

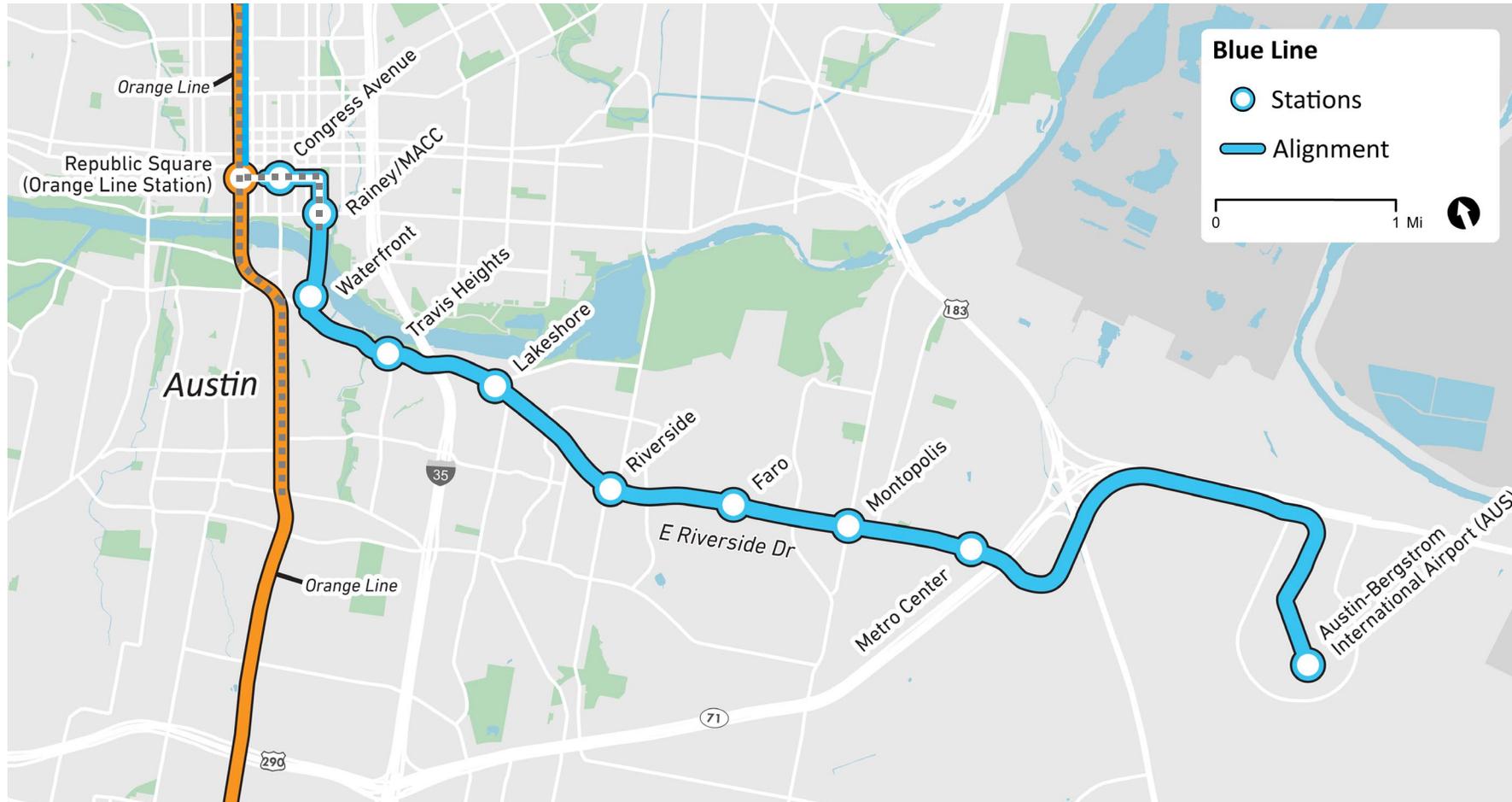


Blue Line Bridge at Lady Bird Lake

Urban Transportation Commission
May 3, 2022



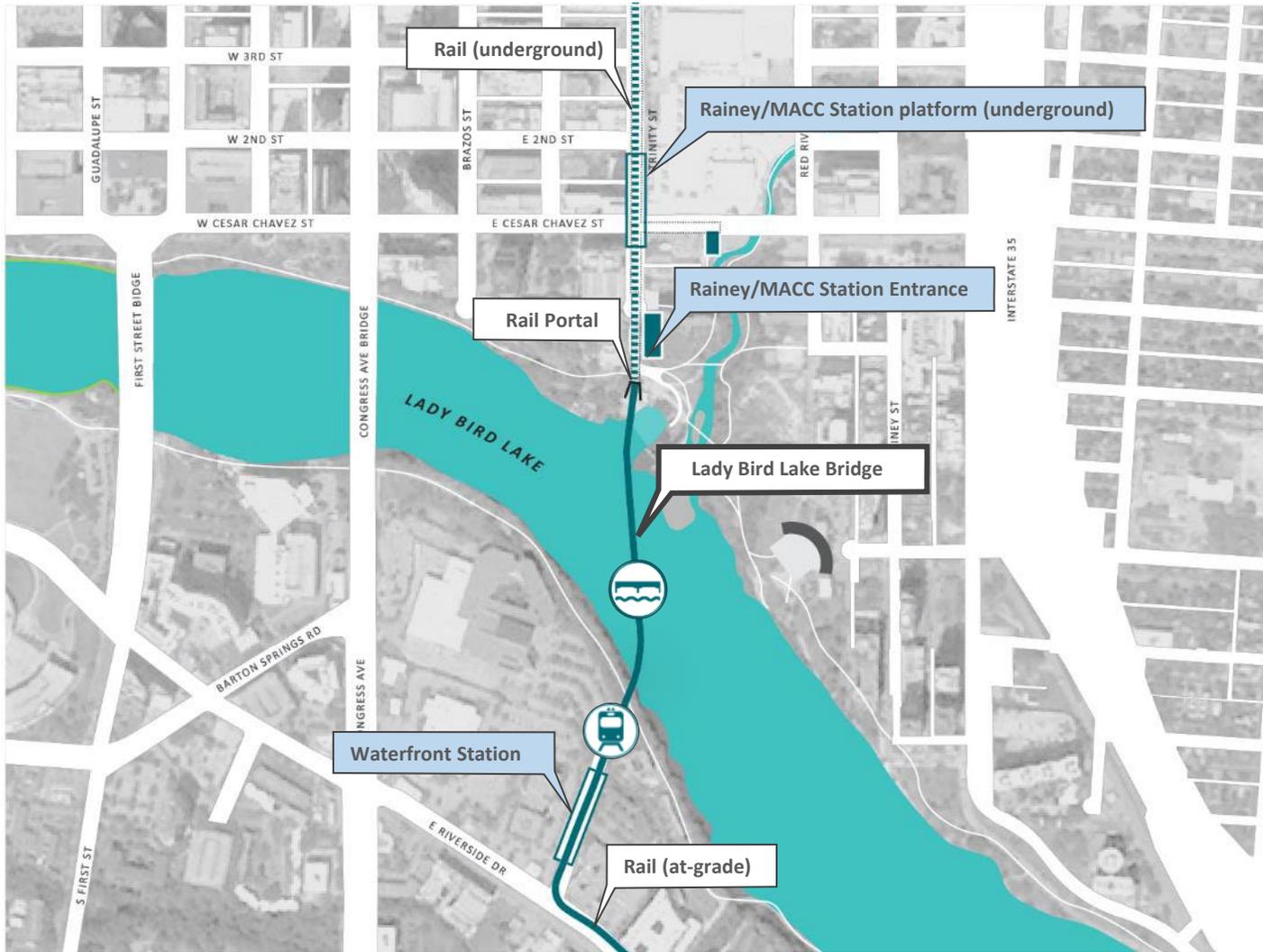
Blue Line Bridge at Lady Bird Lake: Alignment



