



Interstate
BRIDGE
Replacement Program



IBR Program Progress

April 21, 2022

www.interstatebridge.org

Program Update

Greg Johnson, Program Administrator

Frank Green, Assistant Program Administrator

Recent Steering and Advisory Group Meetings

- ▶ **Steering and advisory groups are meeting regularly this spring to provide feedback on the major components that will go into the Modified LPA**
 - Community Advisory Group (3/24, 4/14; *upcoming: 4/28, 5/12*)
 - Equity Advisory Group (4/4, 4/18; *upcoming: 5/16*)
 - Executive Steering Group (4/21; *upcoming: 5/5, 5/19*)

Please note that details on past and upcoming meetings and events, including meeting materials and videos, are available on the [IBR Meetings & Events](#) page.

Responding to Questions: Breakdown of Commuters

- ▶ In 2019, there were approximately 365,000 average weekday Columbia River crossings combined for both bridges
- ▶ 43% of those crossings were commuters between the Portland Metro area in Oregon and Washington
 - 80% of commute trips crossing the river each day on both bridges were made by Clark County workers with jobs in the Portland Metro area in Oregon (approximately 62,500 commuters)
 - *When taking into account Clark County workers that commute to any location in Oregon, the number increases to approximately 69,000*
 - 20% of commute trips crossing the river each day on both bridges were made by Multnomah, Clackamas, Washington County workers with jobs in Clark County (approximately 16,000 commuters)

Responding to Questions: Federal Funding Grants

- ▶ **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 after the modified LPA is identified
 - IBR anticipates applying for federal grant funding beginning in 2023
 - The FTA CIG Program, along with the Competitive Bridge Investment Program and/or the National Infrastructure Project Assistance Program are the best fit for IBR to apply
 - We do not yet know how much we may be able to from the new grant programs until they begin handing out awards next year
 - We anticipate tolling would be needed in addition to state and federal sources

Responding to Questions: Preliminary Transit Capital Cost Estimates

2020 Conceptual Financial Plan Scenario	IBR Conceptual Transit Cost (YOE \$) ¹	Potential FTA Capital Investment Grant ²
1A: LRT Low	\$0.77 B	\$0.30 B
1B: LRT High	\$1.30 B	up to \$0.93 B
2A: BRT Low	\$0.64 B	\$0.25 B
2B: BRT High	\$1.01 B	up to \$0.73 B

¹ Cost information is sourced from the IBR Program Conceptual Financial Plan (dated December 2020) and is derived from escalating Columbia River Crossing estimated project costs from 2012. These costs are in the process of being revised as the program moves toward selecting a draft modified locally preferred alternative in summer 2022.

² Assumes provisions in Section 173 of the FY 2010 Consolidated Appropriations Act that applied to the CRC project also apply to the IBR program, including a provision that allowed the New Starts share of the project to be calculated based on the total multimodal CRC project cost. Over the course of the last eight years and two federal administrations, there have been changes in personnel at both the policy and technical levels which could lead to differing interpretations and policy positions.



Questions or Feedback?

Update on Evaluation Of Key LPA Components:

- ▶ **Transit Investments**

John Willis, IBR Program Manager

Shawn Donaghy, C-TRAN CEO

Sam Desue, TriMet General Manager

- ▶ **Ramp-to-Ramp Connections (Auxiliary Lanes)**

Ryan LeProwse, Transportation/Planning Lead



Update on IBR Transit Investment Considerations

John Willis, IBR Program Manager

Shawn Donaghy, C-TRAN CEO

Sam Desue, TriMet General Manager

IBR Transit Investment

- ▶ **Quick Recap – Overview of process to date**
 - Development of representative transit investments
 - Development of transit measures
 - What has changes since 2013 for transit?
- ▶ **Draft findings from transit measures**
- ▶ **Considerations for transit components**
- ▶ **Next steps**

What has changed for transit since 2013?

- ▶ C-TRAN has developed and begun implementation of the Vine BRT network.
- ▶ City of Vancouver has worked with C-TRAN to design robust station environments for the Vine system on Broadway and Washington in the Central Business District.
- ▶ The City of Vancouver has seen substantial growth in the Waterfront District as planned for in the Waterfront Development Plan.
- ▶ The population of the region is growing and diversifying. Since 2010, Clark County's population has grown by nearly 78,000 (76% of whom are people of color).

Development of Representative Transit Investments

- ▶ **11 representative transit investments**
- ▶ **16 measures developed with project partners**
 - Multiple measures of ridership demand in 2045
 - Access for equity priority communities
 - Relative costs
 - Potential impacts
- ▶ **Stakeholder and community engagement**
- ▶ **Project components will be optimized and refined as design advances**

Draft Findings from Transit Measures

Transit Measures – Early Draft Findings

- ▶ All build options substantially improve service over the no-build option.
- ▶ Modeling shows demand for cross river transit service is expected to increase.
- ▶ Capacity, both at the investment option level and at the system level, are important considerations for selecting a preferred alternative.
 - LRT: Downtown Vancouver, Interstate Ave, Rose Quarter, Steel Bridge, Portland Transit Mall
 - BRT: Downtown Vancouver
 - Express Bus: Downtown Vancouver and the Portland Transit Mall
- ▶ A transit investment that serves the identified markets and attempts to serve demand will need to include a combination of BRT, LRT, and express bus
- ▶ Transfers from other transit vehicles are the highest mode of access for all representative transit investments.
 - This highlights the importance of conveniently connecting the C-TRAN and TriMet systems.
- ▶ When comparing the same representative alignment, LRT options have higher ridership and carrying capacity than BRT options.

Transit Measures – Early Draft Findings

- ▶ **Modeling shows Park & Ride demand is highest for facilities that provide convenient access from I-5**
- ▶ **Options that include more stations serve more residents within walking distance, including BIPOC and low-income populations**
- ▶ **All transit investments improve access to jobs, including for BIPOC and low-income populations**
 - LRT investments improve access to jobs to a greater degree than BRT investments
- ▶ **When comparing the same representative alignment, LRT options have higher capital cost and lower operations cost per rider than BRT options**
 - Detailed O&M cost estimates specific to the IBR program are under development



Considerations for Representative Transit Investments

IBR Transit Investment

- ▶ **Three transit components to include in the LPA**
 - Alignment
 - Mode
 - IBR Terminus
- ▶ **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

Discussion of Mode

Modes Considered for Program Investment

- ▶ Bus on Shoulder
- ▶ Bus Rapid Transit (BRT)
- ▶ Light Rail Transit (LRT)

Bus on Shoulder

- ▶ A transit investment that serves the identified markets and attempts to serve demand, will need to include a combination of BRT, LRT and express bus
 - Bus on Shoulder capability is included in all representative transit investments
 - **Remove as a standalone option**

Comparing BRT & LRT as a Cross River Connection

- ▶ **When comparing the same representative alignments, LRT options have higher demand than BRT options**
 - **Vehicle capacity**
 - *LRT – up to 266 passengers accommodated with a two-car train*
 - *BRT – up to 100 passengers accommodated with a bus*
 - **Additional transfer needed for BRT options traveling further north/south than Expo**
 - *Impacts travel time*
 - *Effects demand for BRT options more when compared to C-TRAN express bus option between downtown Vancouver and downtown Portland*

2045 Average Weekday Ridership - Mode

- ▶ In 2008 analysis, LRT had 19%-25% more riders than BRT. That delta has increased. Why is that?
 - **BRT options include an additional transfer** for riders that are traveling further north/south than Expo, which negatively impacts ridership demand
 - **BRT options see more trips moving to the C-TRAN Express bus service**

Transit Mode Takeaways

- ▶ Capacity on LRT options allows the program to maximize trips provided across the river
- ▶ LRT allows for preservation of the C-TRAN Vine and express bus current and future system while providing convenient connections to new LRT stations
- ▶ LRT provides more competitive travel time compared with trips that require a transfer at Expo
- ▶ Competitiveness for FTA discretionary funding
- ▶ An LRT extension of the Max Yellow Line from Expo Center into Vancouver best integrates existing transit investment in the region

Preferred Transit Investment – Mode

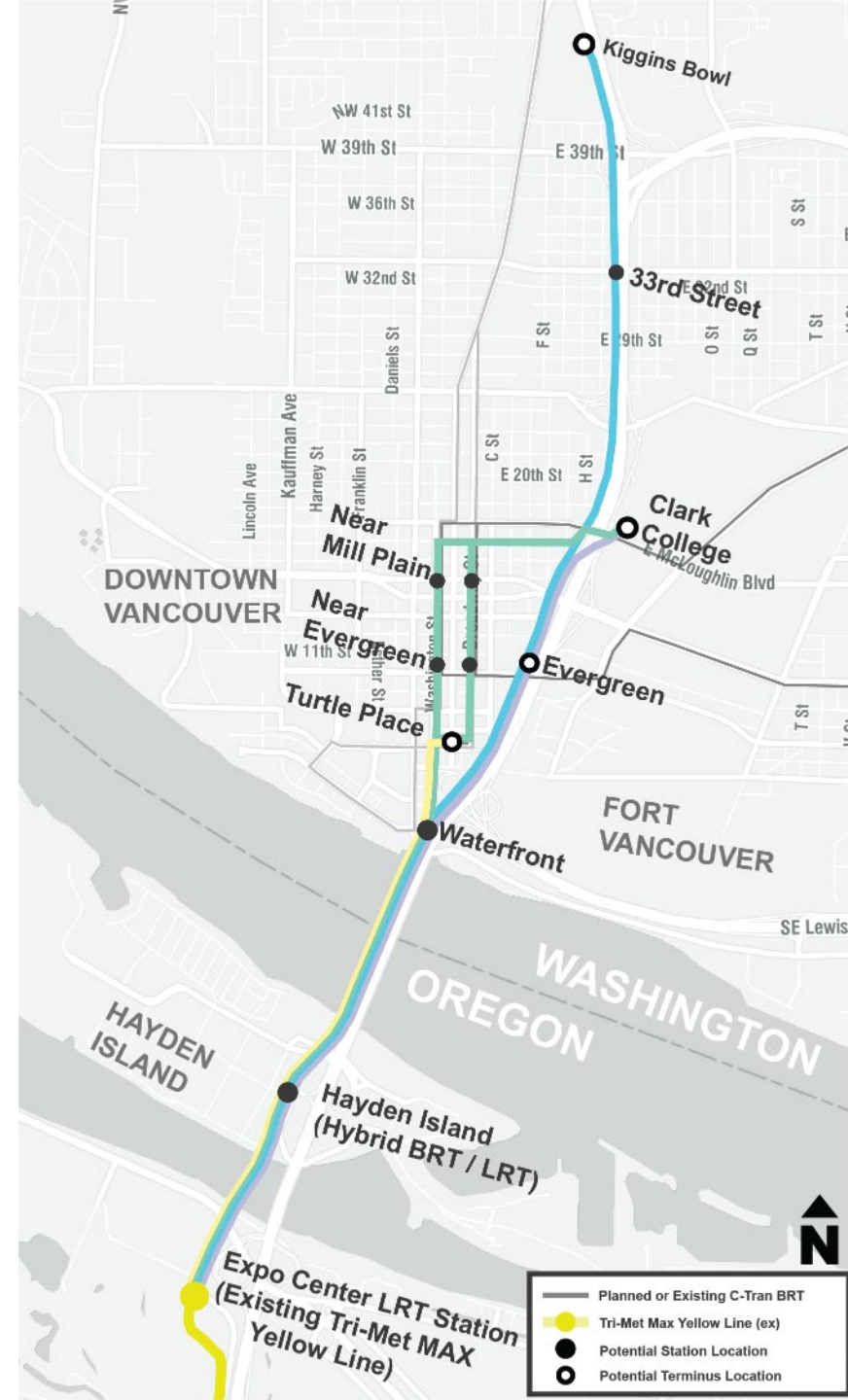
- ▶ The IBR Preferred transit investment components:
 - Mode - Light Rail Transit
 - Alignment - _____
 - IBR Terminus - _____

- ▶ After a preferred transit investment is selected project components will be optimized and refined as design advances and benefits and impacts are better understood

