

# **BRT: Metro Transit's Experience**

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## Agenda

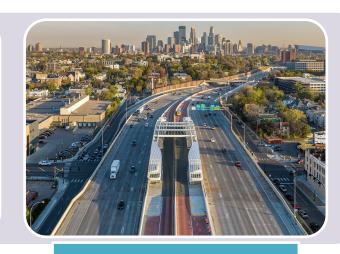
- BRT Network
- BRT Features
- Planning/Design/Construction
- Operations
- Results



## "Bus Rapid Transit"







#### **Arterial BRT**

Operates in mixed traffic on local roads with some bus-only lanes

### **Guideway BRT**

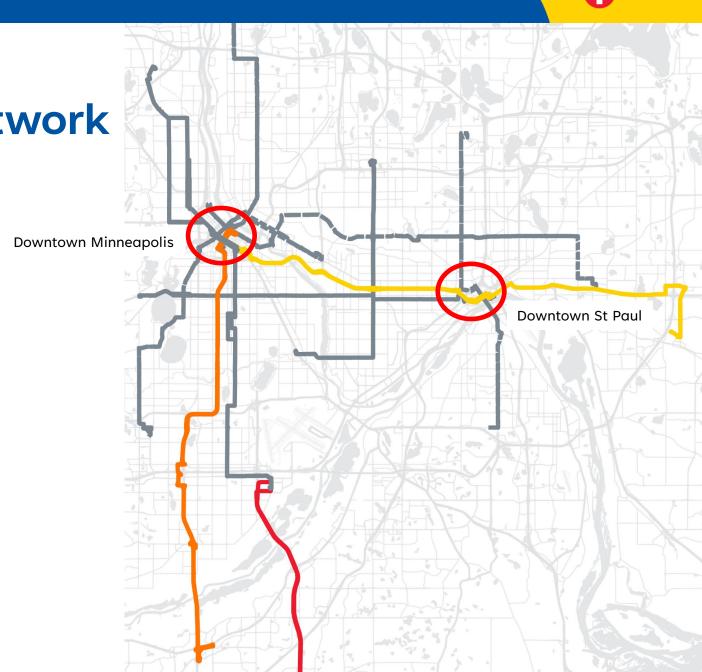
Primarily in exclusive bus lanes on existing or new roadways

## **Highway BRT**

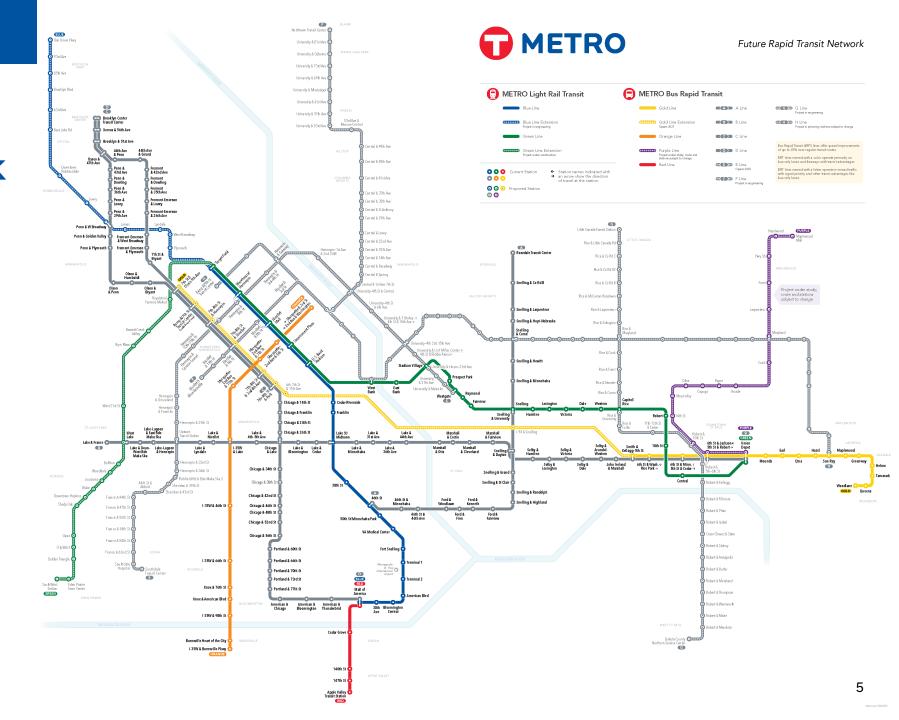
Primarily in dedicated carpool/transit lanes

