



Blue Line Bridge at Lady Bird Lake

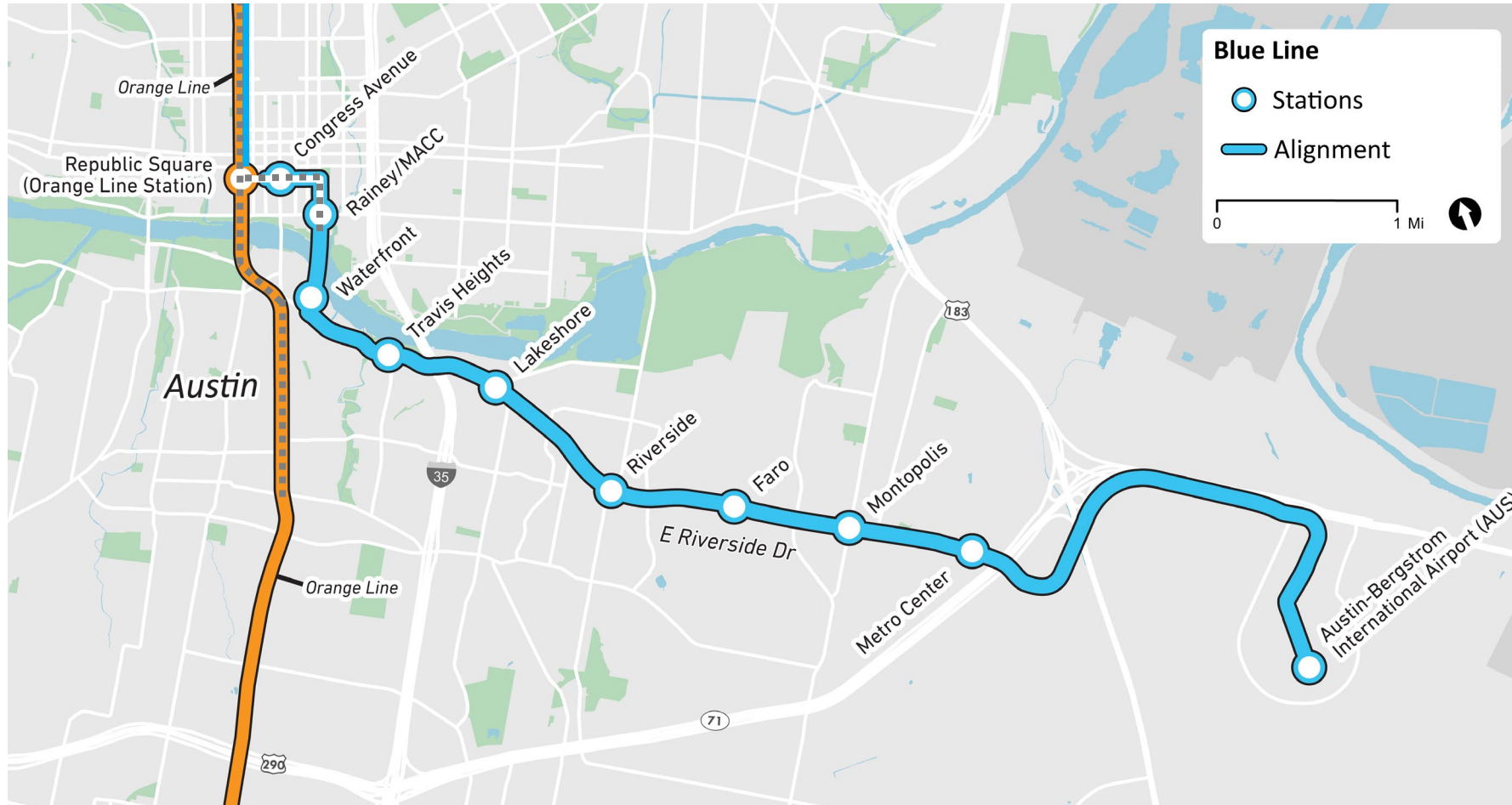
Urban Transportation Commission
May 3, 2022



