Interstate BRIDGE Replacement Program

IBR Executive Steering Group Meeting

April 21, 2022

10:00 a.m. – 1:00 p.m.

www.interstatebridge.org

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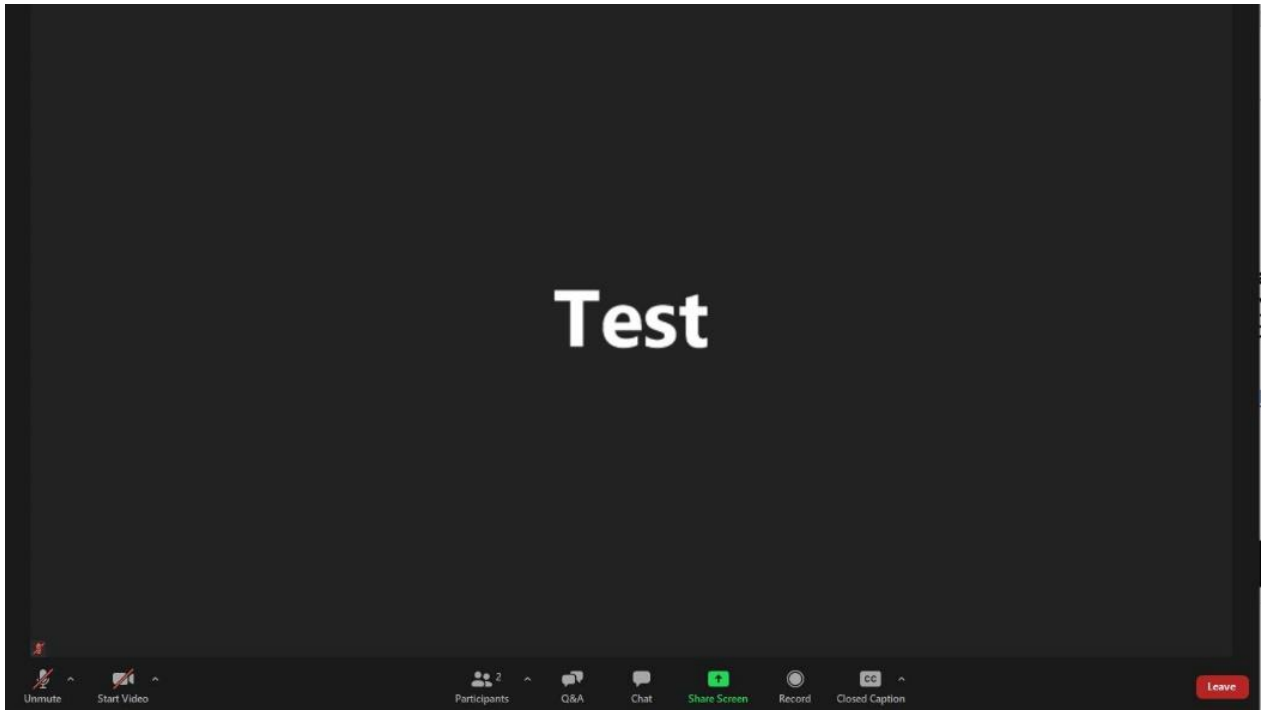
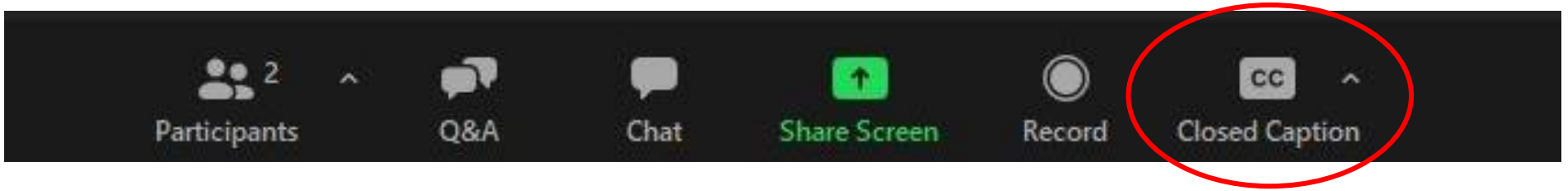


1. At the bottom middle of your screen, you should see a menu of options. If you can't see the menu, hover your mouse over the bottom middle of the screen.
2. Click on the "CC" icon and a separate window with captions will appear.



Webinar Participation Tips

- Thank you for joining us today!
- We encourage panelists to turn on your video.
- Please keep your audio on mute when not speaking.
- Before speaking, please state your name and affiliation to help attendees identify who is talking.
- 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.**

- **To submit input after the meeting:**
  - Email comments to info@interstatebridge.org with "ESG Public Comment" in the subject line

  - Call 888-503-6735 and state "ESG Public Comment" in your message

Meeting Ground Rules

- Honor the agenda
- Listen to understand and ask questions to clarify
- Hard on the problems, soft on the people
- Address interests and seek common ground
- Provide a balance of speaking time

Meeting Agenda

Time	Topic
10:00 – 10:20 pm	Welcome, Introductions, Agenda Review, and Updates
10:20 - 11:20 am	Technical Overview & Data Sharing – Auxiliary Lanes
11:20 – 11:30 am	Break
11:30 – 12:10 pm	Technical Overview & Data Sharing - Transit
12:10 – 12:40 pm	Options Analysis and Review: Modified Locally Preferred Alternative Scenarios
12:40 – 12:55 pm	Public Comment
12:55 – 1:00 pm	Confirm Upcoming Meeting Topics, Next Steps and Summary

Welcome, Introductions, and Brief Program Updates

Interstate BRIDGE Replacement Program

IBR ESG Update on Ramp-to-ramp Connections (Auxiliary Lanes)

April 21, 2022

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IBR Desired Outcomes and Aux Lanes

PURPOSE AND NEED	DESIRED OUTCOMES
1. Travel demand and congestion	More people can move through the program area.
	Travel times through the program area are faster and more predictable.
	People of all ages, abilities, and incomes have access to move through the program area, regardless of mode.
	Regional trips stay on I-5.
2. Freight movement	Freight travel through the program area is more reliable.
	Freight travel times through the program area are faster.
	Accommodates high, wide, and heavy cargo in existing and future routes.
3. Public transportation	More people use transit.
	Travel by transit is competitive with other modes.
	Transit connects people to their origins and destinations.
	Travel by transit is predictable, reliable, and consistent.
	More people have access to high-quality, affordable, and reliable transit.

Interstate BRIDGE Replacement Program

IBR Desired Outcomes and Aux Lanes

PURPOSE AND NEED	DESIRED OUTCOMES
4. Safety	Reduce overall crashes on I-5, including severe injury and fatal crashes.
	Reduce overall crashes, including severe injury and fatal crashes, on I-5 ramps, local streets, and active transportation networks in the program area.
	Fewer diverted trips from I-5 to local streets.
	Safety is reflected in designs for all modes.

CLIMATE CHANGE & RESILIENCY
Reduce GHG emissions in support of state climate goals.
Minimize operational and embodied carbon during construction.
All structures are resilient to and operable following anticipated climate disruptions (e.g., heat events, flooding, sea level rise).
Program limits other environmental impacts that exacerbate effects of climate change (e.g., heat island, runoff).

Interstate BRIDGE Replacement Program

IBR Desired Outcomes and Aux Lanes

EQUITY (as excerpted from the Equity Framework and to be refined by EAG)
Improved mobility, accessibility, and connectivity especially for lower income travelers, people with disabilities, and communities who experience transportation barriers.
Fewer identity-based disparities in travel time, access, transportation costs, and exposure to air pollution, road noise, and traffic crashes.
Local community improvements are implemented in addition to required mitigations.
Economic opportunities generated by the program benefit minority and women owned firms, BIPOC workers, workers with disabilities, and young people.
Equity priority communities have access, influence, and decision-making power throughout the program in establishing objectives, design, implementation, and evaluation of success.
Disproportionate impacts on equity priority communities are avoided rather than simply mitigated.