Discussion of Alignment

Two Representative Alignments

Downtown Vancouver/ Central Business District	I-5 Running/Adjacent
Expo to Turtle Place	Expo to Kiggins
2013 LPA	Expo to I-5 McLoughlin
	Expo to Evergreen



Alignment Takeaways

- ▶ **Any transit investment should be made with a desire to complement the C-TRAN BRT Vine system, including existing and planned service**
 - One BRT line is in operation, one in construction, and one in planning
 - The Vine and C-TRAN express bus service provide frequent and reliable service within Clark County and to downtown Portland, respectively
 - City of Vancouver has worked with C-TRAN to design robust station environments for the Vine system on Broadway and Washington in the Central Business District

Supporting Vancouver Land Use & Development Goals

- ▶ Significant investment and redevelopment in downtown Vancouver has occurred since the *2013 LPA*, including new BRT stations on the Washington-Broadway couplet, where BRT and local routes are frequent
 - The addition of LRT infrastructure would duplicate BRT service and have property impacts
- ▶ The I-5 alignment has fewer potential property impacts than the *2013 LPA* alignment and integrates with transit-oriented development opportunities at Library Square and at nearby City-owned parcels
- ▶ A connection over I-5 near Library Square between downtown and the Historic Reserve has the potential to create a significant opportunity to integrate transit into an active station environment that connects to key destinations

Recommended General Alignment

I-5 Running/Adjacent
Expo to Kiggins
Expo to I-5 McLoughlin
Expo to Evergreen



Preferred Transit Investment

- ▶ The IBR Preferred transit investment components:
 - Mode - Light Rail Transit
 - Alignment - I-5 Running/Adjacent
 - IBR Terminus - _____

- ▶ After a preferred transit investment is selected project components will be optimized and refined as design advances and benefits and impacts are better understood

Discussion of IBR Terminus

IBR Terminus Considerations

- ▶ Evergreen terminus has fewer potential property impacts
- ▶ Connects directly to downtown library, jobs, services, and amenities
- ▶ Evergreen terminus supports transit-oriented development opportunities at Library Square and on nearby City-owned parcels
- ▶ Evergreen terminus maximizes transfer opportunities given direct connections to several local routes as well as planned BRT routes
- ▶ Evergreen connects east over I-5 to the Historic Reserve, and west through downtown to Main Street and Esther Short Park via planned 9th Street pedestrian way

Preferred Transit Investment

- ▶ The IBR Preferred transit investment components:
 - Mode - Light Rail Transit
 - Alignment - I-5 Running/Adjacent
 - IBR Terminus - Near Evergreen

- ▶ After a preferred transit investment is selected project components will be optimized and refined as design advances and benefits and impacts are better understood

Next Steps

- ▶ Preferred transit investment → Modified Locally Preferred Alternative
- ▶ Optimize the Preferred Transit Investment
 - Access to transit investment
 - *Walk access*
 - *Transfer from existing/future transit*
 - *Park and ride*
 - Transit Operations - Working to meet transit demand
 - *Assumed frequency of HCT investment*
 - *Complimentary service via express bus, existing bus/BRT network, other*
 - *How the HCT investment will work within the built environment*
 - *Optimize service and connection within equity communities*
 - Fundability
 - *Understand how preferred option would rate for Federal Transit Administration Capital Investment Grant funding*



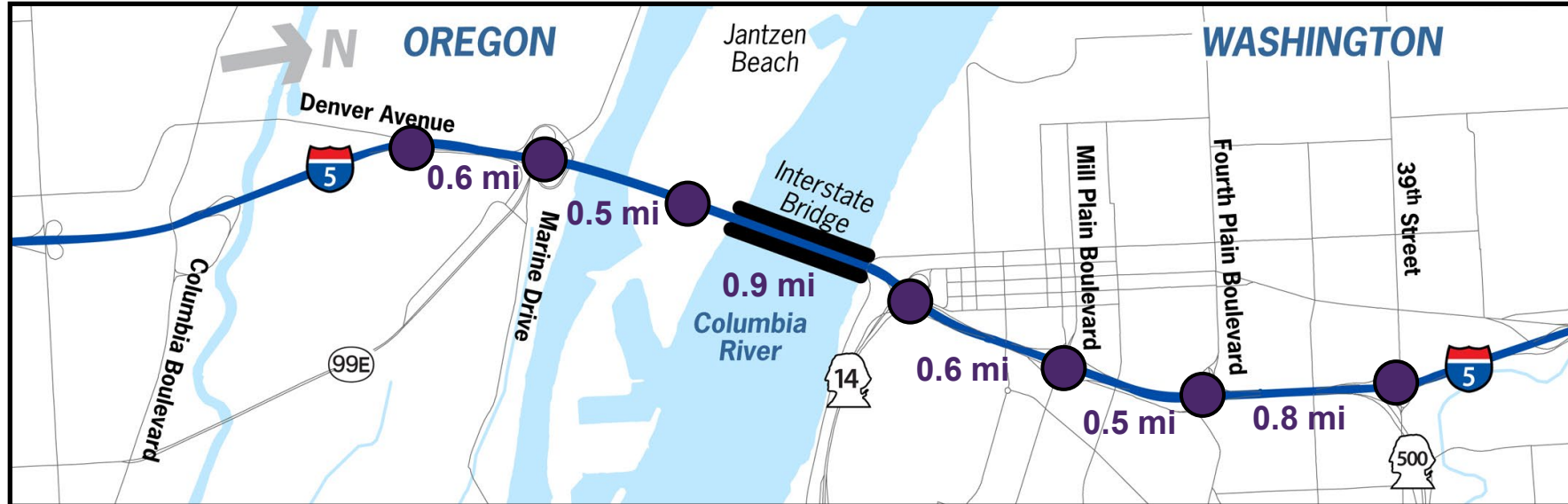
Questions or Feedback?



Update on Ramp-to-Ramp Connections (Auxiliary Lanes)

Ryan LeProwse, Transportation/Planning Lead

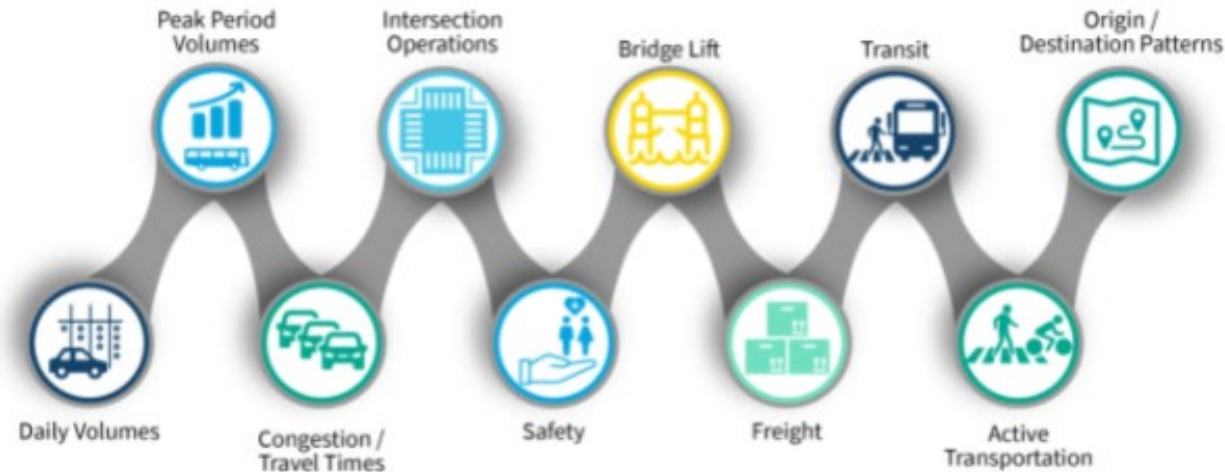
Seven Closely Spaced Interchanges



Standard Spacing: Desirable = 2 Miles
Minimum = 1 Mile

Existing Counts

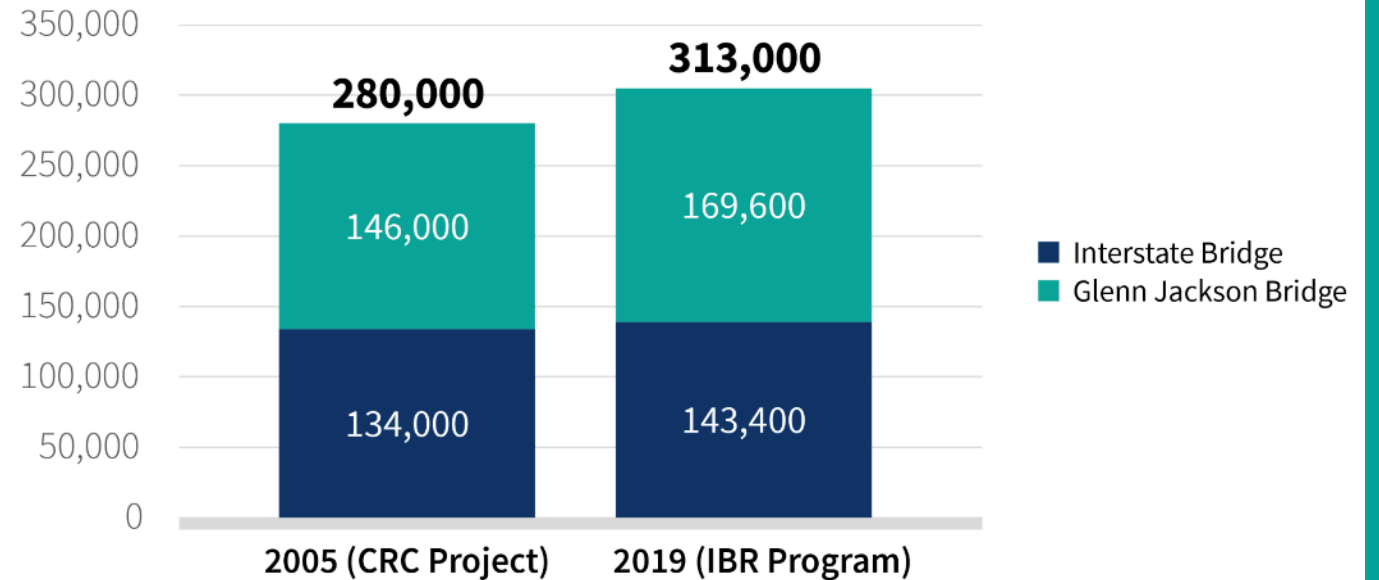
- ▶ Started with current data/counts from 2019
- ▶ Collected additional data in 2021 to fill in where counts weren't available
 - *This 2021 data was factored to represent 2019 conditions*