CapMetro



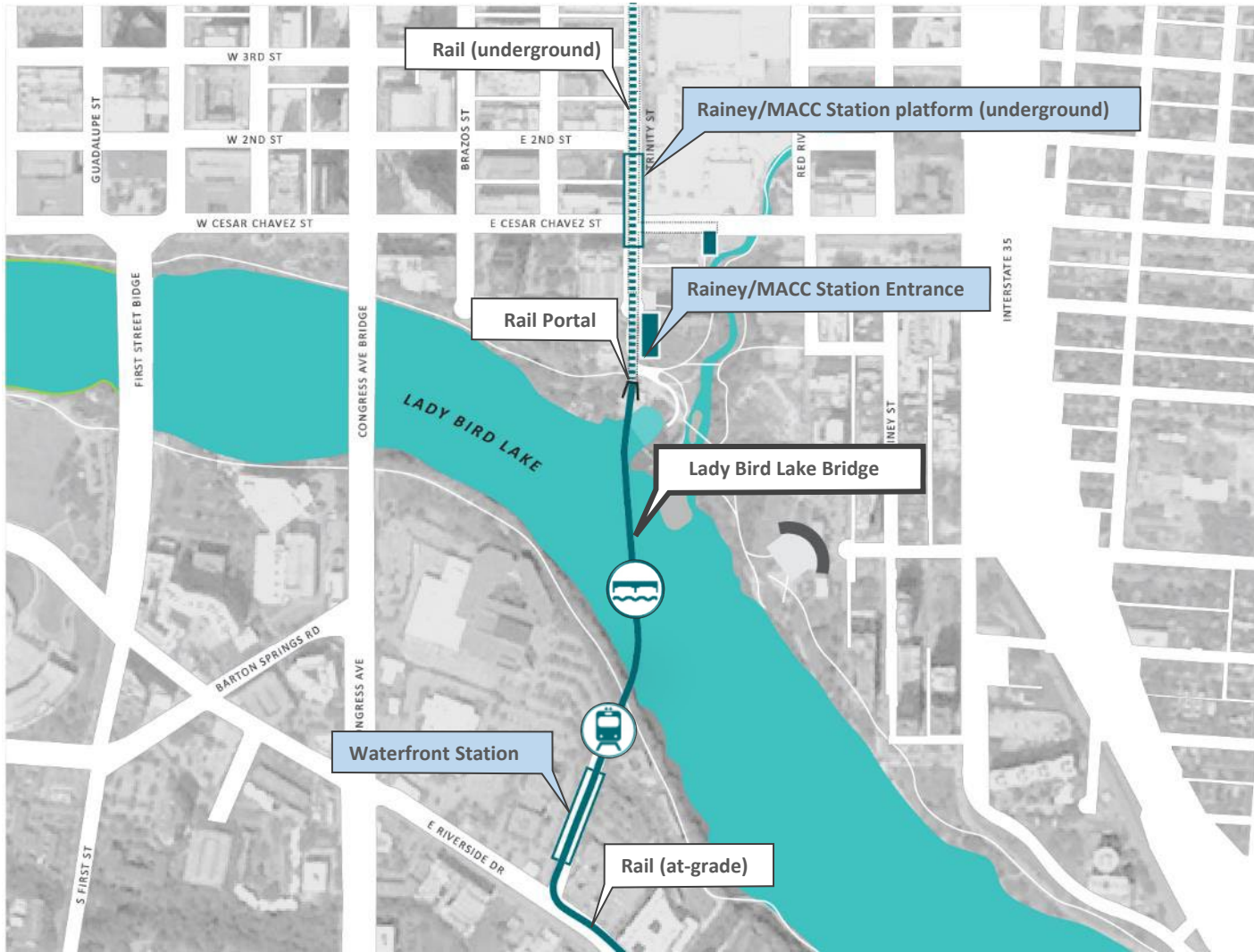
Blue Line Bridge at Lady Bird Lake: Alignment



