



Safety and Operations Committee

Board Information Item III-A

Better Bus: Network Redesign

Washington Metropolitan Area Transit Authority
Board Action/Information Summary

Action Information

MEAD Number:
203443

Resolution:
 Yes No

TITLE:

Better Bus Network Redesign

PRESENTATION SUMMARY:

This presentation will provide an update on the Better Bus Network Redesign, including highlights of the draft Visionary Network, the outreach approach to engage the public and other audiences this spring, and next steps for the project.

PURPOSE:

Staff will provide an update on the Better Bus Network Redesign.

DESCRIPTION:

In June 2022, Metro launched the Better Bus Network Redesign to build a bus network that improves service for customers by addressing the region's changing travel patterns, increasing access to frequent service, promoting equity and access to opportunity, aligning with bus priority investments, and defining Metrobus' role for the region.

For conflict-of-interest purposes, staff has identified the following contractors and interested parties involved in the Network Redesign: **Kimley-Horn, Cambridge Systematics, Foursquare Integrated Transportation Planning, NeoNiche Strategies, WBA Research, Vanasse Hangen Brustlin, Inc., Nelson\Nygaard Consulting Associates, and Sharp & Company, Inc.**

Key Highlights:

- Metro's Better Bus Network Redesign is underway and fully incorporates the service and network of Metrobus, Prince George's TheBus, and City of Fairfax CUE systems, while building on other local bus providers' existing services to enhance and align bus service and the region's transit network.
- The draft Visionary Network could deliver a bus network and service plan in the future when more resources are available, resulting in nearly 15 million more customer trips on bus each year and avoiding over 14,000

metric tons of greenhouse gas (GHG) emissions annually.

- The draft Visionary Network includes an expanded Frequent Service Network of 85 percent more routes with 12-minutes or better all-day service, 300 percent more routes with 12 to 20-minute all-day service, and all remaining service with no less than 30-minute frequency; a regional 24-hour network; increased crosstown and cross-county connections; and routes that provide frequent, direct connections between key destinations such as transit hubs, hospitals, schools, and job centers.
- In mid-April, Metro will be seeking public and other audience input on the Visionary Network through Better Bus Experience LIVE! - a mix of in-person and virtual events – and our Better Bus Virtual Experience LAB, will enable customers and potential customers to provide feedback when and where it works best for them.

Background and History:

In July 2022, Metro launched the Better Bus Network Redesign to create a bus network that matches when and where people want to travel, provides fast, frequent and reliable service, and addresses inequities and increases access to opportunity for disenfranchised communities. The Better Bus Network Redesign is a key initiative included in the agency's strategic plan *Your Metro, The Way Forward* to meet the plan's goal to design transit service to move more people and equitably connect a growing region.

At the completion of the Network Redesign, customers, the region, and our partners will have a:

- Bus network and service plan developed within existing resources for Metro Board consideration for implementation during FY2025;
- Visionary bus network and service plan with more resources that provides a path forward to meet some of the region's longer-term goals; and
- Clearly defined role of Metrobus in the region and a long-term sustainable, predictable funding model for bus service.

The first phase of the project consisted of understanding current and potential customers and what they want in a bus system. Transit markets, gaps in the current system, and opportunities were identified to incorporate in a new network. A comprehensive evaluation of existing service was conducted to understand the performance of Metrobus, TheBus, and CUE services and identify strengths and potential improvements. Significant public engagement was conducted in the fall of 2022 with over 9,500 in-person interactions, over 6,500 survey participants, engagement with over 200 bus operations staff, over 40 meetings with stakeholders, including elected officials, community-based

organizations, and jurisdictional partners.

Findings from the technical analysis and outreach highlight opportunities and priorities to build a great bus system with the express purpose of transporting more customers, creating safer streets, creating a more affordable and equitable region, and improving air quality. Project goals and objectives align with Metro's vision for a bus system, which delivers:

- **Regional Connectivity:** Provide bus service that matches when and where people want to travel;
- **Customer and Operator Experience:** Provide fast, frequent, and reliable service for both riders and operators; and
- **Equity:** Build a bus system that advances equity in the region.

Earlier briefings to the Board occurred on September 22, 2022, and January 12, 2023. Selected content is provided in the Appendix and includes:

- Board adopted Guiding Principles;
- How Metro is partnering with local bus providers to redesign the network;
- Data on average weekday travel in the region, indicating that there are many trips in the region that could be taken on transit, if it were more convenient;
- Input from customers last fall that shows that 45 percent of respondents rated regional bus service as very good or excellent, indicating that not all service needs to change as part of the redesign;
- Demographics of Metrobus customers which show that bus customers are more likely to live in households that do not have a car, make less than \$30,000 annually, have limited English proficiency, and be persons of color; and
- Data about the region's residents' trip making that underpins the draft Visionary Network.

Discussion:

The draft Better Bus Visionary Network puts forth the bus system that the region needs and could be implemented once additional resources are available for the region's bus service. The draft Visionary Network reflects input from customers and potential customers, jurisdictional partners, operations staff, and other audiences and includes improvements such as:

- Expanding all day (6am – 9pm), seven days per week service

- 85 percent more routes with 12-minutes or better service compared to today
- 300 percent more routes with 12 to 20-minute service all-day and week, and
- All remaining service with no less than 30 minute frequency;
- Increased crosstown and cross-county connections, connecting between Metrorail branches, transit hubs, and activity centers across the region, with examples such as:
 - A proposed route between New Carrollton, Addison, Suitland stations, extending the reach of the Purple Line;
 - A proposed extension from Farragut – Georgetown – Arlington service to Seven Corners Transit Center;
 - An extension between DC and Prince George’s County to connect to the Eastover Shopping Complex;
 - Service to the new Inova Alexandria Hospital complex; and
 - Better connections between adjacent neighborhoods such as Fort Lincoln and Deanwood and Chevy Chas DC and MD.

Investing in a Visionary Network could generate 40,000-45,000 more bus trips on weekdays and 30,000-35,000 more bus trips on Saturdays and Sundays across all bus providers in the region, totally almost 15 million more bus trips annually. This is a nine percent increase on weekdays and a 19 percent increase on weekends compared to pre-pandemic ridership (2019). If those Metrobus trips are no longer made in a car, over 14,000 metric tons of greenhouse gas emissions could be avoided from cars each year. That’s equivalent to emissions from 2,800 homes’ electricity use each and every year or going to the moon and back 96 times in a car.

Outcomes and benefits for customers and the region if the Visionary Network is implemented include:

- 60 percent increase in residents with access to high frequency service during weekday middays, 73 percent increase on Saturdays, and 64 percent increase on Sundays, making high frequency service available to more people at more times of day;
- 1.1 million more residents with overnight bus service, 123,000 more residents with Saturday service, and 208,000 more residents with Sunday service, serving more people at more times of day;

- Access to an average of 13,000 more jobs within 60 minutes, and improved access to other key destinations like grocery stores, K-12 schools, and college/universities;
- Faster average travel time for trips made by bus customers, saving 20,000 hours every day and creating more convenient transit options for more of the trips people make; and
- 39 percent increase in service on corridors with bus priority investments, like bus lanes and transit signal priority, on weekdays, 64 percent more on Saturdays, and 84 percent more on Sundays, making bus service faster and more reliable and utilizing investments by our jurisdictional partners.