Interstate BRIDGE Replacement Program

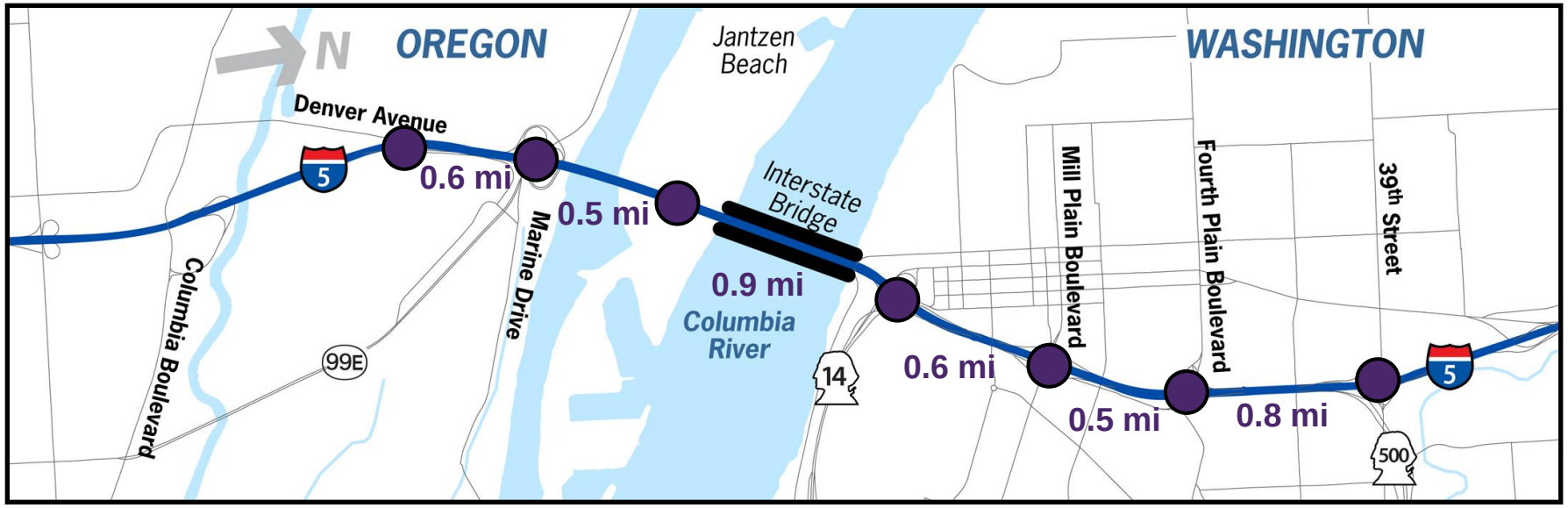
IBR Program Design Considerations

- 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

IBR Background Traffic/Design Information

Interstate BRIDGE Replacement Program

Seven Closely Spaced Interchanges

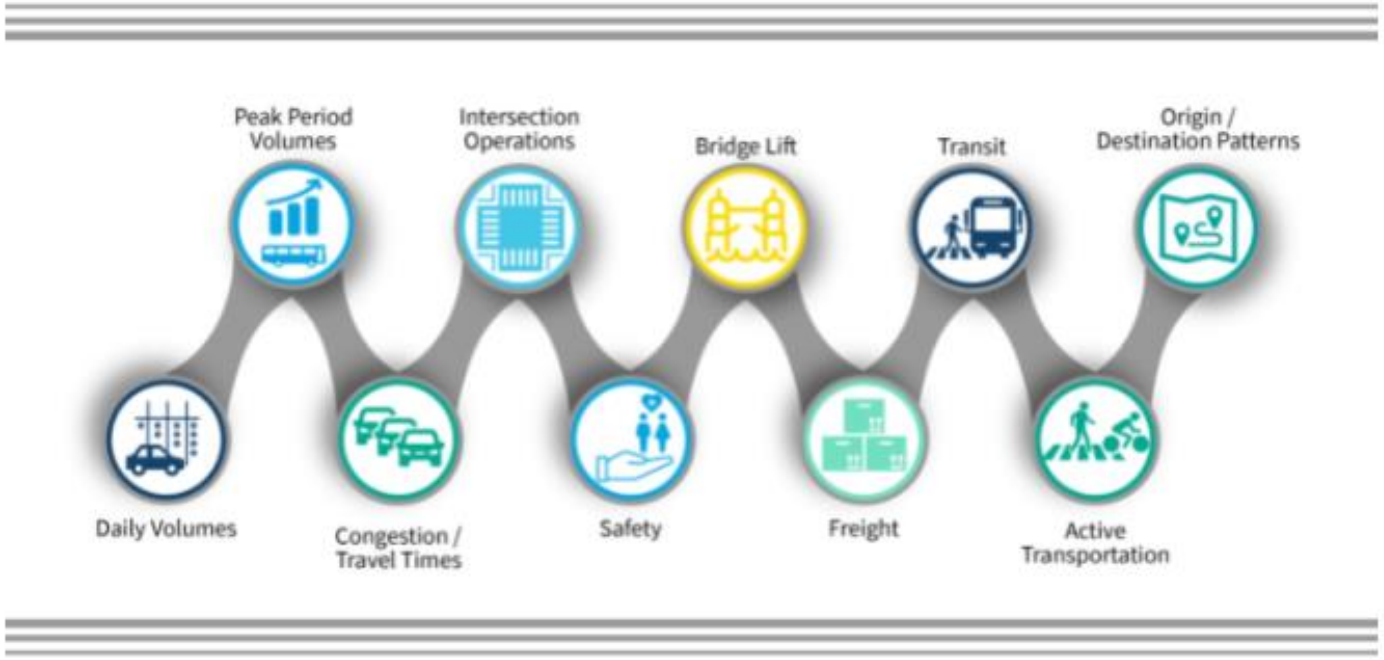


Standard Spacing: Desirable = 2 Miles
Minimum = 1 Mile

Interstate BRIDGE Replacement Program

Existing Counts

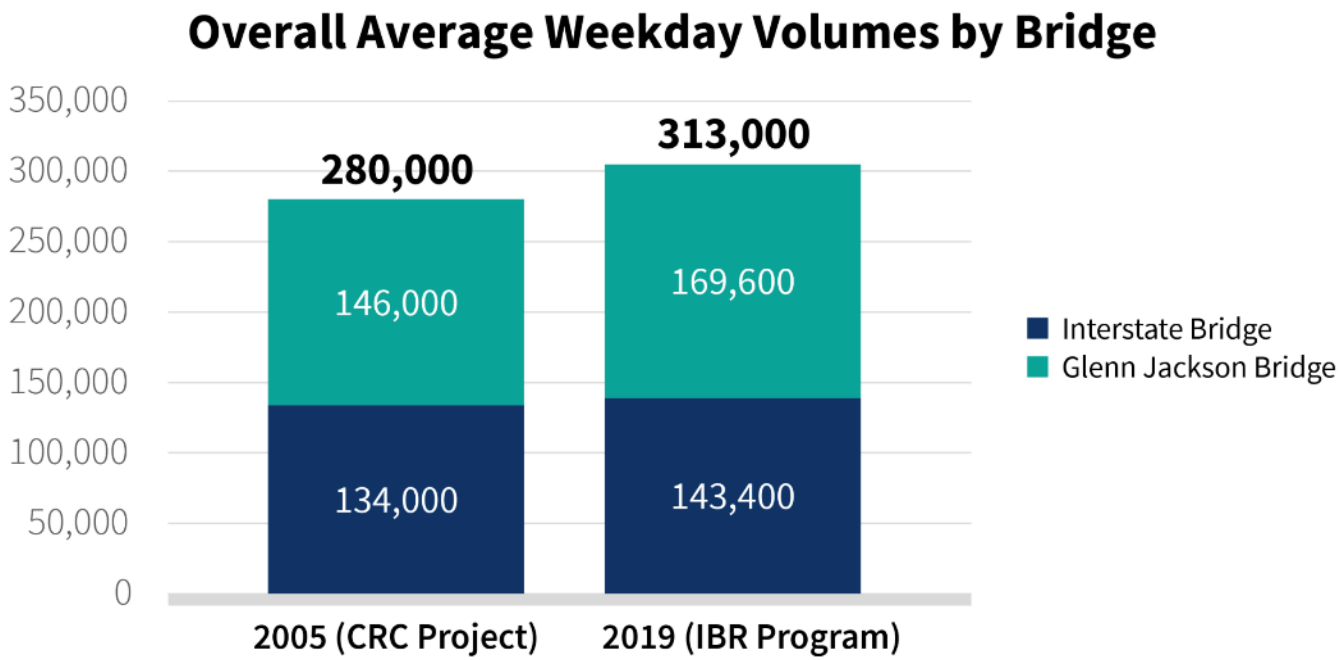
- Started with current data/counts from 2019
- Collected additional data in 2021 to fill in where counts weren't available
  - *This 2021 data was factored to represent 2019 conditions*