- 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

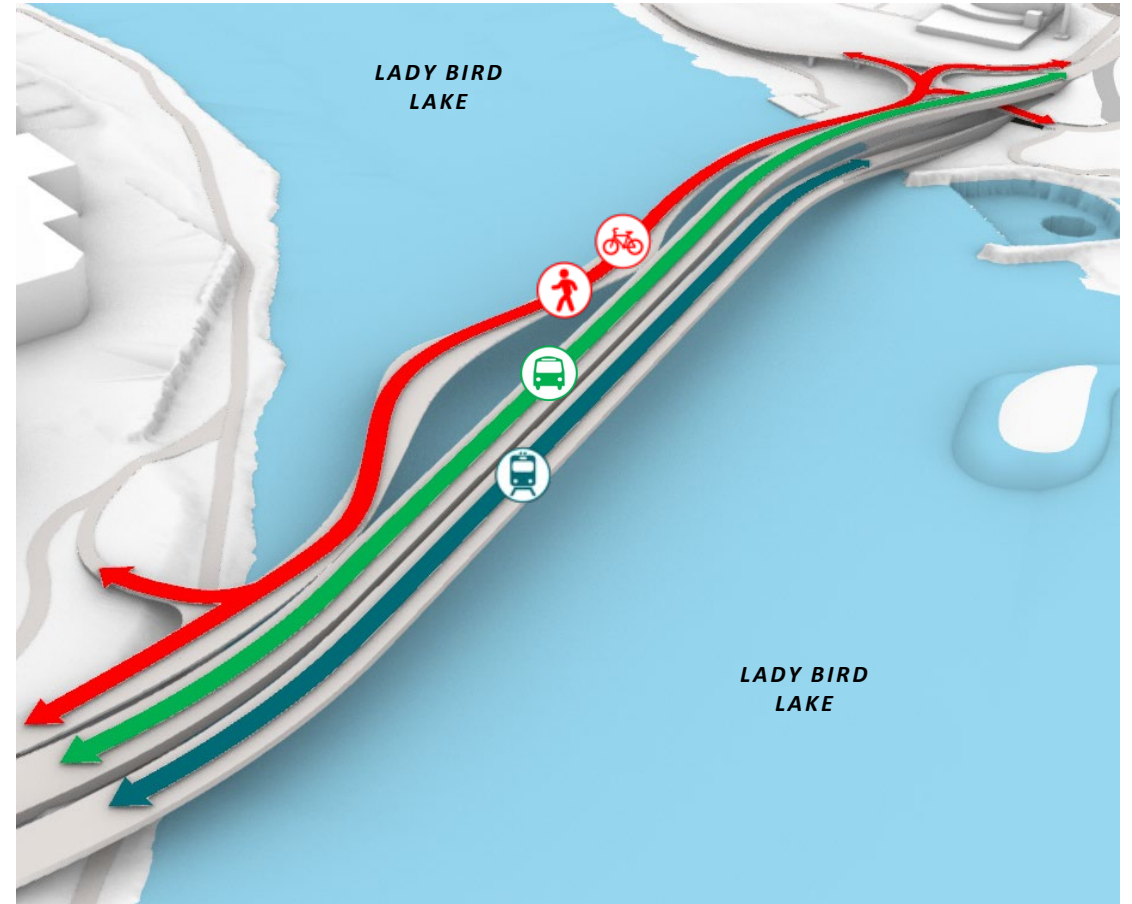


Blue Line Bridge Design Options

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

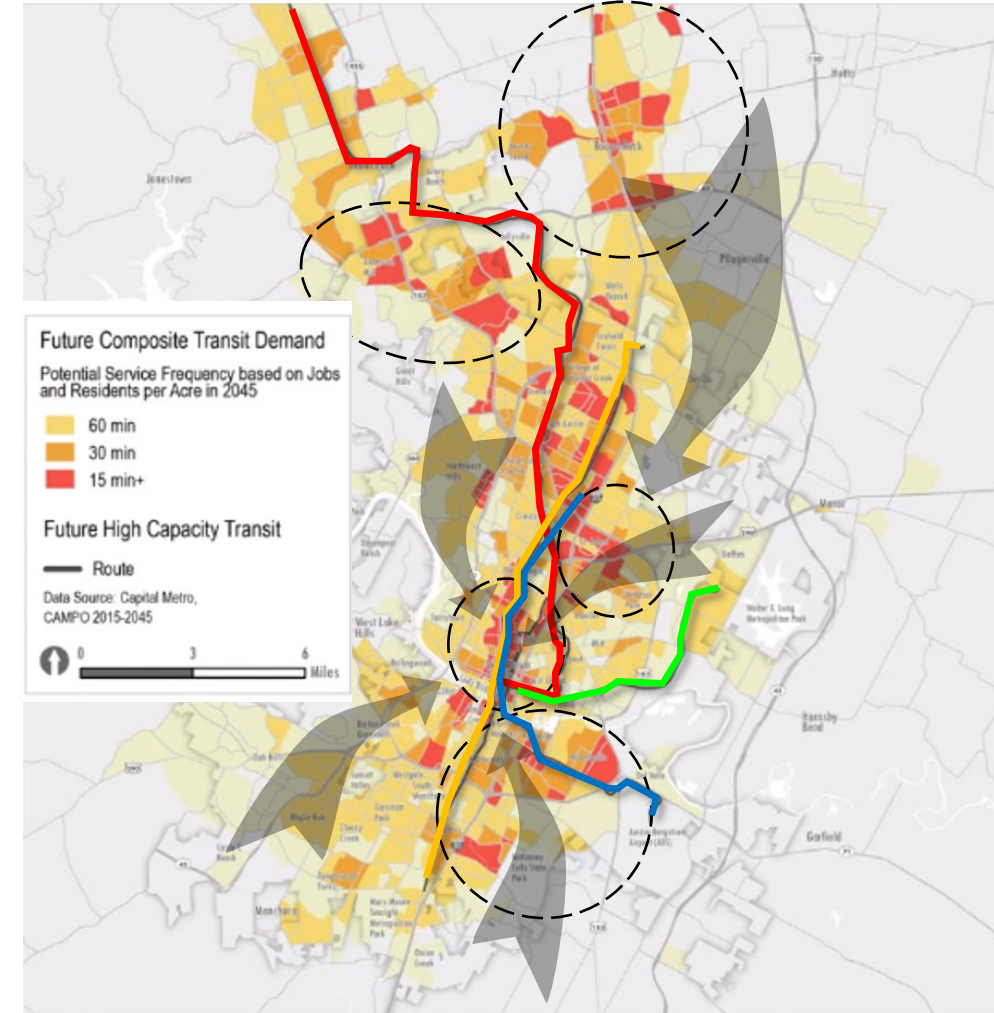
- Bus and LRT are **complementary components** of the transit network
- We expect **transit riders to use both*** bus and **LRT**, as the community grows
- **Future plans for bus service will continue to develop** to coincide with the opening of new LRT infrastructure
