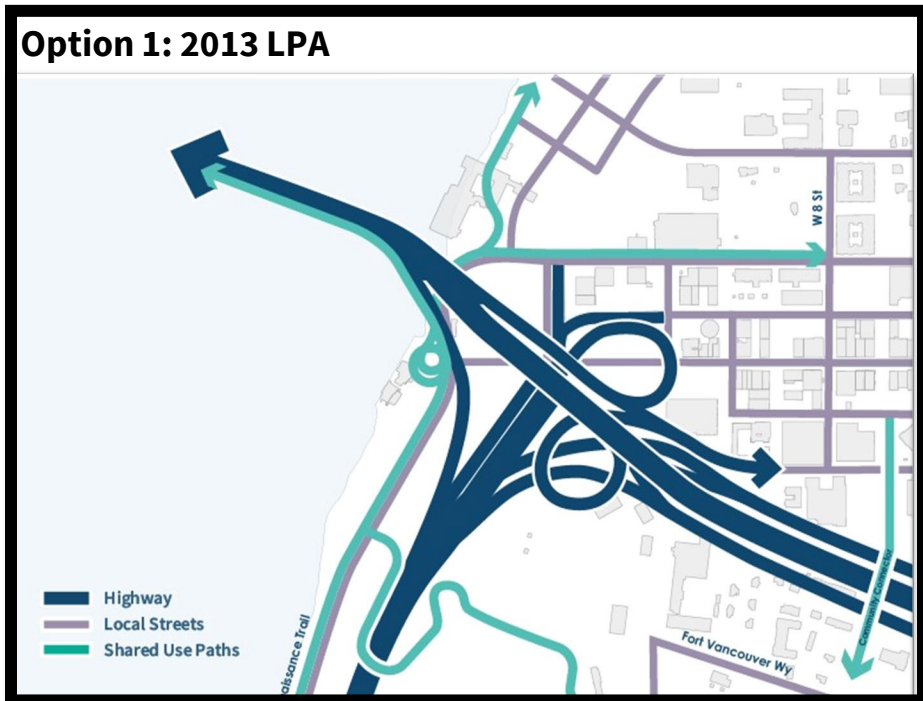


Option 3: Stacked Alignment



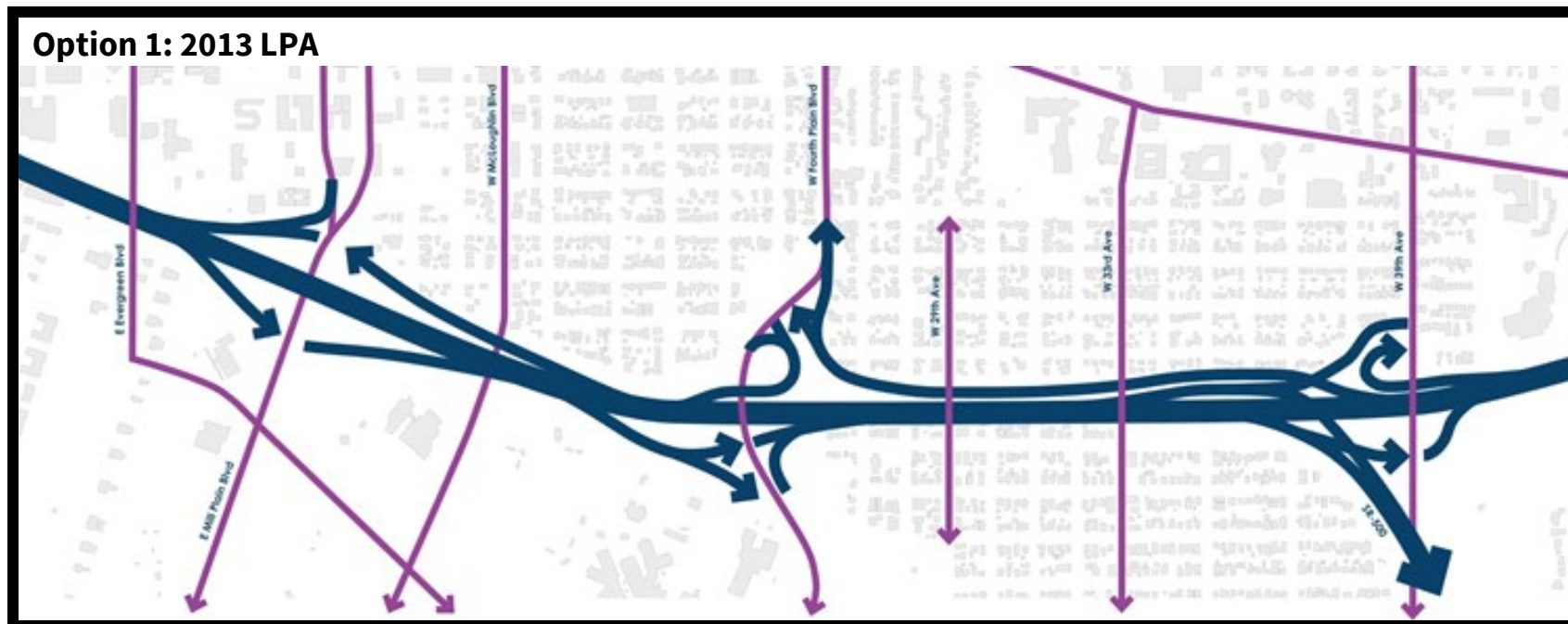
Downtown Vancouver

- ▶ Options consider ways to connect downtown into a higher I-5 corridor, necessary for bridge replacement options
- ▶ All design options connect the transit and multi-use path to downtown Vancouver
- ▶ Additional analysis is needed to identify how to connect from downtown into the river crossing options



Vancouver Interchanges

- ▶ Reconstructs the interchanges with braided ramps and auxiliary lanes at Mill Plain and Fourth Plain and replaces overpasses at other locations along I-5 leading up to the river
- ▶ All designs will improve bike and pedestrian connections to support east to west travel
- ▶ Future design work, informed by community engagement, will continue to refine Mill Plain/Fourth Plain intersection improvements and bike/pedestrian connections