The draft Visionary Network was developed together with Metro’s jurisdictional partners, unions, and operations staff. Several key considerations underly the Visionary Network. The results represent a 35 percent increase in resources devoted to bus in the region overall. The draft network does not specify which bus provider will operate the service nor have stops or route patterns, like limited stop service, been identified. The draft Visionary Network uses temporary route numbers in this phase to accommodate new routes and changes to existing routes.

Spring 2023 Engagement and Outreach

Starting in mid-April, Metro will seek public and other audience input on the Visionary Network through Better Bus Experience LIVE! - a mix of in-person and virtual events – and our Better Bus Virtual Experience LAB, will enable customers and potential customers to provide feedback when and where it works best for them.

Experience LIVE! community workshops will be held across the region. A Launch Party will be held at THEARC in Washington, D.C. Friday, April 21 from 3-7 p.m. The team will also take the workshop experience on the road, meeting customers where they are, at pop-ups and on bus ride alongs. Virtual lunch-n-learns will be held to increase the reach into the community. Dates, times, and locations can be found at wmata.com/betterbus.

Those who are unable to attend the scheduled events can visit wmata.com/betterbus to explore our Better Bus Virtual Experience LAB. Customers and potential customers will be able to view the draft Visionary Network, compare their trip on the current network to the draft Visionary Network, leave route-by-route feedback on an interactive comment map, and take a survey to tell us what they think about the draft Visionary Network and answer key trade-off questions.

Additionally, other audiences will be engaged this spring, including:

- Preview parties at all Metrobus divisions, TheBus, and CUE prior to public launch to gather feedback from bus operations staff;
- Briefings and workshops with Metro’s Riders’ Advisory Council, Accessibility Advisory Council, the Technical Committee, and the project’s Community Connections Committee;
- Targeted youth engagement: hearing from our region’s youth through focus group sessions at high schools;
- Briefings with elected officials; and
- Partnering with Community-Based Organizations and advocates to host briefings, workshops, and pop-ups and distribute both print and digital project information packets.

Next Steps

Metro will launch engagement and outreach with current and potential customers, elected officials, and other audiences on the draft Visionary Network. The information and comments received in the spring 2023 will be used to refine the Visionary Network and develop a network that Metro can implement in the near-term.

FUNDING IMPACT:

No impact at this time.

TIMELINE:

Previous Actions	<p>September-November 2022 – Public and stakeholder engagement activities</p> <p>September 2022 – Better Bus Network Redesign update to Board</p> <p>January 2023 – Better Bus Network Redesign update to Board</p>
Anticipated actions after presentation	<p>April-May 2023 – Phase 2 public and stakeholder engagement activities</p>

Better Bus Network Redesign

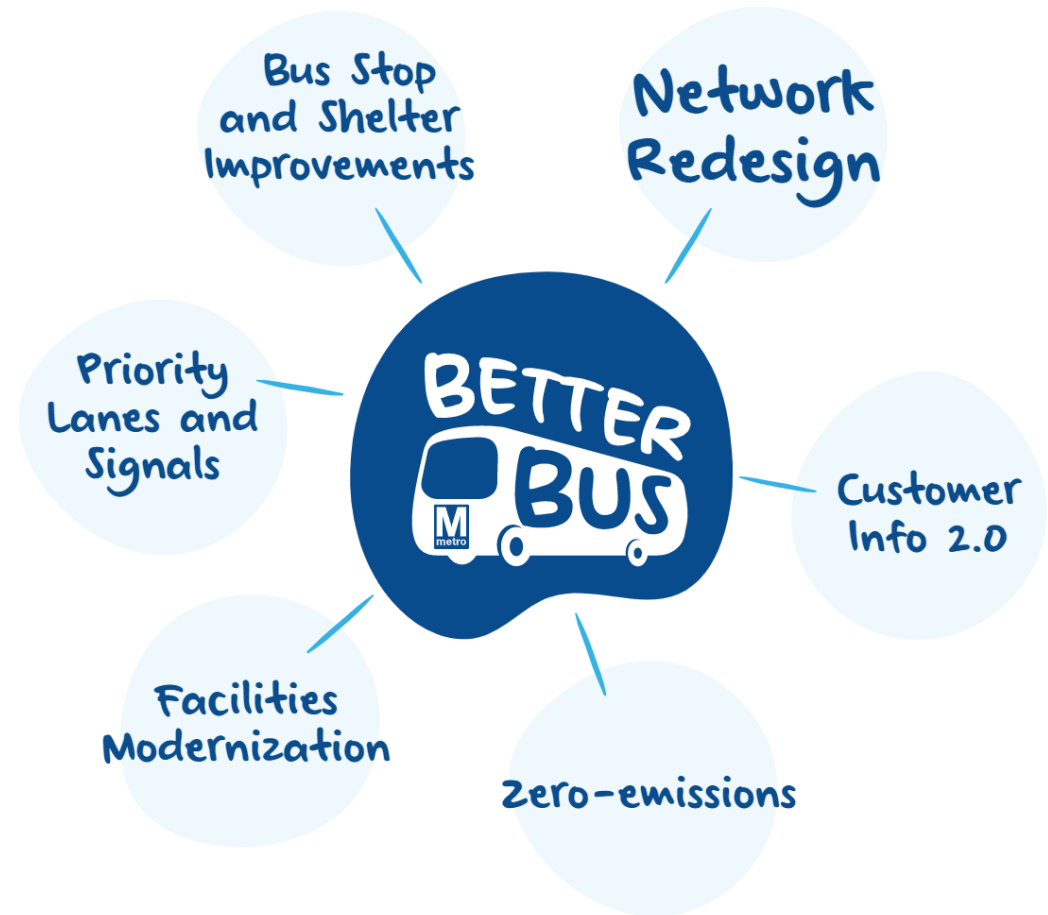
Safety and Operations Committee

April 14, 2023



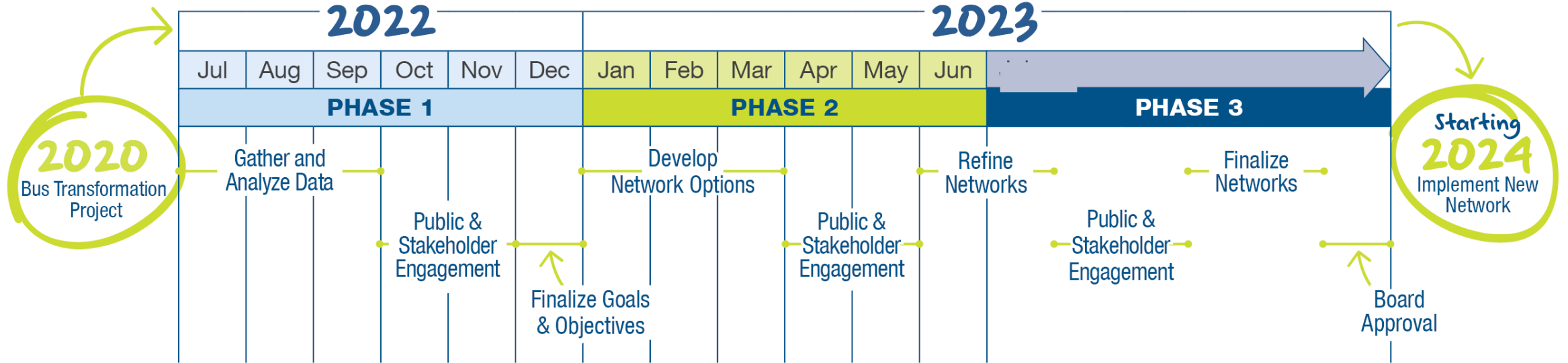
Purpose

- Provide update on Better Bus Network Redesign
- Provide highlights from the draft Visionary Network and upcoming public and other audience outreach efforts





Better Bus Network Redesign Roadmap



We are here

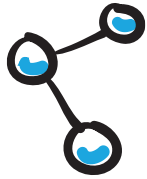
Public Comment Period for the draft Visionary Network: **April 17 – June 5**



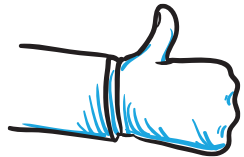


Highlights from Draft Visionary Network

The Draft Visionary Network Could Deliver...