- The transit network is being **designed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

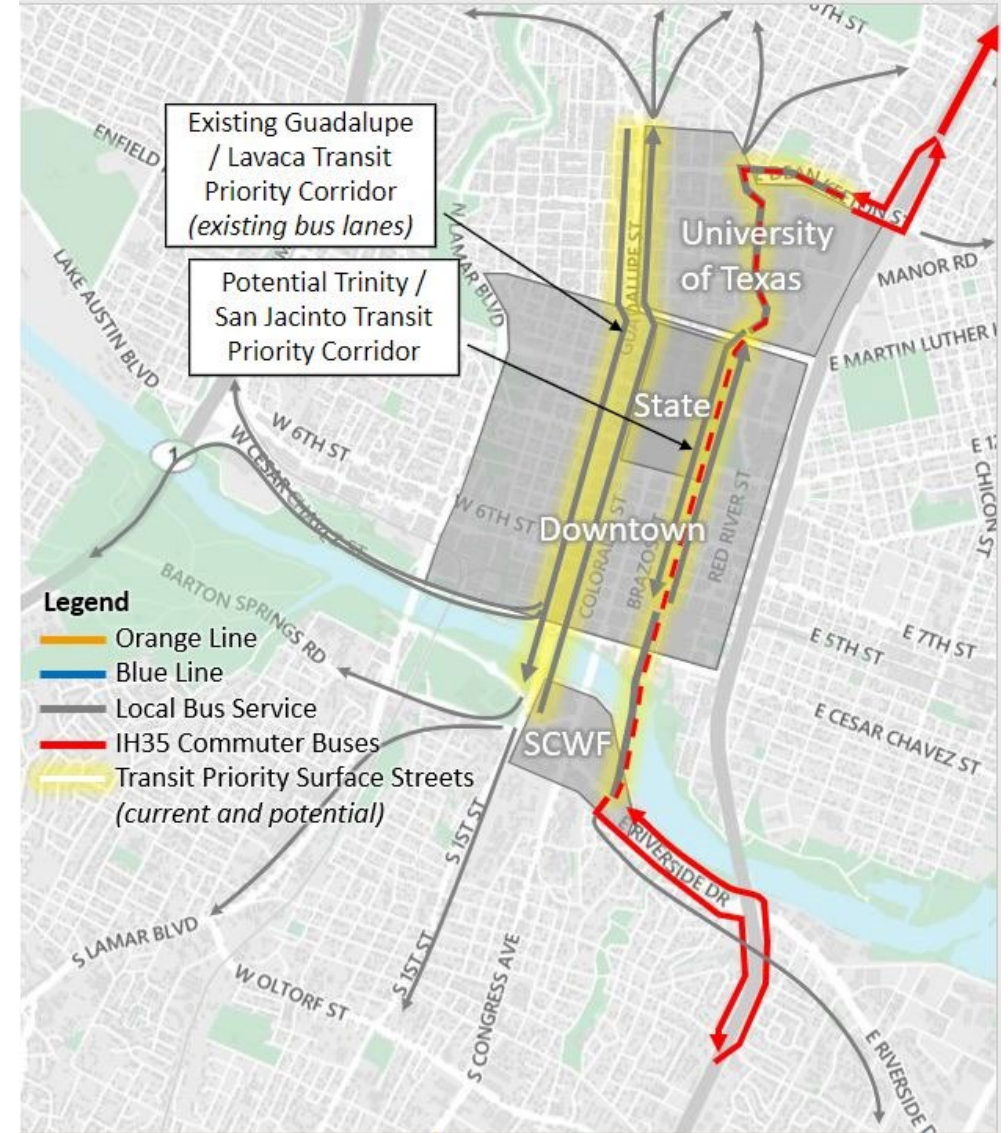
- Projected employment and population **growth will continue to rely on buses** to reach downtown
- Designing a bridge to accommodate LRT *and* Buses **provides for reliability, efficiency and future growth**
- **Operational efficiencies would be reinvested** to attract ridership and address growth