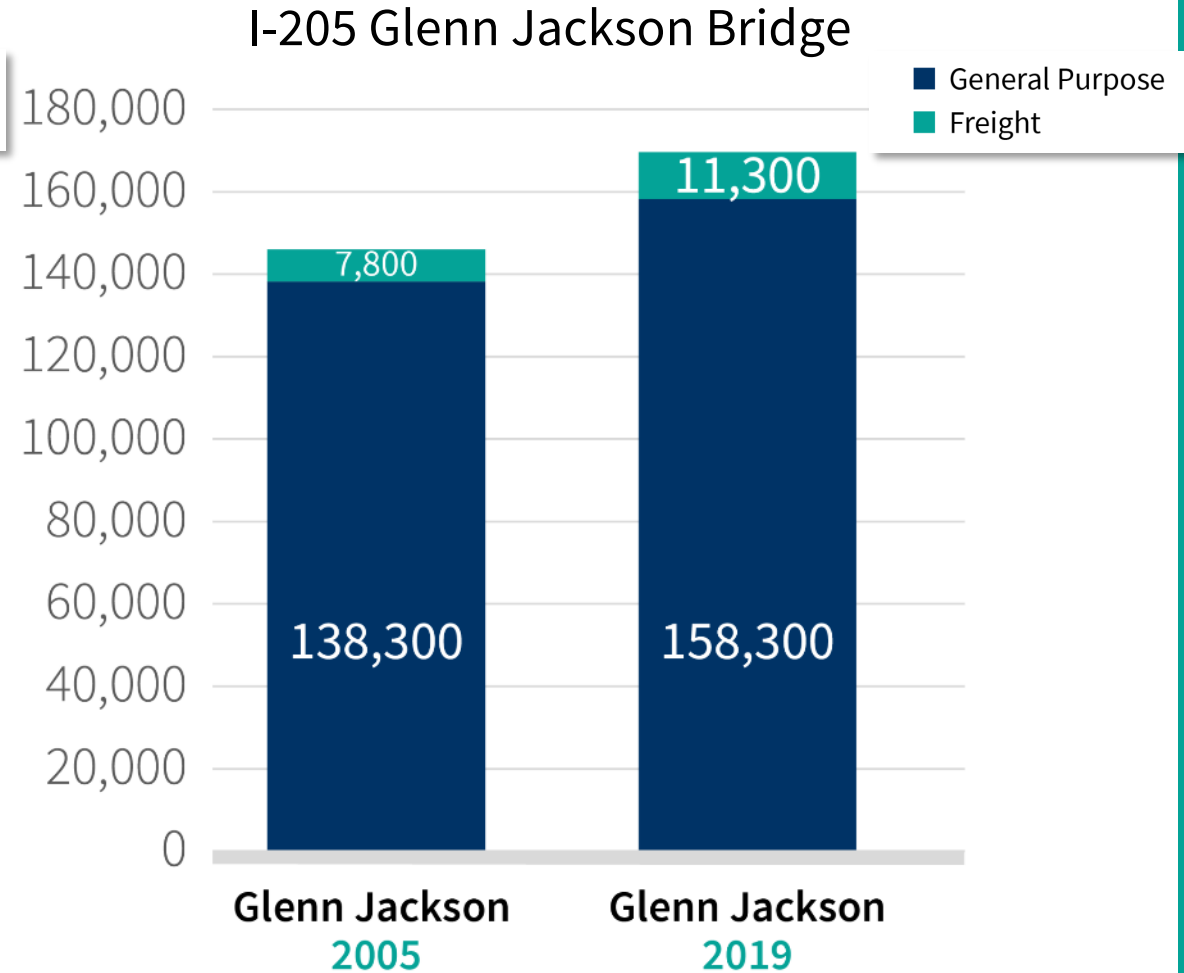
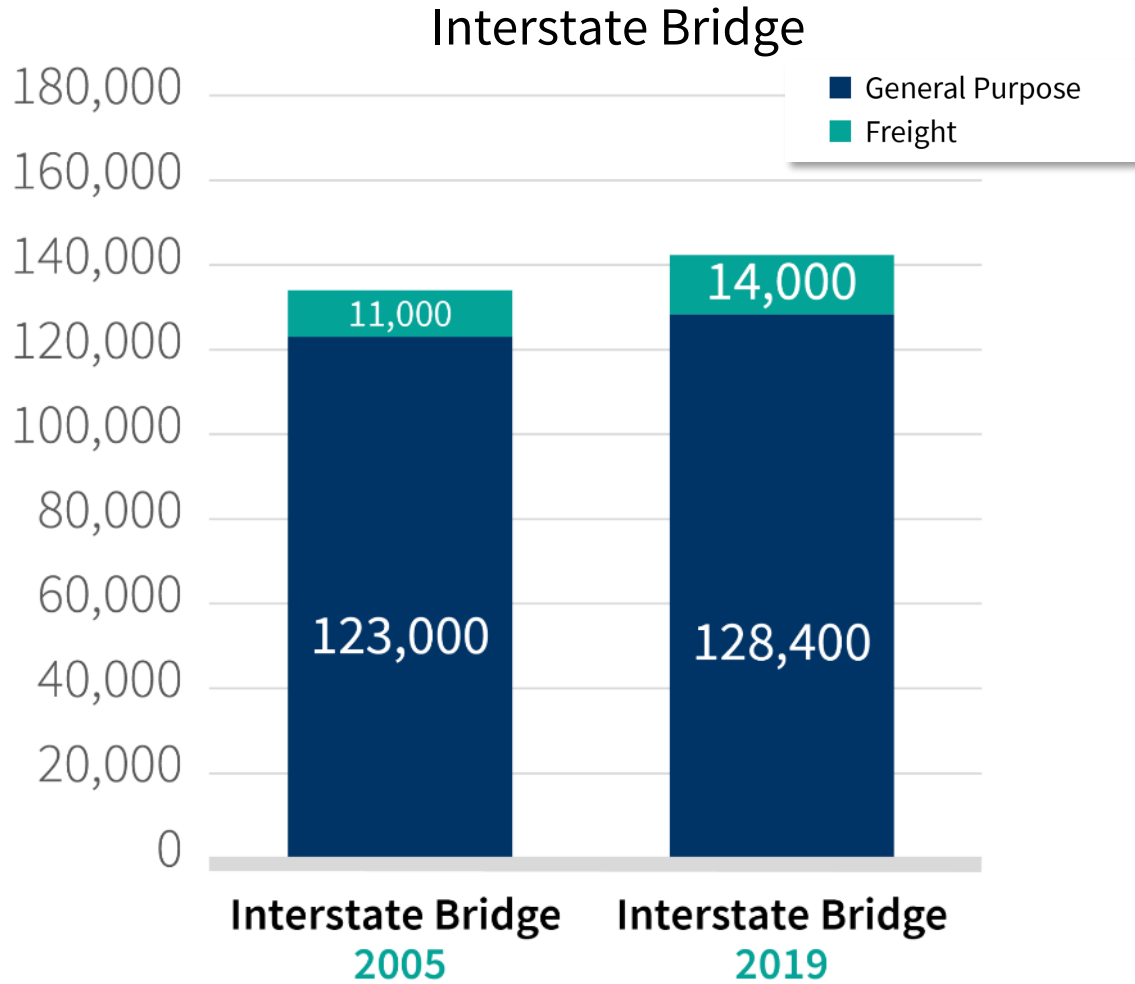
Traffic Growth Rates

- ▶ Overall average weekday daily traffic (AWDT) increased 12% between 2005 and 2019.

Overall Average Weekday Volumes by Bridge

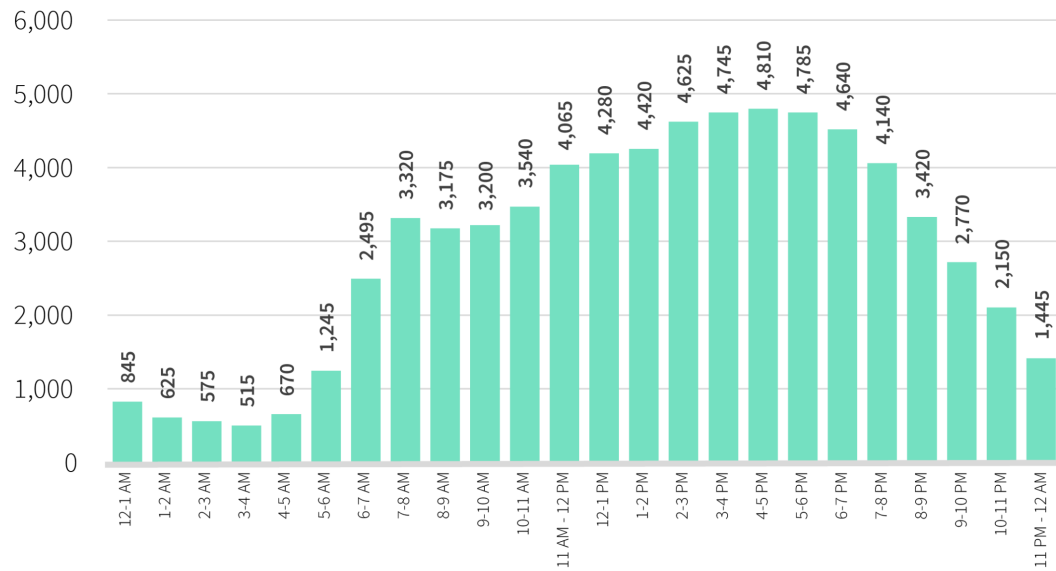


Average Weekday Volumes – Vehicles and Freight

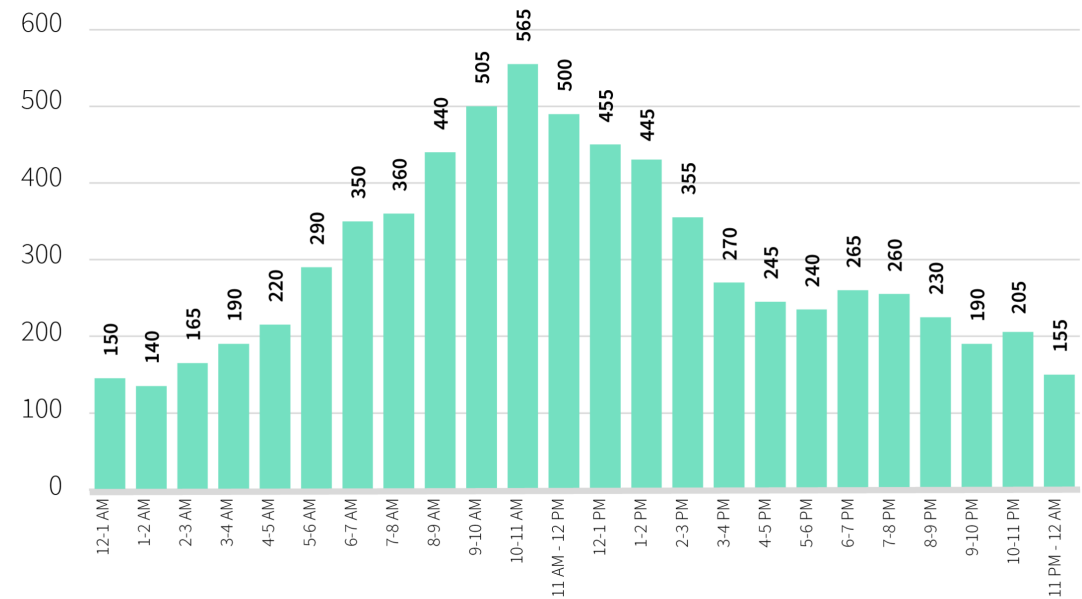


Interstate Bridge Hourly Profiles – Northbound Vehicles and Freight Volumes

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.

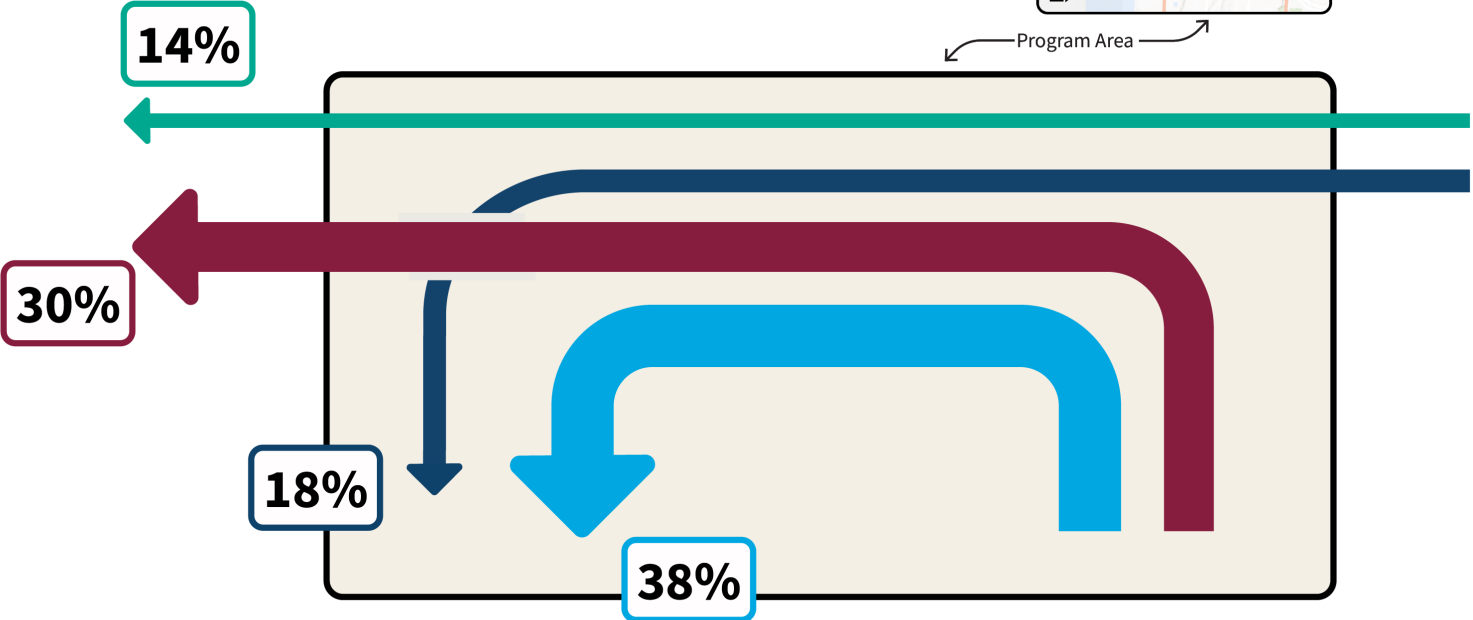
AM Peak Hour – Southbound

85% of Traffic to/from 7 interchanges



Program Area Peak Travel Patterns Southbound - SR 500 to Victory Blvd

- █ Through Trips
- █ Enter North of Program Area, Exit within Program Area
- █ Enter within Program Area, Exit South
- █ Enter and Exit within Program Area