- Runs East from Republic Square to the Austin-Bergstrom International Airport (AUS)
- Runs interlined with the Orange Line north of Republic Square
- Dedicated transitway
- Along portions of MetroBus route 20
- 10 planned stations



Blue Line Bridge at Lady Bird Lake: Alignment



Key Rail Connections:

- South Shore: Above-ground station (“Waterfront”)
- North Shore: underground station (“Rainey/MACC”)

Other key connections and considerations:

- Connections to Butler Hike and Bike Trail and Waterloo Greenway
- Waller Creek Tunnel outfall structure
- Waller Creek Boathouse impacts



Blue Line Bridge Design Options

OPTION A: LRT + Shared Use Path



OPTION B: LRT + Shared Use Path + Bus



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Design Criteria/ Evaluation

Design options for the Blue Line Bridge are being evaluated in terms of the following criteria:



Transit Need / Benefit



City Policy and Operational Support



Design/Engineering



Environmental Impacts / Federal Process



Impact to Butler Trail activities and North shore connectivity



Cost





Transit Network Need/Benefit



The Transit Network: Light Rail (LRT) and Bus working together

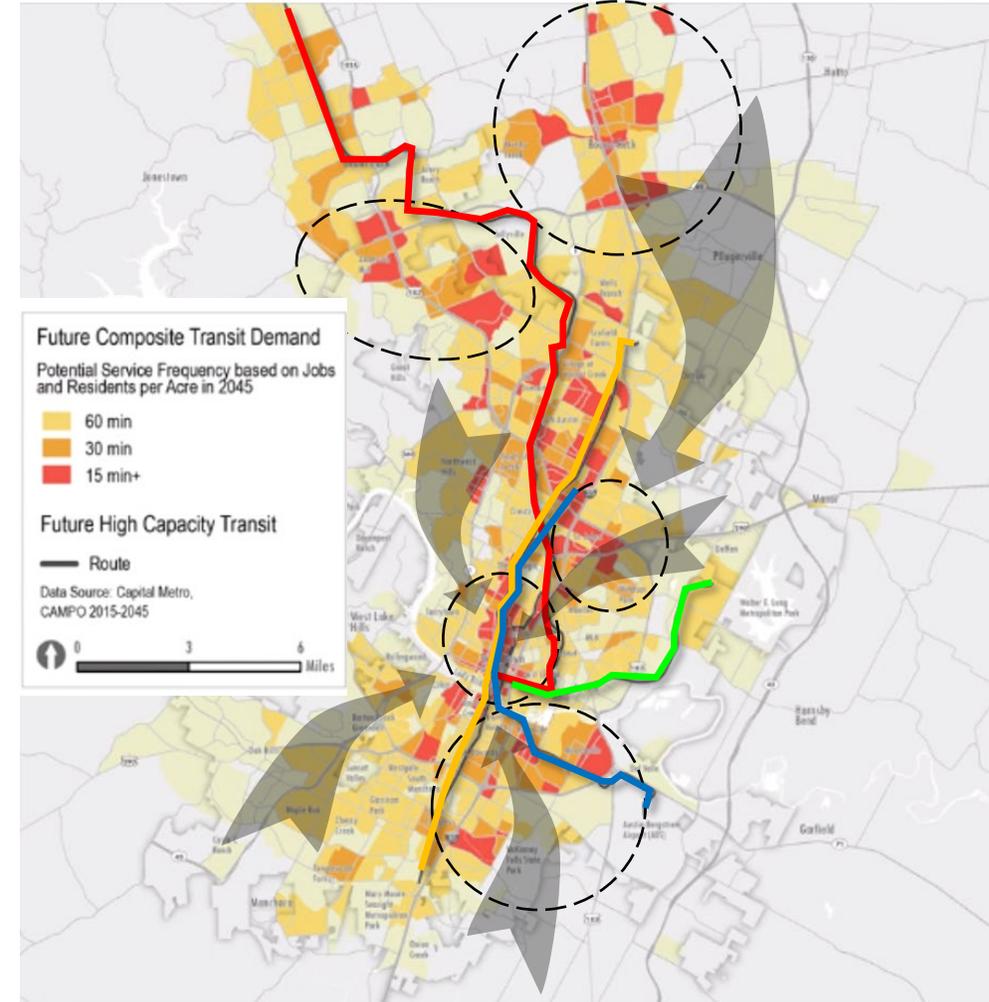
- Bus and LRT are **complementary components** of the transit network
- We expect **transit riders to use both*** bus and LRT, as the community grows
- **Future plans for bus service will continue to develop** to coincide with the opening of new LRT infrastructure
- The transit network is being **designed to provide increased access to transit and serve our community's needs.**

**Ridership modeling for the future assumes that fares will be the same for both LRT and bus. Actual fares will be determined by the CapMetro board at the time when LRT begins service.*