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



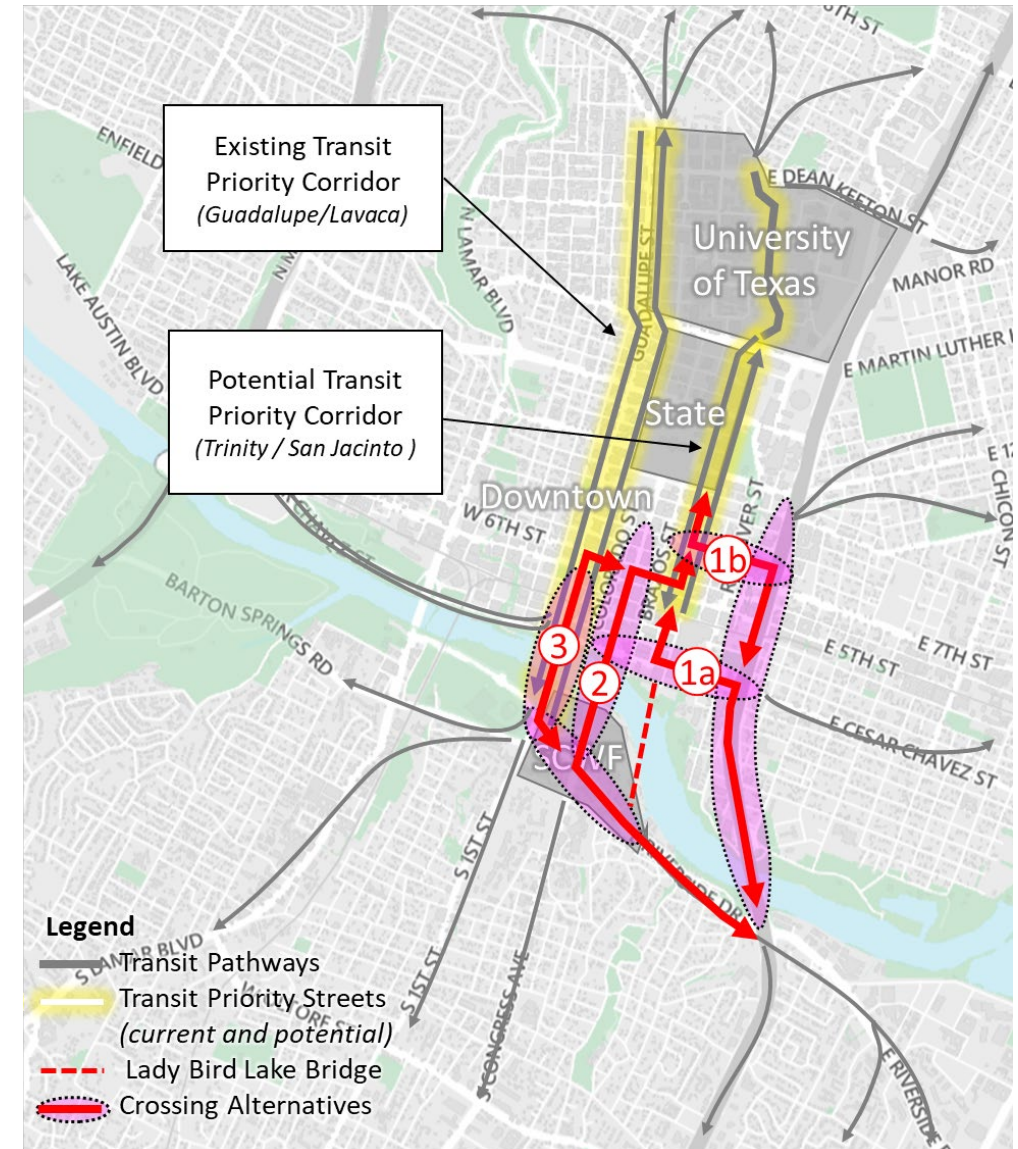
Crossing the Lake by Bus

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



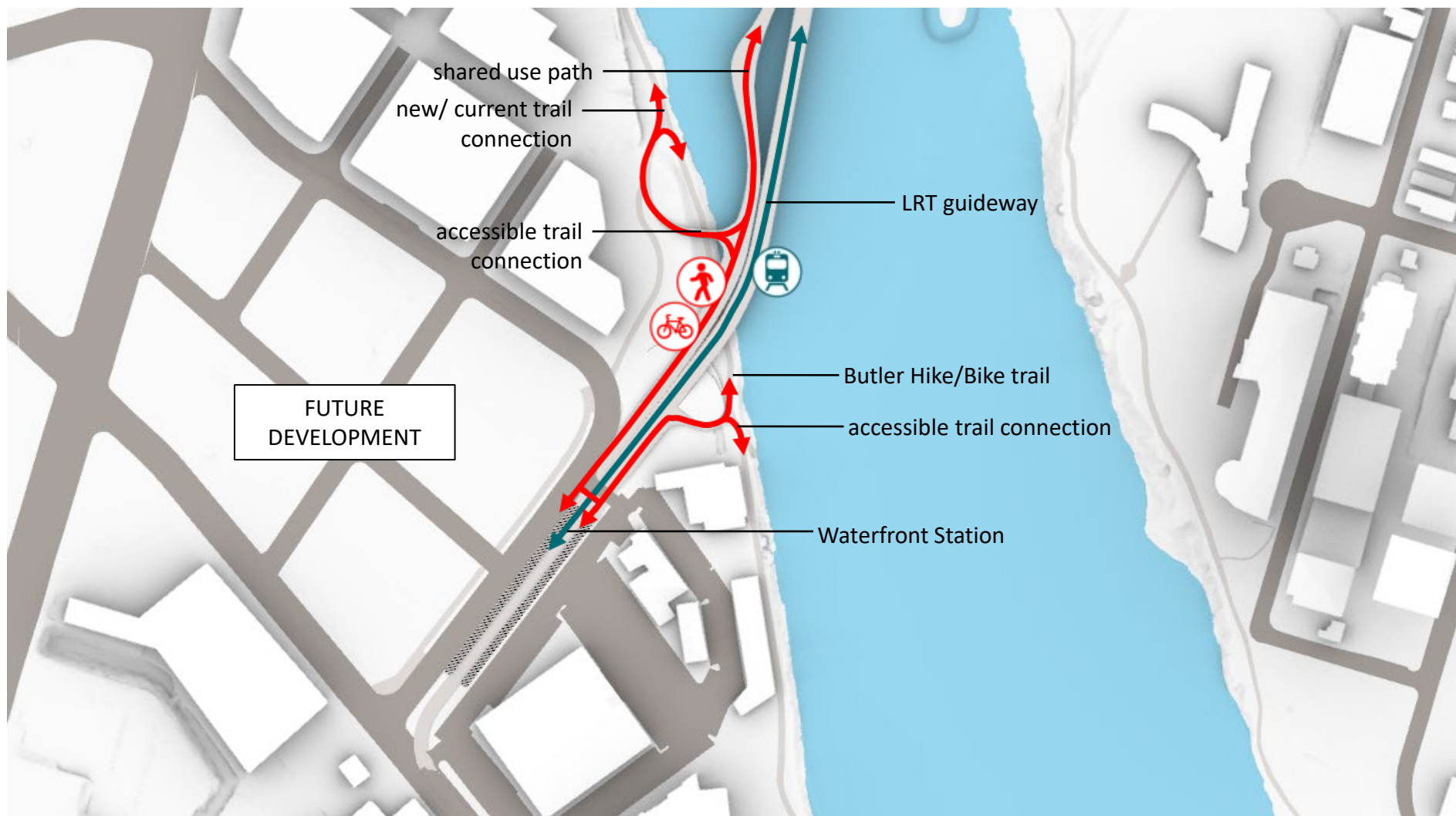
View looking northwest towards downtown
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OPTION B – LRT / Shared Use Path / Bus