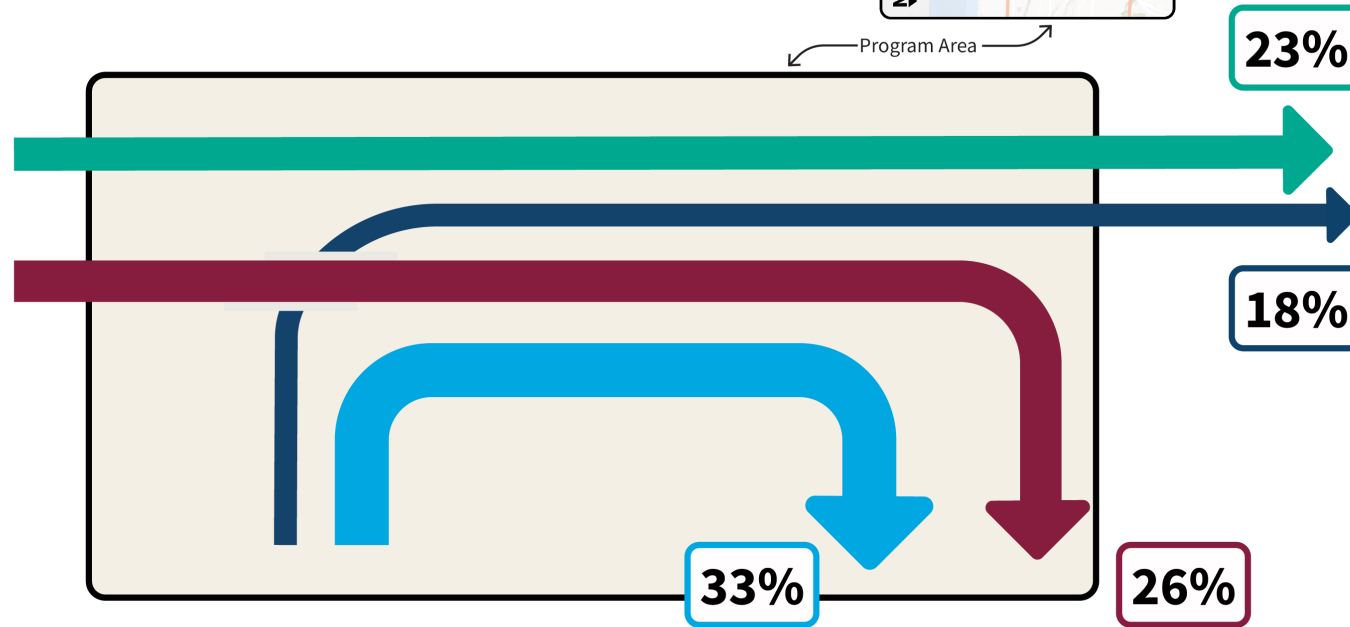
PM Peak Hour - Northbound

75% of Traffic to/from 7 interchanges



Program Area Peak Travel Patterns Northbound - Victory Blvd to SR 500

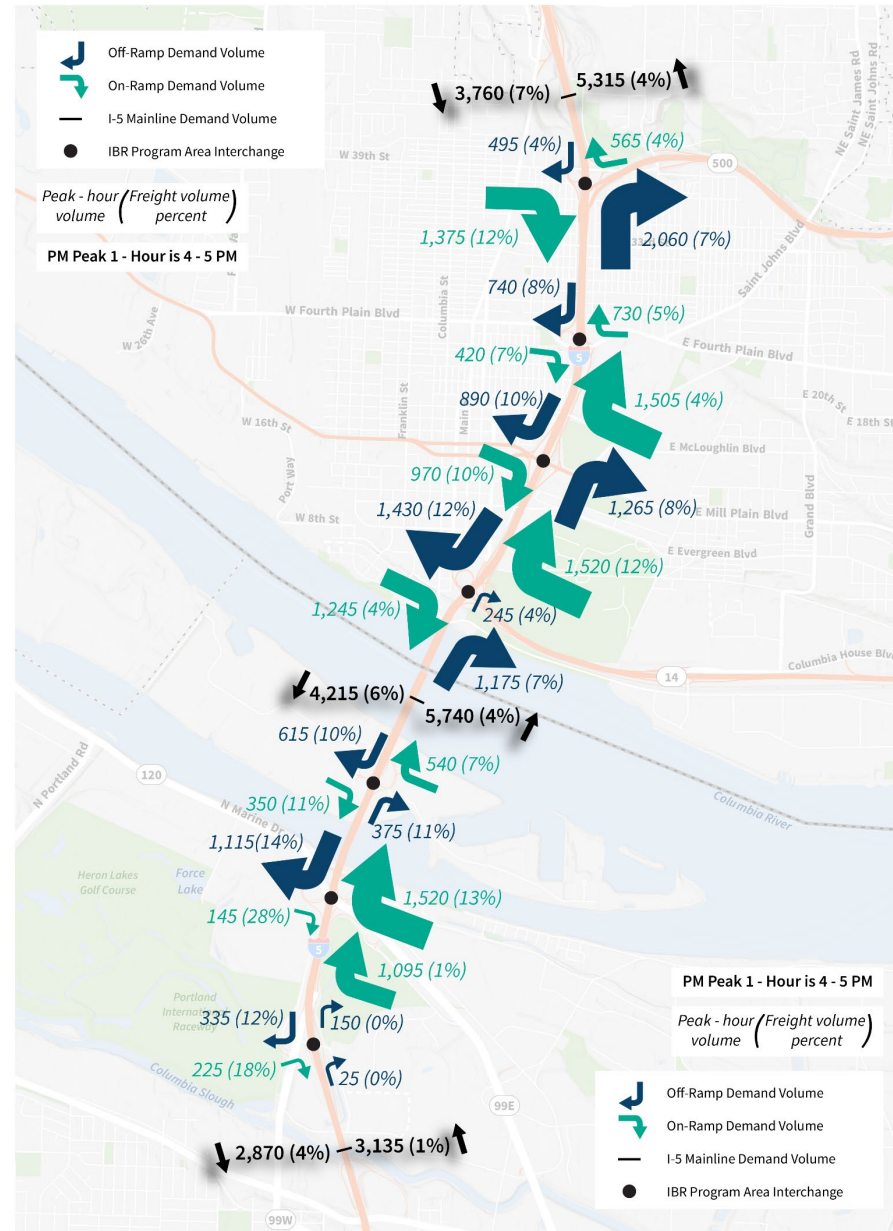
- Through Trips
- Enter South of Program Area, Exit within Program Area
- Enter within Program Area, Exit North
- Enter and Exit within Program Area



AM Peak 1-hour IBR Ramp Traffic Volumes



Existing Varying PM Peak 1-hour Traffic Volumes



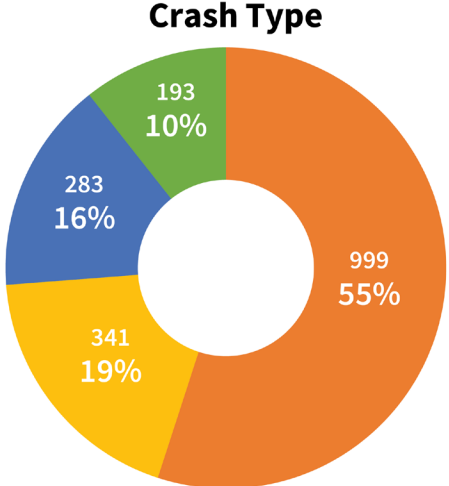
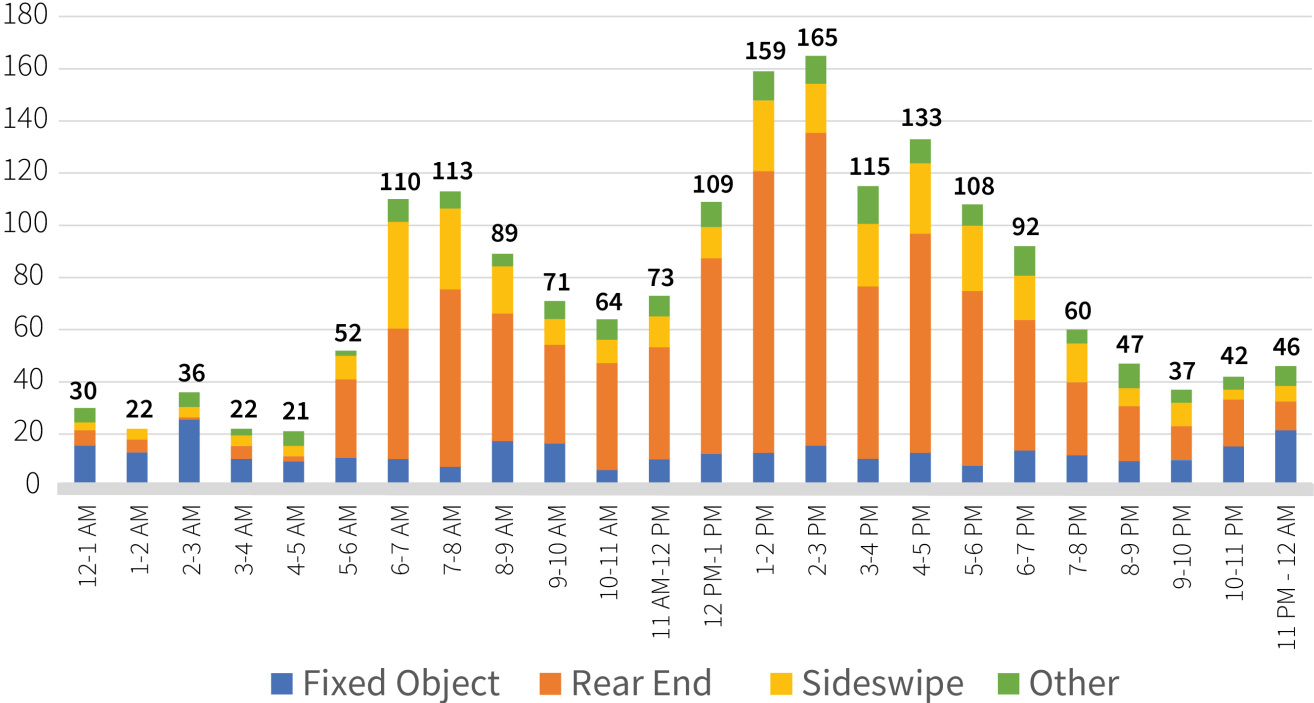
Bottleneck Locations in the Program Area

- ▶ 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.