Context: Regional Transit Network

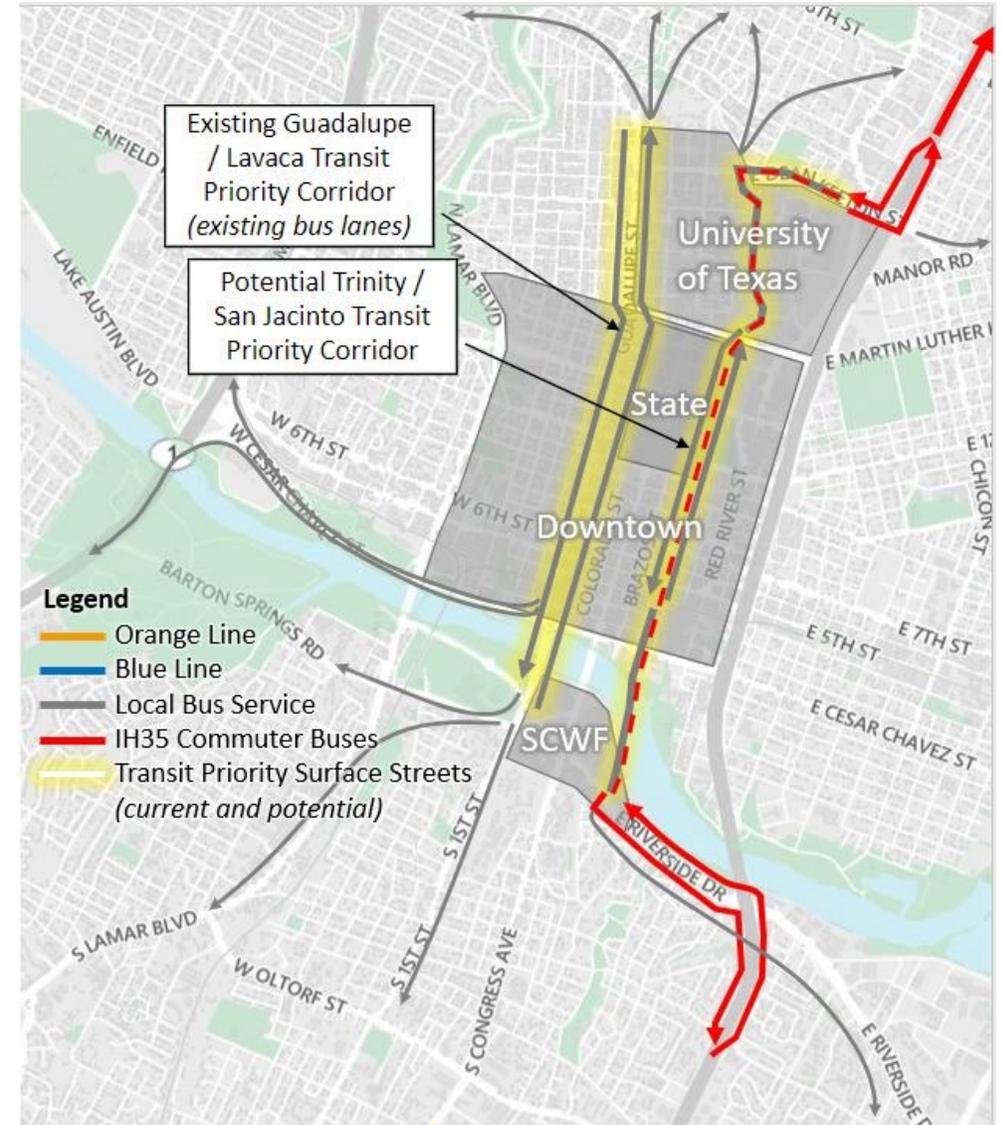
- Projected employment and population **growth will continue to rely on buses** to reach downtown
- Designing a bridge to accommodate LRT *and* Buses **provides for reliability, efficiency and future growth**
- **Operational efficiencies would be reinvested** to attract ridership and address growth



Opportunity: New Corridor Downtown

Opportunity for second major transit priority corridor on the east side of downtown

- Regionally: Facilitates **direct access for future MetroExpress routes** from future I-35 managed lanes into downtown
- Locally: Provides **additional north-south corridor to support Local service** to and through downtown