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

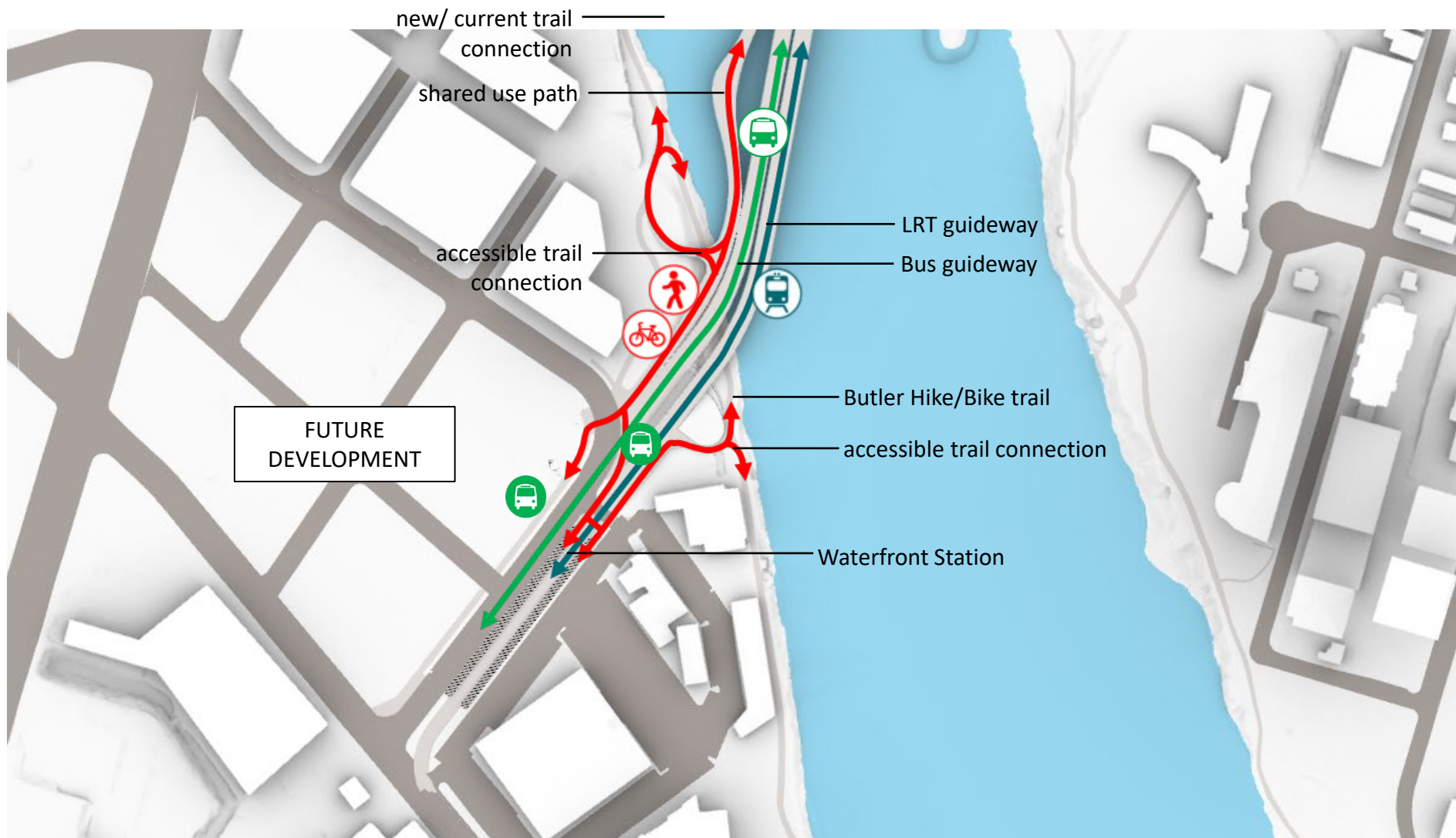


South Shore Connections:

- 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



OPTION B – LRT / Shared Use Path / Bus



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



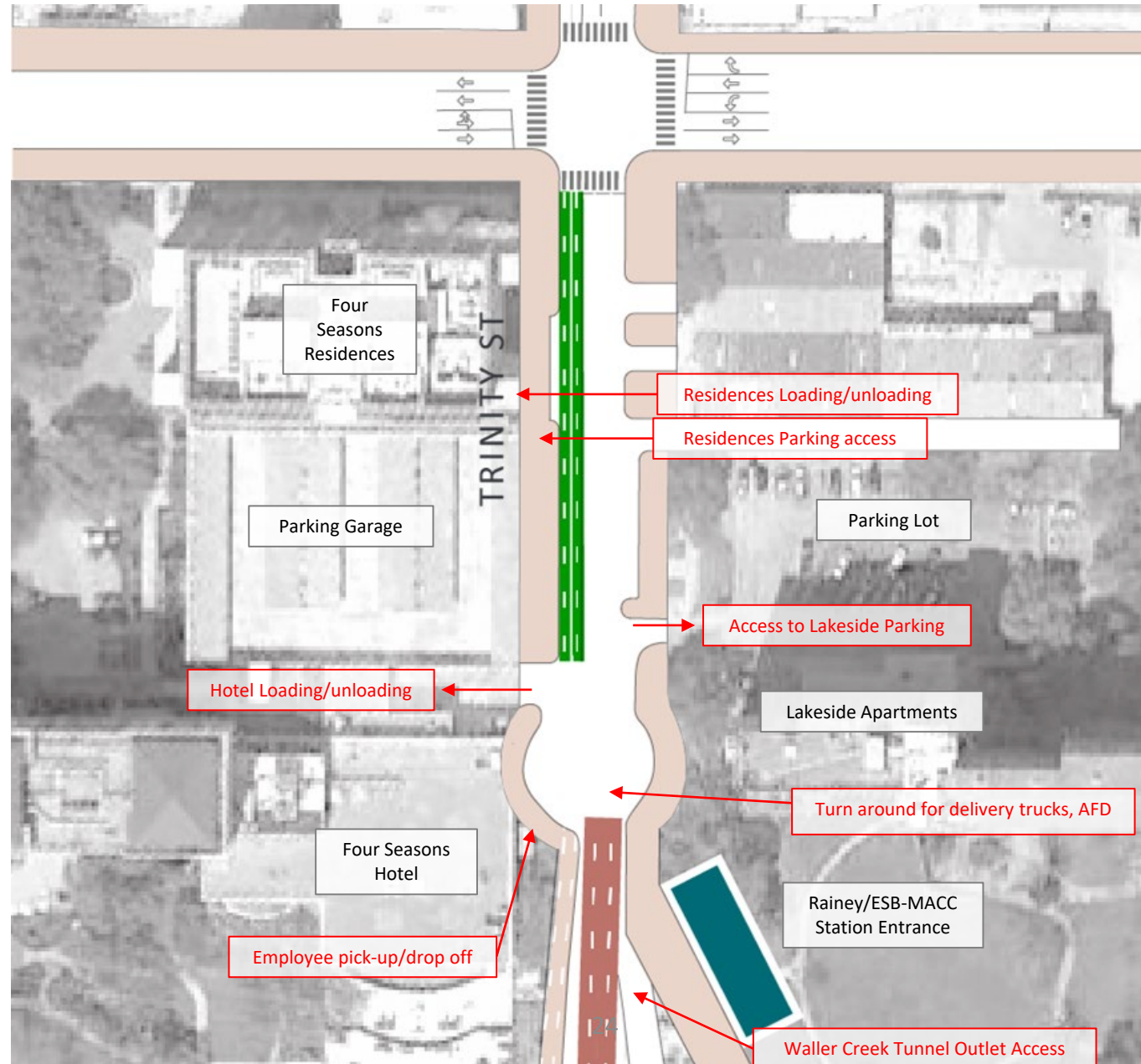
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Trinity Street OPTION A – LRT / Shared Use Path / Bus