Over 1,800 Crashes in the IBR Program Area (2015-2019)

Crashes by Hour and Type



Type - Total (Percentage of Total)

- Rear End - 999 (55%)
- Sideswipe - 341 (19%)
- Fixed Object - 283 (16%)
- Other - 193 (10%)

Percentages are rounded and may not sum to 100%

Safety Issues

- ▶ **Following features all contribute to the high number of crashes and crash rate within the I-5 IBR Program Area**
 - Short merges, diverges, & weaving sections
 - Presence and duration of congested traffic conditions
 - Bridge lifts / traffic stops

Ramp to Ramp Connections (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

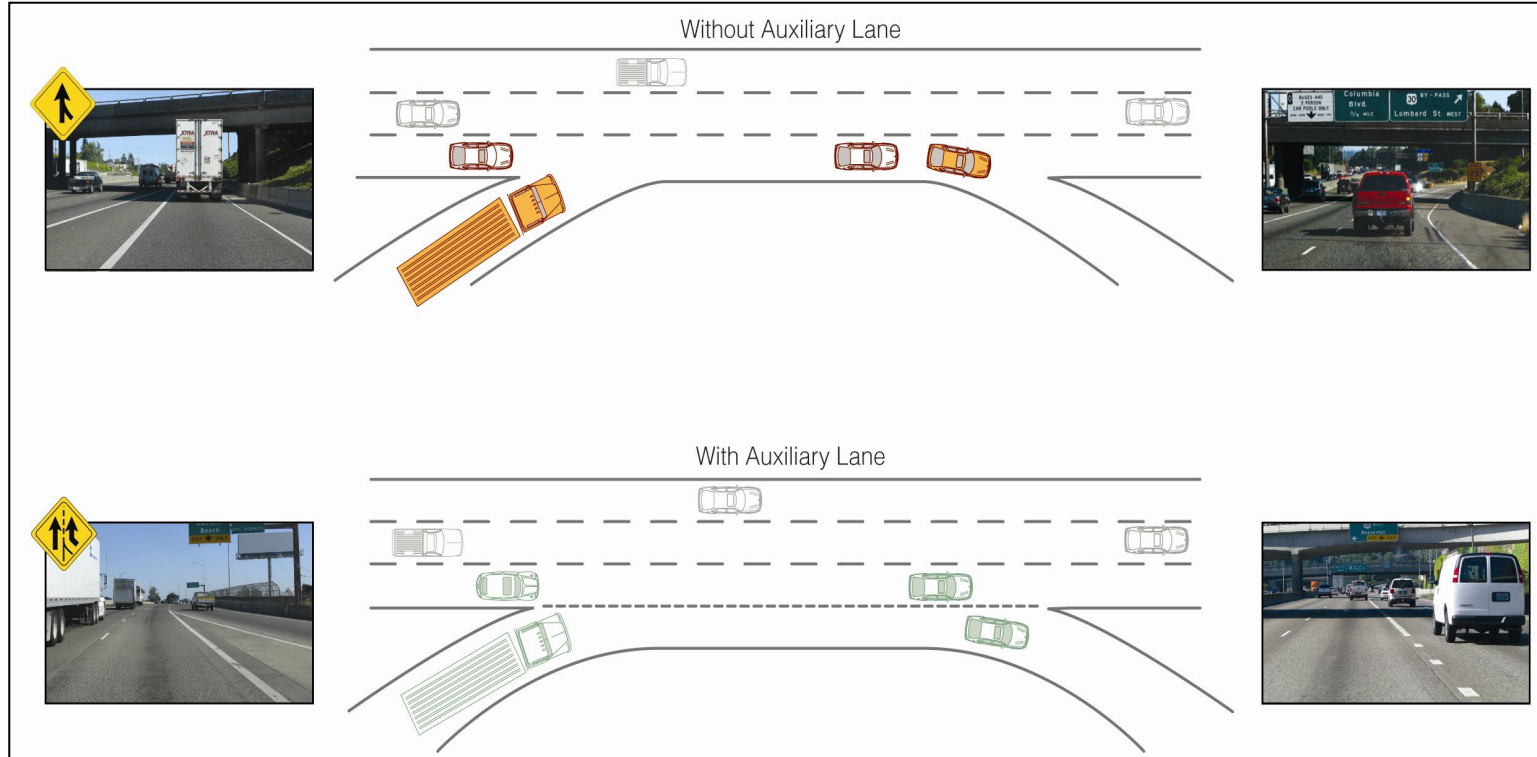
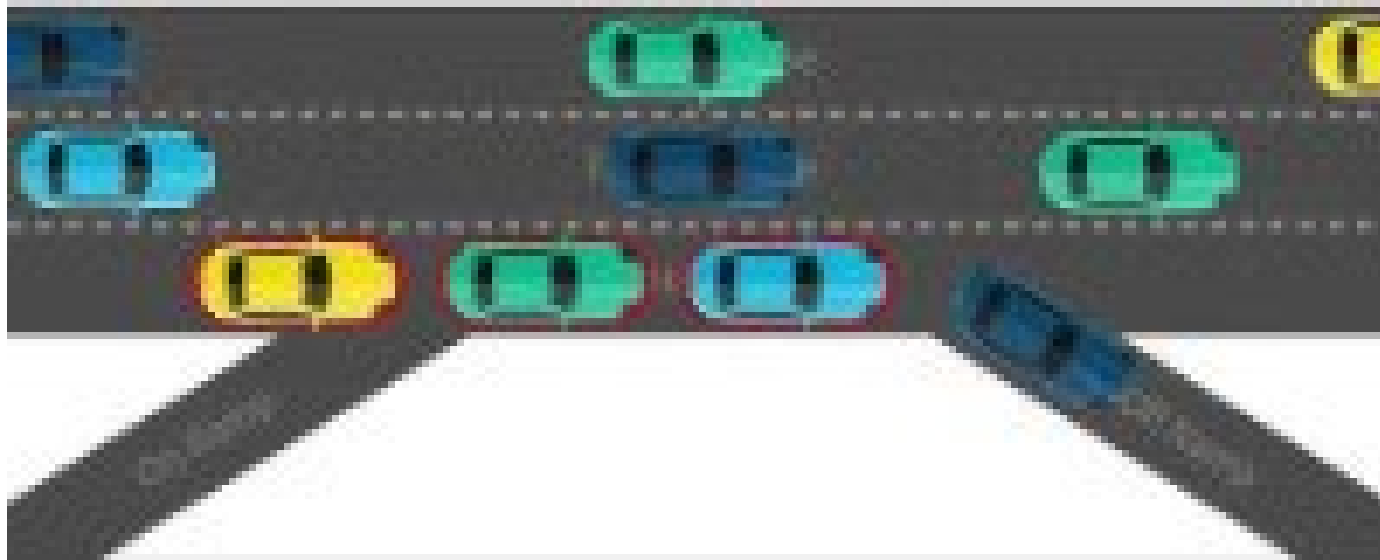


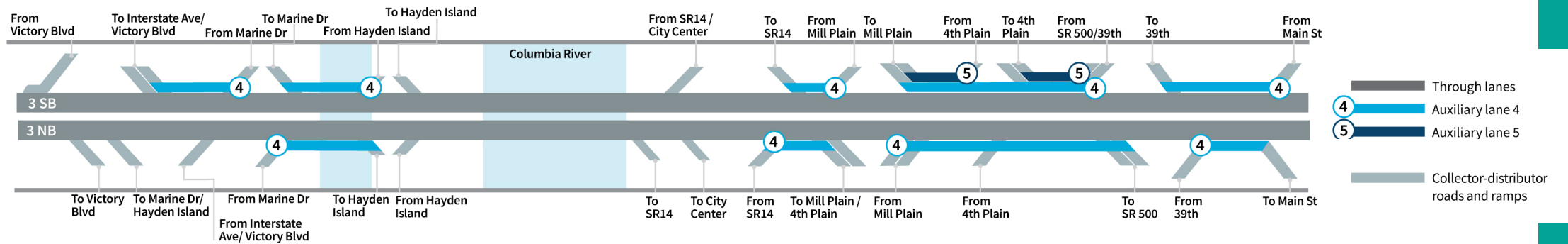
Figure shows typical highway Merge and Diverge Conditions, with (top) and without (bottom) Aux Lane

Auxiliary Lanes Described

<https://www.youtube.com/watch?v=edNXrvcvAFI>



Auxiliary Lanes exist today in the IBR Program Area



IBR Program Design Considerations

- ▶ Design throughout the corridor needs to address multiple issues:
 - Traffic congestion
 - Interchange spacing not allowing adequate time for vehicles to make on/off decisions
 - High on and off ramp traffic volumes
 - Conflicts between through, regional, and local traffic
 - Freight requirements (volumes, origin/destination patterns, steep grades)

IBR Program Design Considerations

- ▶ **Design throughout the corridor needs to address multiple issues:**
 - Crashes caused by short merging/weaving distances resulting in idling vehicles and increased emissions
 - Diversion to local roadways to avoid I-5 congestion causing increased volumes and emissions in local communities
 - Transit sitting in general purpose lanes subject to the same back-ups as vehicles
 - Limited active transportation facilities
 - Maintenance of traffic during construction

IBR Program Design Considerations

► Strategies for addressing issues

- Strategically addressing substandard ramp spacing, high traffic and freight volumes, high crashes through various highway design solutions including auxiliary lanes, collector-distributor lanes, and braided ramps
- Addressing traffic volumes and speed differential issues via demand and system management strategies including ramp meters, advisory speed signs, transit, etc.
 - *A combination of competitive transit investments including High-Capacity Transit, express bus and Bus on Shoulder*
- Variable rate tolling, combined with Oregon congestion pricing, to encourage use of other modes, encourage off-peak travel, and reduce discretionary trips

Ramp to Ramp Connections (Auxiliary Lanes) Analysis

Auxiliary lanes for IBR are proposed to address:

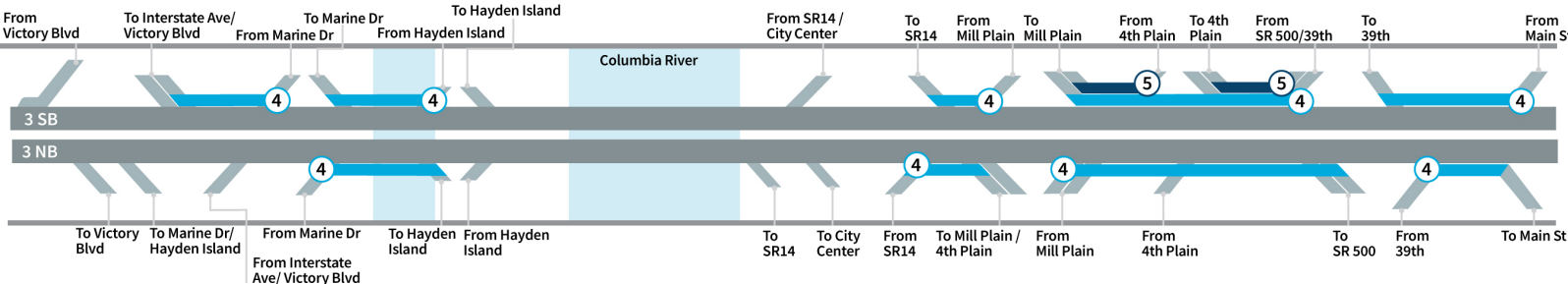
- ▶ **Close interchange spacing**
 - All interchanges are spaced below **minimum interchange spacing standards**: For example, Marine Drive to Hayden Island interchange spacing is 0.5 mile
- ▶ **Short Merges, weaves & diverges**
 - **Example Short Merge**: Northbound Hayden Island On-Ramp acceleration distance is not long enough to get up to freeway speeds
- ▶ **High on-ramp & off-ramp volumes**
 - **Example**: Southbound Marine Drive Off-Ramp is 1,400 – 1,800 vehicles per hour
- ▶ **High vehicle crashes**
 - **Example of Importance**: Substandard merge, diverge, weaving lengths combined with heavy volumes lead to more crashes, and crashes, of any severity increases congestion & impact reliability
- ▶ **Lane balancing**
 - Proper arrangement of traffic lanes on the freeway and ramps to realize efficient traffic operations by **minimizing the required number of lane shifts**