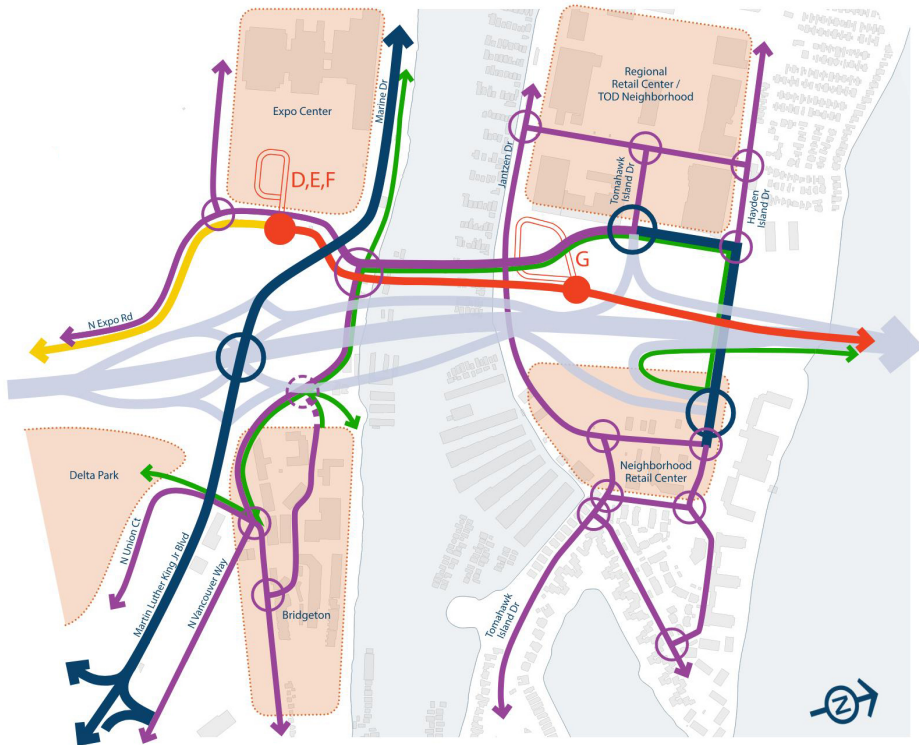


Hayden Island and Marine Drive Interchanges

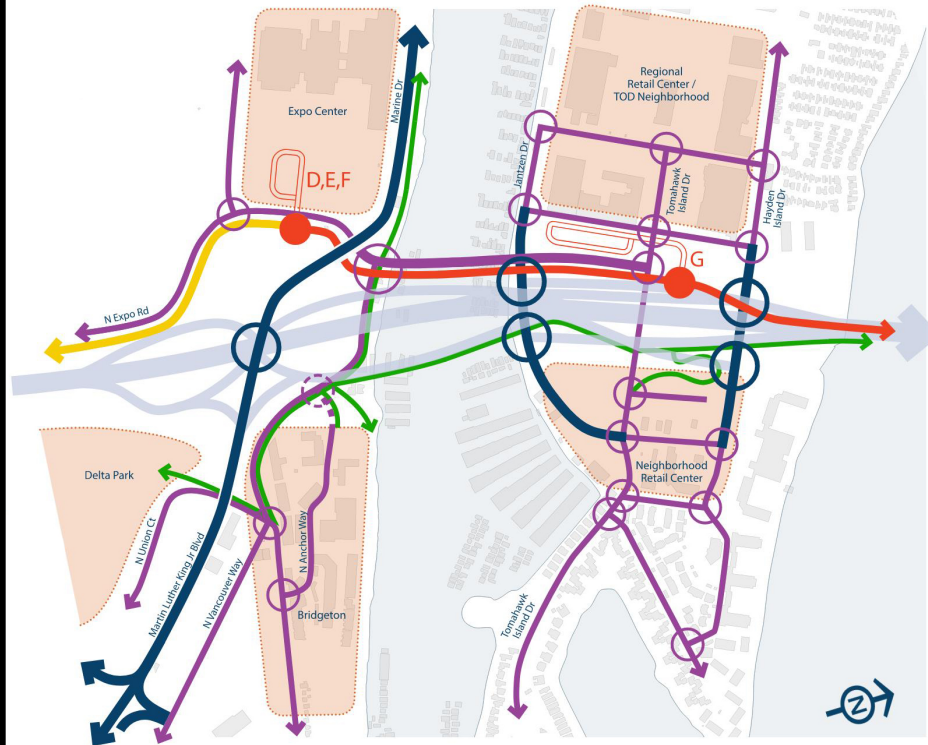
- ▶ Options that consider different ways to access Hayden Island by foot, bike, transit, and car
- ▶ All options include replacing the North Portland Harbor Bridge
- ▶ Future design work, informed by community engagement, will develop details for connecting multi-use paths, with the intention to connect to the 40-mile loop trail