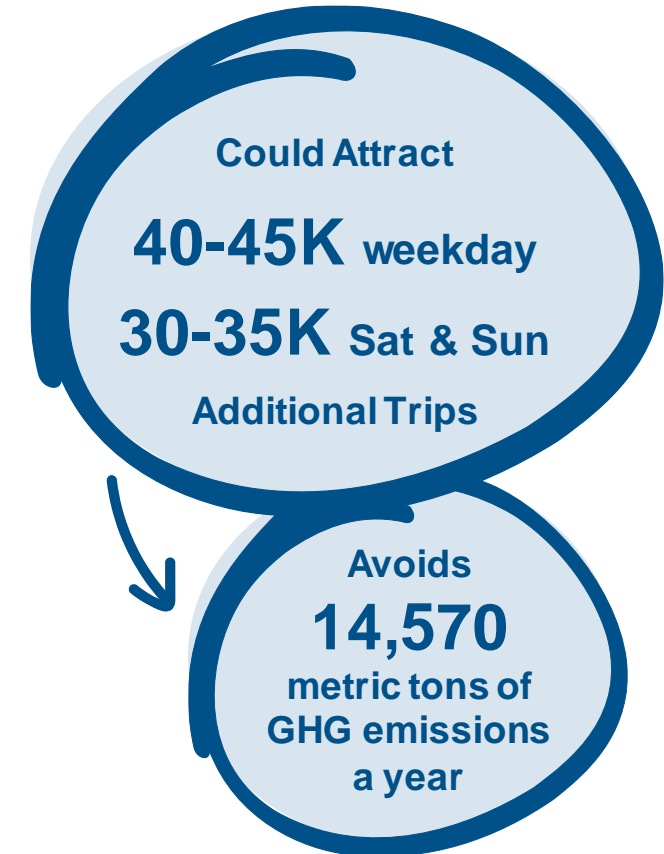
Regional Connectivity – Matches when and where people want to travel



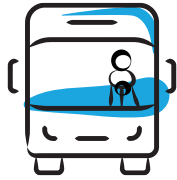
Quality Customer and Operator Experience – Provides fast, frequent, and reliable service



Equity – Addresses inequities and increases access to opportunity for disenfranchised communities



The Bus Network the Region Needs



Expanded Frequent
Service Network



More service all
day/all week

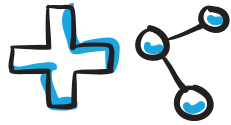
Draft Visionary Network Essentials

All non-commuter service should
operate seven days/week across the
region

All service should operate as
frequently as possible and not less
than every 30 minutes

Regional 24-hour network to benefit the
nation's capital

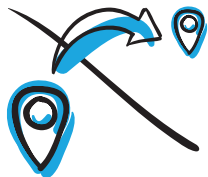
The Bus Network the Region Needs



Increased crosstown and cross-county connections



Connect key destinations, including transit hubs, with direct, frequent routes



Extending service beyond jurisdictional borders

Examples of Potential New Connections

Connect existing and future rail lines



New route between New Carrollton, Addison, Suitland stations, extending the reach of the Purple Line

Connect to transit hubs



Extend Farragut – Georgetown – Arlington service to Seven Corners Transit Center (current 38B)

Connect to hospitals, schools and employment



New Inova Alexandria Hospital hub
More connections to National Harbor

Connect adjacent neighborhoods and across borders



Fort Lincoln ↔ Deanwood
Chevy Chase DC ↔ Chevy Chase MD

The Draft Visionary Network... *Connects the Region*

By providing more access to high frequency service to more people at more times of day



73% more on Saturdays
64% more on Sundays



**60% more during the
weekday midday**



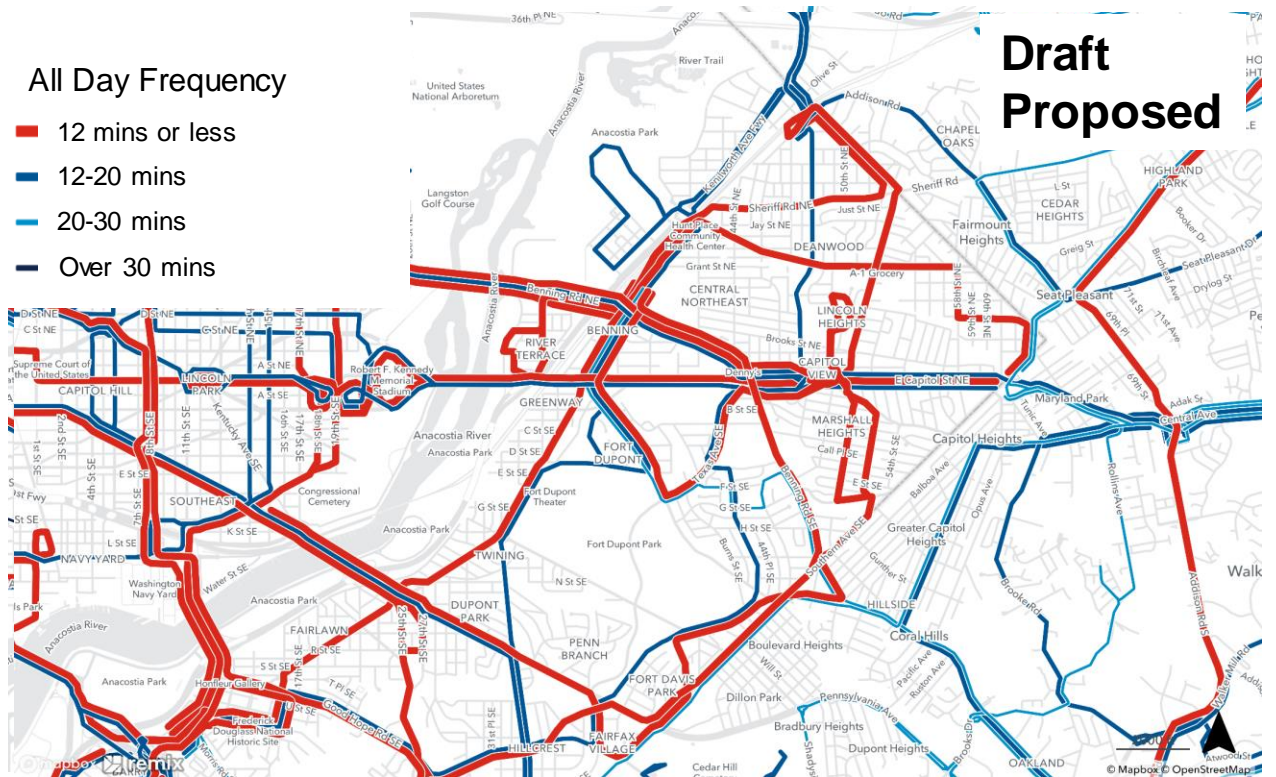
**85% more routes with
12 min or better service**