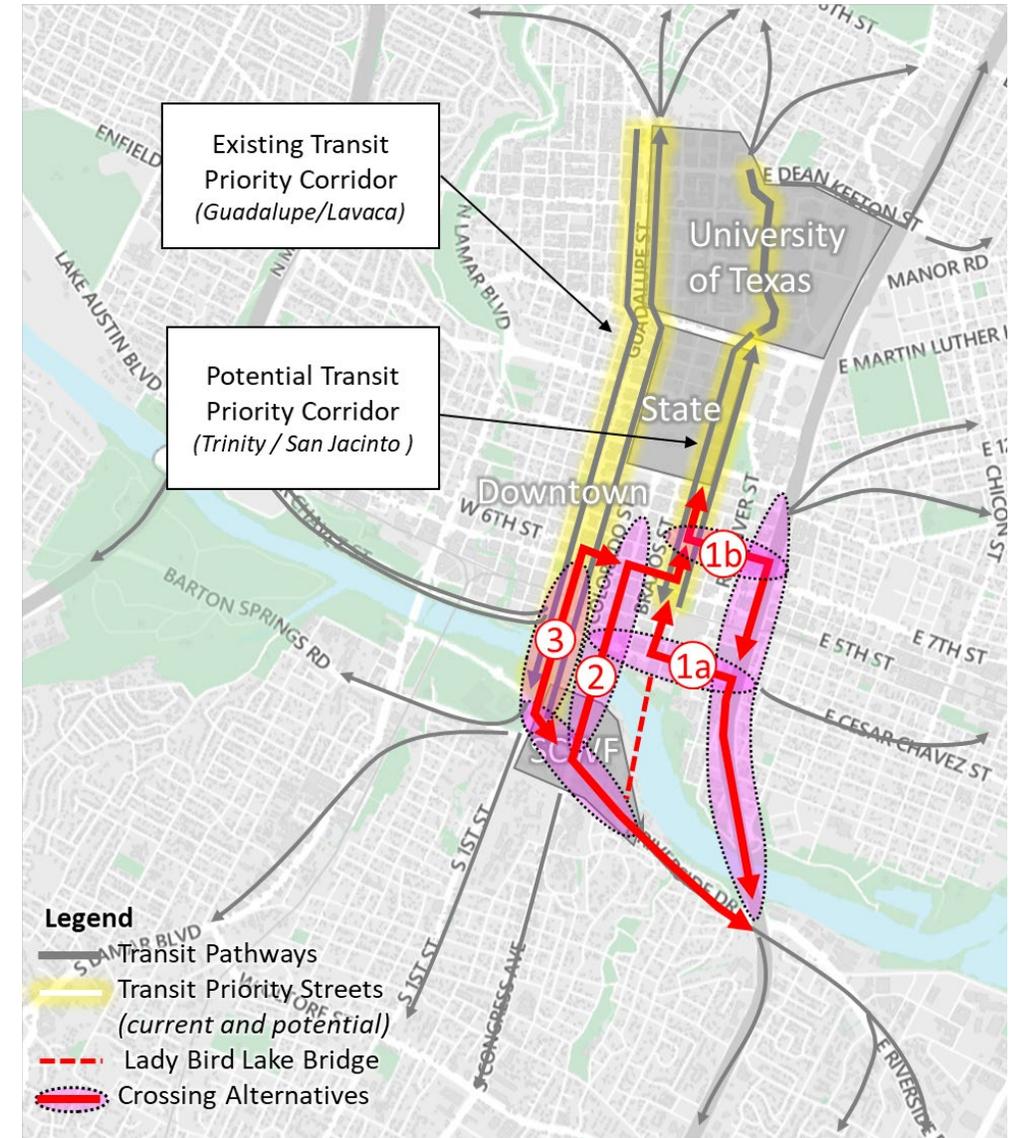
Crossing the Lake by Bus

Lake crossing a critical congestion point for CapMetro buses

- Prioritizing transit across Lady Bird Lake would have a significant positive impact on the speed and reliability of bus service
 - South 1st Bridge the most direct connection for buses traveling to/through west side of downtown on Guadalupe and Lavaca
 - Lady Bird Lake Bridge the most direct connection for buses travelling to/through east side of downtown on Trinity and San Jacinto
- Precluding buses from using the Lady Bird Lake bridge results in:
 - Missed destinations, increased travel times, and reduced flexibility as bus service grows and changes in the future

Alternative crossing options for east-side routes

1. **IH-35 Bridge** – Limited access (1a/1b)
 - a. Misses South Central Waterfront (SCWF) and potentially lower downtown
2. **Congress Avenue Bridge** – Limited transit priority opportunities, longer trip for routes
3. **South 1st Street Bridge** – Transit priority treatments planned, longer trip for routes headed for east downtown





Design/Engineering Evaluation of Bridge Option(s)