Hayden Island and Marine Drive Interchanges

**Option 1:
Full Folded Diamond Interchange**



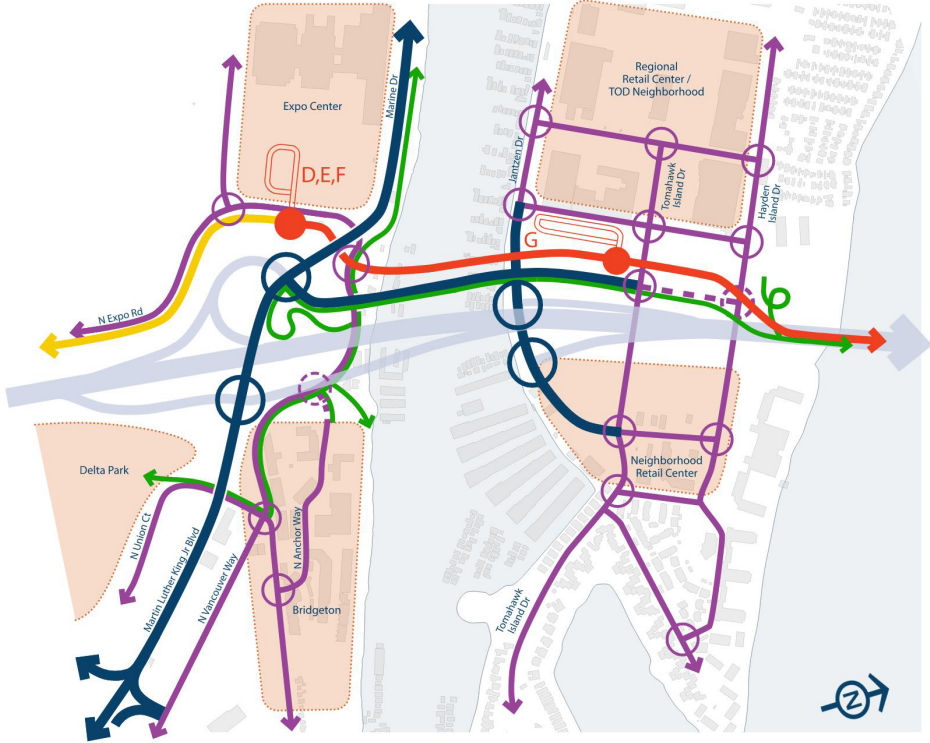
**Option 2:
Full Tight Diamond Interchange**



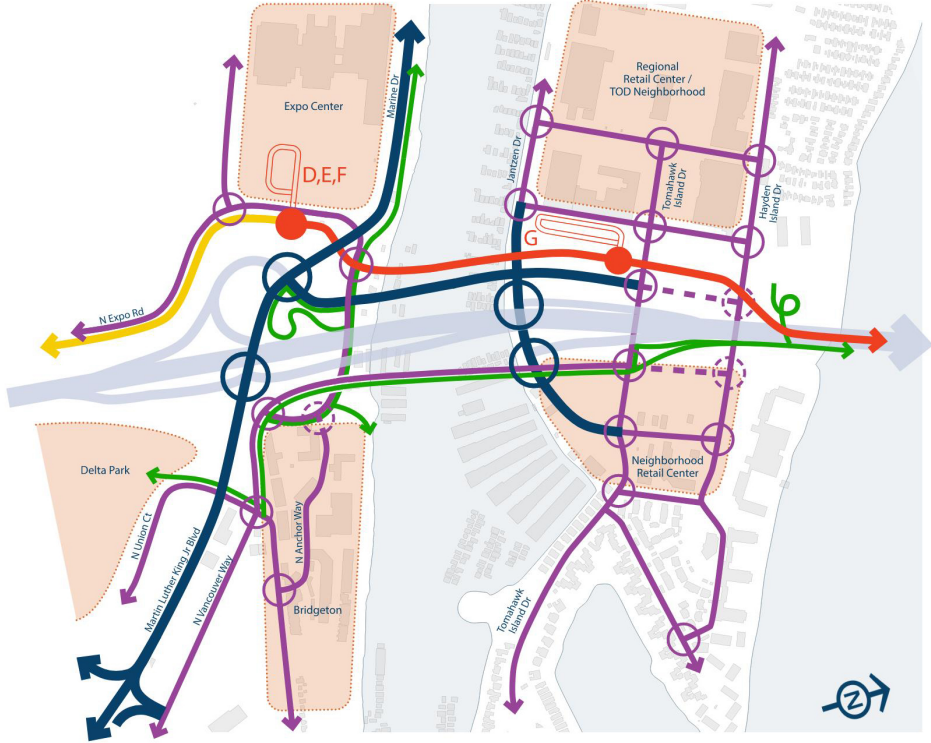
Note: this shows a high-level graphic representation of a variety of concepts being considered with small variations to local roadway connections.