**300% more routes with
12-20 min service**



Example: DC and Prince George's County



The Draft Visionary Network... *Connects the Region*

By providing service to people where and when they need it



123k and 208k more residents on Saturdays and Sundays will have bus service



1.1M residents across the region will have 24-hour bus service and 307k more will have late-night bus service (10pm to 2am)



Improvements are **greater for residents of Equity Focus Communities**

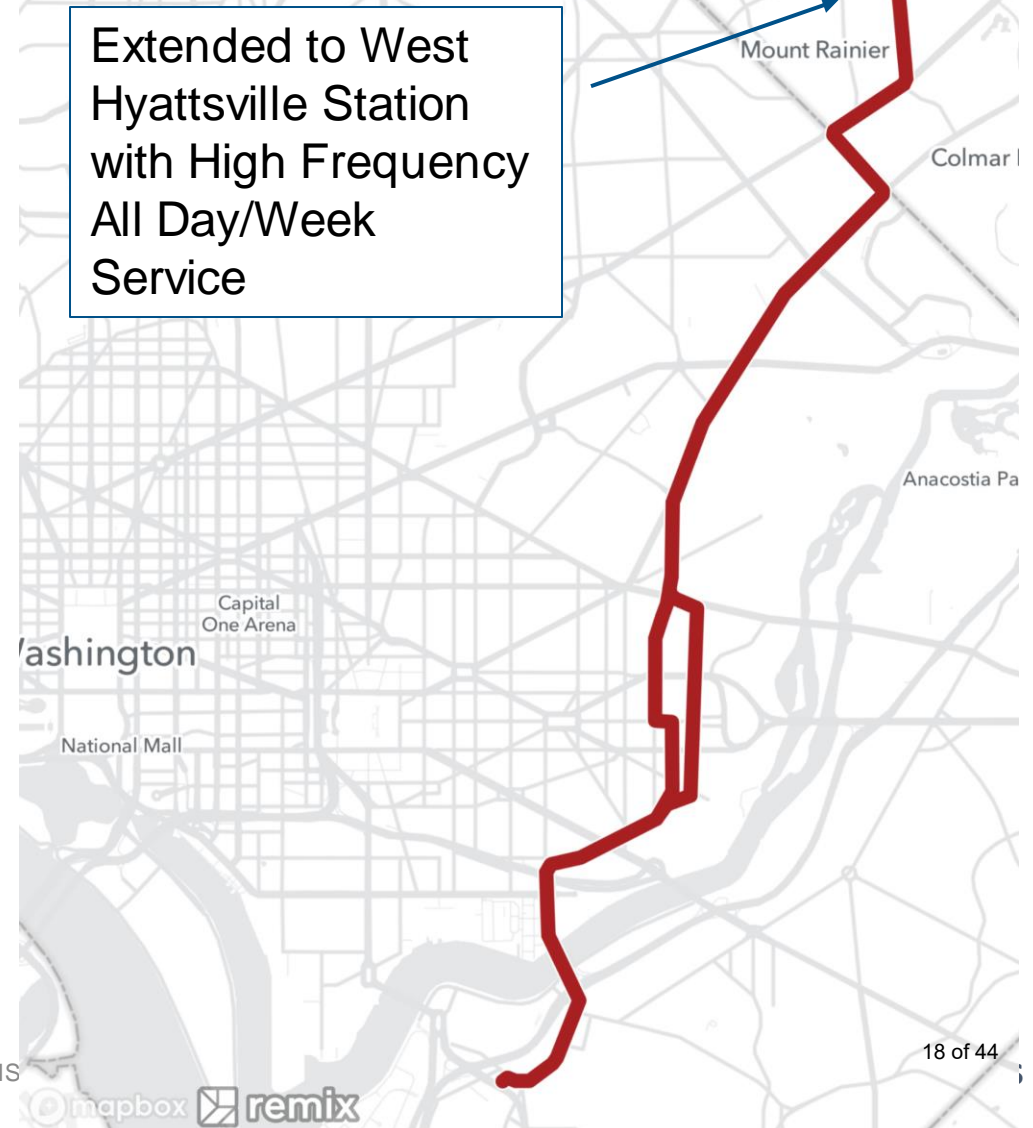


99% of residents who currently have bus service will continue to have bus service under the Visionary Network

Note: EFCs represent the areas that have the highest concentrations of people of color, low-income households, and/or disabled residents in the region

Example: West Hyattsville - Anacostia
(Current Metrobus B2)

Draft Proposed



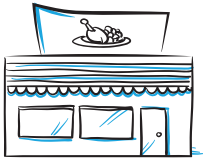
The Draft Visionary Network...

Connects the Region

By providing access to more key destinations and jobs



Residents will be able to **access an additional 13k jobs** within 60 minutes on transit



Residents will have **better access to grocery stores** – especially on the weekends and at midday



Residents of EFCs in DC will be able to **access 14 more K-12 schools** within 60 minutes on transit

Note: EFCs represent the areas that have the highest concentrations of people of color, low-income households, and/or disabled residents in the region

Example: Anacostia – Eastover
(Current Metrobus A6, A7, A8)



Proposed

- Proposed: DC121 Anacostia - Eastover via Wheeler Rd
- Proposed: DC122 Anacostia - National Harbor
- Proposed: DC226 Anacostia - Eastover via Mississippi Ave

Activity Centers
★ Grocery

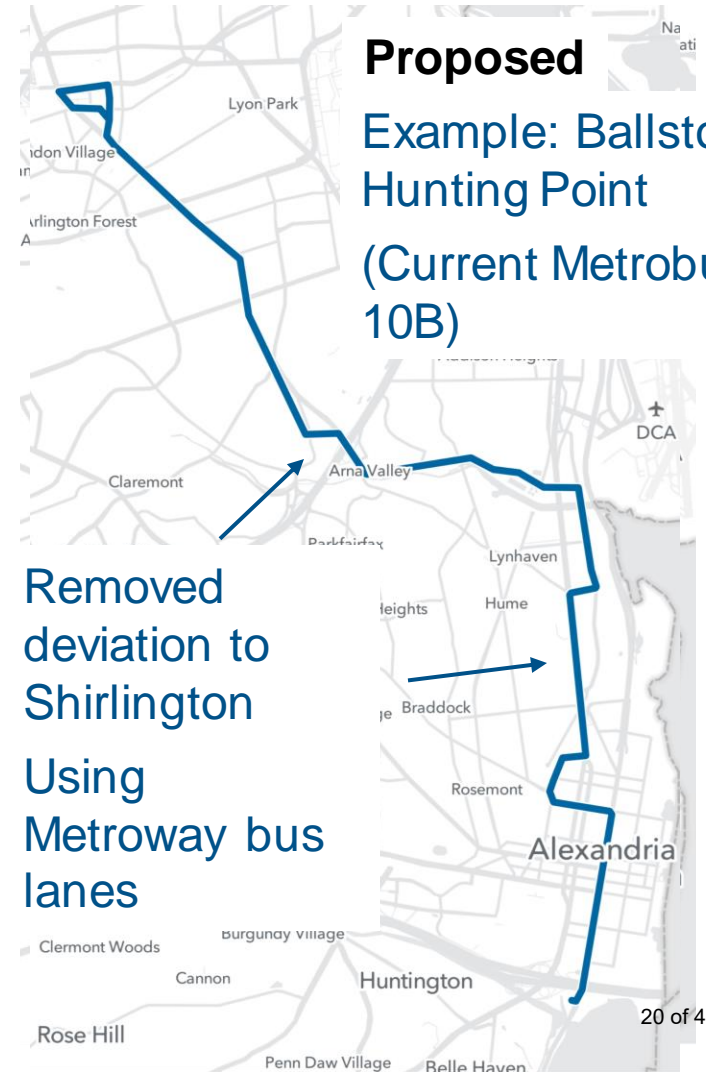


The Draft Visionary Network... *Improves the Customer Experience*

By providing convenient transit options for more of the trips people make

- **Faster average trips** for current bus customers
- 10% more transit trips that could take 30 mins or less
- 20% more trips in the region could be made conveniently by transit

Improvements will save bus customers almost
20,000
hours every weekday!