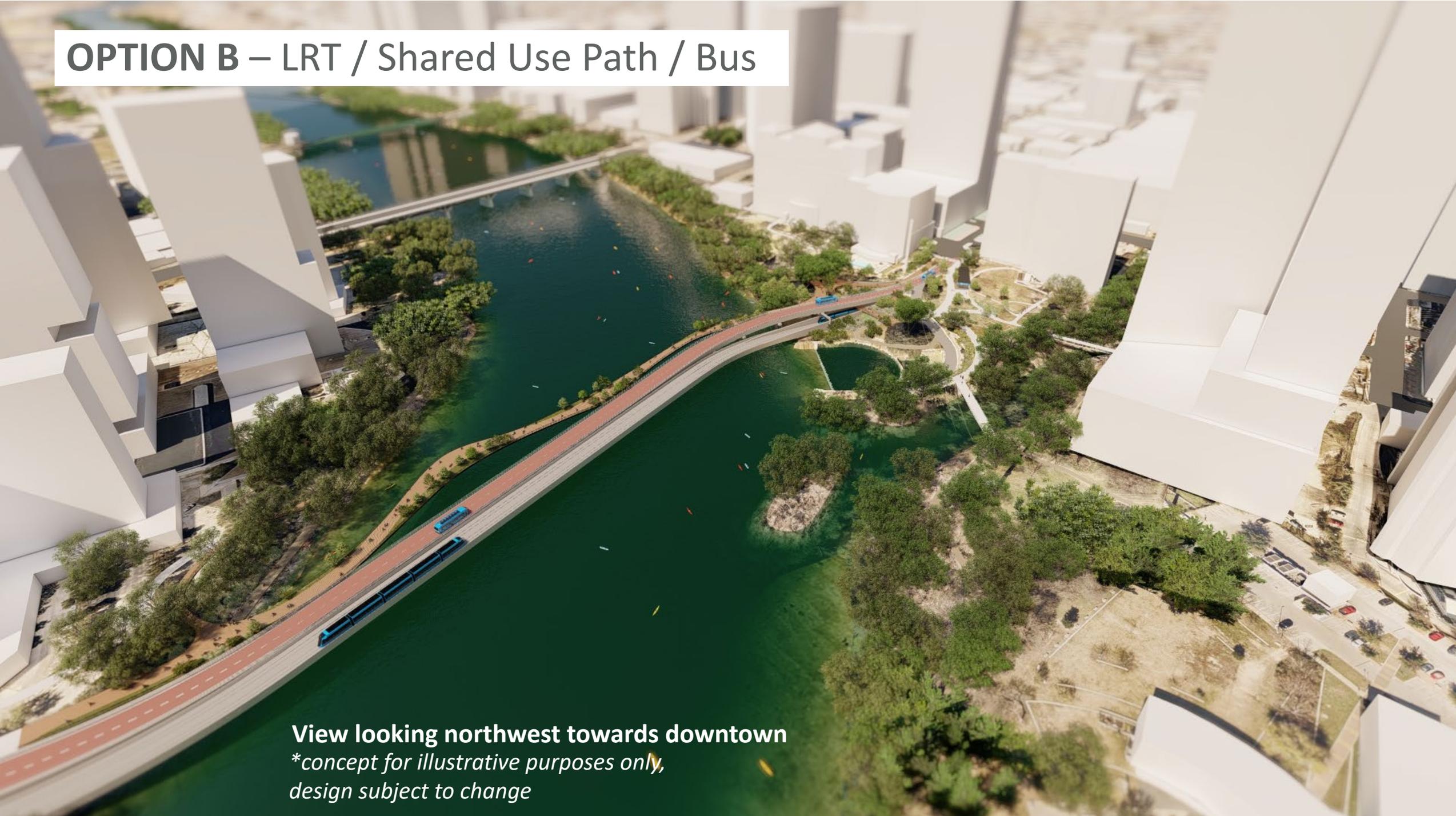


OPTION A – LRT / Shared Use Path



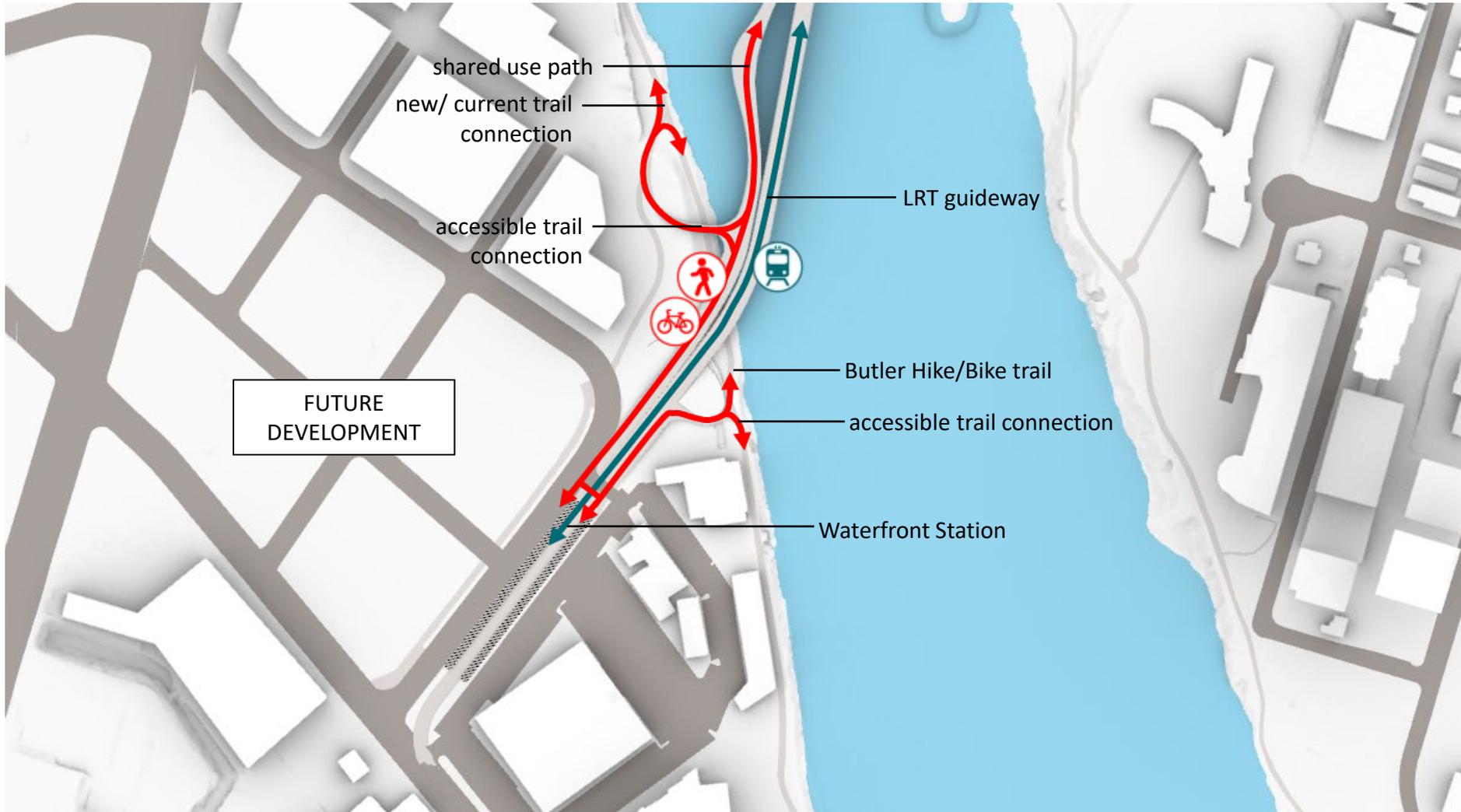
View looking northwest towards downtown
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OPTION B – LRT / Shared Use Path / Bus



View looking northwest towards downtown
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OPTION A – LRT / Shared Use Path - Impacts

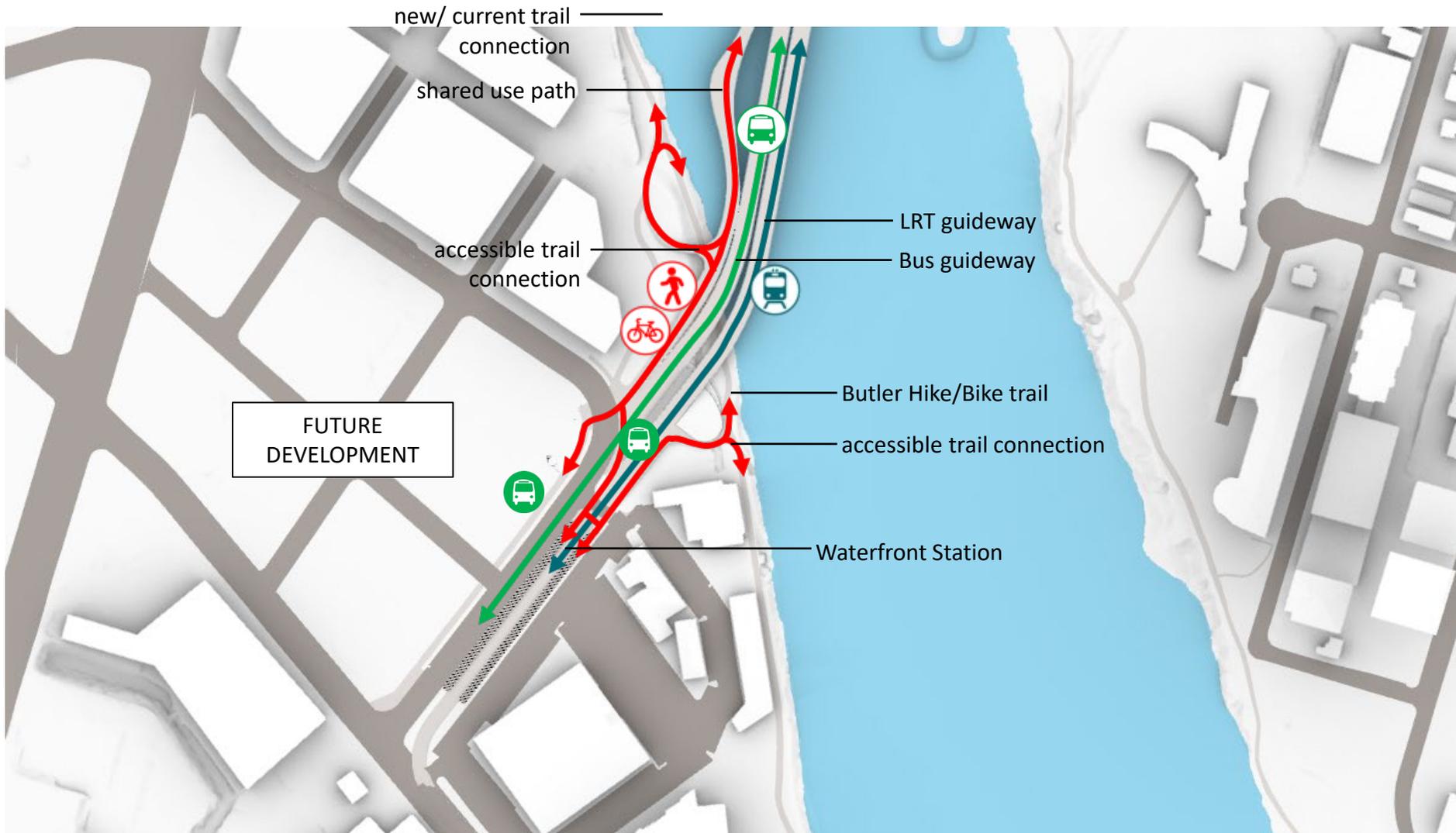


South Shore Connections:

- Butler Hike/Bike Trail
- Waterfront Station
- South Central Waterfront District



OPTION B – LRT / Shared Use Path / Bus - Impacts



South Shore Connections:

- Butler Hike/Bike Trail
- Waterfront Station
- South Central Waterfront District
- CapMetro Bus Stops



OPTION A – LRT / Shared Use Path



View looking northwest towards downtown

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OPTION B – LRT / Shared Use Path / Bus



View looking northwest towards downtown

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OPTION A – LRT / Shared Use Path



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OPTION B – LRT / Shared Use Path / Bus



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OPTION A – LRT / Shared Use Path



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OPTION B – LRT / Shared Use Path / Bus



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Trinity Street OPTION A – LRT / Shared Use Path



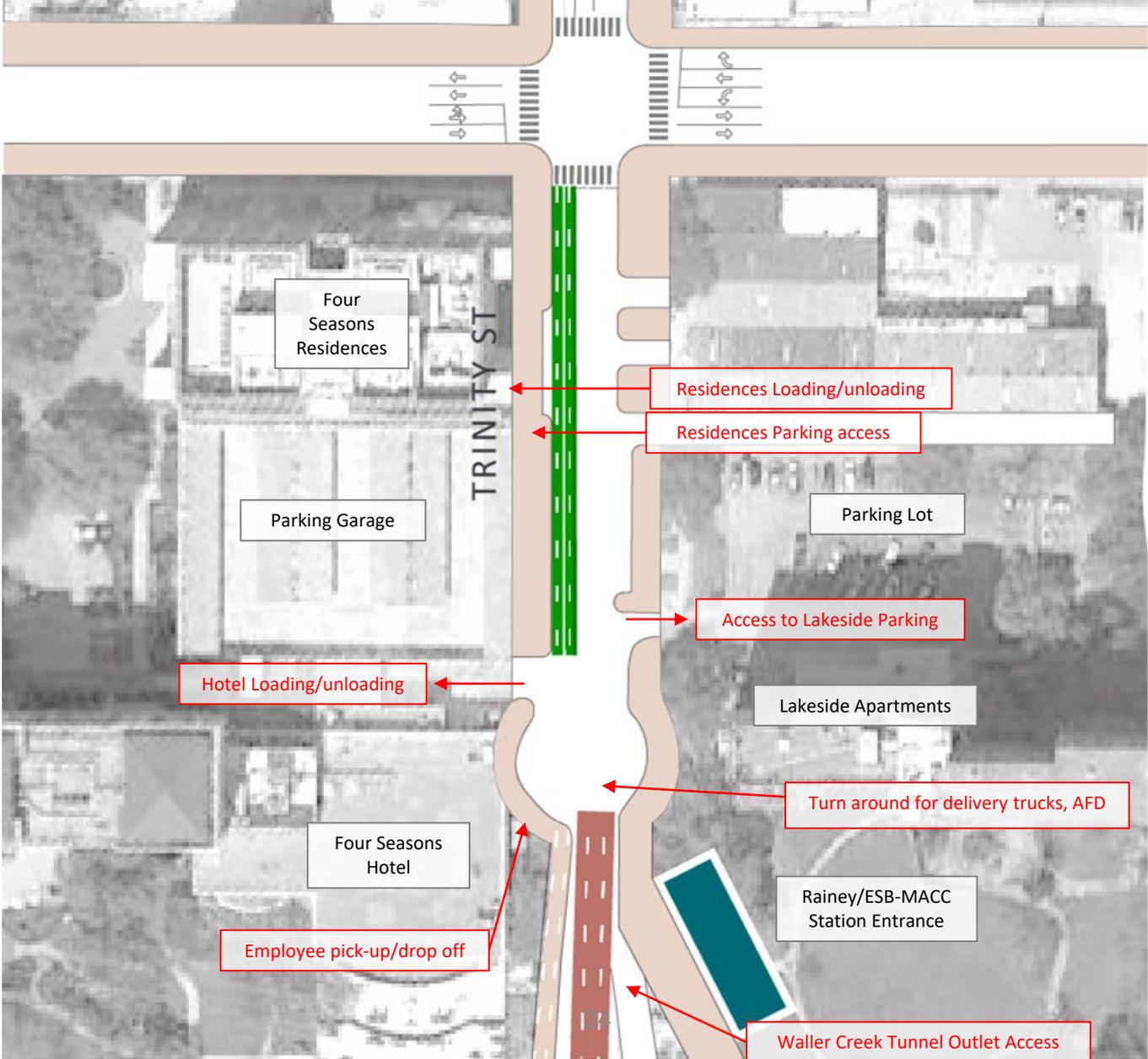
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Trinity Street OPTION A – LRT / Shared Use Path / Bus