Hayden Island and Marine Drive Interchanges

**Option 3:
Half Interchange with West Arterial Bridge**

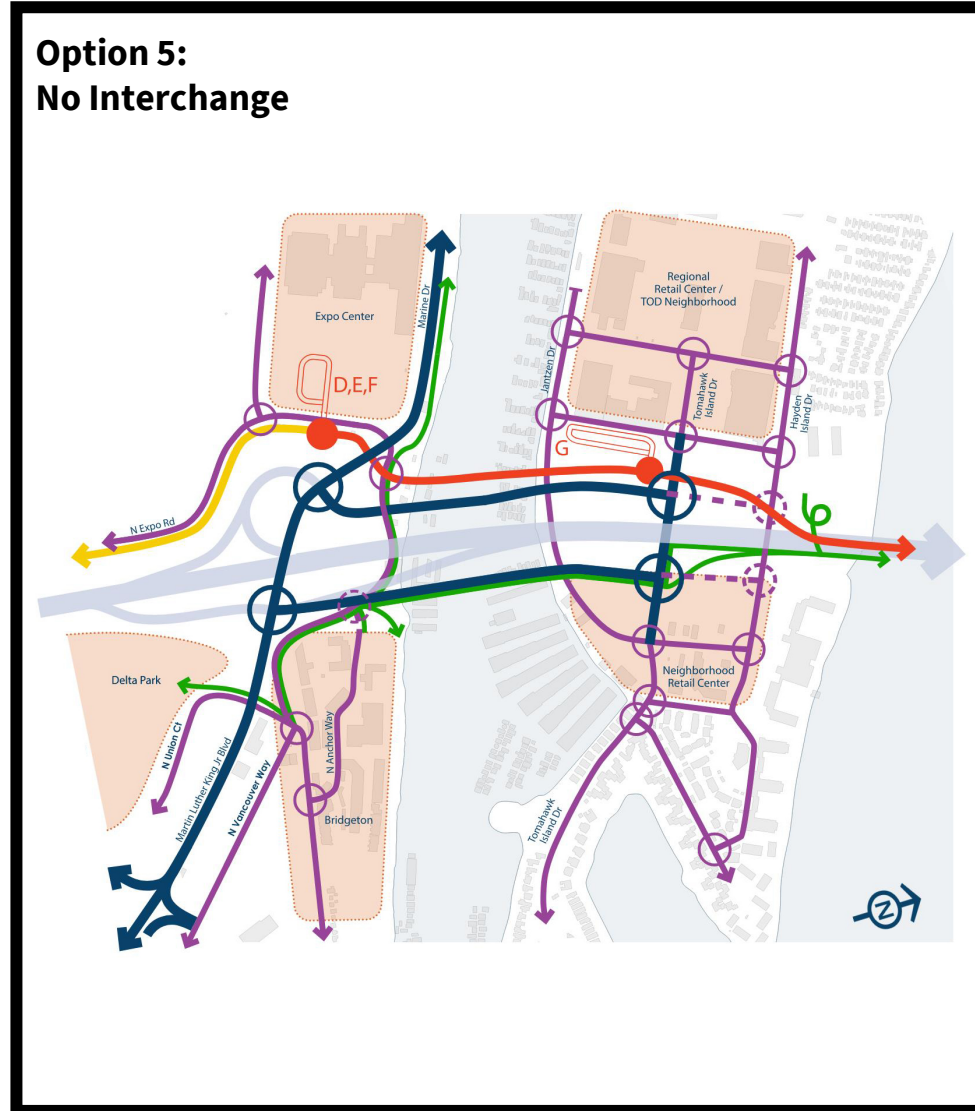


**Option 4:
Half Interchange with West and East Arterial Bridges**



Note: this shows a high-level graphic representation of a variety of concepts being considered with small variations to local roadway connections.

Hayden Island and Marine Drive Interchanges



Note: this shows a high-level graphic representation of a variety of concepts being considered with small variations to local roadway connections.