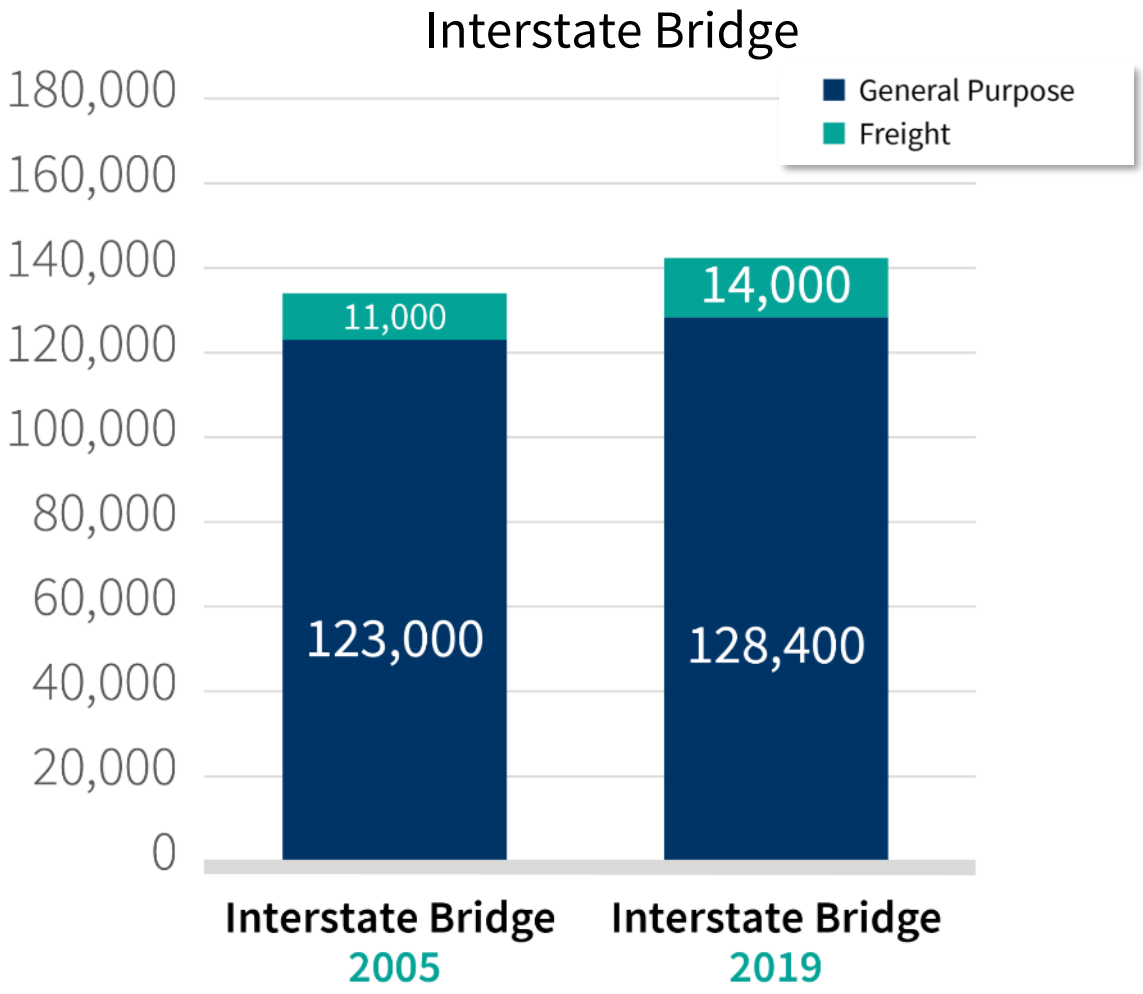
Interstate BRIDGE Replacement Program

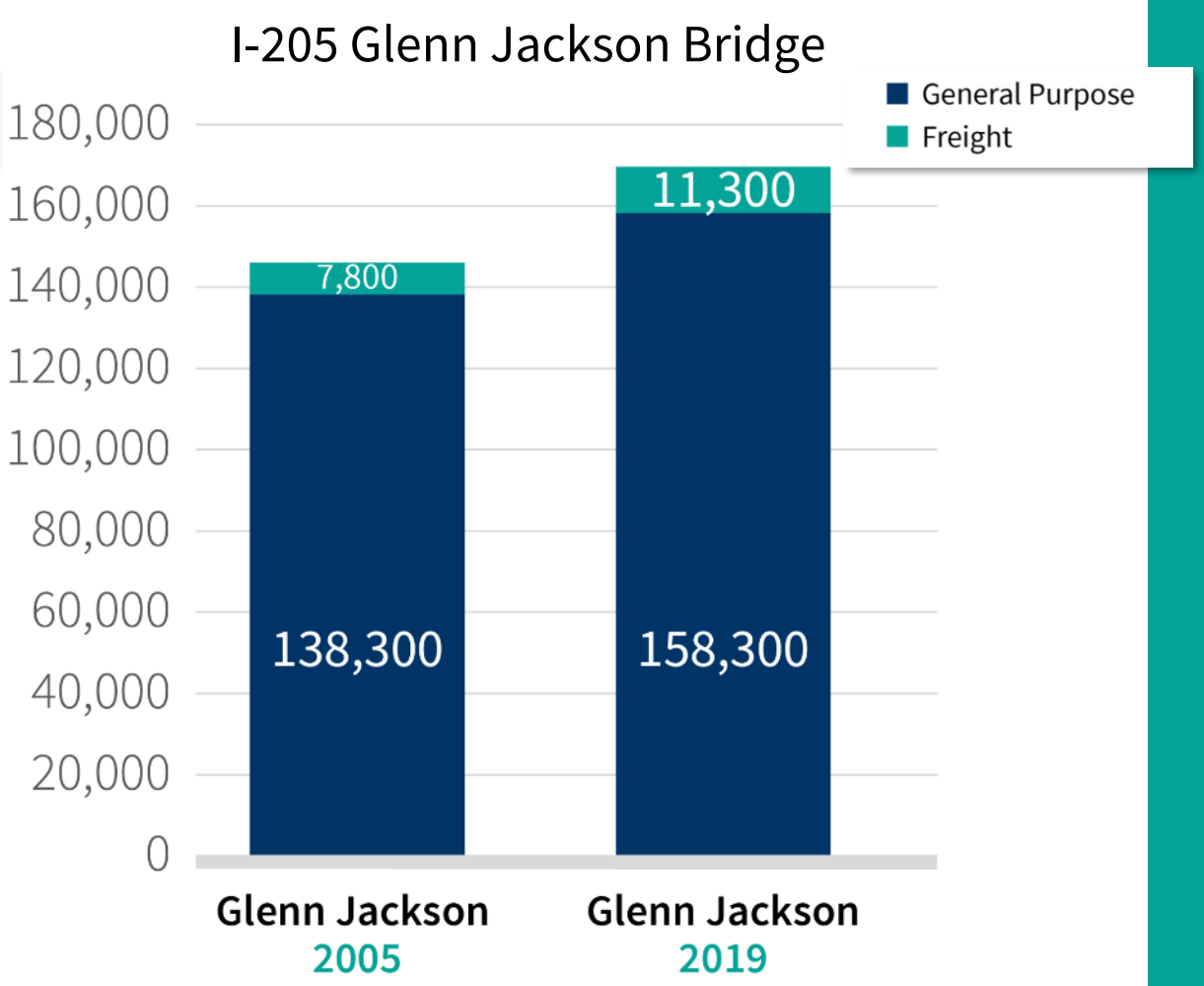
Traffic Growth Rates

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



Average Weekday Volumes – Vehicles and Freight

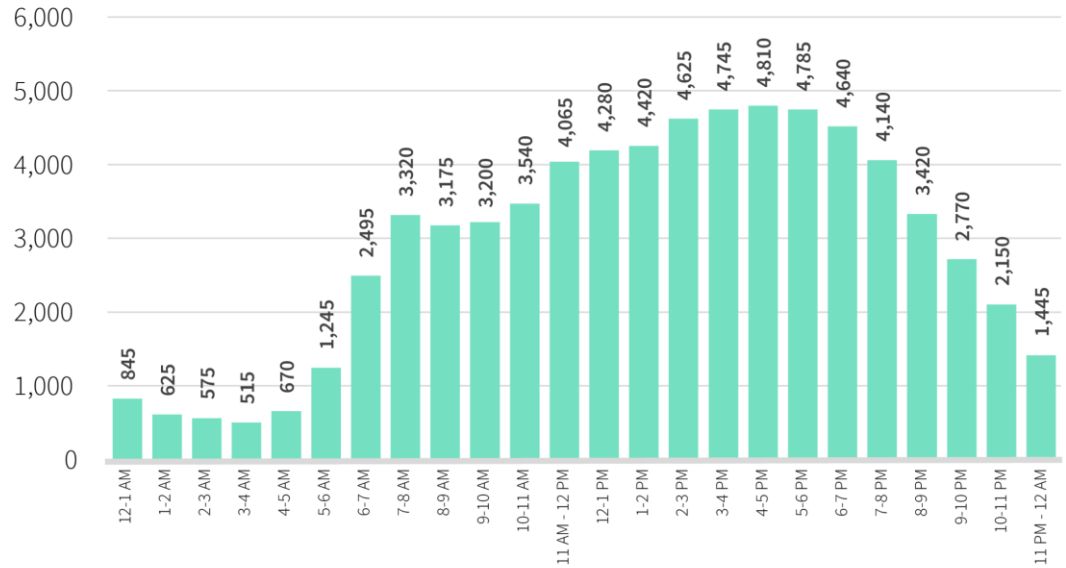




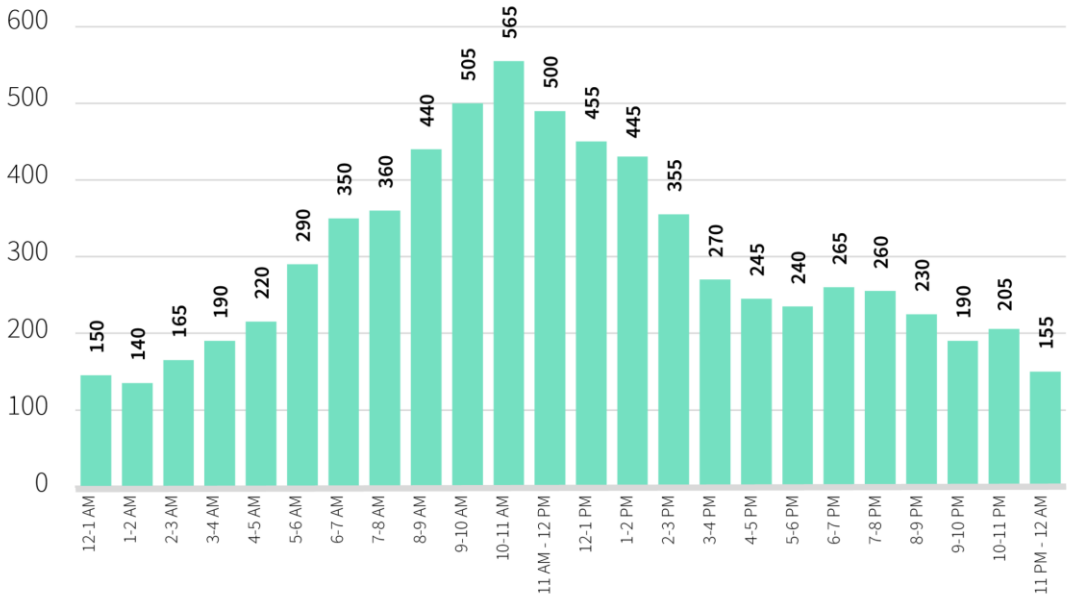
Interstate BRIDGE Replacement Program

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



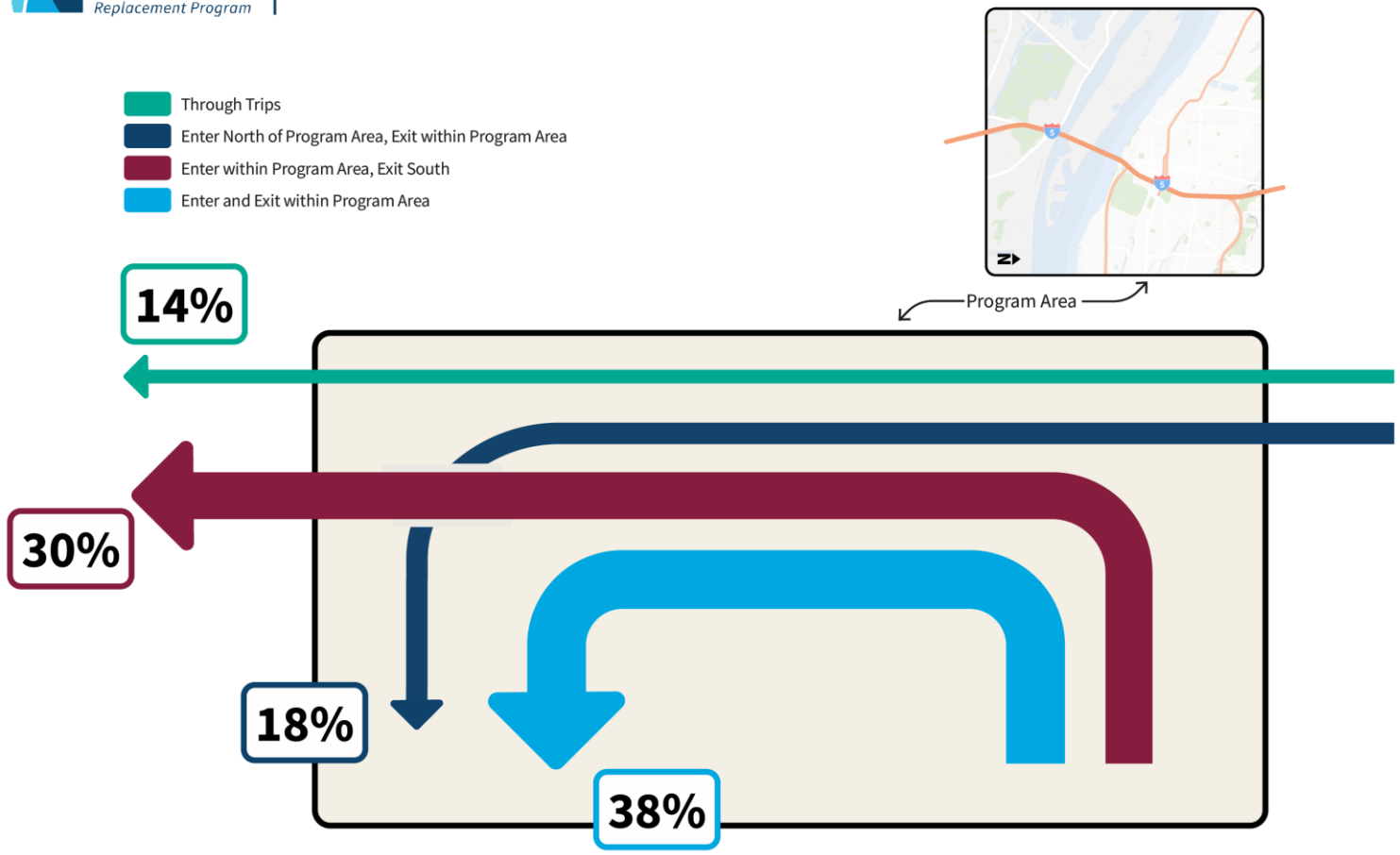
Freight traffic does not peak during typical commute hours (6-9 AM and 3-6 PM). The highest freight volumes occur during the middle of the day, as freight trucks try to avoid the most congested periods of the day.