## **Metro Transit's BRT Network**

- Arterial BRT:
  - In Service: A, B, C, D
  - Coming soon: E!
  - Planning/Design: F, G, H
  - Future Programming: +3 lines
- Highway BRT:
  - Red, Orange
- Guideway BRT:
  - Gold (extension to Mpls in 2027)
  - Planning & Design: Purple



## Full Future METRO Network



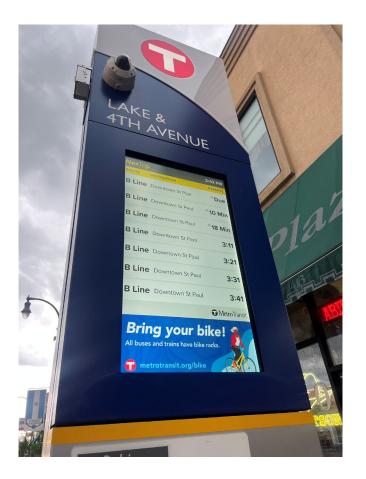


**BRT Features** 



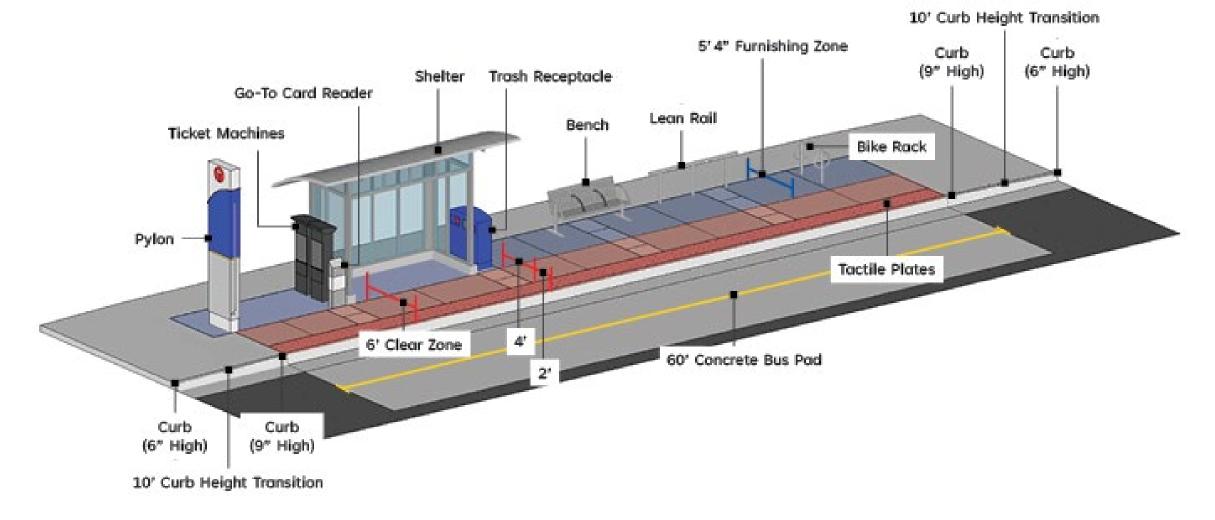
## **Common Features**

- Wide(r) stop spacing
  - Arterial: ¼-1 mile
  - Highway/Guideway: 1-5 miles
- Branded buses
- Transit signal priority
- Bus lanes
- Route simplification
  - Deviations and branches
- High frequency
  - 15-minutes or better most of the day, 7-days per week
  - Exception: Red Line





## **Stations**



## **Underlying Service**

- Arterial BRT
- Wide stop spacing balancing speed and access
- Original philosophy: provide underlying local service in high demand areas
- Transitioning away from underlying local service
  - Operational issues
  - Duplication
- Can a unique service provide some underlying coverage in key areas?