Transit Options – Overview

The IBR program is analyzing ten transit options

- 1 – No Build option
- 1 – Bus on shoulder option
- 3 – Bus Rapid Transit (BRT) options
- 4 – Light Rail Transit (LRT) options
- 1 – BRT/LRT option

High-Capacity Transit (HCT) options include:

- Dedicated space for HCT between the Expo Center and Hayden Island
- Dedicated space for HCT on the replacement bridge
- Express buses operating on the shoulder of the freeway, where possible in the program area

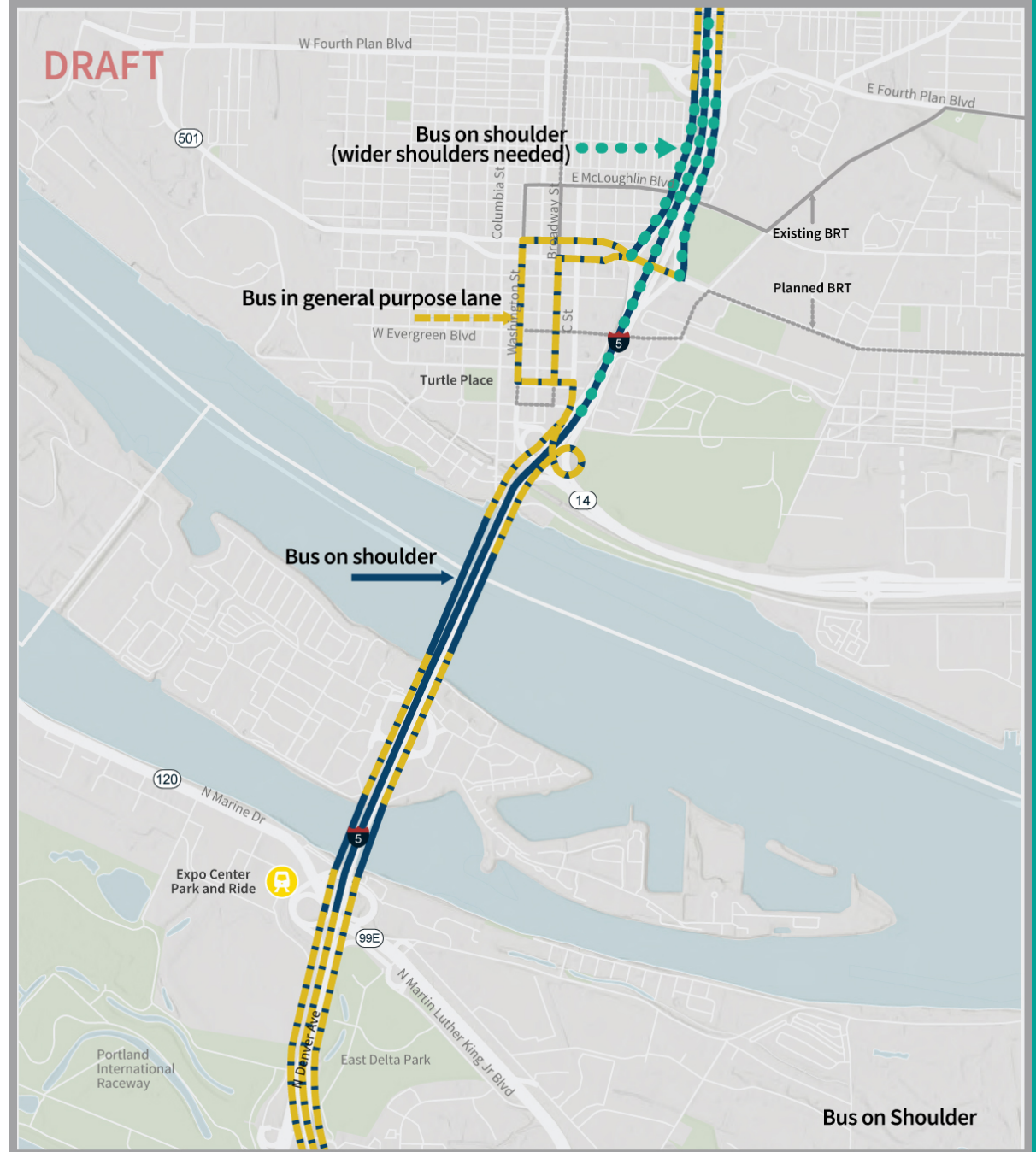
Future design work, informed by data, partners, and community engagement, will inform:

- The northern transit terminus
- Transit station details and specific locations
- Park & Ride size and specific locations

Transit Options

► Bus on Shoulder (BOS)

- Assumes C-TRAN express routes 101 and 105X operate as bus on shoulder in the bridge influence area (both directions). Route 101 operates from downtown Vancouver to downtown Portland, Route 105X operates from Salmon Creek to 99th to downtown Portland.