Interstate BRIDGE Replacement Program

AM Peak Hour – Southbound
85% of Traffic to/from 7 interchanges

Interstate BRIDGE Replacement Program

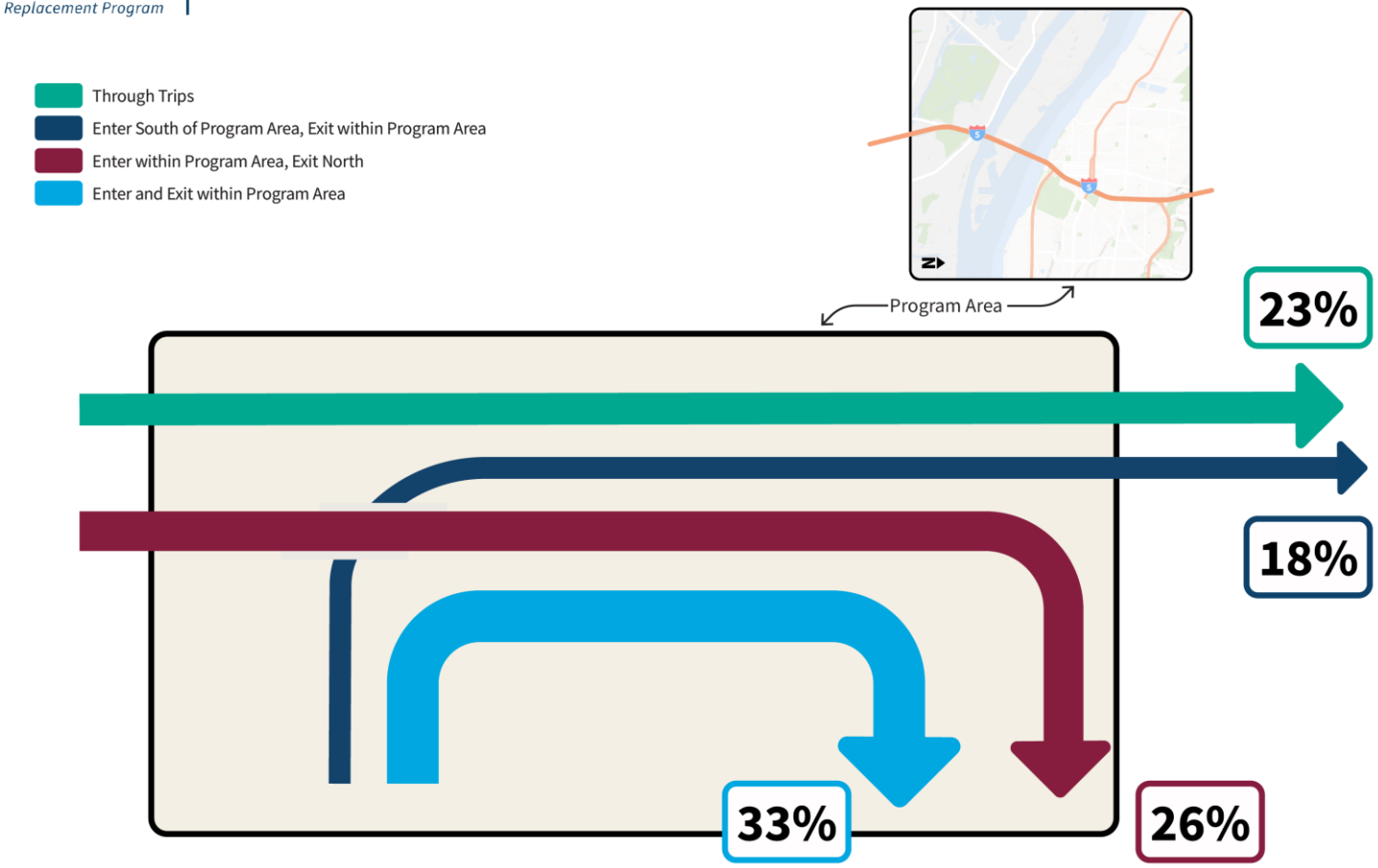
Program Area Peak Travel Patterns Southbound - SR 500 to Victory Blvd



PM Peak Hour - Northbound
75% of Traffic to/from 7 interchanges

Interstate BRIDGE Replacement Program

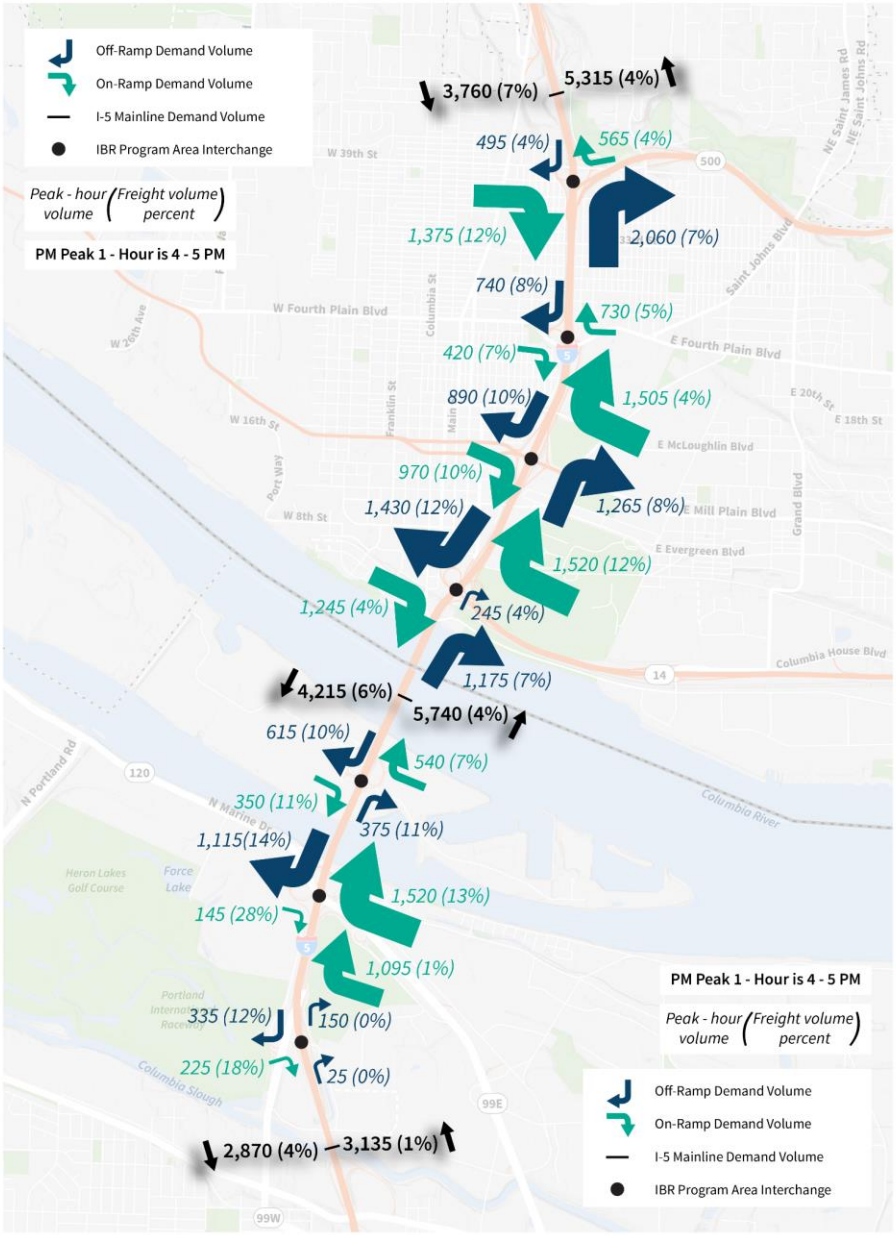
Program Area Peak Travel Patterns Northbound - Victory Blvd to SR 500