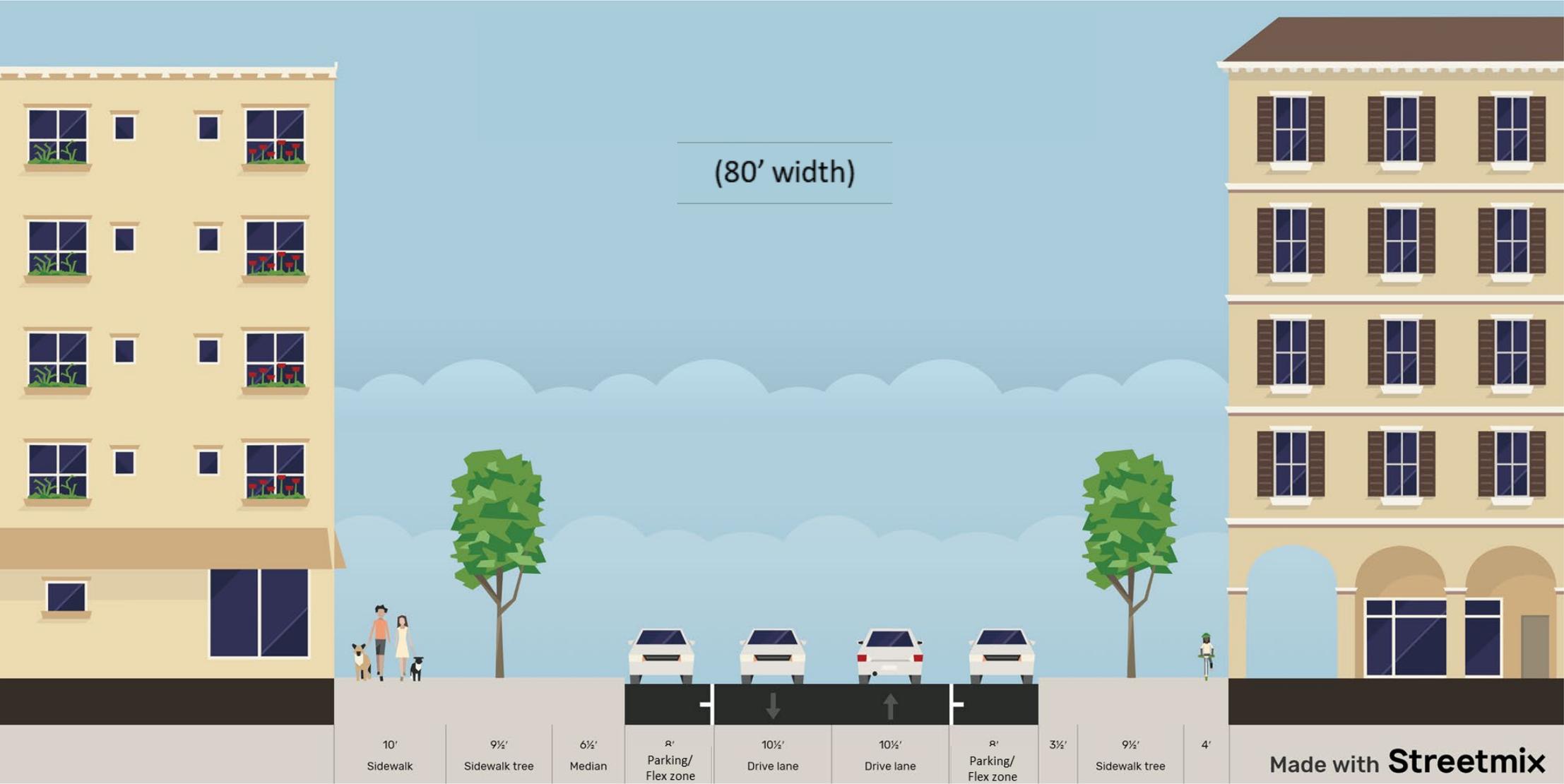


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Trinity Street Proposed



Trinity Street Existing Section



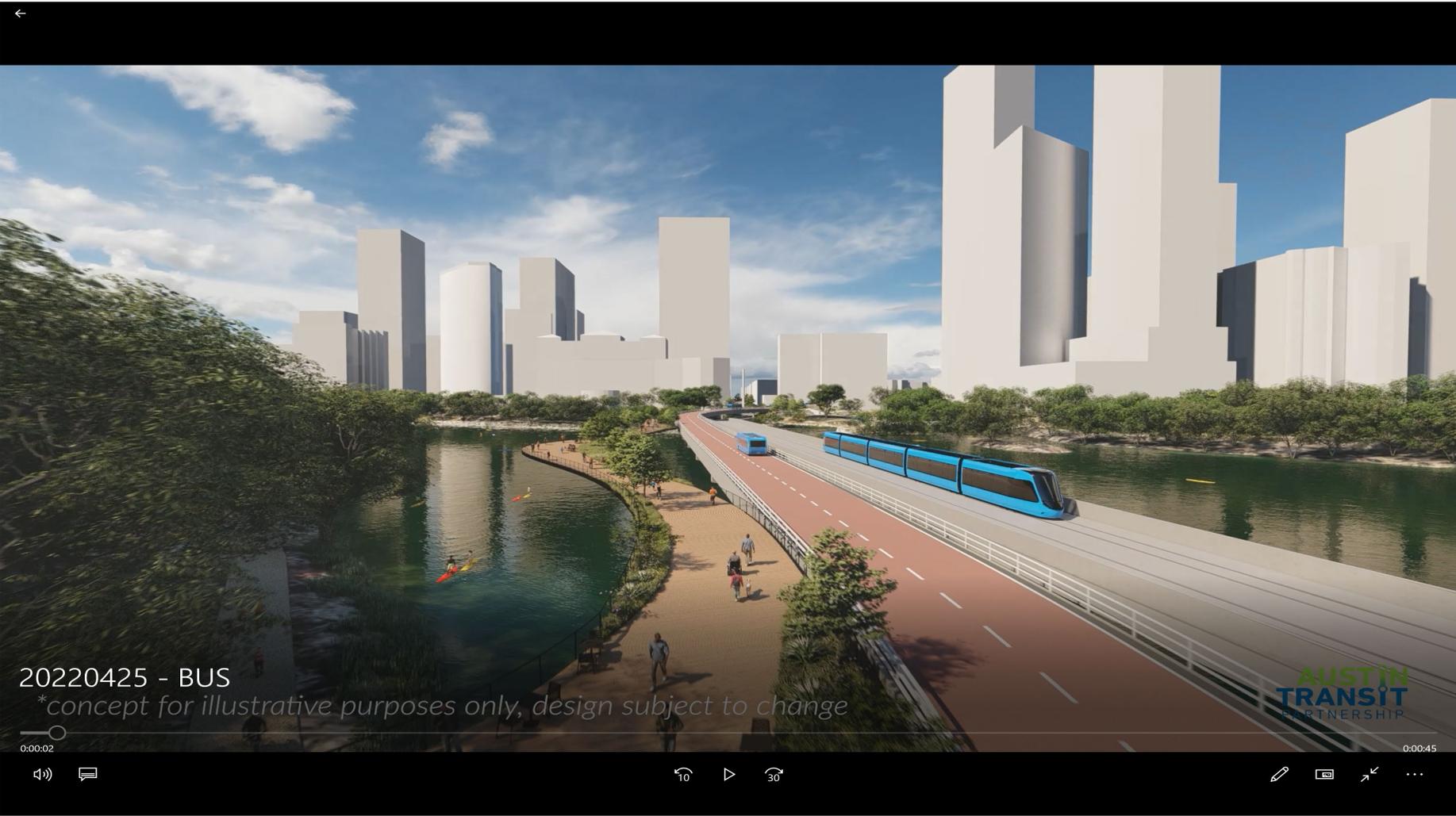
Trinity Street Proposed Section – LRT / Shared Use Path / Bus