Planning/Design/Construction

\* Not an exhaustive list

## **Partnerships\***

- Orange Line:
  - MnDOT 35W reconstruction
    - MnPASS lanes, 35W/Lake Station, bus-only ramps into downtown
- B Line:
  - Hennepin County & Minneapolis Lake St project
    - RAISE/BUILD grant
  - Hennepin County/Minneapolis/MnDOT Hi-Lake project
- G Line:
  - Ramsey County Rice St reconstruction
  - MnDOT Robert St reconstruction (downtown, Robert St South)

## **Planning and Design**

- Arterial BRT:
  - Corridor selection
    - Now selecting future J, K, and L lines for post-2030 opening
  - Corridor plan and environmental
    - Station location, intersection quadrants
    - Resource estimation
- FTA-funded projects
  - Small Starts or CIG requirements
- Project offices

## Construction

- Coordination, coordination
  - Local service impacts and detours
- Outreach to businesses and residents
- Early access to key facilities
  - Restrooms

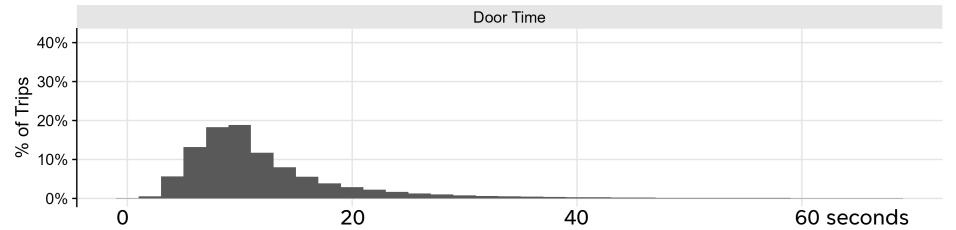


# **Operations**

## **Station Activity**

- Minimizing dwells
  - Semi-level platforms
  - All door boarding
    - Wider bus doors
  - Proof-of-payment

- Shared stations
  - Longer platforms
  - Mix of POP and pay board routes



## Run Times, Recoveries, Resources

#### Run Times:

- Arterial BRT saves ~10-20% off pre-BRT run times
- Scheduled tight to minimize holds
- Dedicated guideway & bus lanes significantly reduce variability

#### Recoveries:

- Schedule longer base recoveries (~20%) to offset tight run times
- Balance with terminal congestion

#### Resources:

 Fewer patterns, more capacity, faster & more consistent run times, street and car reliefs help reduce resource costs of all-day high frequency

## **Headway-Based Service (HBS)**

- Used on A Line during State Fair
- Trialed on D Line late-2024/early-2025
- Run consistent headways rather than to a printed schedule
  - Reduces passenger wait times during high congestion periods or lower OTP routes
  - Customer perception wait times begin to matter more than schedules at about 15minute headways
- Transitioning service back to scheduled is challenging
- More resources (buses, operators) typically required



Results



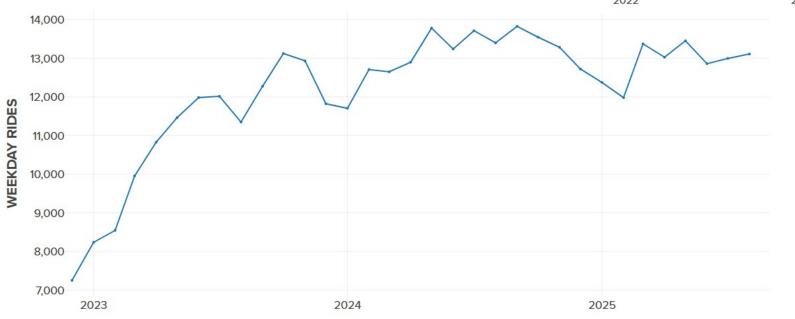
Orange Line Ridership
Average Weekday from Dec 06, 2021 to Aug 29, 2025

# Ridership



#### D Line Ridership

Average Weekday from Dec 05, 2022 to Aug 29, 2025



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# **Thank You!**

**Ryan Heath** 

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