AM Peak 1-hour IBR Ramp Traffic Volumes

Interstate BRIDGE Replacement Program

Existing Varying PM Peak 1-hour Traffic Volumes



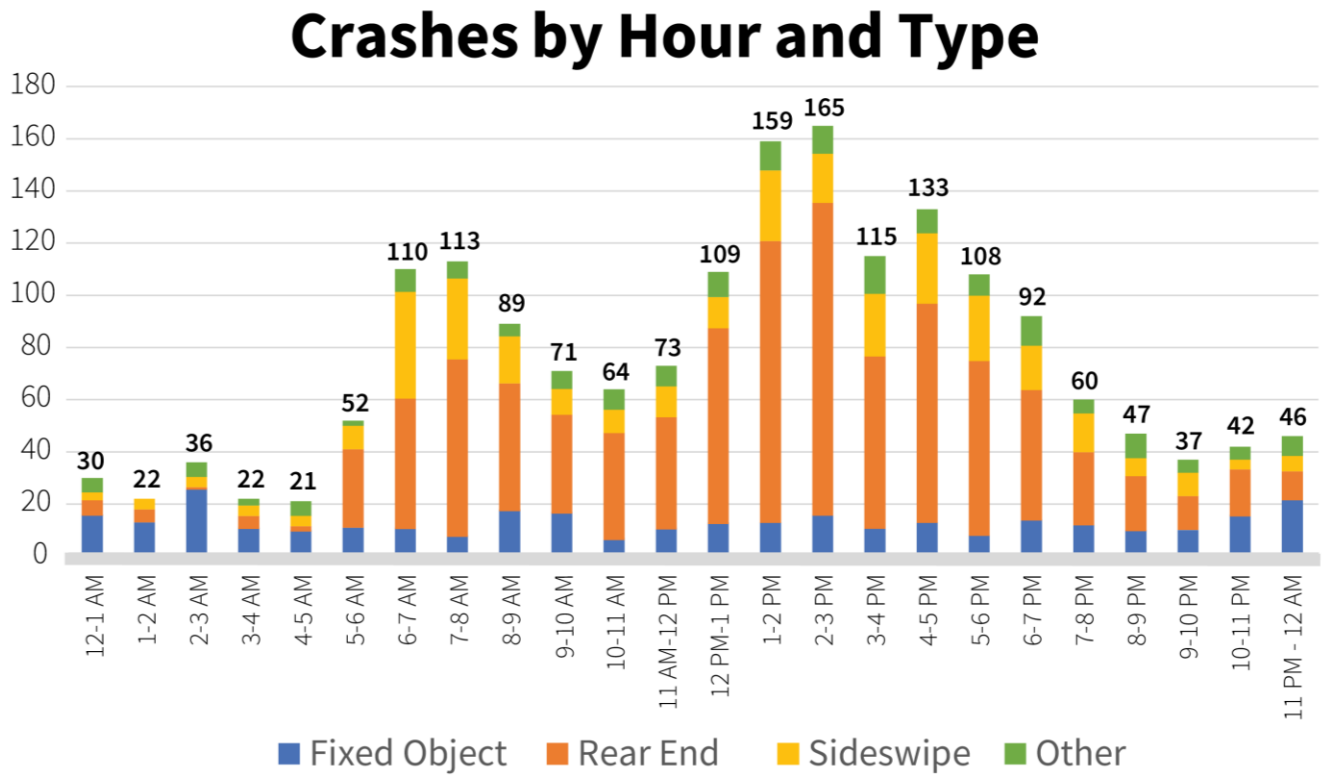
Interstate BRIDGE Replacement Program

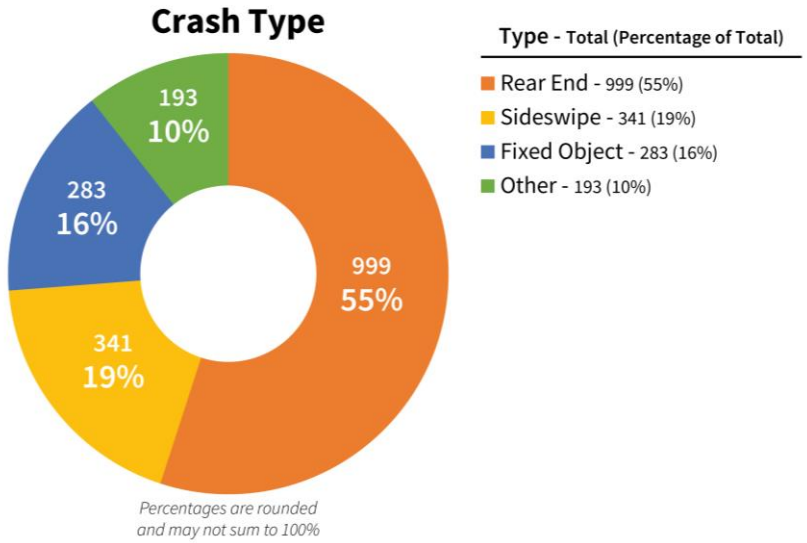
Bottleneck Locations in the Program Area

- **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.

Interstate BRIDGE Replacement Program

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





Interstate BRIDGE Replacement Program

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)

Interstate BRIDGE Replacement Program

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**

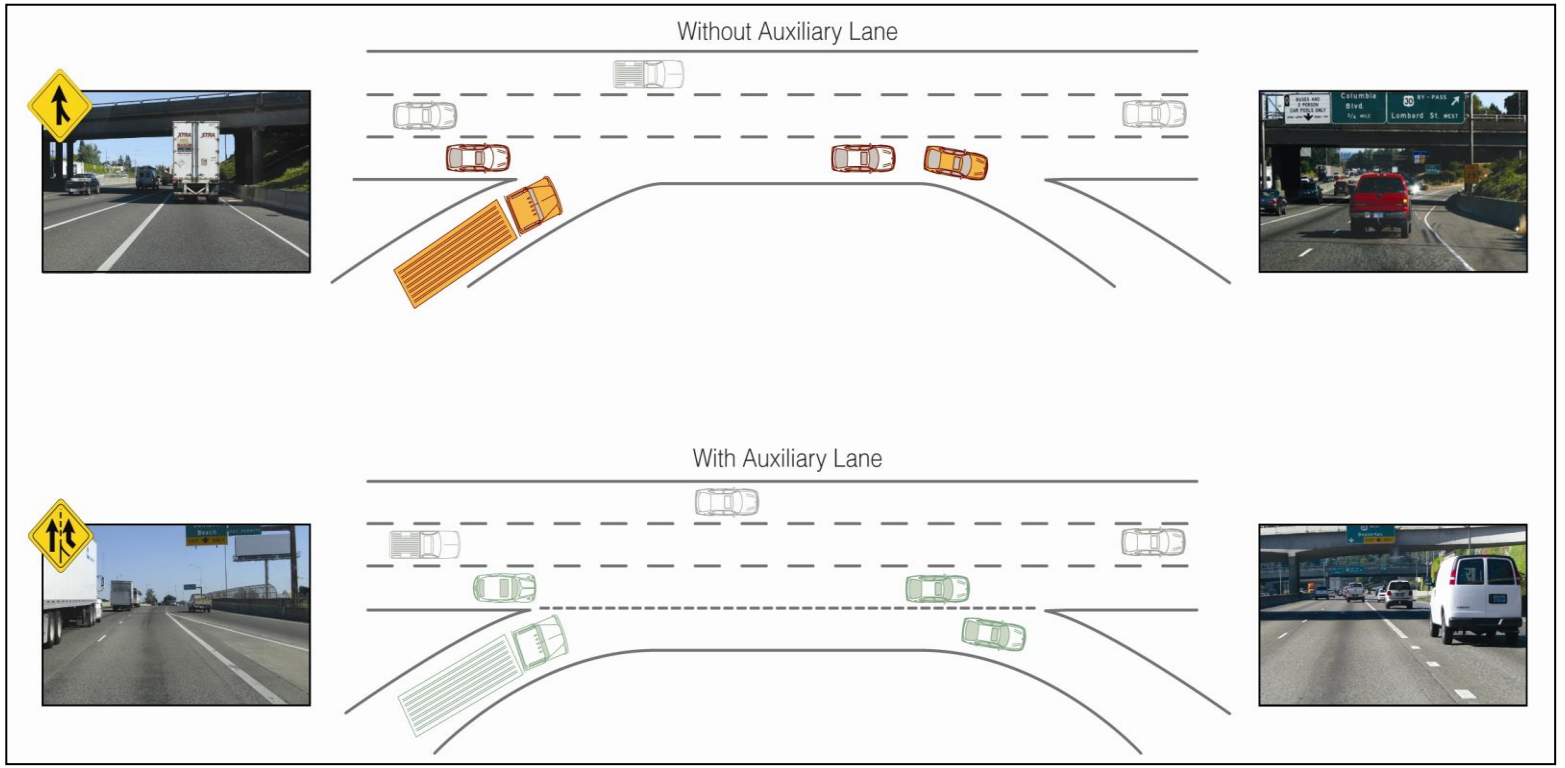
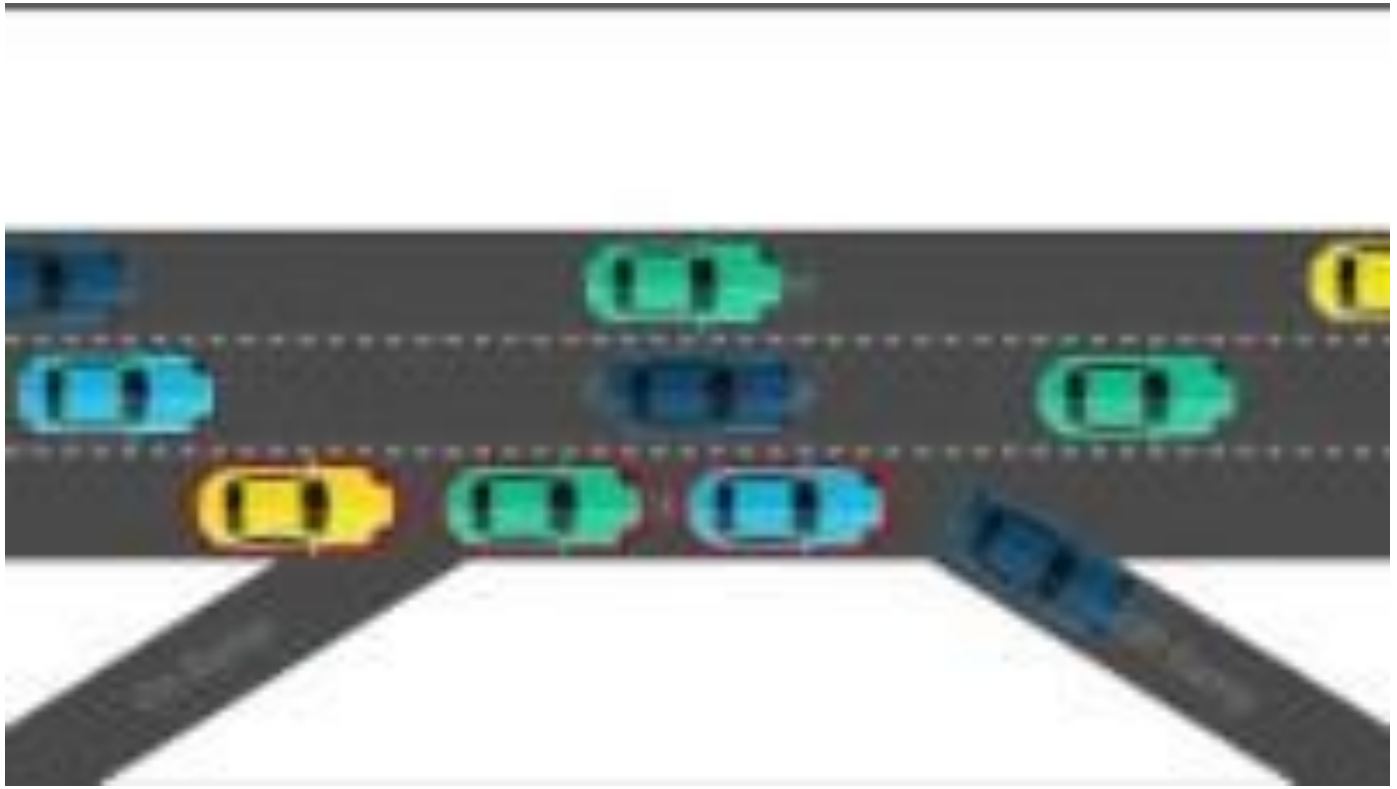


Figure shows typical highway Merge and Diverge Conditions, with (top) and without (bottom) Aux Lane