Proposed
Example: Ballston –
Hunting Point
(Current Metrobus
10B)

Removed deviation to Shirlington
Using Metroway bus lanes

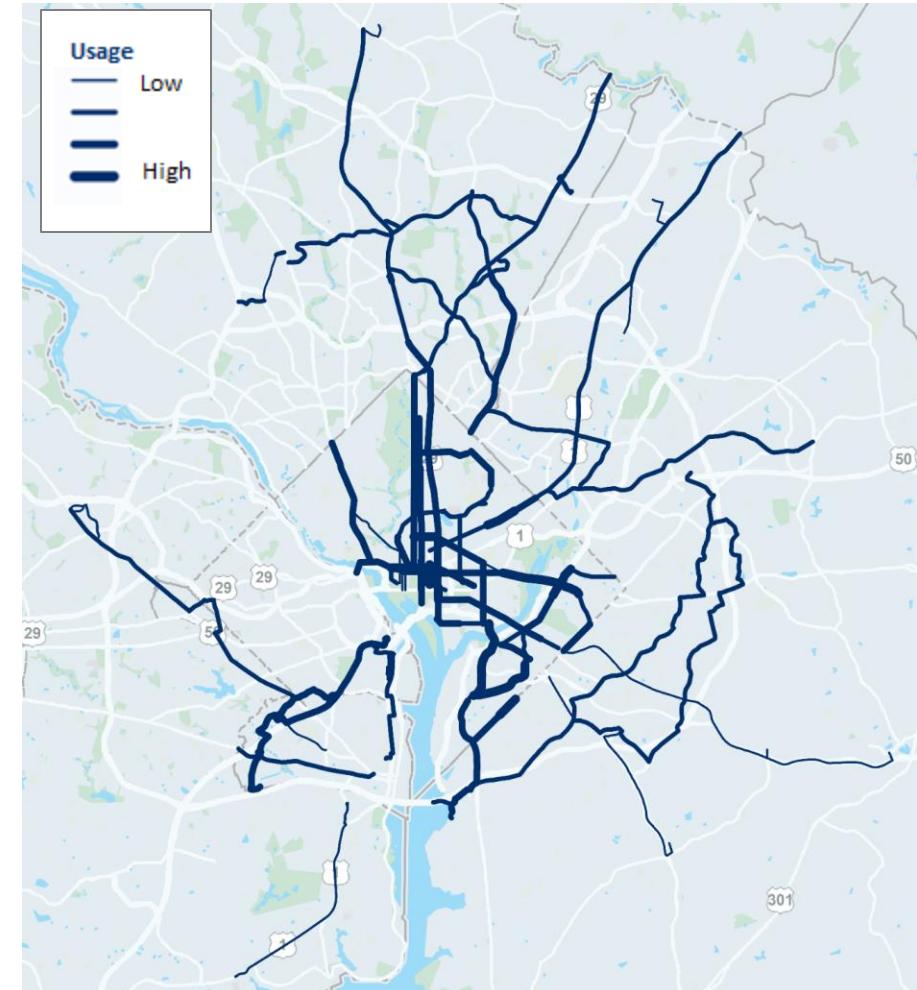
Note: Convenient Transit Trips are defined as those that take less than 3 times as long as the same trip would take in a car. These types of trips have been shown to have a higher level of transit usage than other trips.

The Draft Visionary Network....

Improves the Customer Experience

By providing more bus service in dedicated/prioritized facilities

- More bus service operates on streets with bus priority, **making service faster and more reliable to ride and operate**
 - 84% more on Sundays
 - 64% more on Saturdays, and
 - 39% more midday
- **Maximizes jurisdictional partner investments** in bus priority infrastructure



Draft Visionary Network Considerations



Data and public, bus operations, jurisdiction partner input formed the basis for the draft Visionary Network



Implementing the draft Visionary Network will require a **35 percent increase in funding for bus in the region**



Network does not specify which **operator will operate the service** nor have we yet specified stops or stopping patterns



Temporary bus route numbers to accommodate new routes and changes to existing routes



Engagement Approach

How Will We Be Engaging the Public?



We're reaching a wide variety of customers in a wide variety of ways at a wide variety of events!
Customers will find the Better Bus blue-shirt teams...



Those who can't make it to our events can visit wmata.com/betterbus to explore the new network and provide feedback virtually...



Better Bus Experience LIVE!



Community Workshops

- Hosting across the region
- Multiple activity stations, games, prizes, kids' station
- Launch party at THEARC in SE D.C. Friday, April 21: 3-7 p.m.



...listening at community workshops

...chatting at pop-ups



Roadshow Pop-ups

- Take the workshop experience on the road to meet customers where they are

Lunch-n-Learns

- Learning opportunity for those who can't attend an event



...informing virtually at webinars in each jurisdiction

Bus Ride-Alongs

- Connecting with riders with information customized to their route

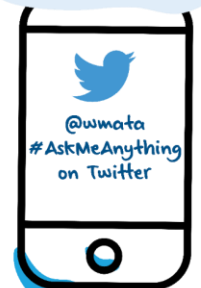


...surveying on buses

#AskMeAnything on Twitter

- Opportunity to address key questions in a dynamic digital setting #betterbus

...interacting on social media



Better Bus Experience LIVE! Where We Will Be



- Metro stations
- Transit Hubs
- Community Centers
- Grocery Stores
- Farmers Markets
- Food distributions
- Festivals



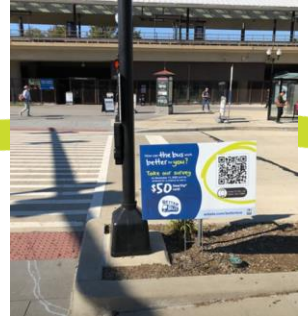
As of April 6, 2023 – please refer to project website for the most up to date locations and schedule



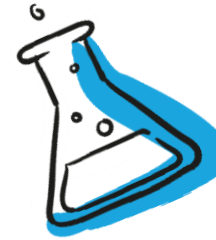
Better Bus Virtual Experience LAB



Experience the Visionary Network Online!