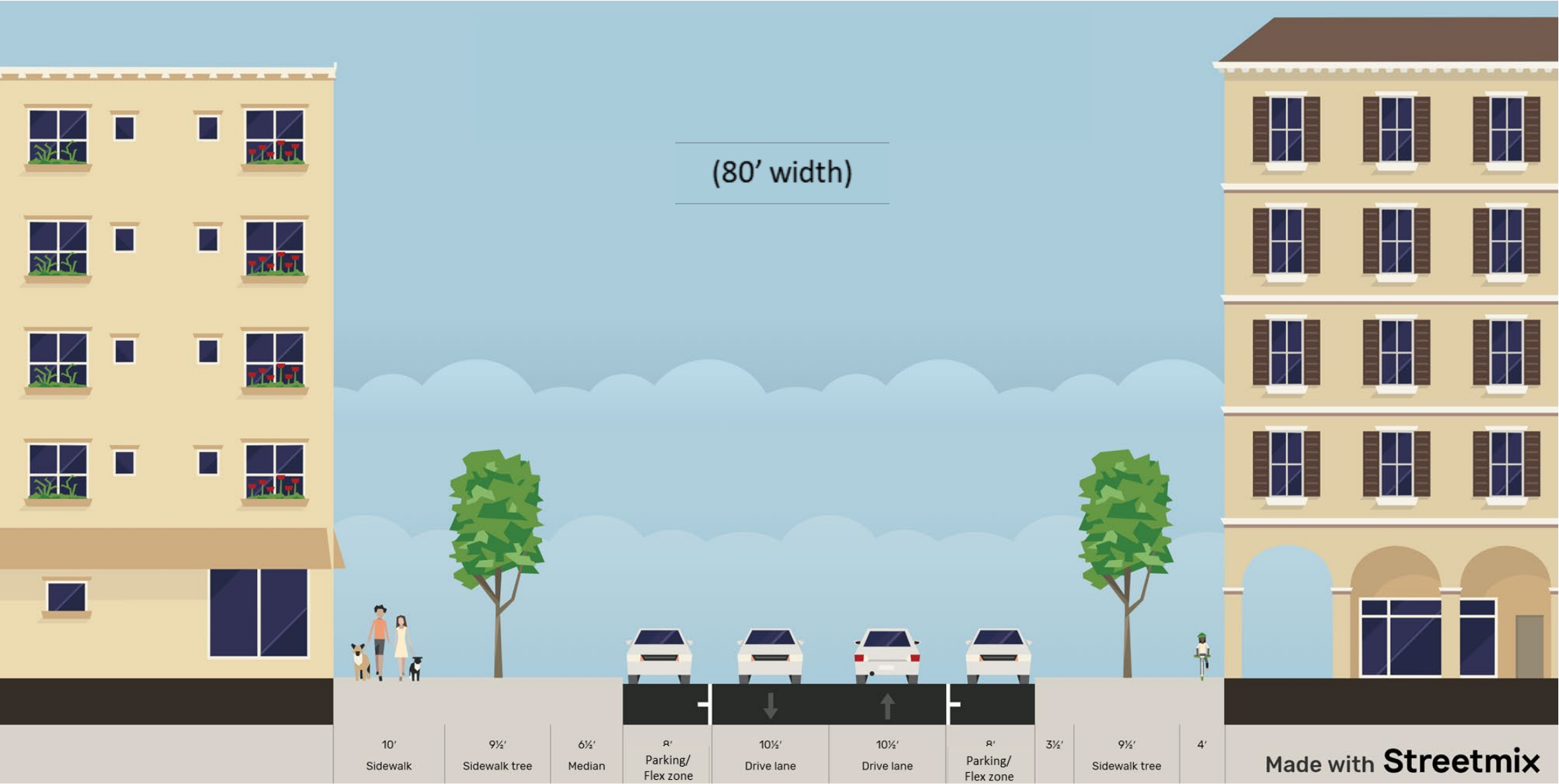


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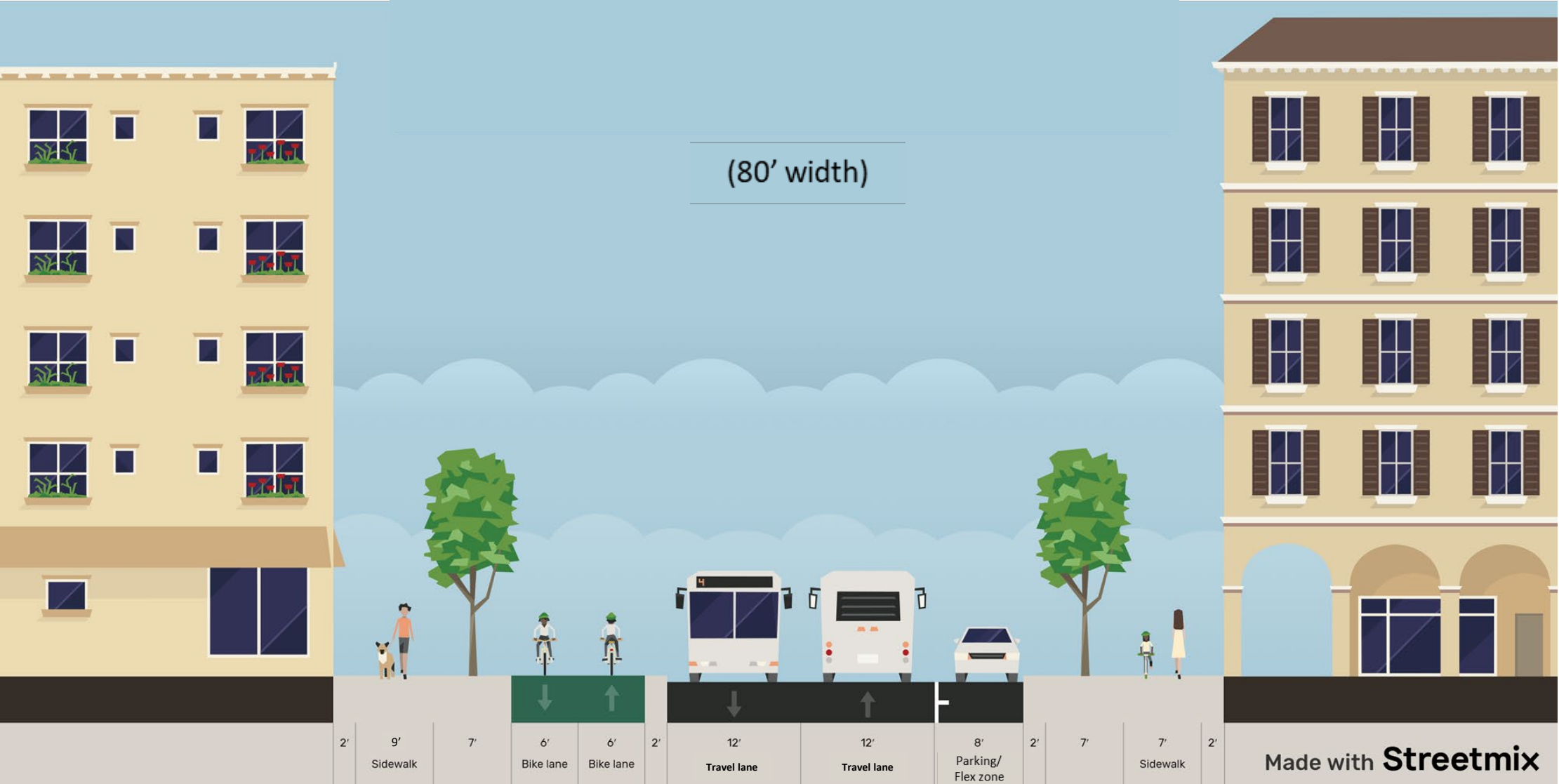
Trinity Street Proposed



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*