OPTION A – LRT / Shared Use Path



OPTION B – LRT / Shared Use Path / Bus



OPTIONS A and B



View from Shared Use Path looking northwest

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City Policy and Operational Support



City Policy and Operational Support

Policy changes necessary to realize the benefit of buses on the bridge:

- Update codes / special events ordinances to ensure continuous access on Trinity and San Jacinto for buses
 - 6th Street crossing on weekends / festivals
 - Maintain Trinity St. access for buses during special events
 - *Supported by ASMP Closures and Detours Policy 3*

- Regulate deliveries and use of curb space for loading/unloading where it conflicts with bus access to bridge
 - *Supported by ACT Plan Needs Assessment*



City Policy and Operational Support

Street network changes that are necessary to realize the benefit of buses on the bridge:

- Introduce transit priority infrastructure on Trinity and San Jacinto streets downtown

- Explore limited two-way conversion of Trinity Street north of Cesar Chavez, and related signal improvements at Cesar Chavez Street
 - *Conceptual design in development*

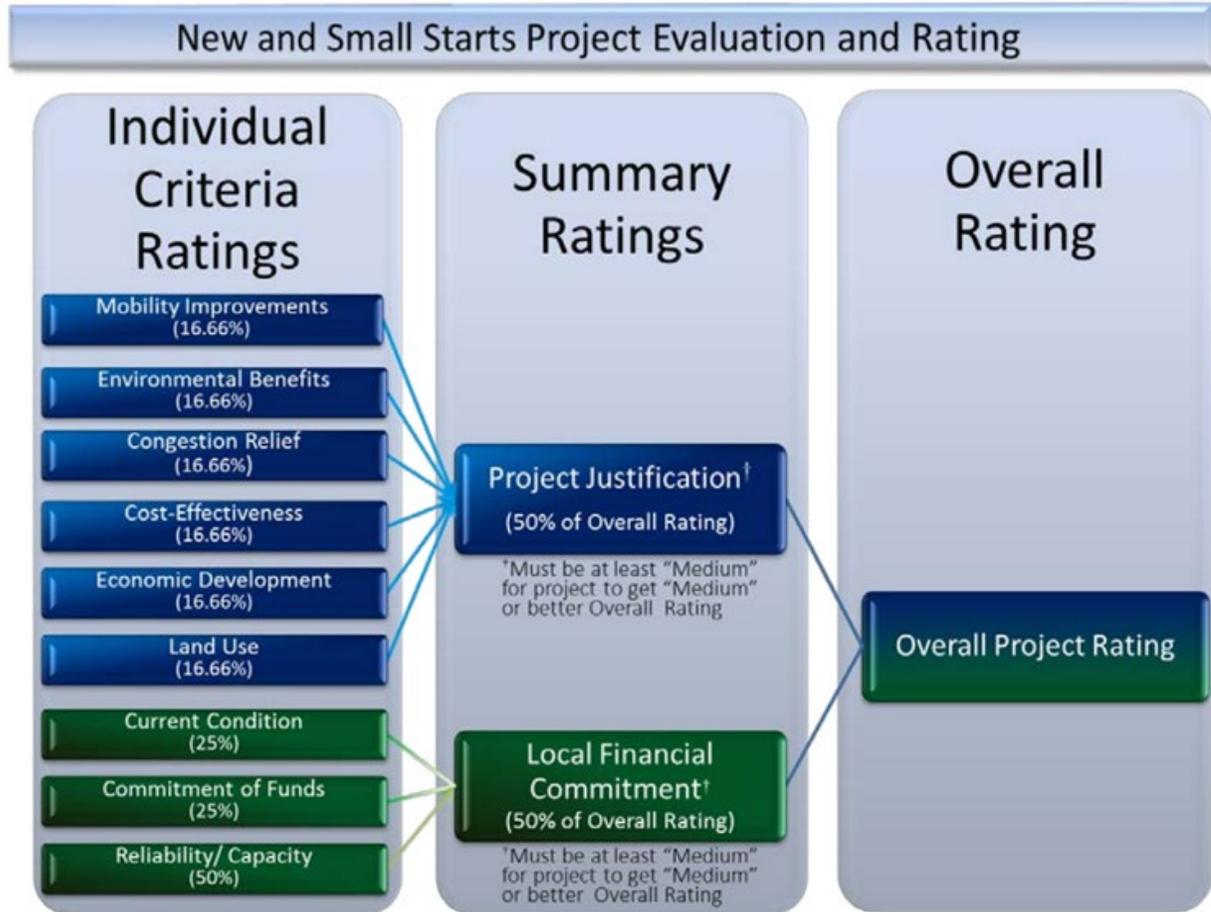




Federal Process and Cost



Capital Investment Grant (CIG) Rating Considerations



Mobility Improvements:

- Transit-dependent population use of routing adjustments

Congestion Relief:

- Evaluate ridership

Cost-Effectiveness:

- Evaluate balance of cost & ridership



Overall Program Cost Considerations

- Original cost estimates were based on 5% design and peer transit system comparison data.
- Since then, costs have increased significantly (up to 70%-80%), due to the following drivers:
 - **Real estate and right of way** (Austin market)
 - **Inflation** (labor, supply chain)
 - **Program scope changes** as a result of community input and technical requirements
 - e.g. Tunnel length increase from 1.5 to 4 miles
- 30% cost estimates will be released this summer.
- Project phasing will be used to keep within available funding sources.
- Taxes will not be increased to implement the program.

Blue Line Bridge Cost Comparison*

	Light Rail, Bike/Ped Only	Light Rail, Electric Bus, Bike/Ped
Estimated Capital Cost (2022 \$)	\$150M	\$210M

*rough order of magnitude; bridge not yet designed



Next Steps

- **April 26, 2022:** Community Design Workshop
 - feedback@capmetro.org
- **June 2022:** Staff recommendation due for DEIS submission to FTA
- **Aug. 2022:** DEIS Notice of Availability, 45 Day Comment Period begins
- **Sept. 2022:** Blue Line Public Hearing
- **Dec. 2022:** Consensus on 30% Design and Project Phasing
- **March 2023:** FTA Record of Decision (ROD)



Questions?

OPTION A & B – Shared Use Path
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