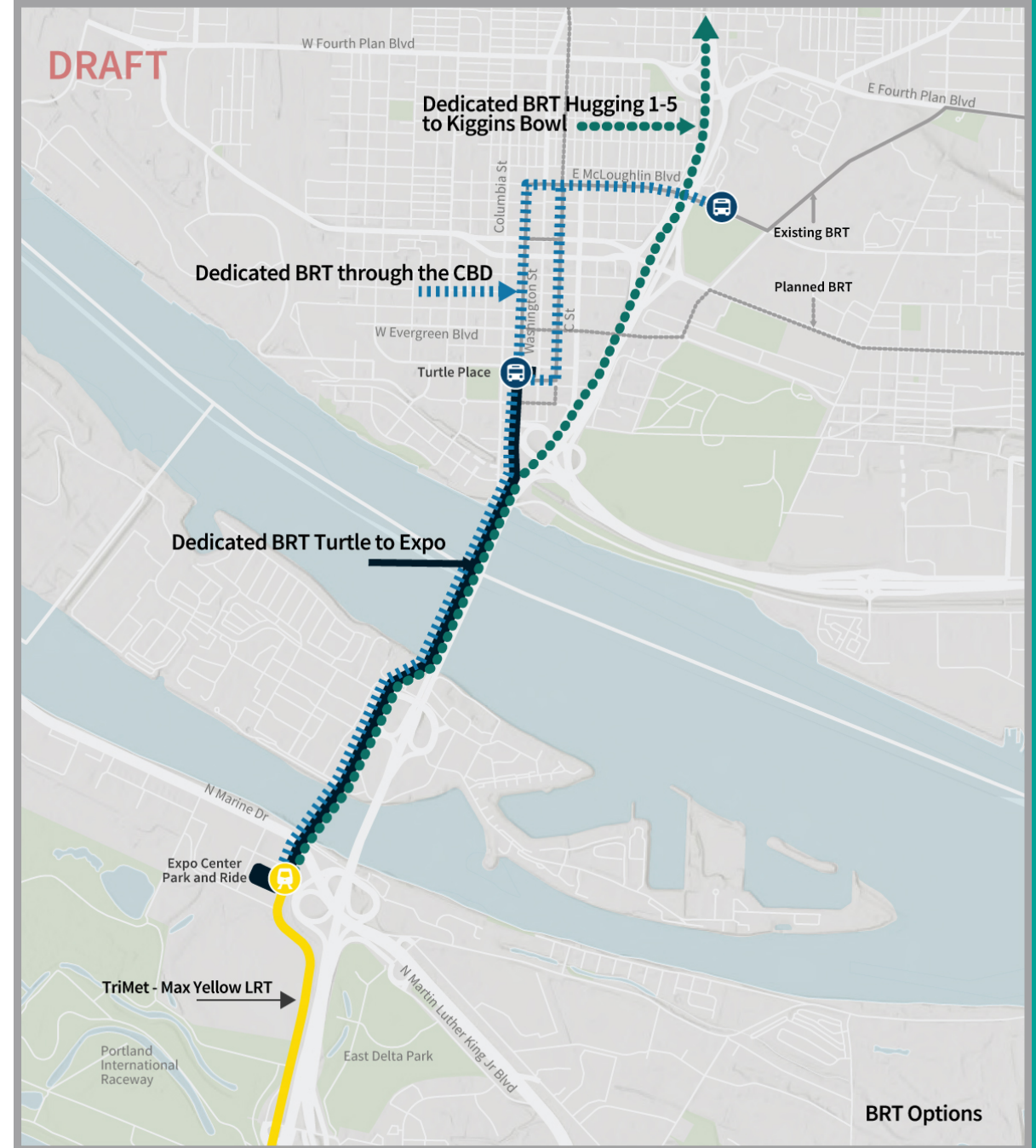


Bus on Shoulder

Transit Options

▶ 3 BRT options

- **Dedicated BRT Turtle to Expo:** Vine BRT lines would extend via dedicated guideway from Turtle Place to a terminus near Expo Center.
- **Dedicated BRT Hugging I-5:** Vine BRT lines would extend via dedicated guideway from Kiggins Bowl south to MAX Expo Center Station on a dedicated guideway adjacent to I-5.
- **Dedicated BRT Connection through the Central Business District:** Vine BRT lines would extend via dedicated guideway from McLoughlin Boulevard through Vancouver's CBD before crossing the river to Hayden Island with a terminus near Expo Center.



Transit Options

▶ 4 LRT options

- **The 2013 Locally Preferred Alternative:** LRT would extend from the Expo Center to a terminus near Clark College
- **LRT One Station in Vancouver:** LRT would extend from Expo Center to Turtle Place.
- **LRT Hugging I-5 Near McLoughlin:** LRT would extend from Expo Center to McLoughlin in a dedicated guideway adjacent to I-5.
- **LRT Hugging I-5 to Kiggins Bowl:** LRT would extend from Expo Center to Kiggins Bowl in a dedicated guideway adjacent to I-5.



Transit Options

- ▶ **Dedicated BRT and LRT to Hayden Island**
 - Vine BRT lines would extend via dedicated guideway from a station near Turtle place to a terminus on Hayden Island.
 - MAX Yellow Line would extend from the current terminus at Expo Center to a new terminus on Hayden Island.





CAG breakout session & report out

CAG member feedback

- ▶ Which of the proposed design options do you think would improve your drive time the most? Why?
- ▶ From a commuter perspective, are there concerns you have about any of these proposed design options?
- ▶ What factor would most likely change your bridge travel behavior?
- ▶ What are the most important considerations for making transit an attractive option for users?