New Trip Planner
Compare your trip on the current network to the Visionary Network



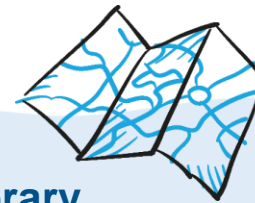
Survey
Tell us what you think of the Visionary Network and what it means to you



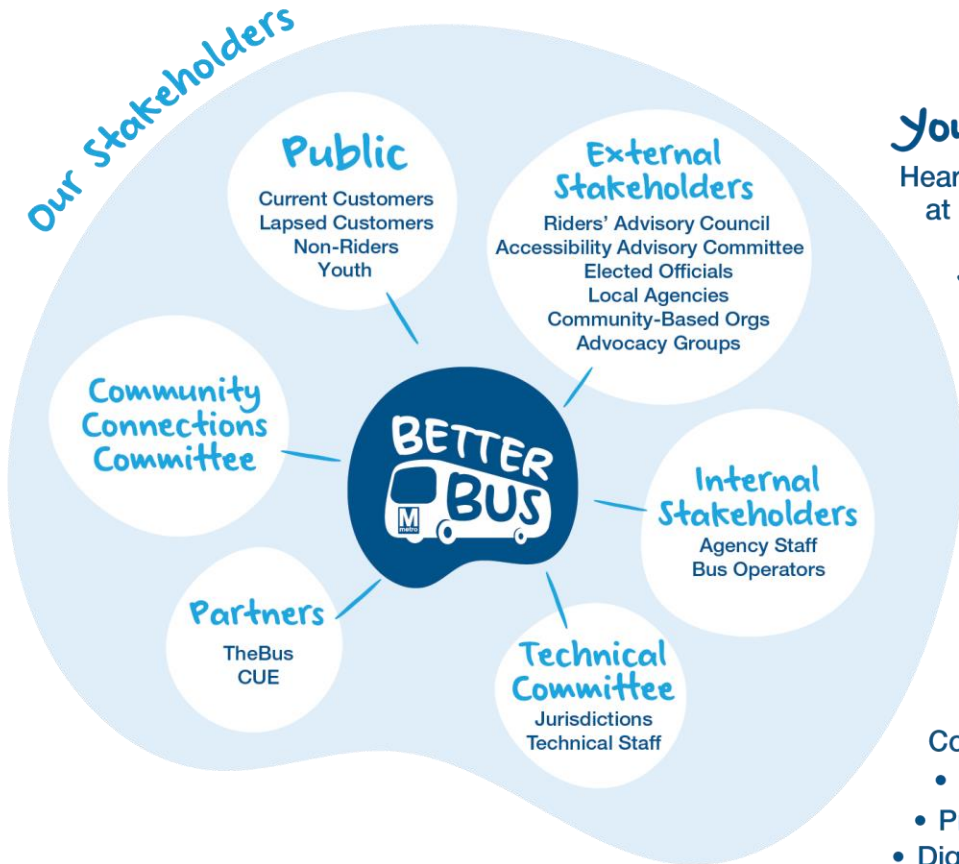
Comment on Your Route
Leave route-by-route feedback on an interactive map



Map Library
Explore an atlas of maps of the Visionary Network, including route profiles



How Will We Be Engaging Other Audiences?



Youth

Hearing from our region's youth through focus group sessions at high schools

Jurisdictions and Agencies

Working with our partners through:

- Committee meetings
- Working sessions



Elected Officials

Developing project advocates through informative briefings

Community-Based Organizations and Advocates

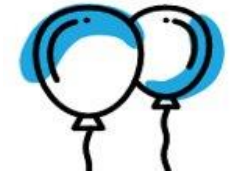
Collaborating with our communities through:

- Briefings, workshops and pop-ups with partner organizations
- Print collateral packets for organic distribution
- Digital communications toolkit

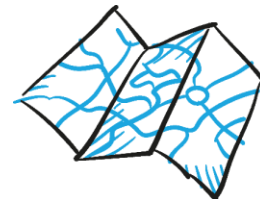


Jurisdictional Coordination Workshops

Bus Operations Preview Parties



- 11 preview party events at all Metrobus divisions, TheBus, and CUE prior to public launch
- Engaging bus operations staff to provide a first look at the draft Visionary Network
- Large printed maps, feedback form for written comments, video testimonial opportunities



Preview Party: Southern Avenue Division

Next Steps

- Launch draft Visionary Network engagement with customers, future customers, elected officials, and other audiences
- Refine draft Visionary Network using information and comments received Spring 2023



January 2023

Want a Better Bus system? Metro wants to hear from you!
 Answer by November 11 for a chance to win a \$50 SmarTrip card!

What Nearly 200 Bus Operators Told Us

- Route schedules need updating, primarily to allow for longer layovers and reflect traffic congestion on busy corridors.
- Peak periods for travel demand may be shifting following the COVID-19 pandemic, and service and routes need to be updated to reflect more daytime travel and less rush hour travel.
- Bus routes serving schools may benefit from added service to meet the travel demand occurring at school release times.

Metro Forward Sponsored

Realice nuestra encuesta y ayúdenos a crear una red de **Better Bus.**

selfserve.decipherinc.com
 Crear una Better Bus [Learn more](#)