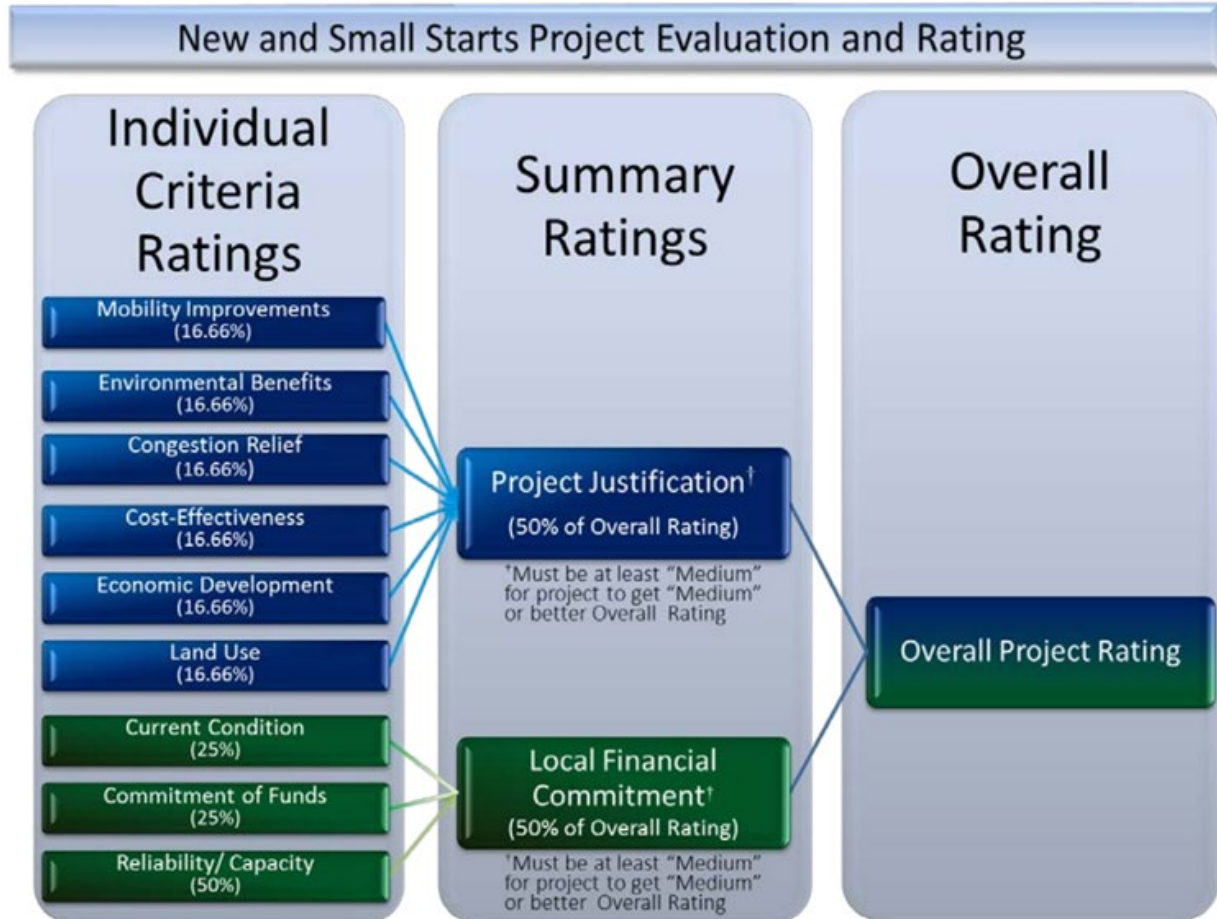




Federal Process and Cost



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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