What's Next

Next Program Meetings

- ▶ Bi-State Legislative Committee –
 - December 6, 9:00-12:00 p.m.
- ▶ Executive Steering Group –
 - December 16, 10:00-12:00 p.m.
- ▶ Community Advisory Group –
 - January 6, 4:00-6:00 p.m.
- ▶ Equity Advisory Group –
 - January 17, 5:30-7:30 p.m.

Future CAG meetings

- ▶ Community Working Group update/wrap up
- ▶ Fall Community Engagement Report
- ▶ Equity Framework update
- ▶ Equity and climate in design/screening
- ▶ Screening Process update

Public Comment

Comment Instructions

To make a verbal comment:

- ▶ To make a live comment via phone, dial: +1 669 900 6833 or +1 408 638 0968
 - ▶ Meeting ID: 993 5459 6043
 - ▶ Passcode: 674942
- ▶ Dial *9 to raise your hand
- ▶ The facilitator will call on participants to provide comment
- ▶ Dial *6 to unmute yourself
- ▶ Please provide your name and affiliation.
- ▶ 10-minute timeframe will be divided among the number of requested speakers.

If we run out of time and you have not had a chance to speak, you can still provide comments after the meeting.



Comment Instructions

To submit comment after the meeting:



- ▶ Fill out the comment form on the program website or email your comments to info@interstatebridge.org with “CAG Public Comment” in the subject line.



- ▶ Call **360-859-0494** (Washington), **503-897-9218** (Oregon), **888-503-6735** (toll-free) and state "CAG Public Comment" in your message.
- ▶ Written comments need to explicitly say “**CAG Public Comment**” in the subject line or in the body of the message for them to be identified and distributed to CAG members.
- ▶ All written comments must be received prior to 48 hours in advance of each upcoming meeting in order to be distributed to advisory group members. Comments received after that point will be distributed to members in advance of their next meeting.



Wrap up

Final Thoughts



Thank you!