Appendix: Select Content from Previous Better Bus Network Redesign Presentations

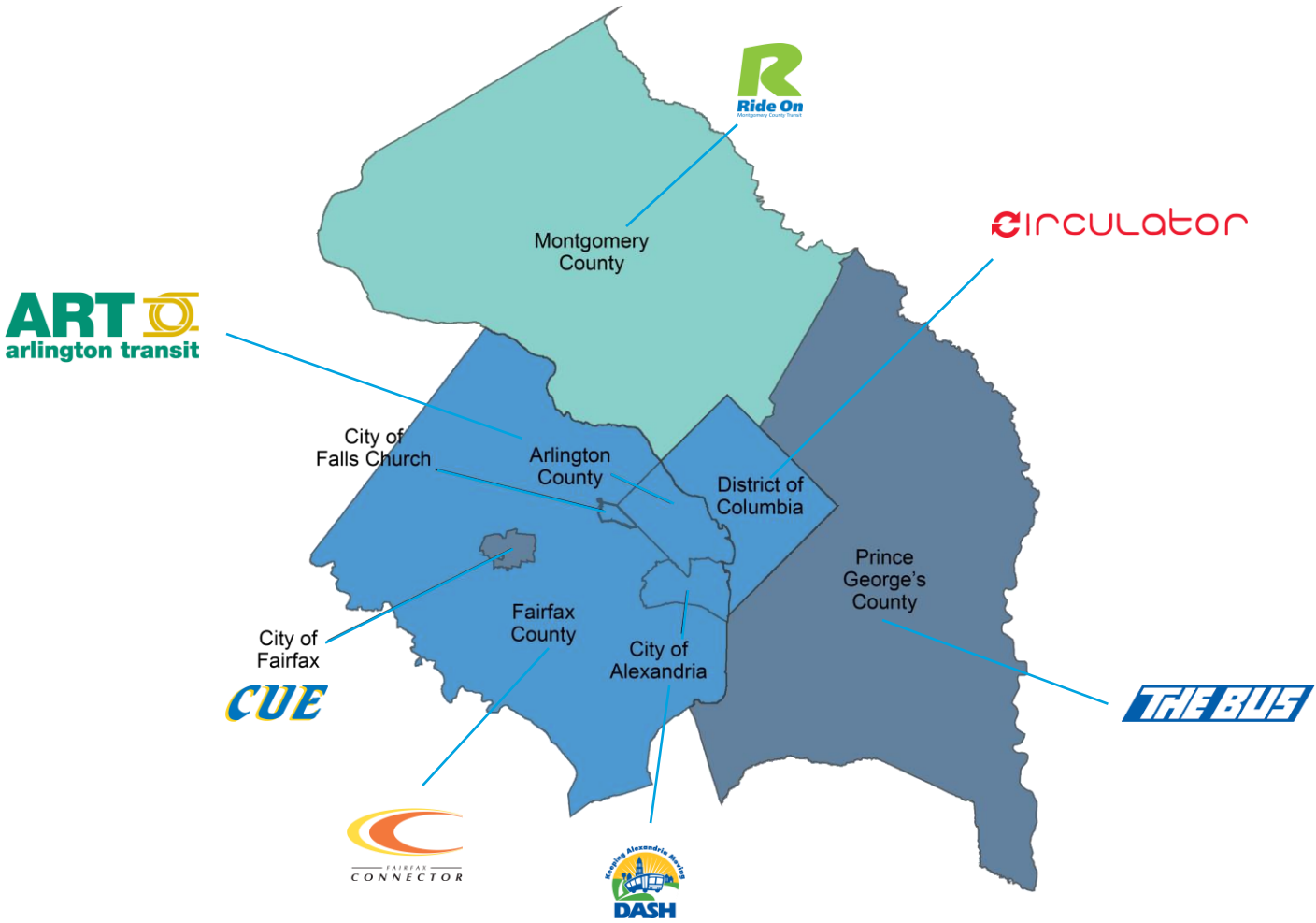


Guiding Principles (Adopted by Board September 2022)

Principles that will guide project approach and decisions

- Ensure a customer-focused and regional perspective
- Engage and communicate authentically, inclusively, and transparently
- Ensure equity is a value throughout the project
- Allow customers' input, region's needs, data, and service guidelines to drive decisions
- Attract customers with frequent, reliable, connective service
- Make cost-effective and data-driven business decisions

Partnering with Local Bus Providers



Metro will work collaboratively with each jurisdiction to design or enhance effectiveness of local bus service

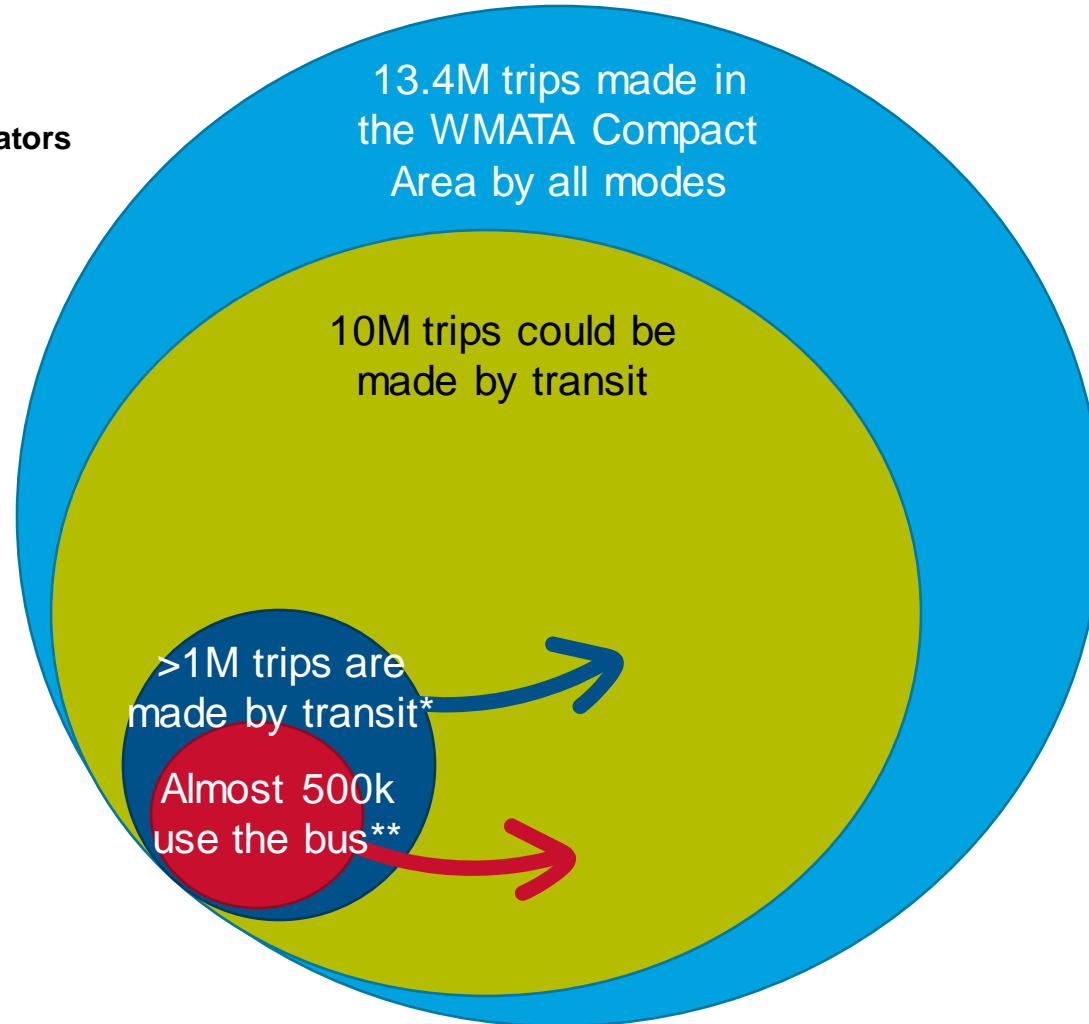
Legend

- Evaluate both Metrobus and Local Provider
- Evaluate Metrobus only
- Partner on Ride On Reimagined



Travel in the WMATA Bus Compact Area

*Transit = All bus + all rail operators
**Bus = All bus providers



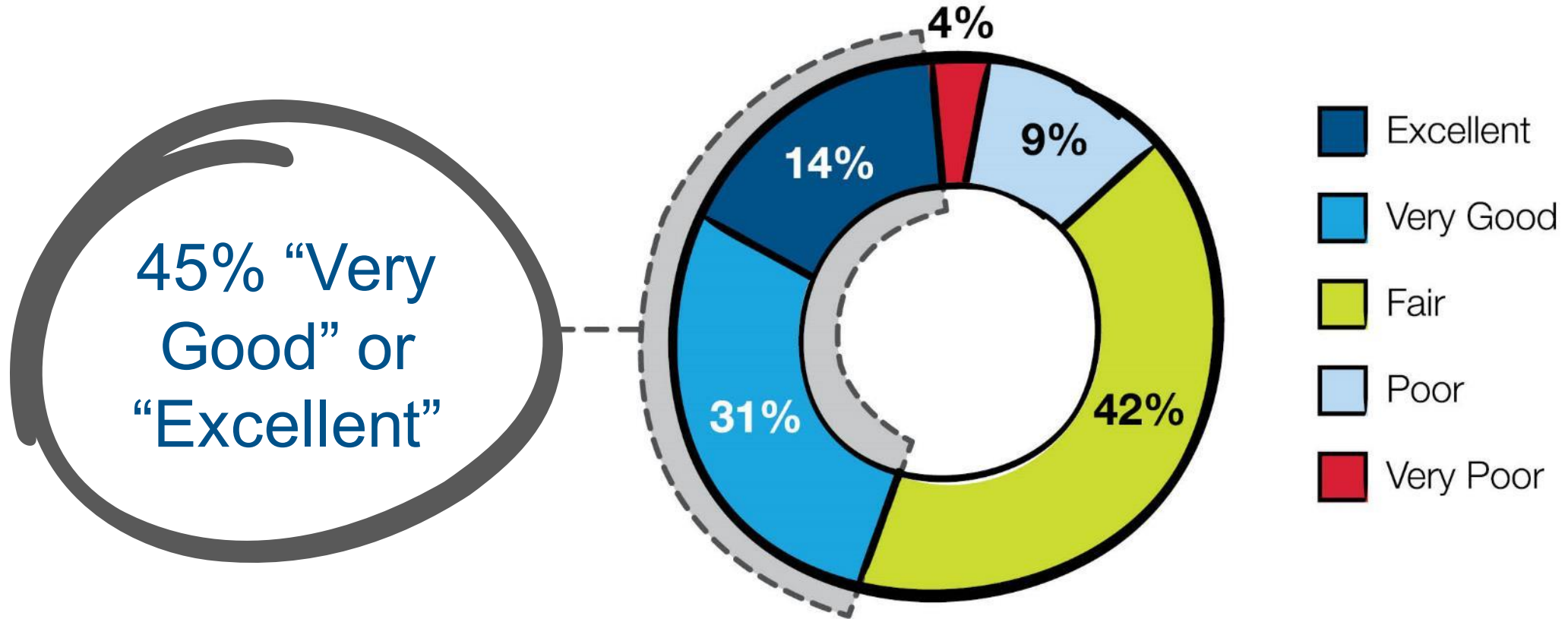
While 76% of weekday trips in the region could have used transit in 2019, only 8% of trips *actually did*