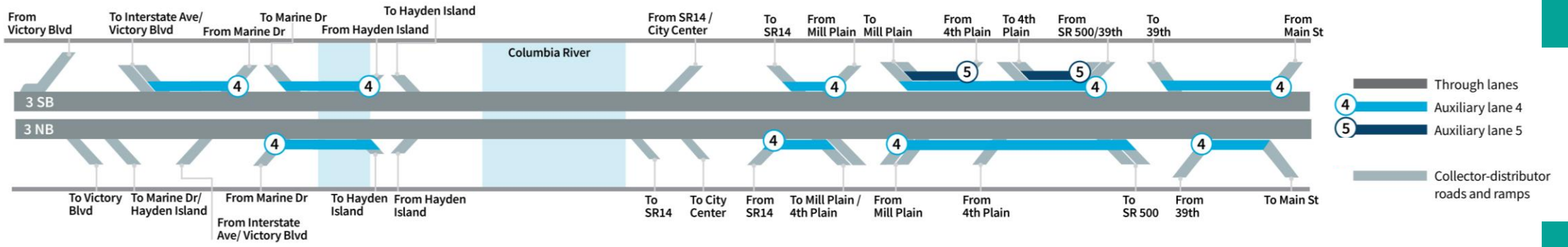
Interstate BRIDGE Replacement Program

Auxiliary Lanes Described



Interstate BRIDGE Replacement Program

Auxiliary Lanes exist today in the IBR Program Area



Interstate BRIDGE Replacement Program

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*

Ramp to Ramp Connections (Auxiliary Lanes) Analysis

Interstate BRIDGE Replacement Program

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 balance
  - *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

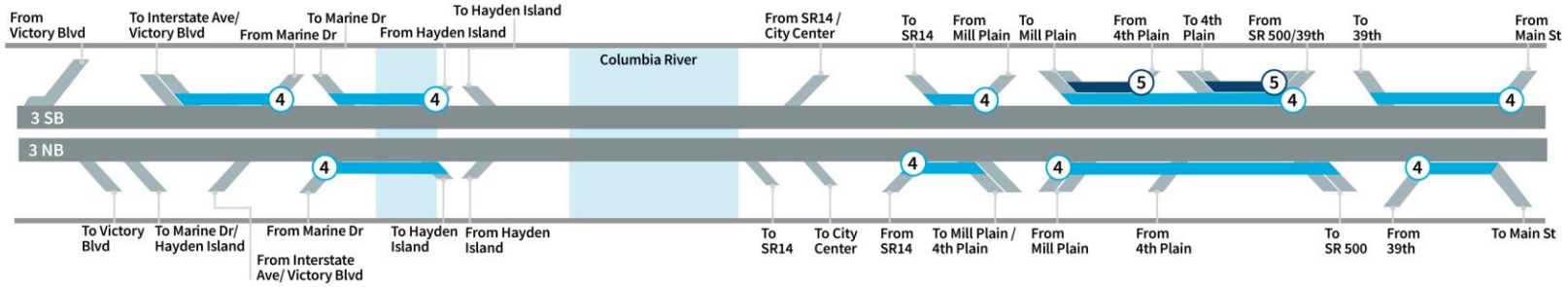
- **Travel Demand Modeling is the process used to predict travel behavior and resulting demand for a specific timeframe given a defined set of assumptions.**
- **Projects future demand, mode choice, traffic volumes, likely travel patterns (origins/destinations) out to 2045 based on current data**
  - 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 Tolling Sensitivity Analysis

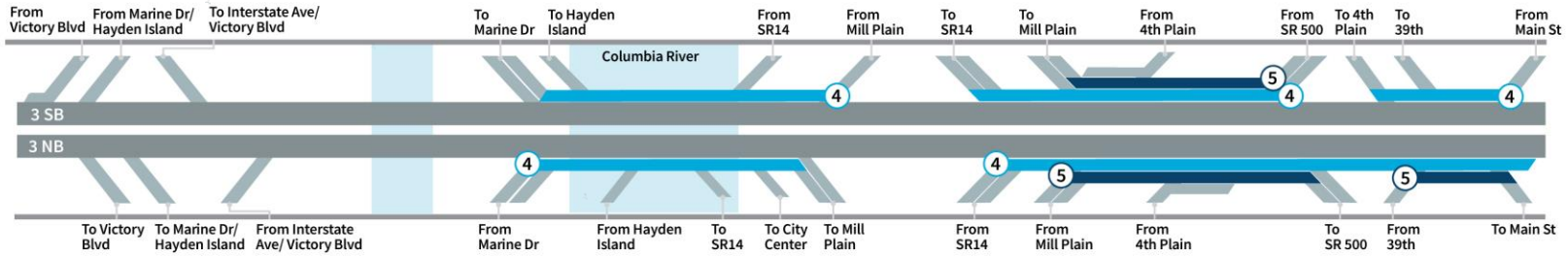
- **Purpose**
  - Forecast the impacts of toll rate scenarios on traffic/transit volumes on I-5 and I-205
  - Purpose is not to recommend a toll rate structure
- **Initial Takeaways**
  - Tolls (or toll rate changes) on I-5
    - *Reduce volumes on I-5, divert some trips to I-205*
    - *Reduce total trips across river on I-5 and I-205*
    - *Increases transit demand*
    - *Impact overall commute trips (home-to-work, work-to-home) very little*
  - Tolls plus Oregon Mobility Pricing
    - *Retain more trips on I-5 during peak period,*
    - *Reduce discretionary trips which show up more in off-peak time periods*

IBR Program - Auxiliary Lane Options

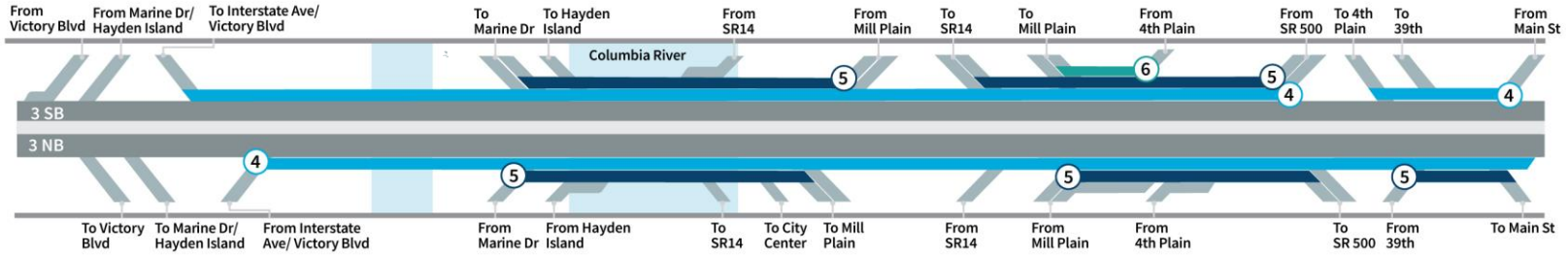
No Build



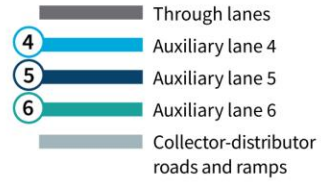
1 Auxiliary Lane



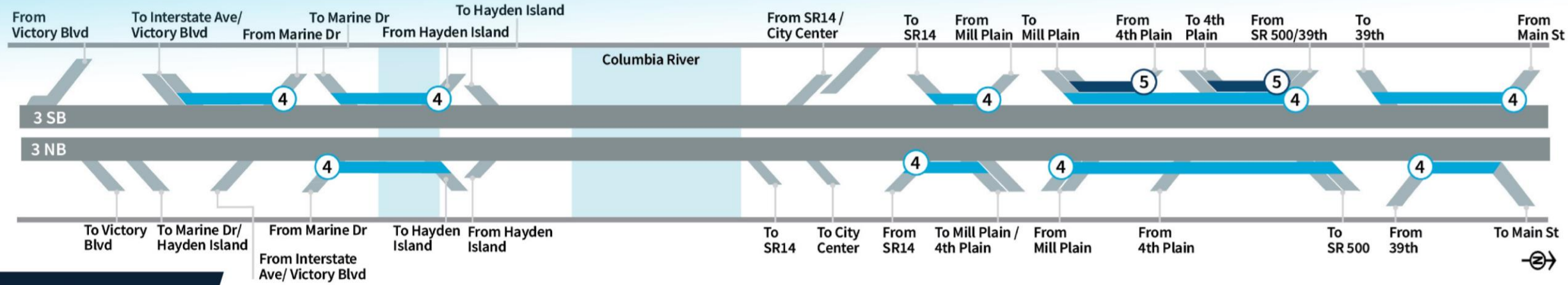
2 Auxiliary Lane



All options, have 3 lanes thru traffic Northbound and Southbound



Auxiliary Lanes - No Build



Data Summary

Equity
N/A

Climate
N/A

Travel Time (minutes)

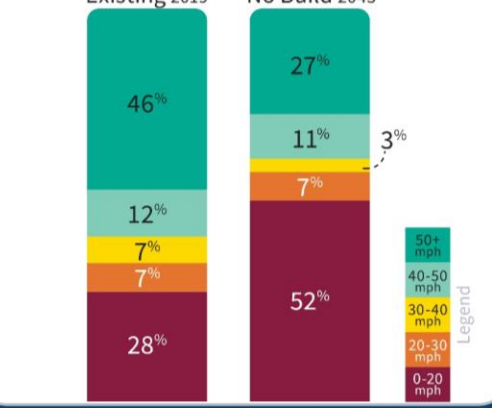
	Existing 2019	No Build 2045
AM Peak SB		
I-205 to I-405	29	63
99th to Victory Blvd	16	35
PM Peak NB		
Broadway to SR 500	35	35
I-405 to I-205	38	38

Daily Mode Share
(PM 1-Hour)

80%	**7%**	**12%**	**1%**
(80%)	*(14%)*	*(5%)*	*(1%)*

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.