Future Volume/Mode Share Forecasting

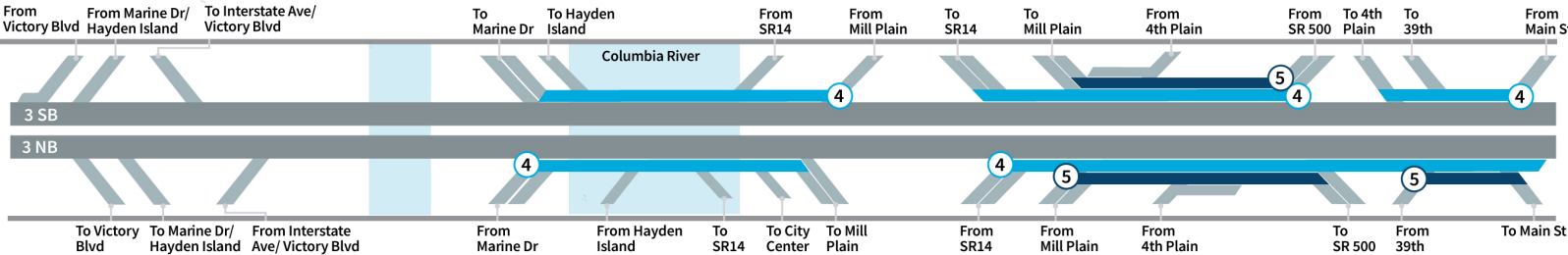
- ▶ **Travel Demand Modeling is the process used to predict travel behavior and resulting demand for a specific timeframe given a defined set of assumptions.**
- ▶ **Projects future demand, mode choice, traffic volumes, likely travel patterns (origins/destinations) out to 2045 based on current data**
 - The Model includes land use plans and transportation projects identified by the region to be built into the future, which are included in the Regional Transportation Plans (e.g., Rose Quarter, Division BRT Transit, etc.)
 - Metro/RTC (ESG partner agencies) owns this model, and other regional agencies use it to predict travel behavior

IBR Program - Auxiliary Lane Options

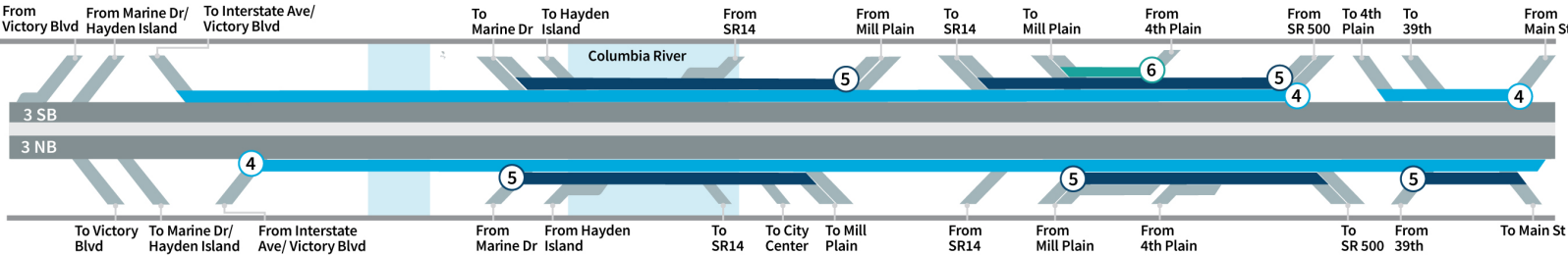
No Build



1 Auxiliary Lane



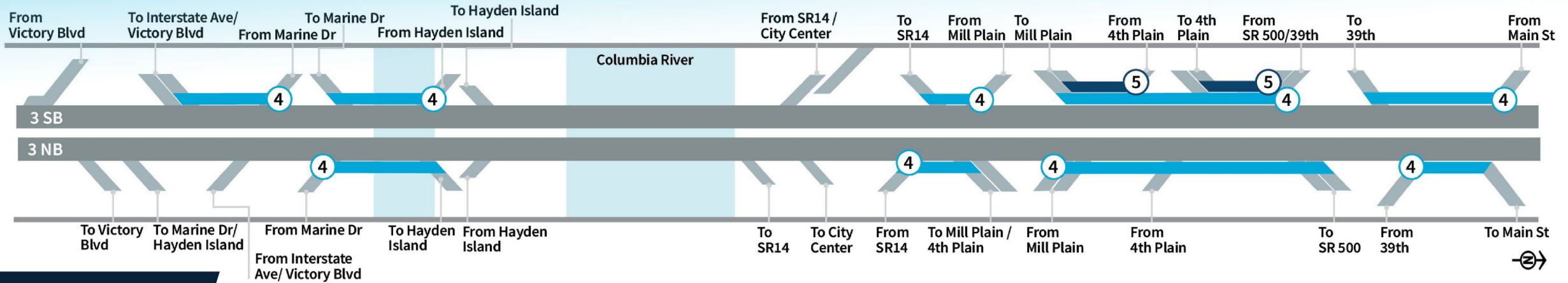
2 Auxiliary Lane



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 - No Build



Data Summary

Equity

N/A

Climate

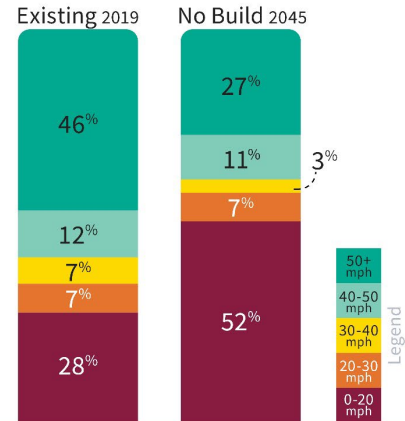
N/A

Travel Time (minutes)

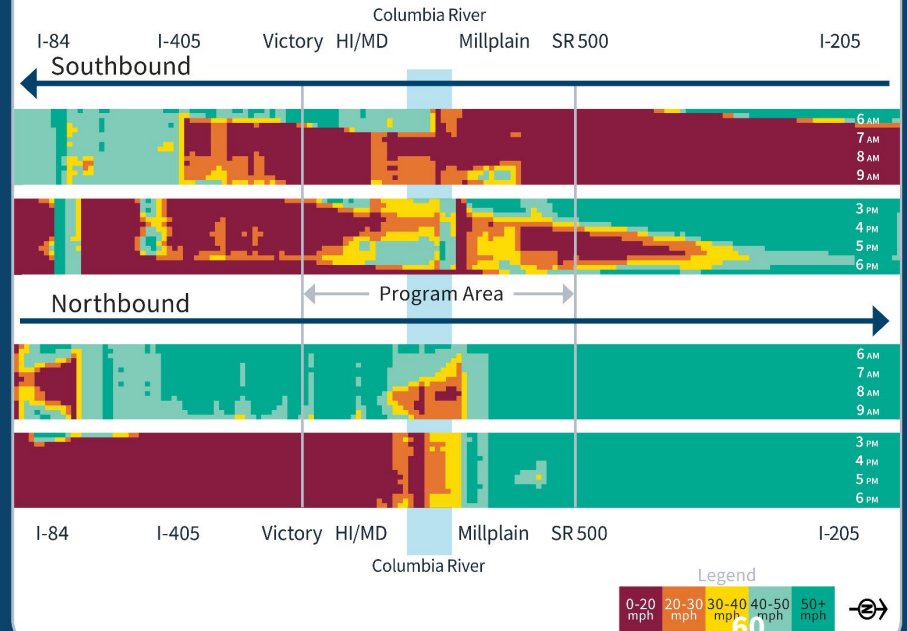
	Existing 2019	No Build 2045
AM Peak SB		
I-205 to I-405	29	63
99th to Victory Blvd	16	35
PM Peak NB		
Broadway to SR 500	35	35
I-405 to I-205	38	38

Congestion Index

(Peak Period, Peak Direction Only)



Heat Maps | No Build 2045



Daily Mode Share

(PM 1-Hour)



Transit demand exceeds peak 1-hour capacity on all modes of transit crossing the river. The mode share numbers shown assumes excess peak 1-hour demand cannot be accommodated and therefore has been shifted back to the auto mode.

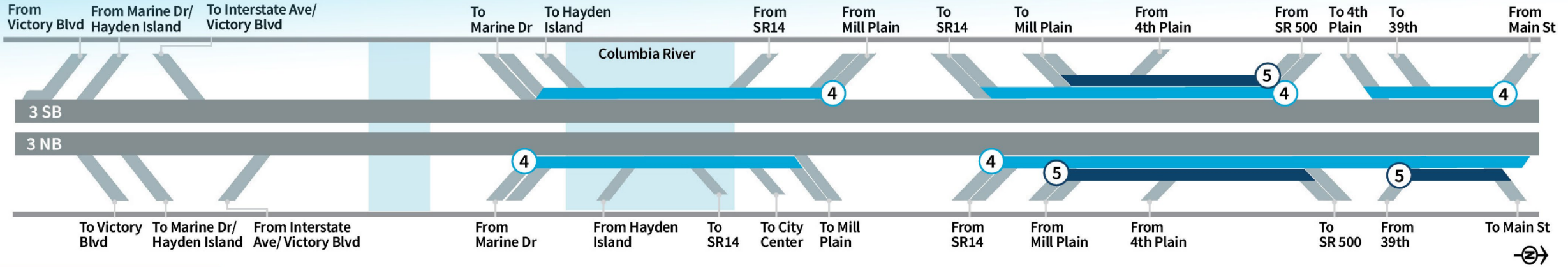
Cost

N/A

Footprint

N/A

Auxiliary Lanes - 1 Aux Lane



Data Summary

Equity

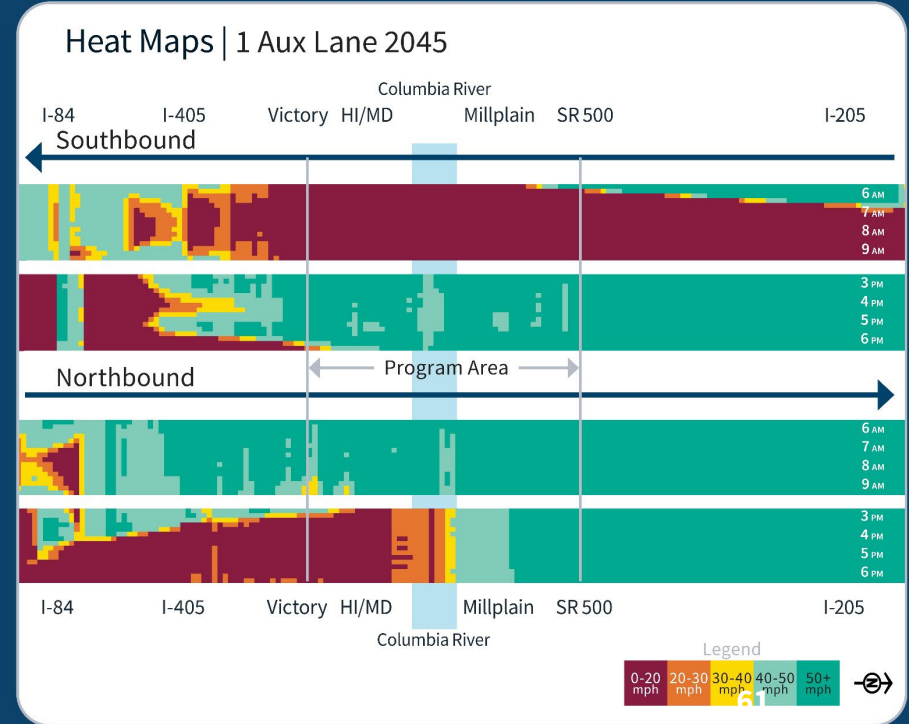
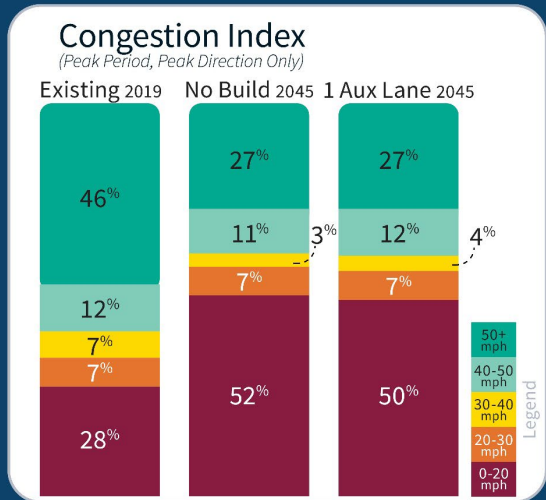
Increased Modal Options

Climate

- Anticipated GHG Reduction
- Mode Shift from SOV
- Variable Rate Tolling
- No Bridge Lift Scenarios

Travel Time (minutes)

	Existing 2019	No Build 2045	1 Aux Lane 2045
AM Peak SB			
I-205 to I-405	29	63	60
99th to Victory	16	35	33
PM Peak NB			
BDWY to SR 500	35	35	24
I-205 to I-405	38	38	27



Daily Mode Share (PM 1-Hour)

- 76% (76%)
- 11% (17%)
- 11% (5%)
- 2% (2%)

Transit demand exceeds peak 1-hour capacity on all modes of transit crossing the river. The mode share numbers shown assumes excess peak 1-hour demand cannot be accommodated and therefore has been shifted back to the auto mode.