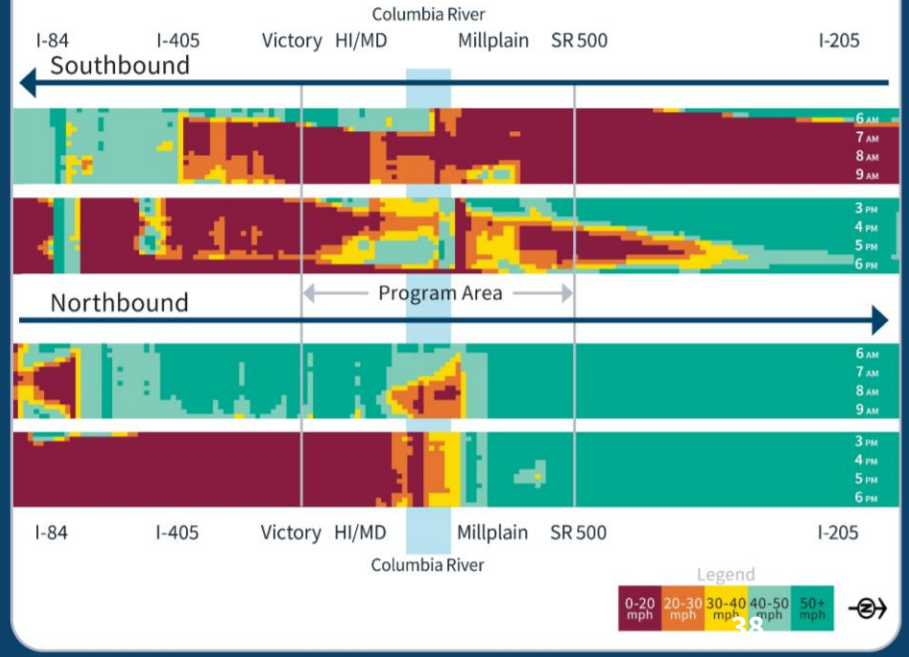
Congestion Index
(Peak Period, Peak Direction Only)



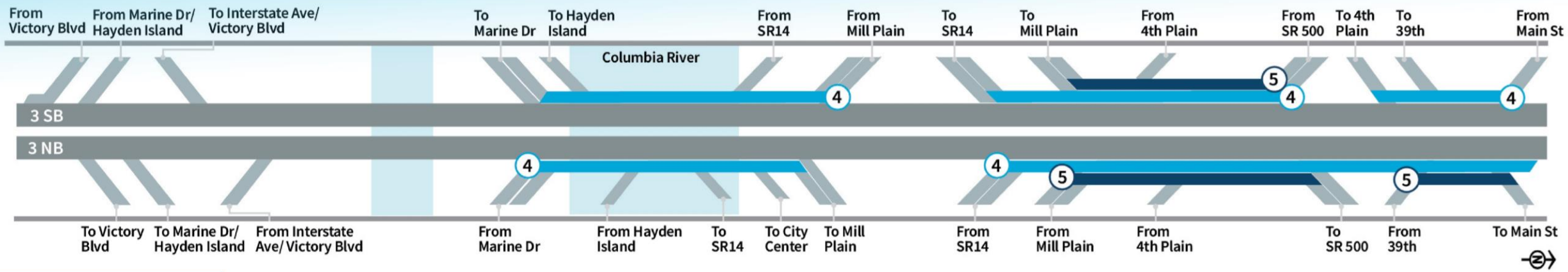
Cost
N/A

Footprint
N/A

Heat Maps | No Build 2045



Auxiliary Lanes - 1 Aux Lane



Data Summary

Equity

Increased Modal Options

Climate

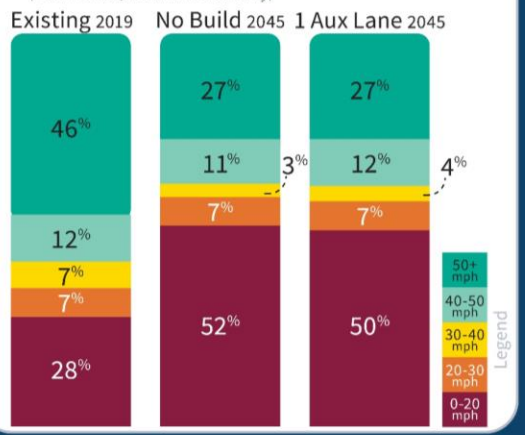
- Anticipated GHG Reduction
- Mode Shift from SOV
- Variable Rate Tolling
- No Bridge Lift Scenarios

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

Congestion Index

(Peak Period, Peak Direction Only)



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.

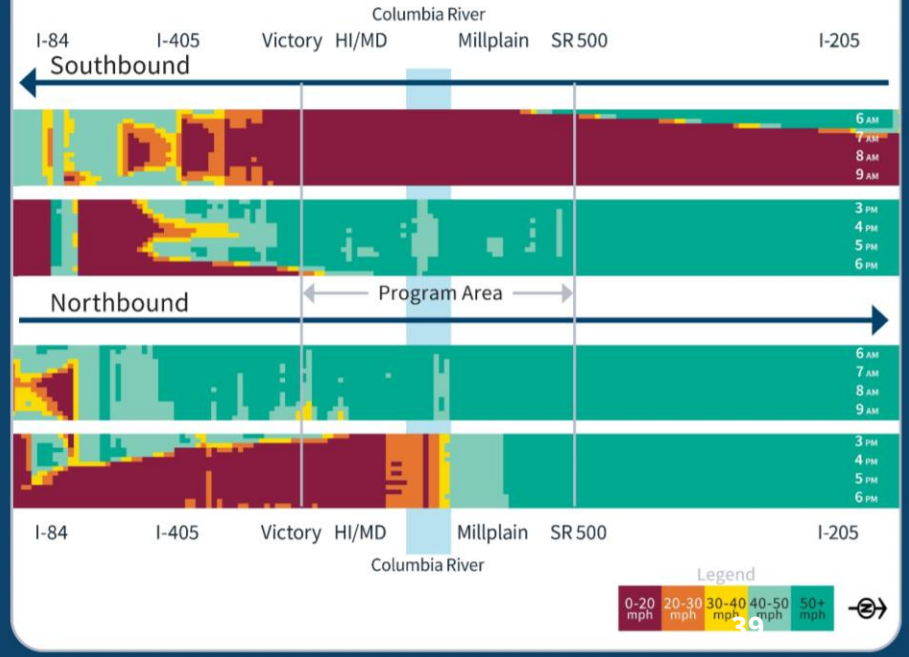
Cost

75 - 100 Million Dollars Less Than the 2013 LPA

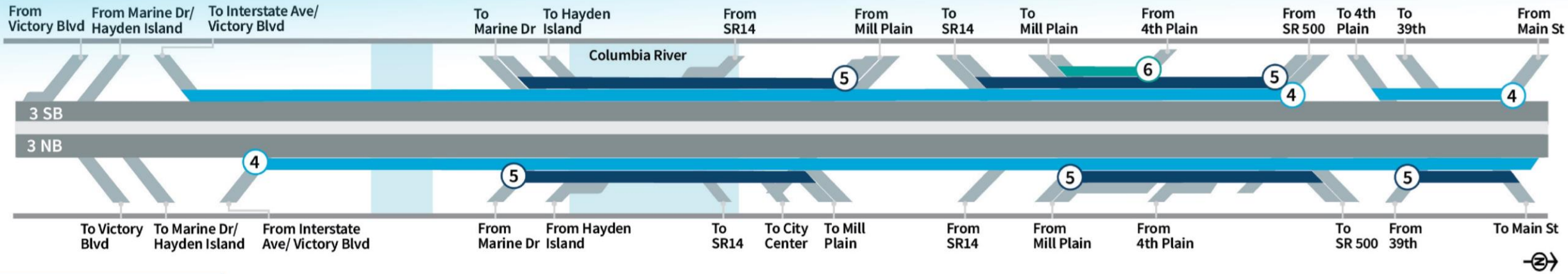
Footprint

2013 LPA Minus 16 Feet

Heat Maps | 1 Aux Lane 2045



Auxiliary Lanes - 2 Aux Lanes



Data Summary

Equity

Increased Modal Options

Improved Travel Time

Climate

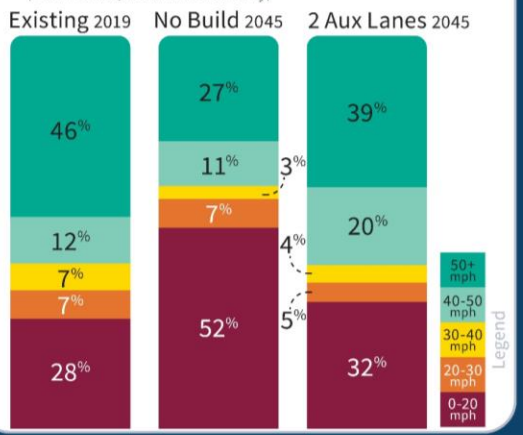
- Anticipated GHG Reduction
- Mode Shift from SOV
- Variable Rate Tolling
- No Bridge Lift Scenarios

Travel Time (minutes)

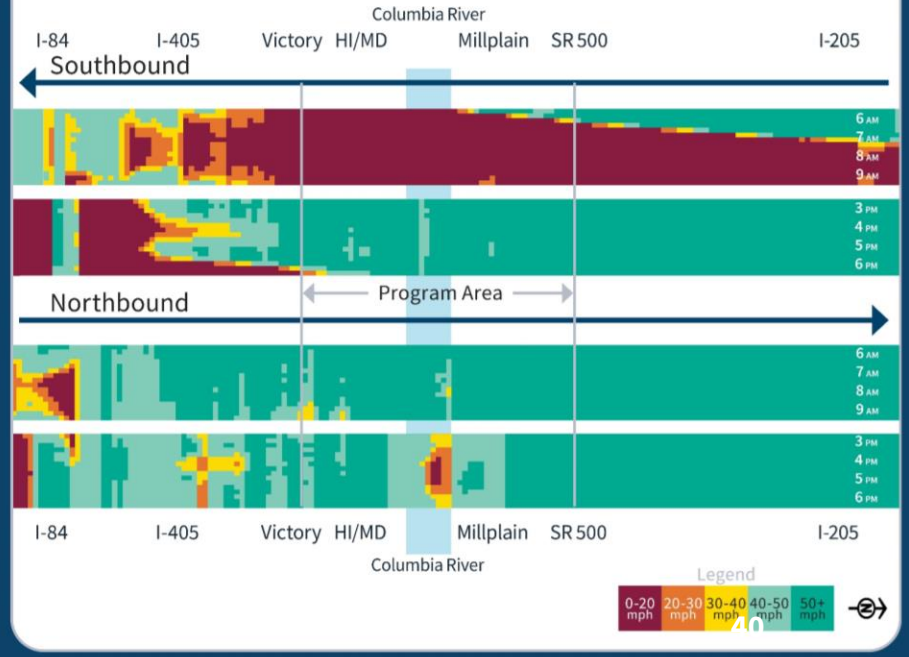
	Existing 2019	No Build 2045	2 Aux Lane 2045
AM Peak SB			
I-205 to I-405	29	63	57
99th to Victory	16	35	31
PM Peak NB			
BDWY to SR 500	35	35	10
I-405 to I-205	38	38	15

Congestion Index

(Peak Period, Peak Direction Only)



Heat Maps | 2 Aux Lane 2045



Daily Mode Share

(PM 1-Hour)