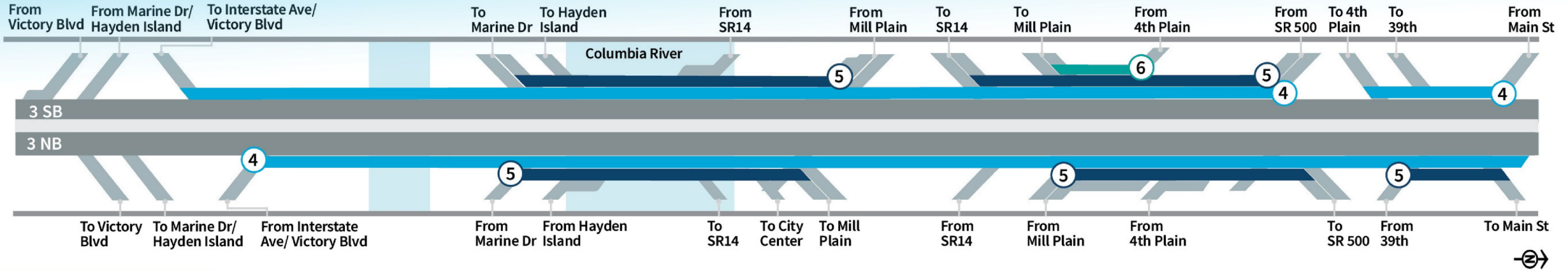
Cost

75 - 100 Million Dollars Less Than the 2013 LPA

Footprint

2013 LPA Minus 16 Feet

Auxiliary Lanes - 2 Aux Lanes



Data Summary

Equity

Increased Modal Options

Improved Travel Time

Climate

- Anticipated GHG Reduction
- Mode Shift from SOV
- Variable Rate Tolling
- No Bridge Lift Scenarios

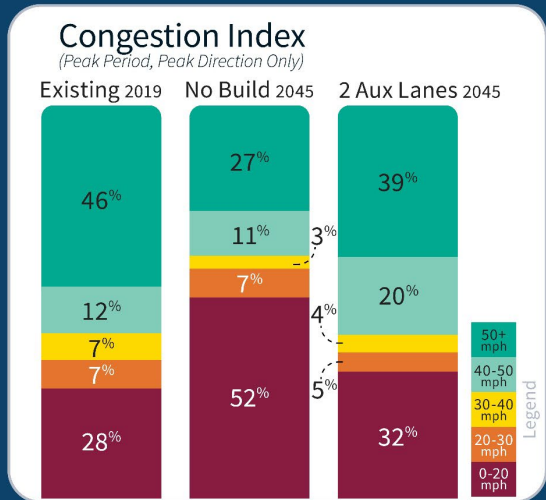
Daily Mode Share (PM 1-Hour)

76% (76%)	11% (17%)	11% (5%)	2% (2%)
---------------------	---------------------	--------------------	-------------------

Transit demand exceeds peak 1-hour capacity on all modes of transit crossing the river. The mode share numbers shown assumes excess peak 1-hour demand cannot be accommodated and therefore has been shifted back to the auto mode.

Travel Time (minutes)

	Existing 2019	No Build 2045	2 Aux Lane 2045
AM Peak SB			
I-205 to I-405	29	63	57
99th to Victory	16	35	31
PM Peak NB			
BDWY to SR 500	35	35	10
I-405 to I-205	38	38	15

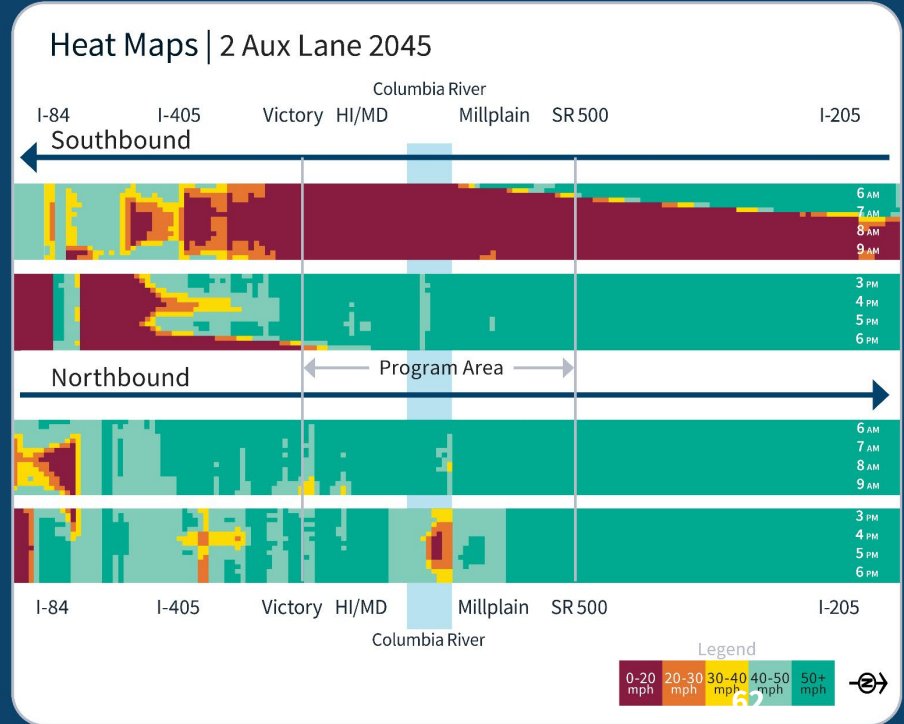


Cost

2013 LPA

Footprint

2013 LPA



Aux Lane (1 or 2) Tradeoffs compared to No Build

- ▶ Mode choice benefits (High-Capacity Transit, Bus on Shoulder and Active Transportation)
- ▶ Variable rate tolling
- ▶ Reduces overall congestion
 - Off-peak benefits, including weekends
 - Less diversion to local streets
 - Faster congestion recovery from crashes and incidents
- ▶ Fewer lane changes required (i.e., lane balance)
- ▶ Large safety improvements
 - **Lane widths** to allow for current vehicle widths, turning, and comfort
 - **Fewer sideswipe** crashes
 - **Full shoulders** to allow BOS and to recover from breakdowns and emergency vehicle access
 - **Improved visibility** (hills and curves)
 - **No bridge lifts**

Benefits of 1-Aux Lane compared to 2045 No Build

▶ Travel time improvements

- SB AM travel time is reduced by 3 minutes between I-5/I-205 split and I-405
- NB PM travel time is reduced by 11 minutes between Broadway Ave. and SR 500

▶ Reduced Congestion

- Congestion is similar during AM/PM peak period peak direction, but reduces in off-peak periods

▶ Safety benefits

- Likelihood of crashes is expected to decrease

▶ Mode shift

- Daily transit mode share is expected to increase 4% from No Build to 11% total

▶ Climate

- Anticipated GHG reduction due to less congestion, mode shift away from single occupant vehicles (transit and active transportation), variable rate tolling, no bridge lifts

▶ Equity

- Increased modal options

Benefits of 2-Auxiliary Lane compared to No Build

▶ Travel time improvements

- SB AM travel time is reduced by 6 minutes between I-5/I-205 split and I-405
- NB PM travel time is reduced by 25 minutes between Broadway Ave. and SR 500

▶ Reduced congestion

- Congestion reduces 20% during AM/PM peak period peak direction

▶ Safety benefits

- Likelihood of crashes is expected to decrease

▶ Mode shift

- Daily transit mode share is expected to increase 4% from No Build to 11% total

▶ Climate

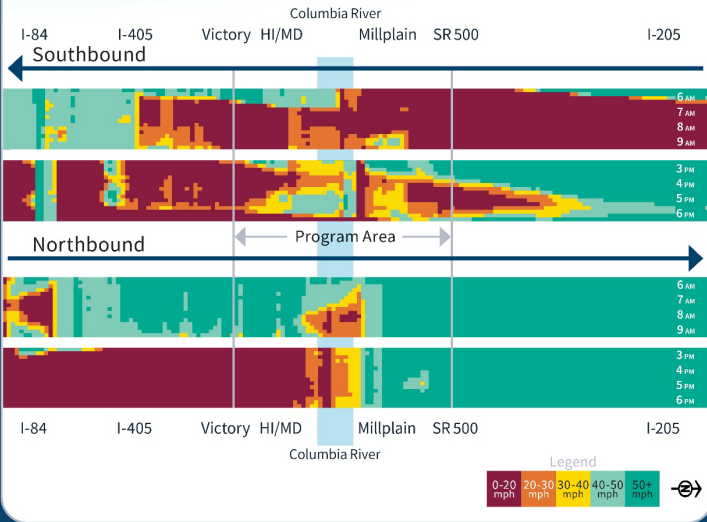
- Anticipated greater GHG reduction due to less congestion, mode shift away from single occupant vehicles (transit and active transportation), variable rate tolling, no bridge lifts

▶ Equity

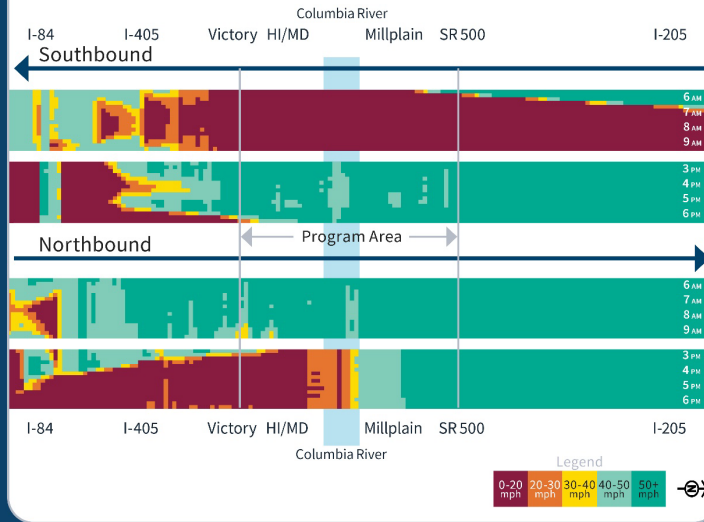
- Increased modal options, improved travel time reliability