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

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**

Interstate BRIDGE Replacement Program

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

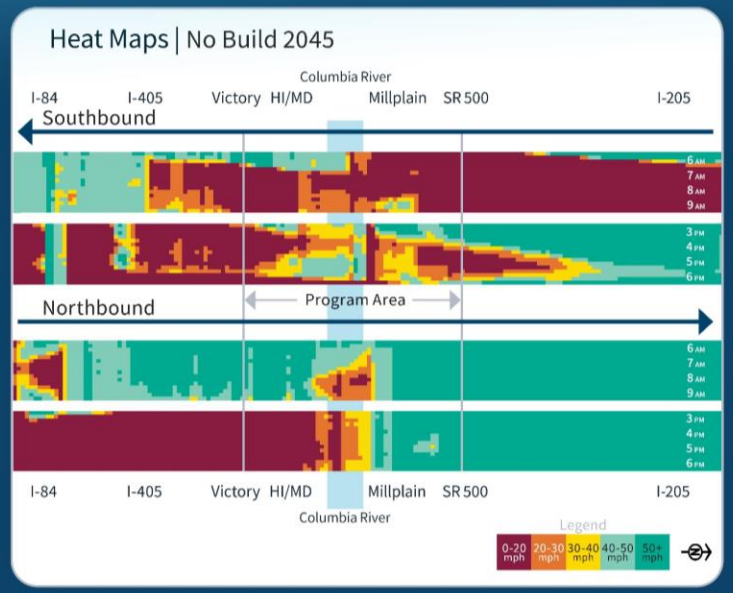
Interstate BRIDGE Replacement Program

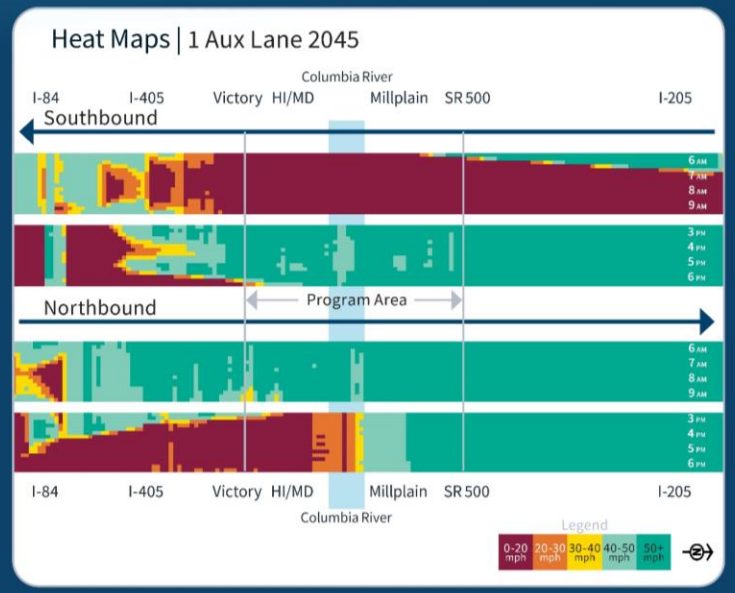
Benefits of 2-Auxiliary Lane compared to No Build

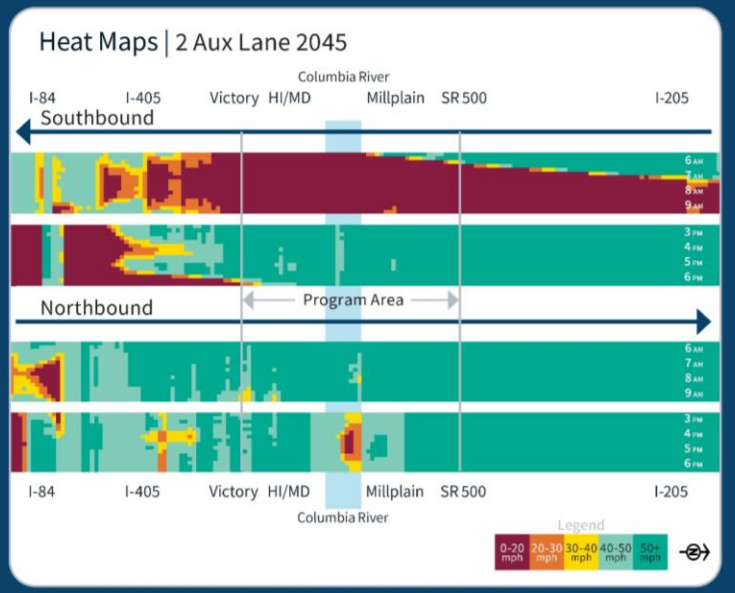
- **Travel time improvements**
  - SB AM travel time is reduced by 6 minutes between I-5/I-205 split and I-405
  - NB PM travel time is reduced by 25 minutes between Broadway Ave. and SR 500
- **Reduced congestion**
  - Congestion reduces 20% during AM/PM peak period peak direction
- **Safety benefits**
  - 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

Interstate BRIDGE Replacement Program

Auxiliary Lanes - Traffic Summary

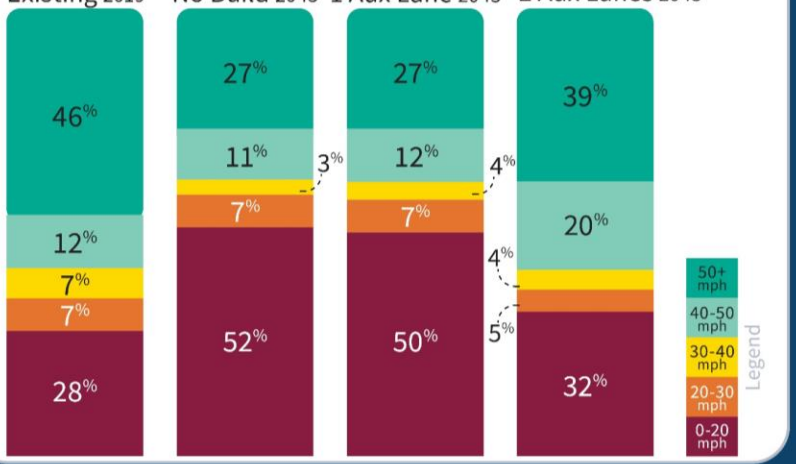






Congestion Index

(Peak Period, Peak Direction Only)



No Build Daily Mode Share

(PM 1-Hour)

80% *(80%)*	**7%** *(14%)*	**12%** *(5%)*	**1%** *(1%)*

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)

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	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

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Questions?

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Interstate BRIDGE Replacement Program

IBR Transit Investment Considerations

April 21, 2022

IBR Transit Investment

- **Quick Recap - Overview of process to date**
  - Development of representative transit investments
  - Development of transit measures
  - What has changed 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– Draft Findings

- All build options substantially improve service over the no build
- 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 – Draft Findings

- Modeling shows park and 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.

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 and 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 stand alone option**

BRT & LRT - How do they compare for the 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

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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 is 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

Supports 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

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

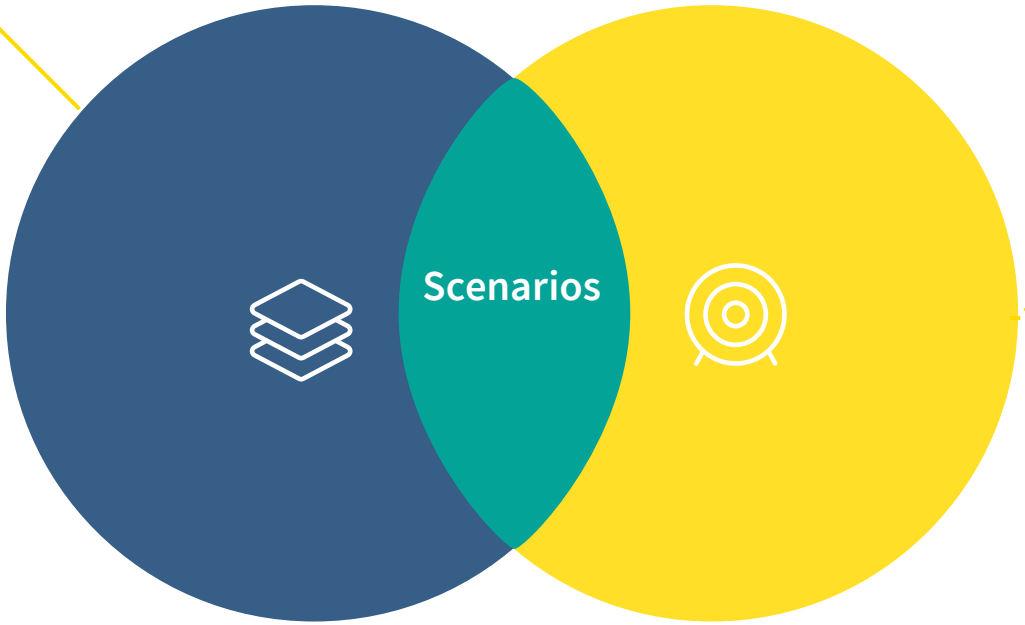
Next steps

- **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*

Options Analysis and Review: Modified Locally Preferred Alternative Scenarios

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

Interstate BRIDGE Replacement Program

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**

Interstate BRIDGE Replacement Program

Scenario Development

Scenario A	Scenario B
Bridge - **Replace**	Bridge - **Replace**
River Crossing Auxiliary Lanes - **1**	River Crossing Auxiliary Lanes - **2**
System and Demand Management - **Yes**	System and Demand Management- **Yes**
HI/MD - **Partial**	HI/MD - **Full**
Transit- **Light Rail**	Transit- **Light Rail**

Interstate BRIDGE Replacement Program

Opportunity for Public Input

Comment Instructions

To make a verbal comment:

- If you have joined by Zoom, click “Raise Hand.”
- If you have joined by phone, press *9 to raise your hand.
- The facilitator will call on participants. You will receive an “unmute” request. Please accept it. If you are commenting by phone dial *6 to unmute.
- Please provide your name and affiliation.
- Attendees will be allocated up to 2 minutes for public comment depending on the number of commenters up to a total of 10 minutes.

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 comment form on program website or email comments to info@interstatebridge.org with “ESG Public Comment” in the subject line.
- Call 888-503-6735 and state "ESG Public Comment" in your message.
- All written comments must be received prior to 48 hours in advance of each upcoming meeting in order to be distributed to ESG members. Comments received after that point will be distributed to members in advance of their next meeting. All comments are posted on the IBR website.

Confirm Upcoming Meeting Topics, Next Steps, and Summary

Confirmation of Upcoming Meeting Topics

- **May 5, 2022**
  - Introduction of the Program Recommendation for the Modified LPA

Thank you!