Auxiliary Lanes - Traffic Summary

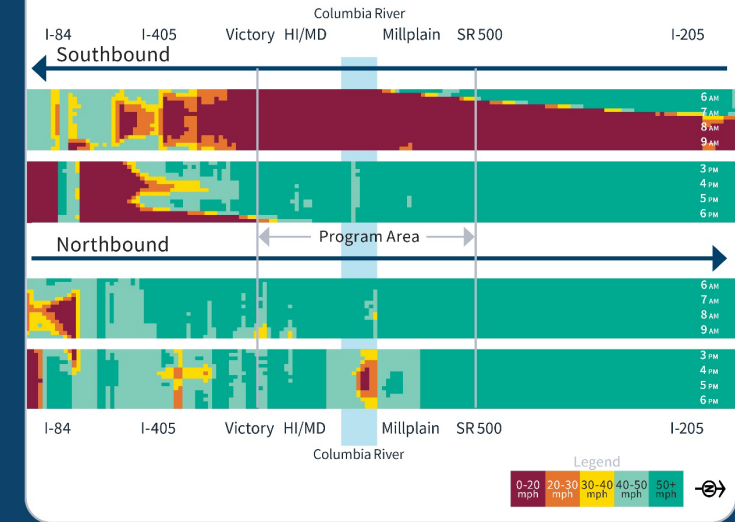
Heat Maps | No Build 2045



Heat Maps | 1 Aux Lane 2045



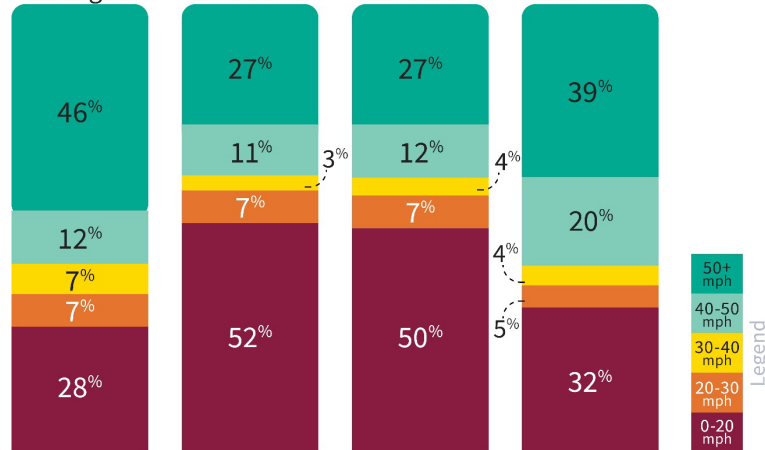
Heat Maps | 2 Aux Lane 2045



Congestion Index

(Peak Period, Peak Direction Only)

Existing 2019 No Build 2045 1 Aux Lane 2045 2 Aux Lanes 2045



No Build Daily Mode Share (PM 1-Hour)



Transit demand exceeds peak 1-hour capacity on all modes of transit crossing the river. The mode share numbers shown assumes excess peak 1-hour demand cannot be accommodated and therefore has been shifted back to the auto mode.

1 Aux Lane & 2 Aux Lane Daily Mode Share (PM 1-Hour)



Transit demand exceeds peak 1-hour capacity on all modes of transit crossing the river. The mode share numbers shown assumes excess peak 1-hour demand cannot be accommodated and therefore has been shifted back to the auto mode.

Travel Time (minutes)

	Existing 2019	No Build 2045	1 Aux Lane 2045	2 Aux Lane 2045
AM Peak SB				
I-205 to I-405	29	63	60	57
99th to Victory	16	35	33	31
PM Peak NB				
BDWY to SR 500	35	35	24	10
I-405 to I-205	38	38	27	15



Questions or Feedback?

Overview of Scenarios

Greg Johnson, Program Administrator

John Willis, IBR Program Manager

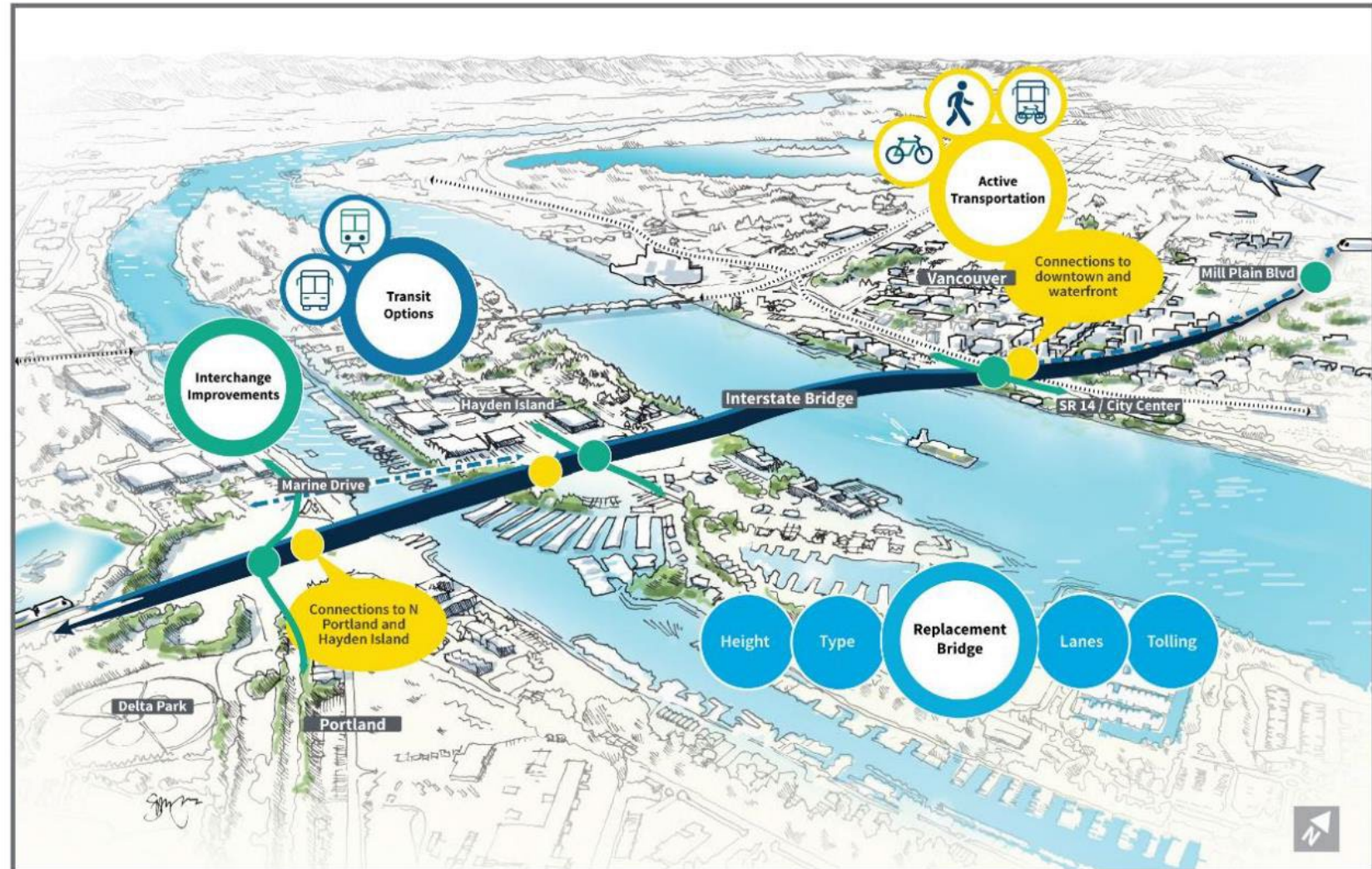
Identifying the Modified Locally Preferred Alternative

► Key components of the Modified LPA:

- Transit Investments
- Hayden Island/Marine Drive Interchange
- Number of Auxiliary Lanes

► Other program area considerations:

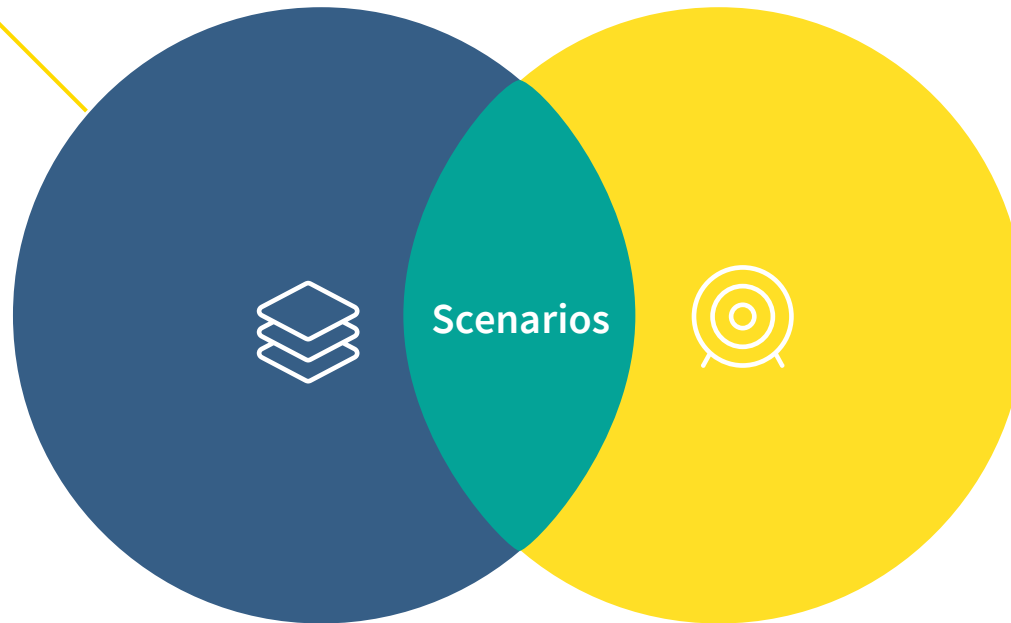
- Bridge Crossing and Alignment
- Vancouver Interchanges
- All options assume replacement of North Portland Harbor Bridge. More work will be done to identify benefits and impacts.
- Active transportation improvements will be integrated into design options for all areas.



Scenario Development

Leveraging Previous Planning

Existing data
Past studies/findings
Previous design



Current Planning

Changes since 2013
New and existing data
New modeling
Stakeholder & community input

Scenario Development



Bridge - **Replace**

Bridge - **Replace**

Bridge - **Replace**

Bridge - **Replace**

River Crossing Auxiliary
Lanes - **0**

River Crossing Auxiliary
Lanes - **1**

River Crossing Auxiliary
Lanes - **2**

River Crossing Auxiliary
Lanes - **3**

System and Demand
Management - **Yes**

System and Demand
Management - **Yes**

System and Demand
Management - **Yes**

System and Demand
Management - **Yes**

HI/MD - **No Interchange**

HI/MD - **Partial**

HI/MD - **Full**

HI/MD - **Full**

Transit- **Light Rail**

Transit- **Light Rail**

Transit- **Light Rail**

Transit- **Light Rail**



Scenario Development



Scenario A

Bridge - **Replace**

River Crossing Auxiliary
Lanes - **1**

System and Demand
Management - **Yes**

HI/MD - **Partial**

Transit- **Light Rail**

Scenario B

Bridge - **Replace**

River Crossing Auxiliary
Lanes - **2**

System and Demand
Management- **Yes**

HI/MD - **Full**

Transit- **Light Rail**





Questions or Feedback?

Next Steps

Greg Johnson, Program Administrator

Near Term Timeline

▶ Early May

- Identify program recommendation on Modified LPA components
- Bi-State Legislative Committee: May 6, 9:00-12:00

▶ May - July

- Review and endorsement of the recommended Modified LPA by partner boards, councils, and commissions
- Bi-State Legislative Committee: May 20, 2:00-5:00; June 17, 9:00-12:00

▶ July

- ESG consensus recommendation to move Modified LPA into SDEIS
- Bi-State Legislative Committee consideration of Modified LPA: July 21, 2:00-5:00

Timeline Beyond Summer 2022

- ▶ Continued engagement and outreach as the program moves into the federal environmental review process.
- ▶ Fall 2022
 - Updates to the conceptual finance plan in preparation for the 2023 legislative session.
 - *We know transportation projects of this size require multiple funding sources including federal, state, and tolling revenue.*
- ▶ Ongoing through late 2023
 - Additional analysis as part of the NEPA process with the Final Supplemental EIS estimated to be published late next year.
- ▶ Ongoing through mid-2024
 - Additional development of design details such as bridge type, active transportation facilities, transit details, etc.



Questions or Feedback?



For more information contact:

info@interstatebridge.org

360-859-0494 or 503-897-9218

888-503-6735

<https://www.interstatebridge.org>

Follow us on social: @IBRprogram



Thank you!

www.interstatebridge.org