42% of survey respondents report regular use of multiple bus providers





What We Heard in the Fall of 2022: Regional Bus Service is Good, and it Could Be Better



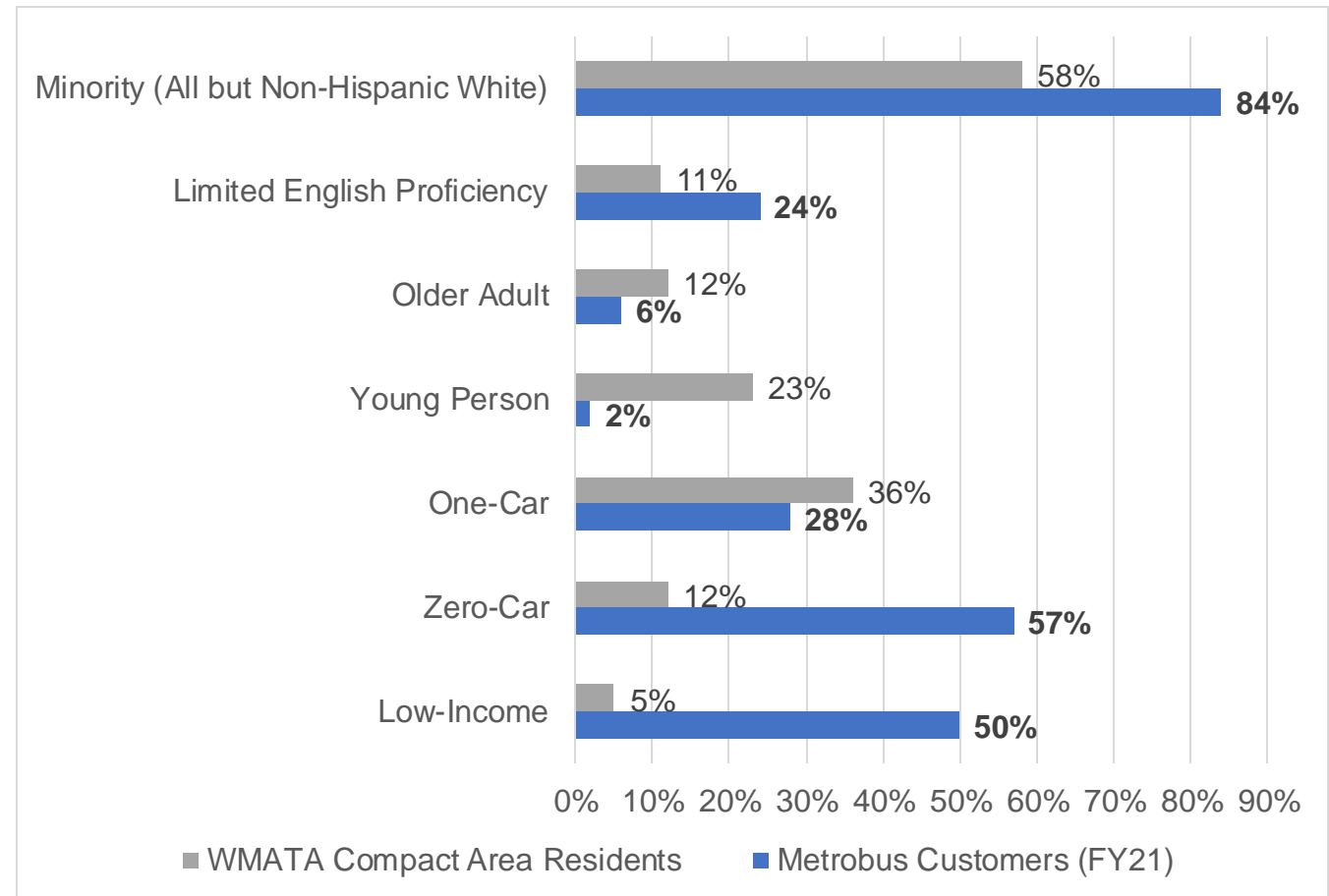
Source: 2022 Public Survey
Overall Rating of Regional Bus Service



Bus Customer Demographics

Bus customers in the region are more likely to:

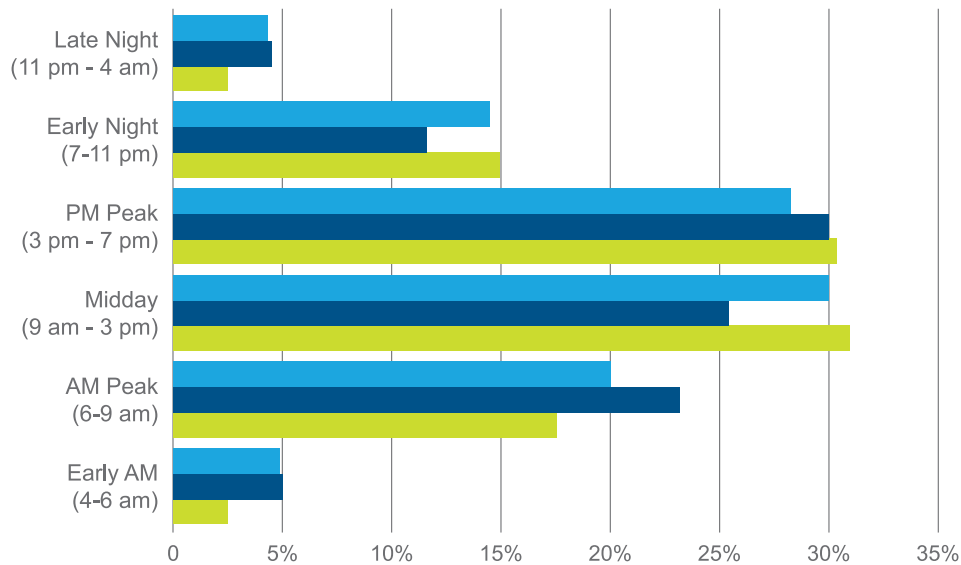
- Live in households that do not have a car;
- Live in households making less than \$30,000 annually;
- Have limited English proficiency; and
- Be persons of color



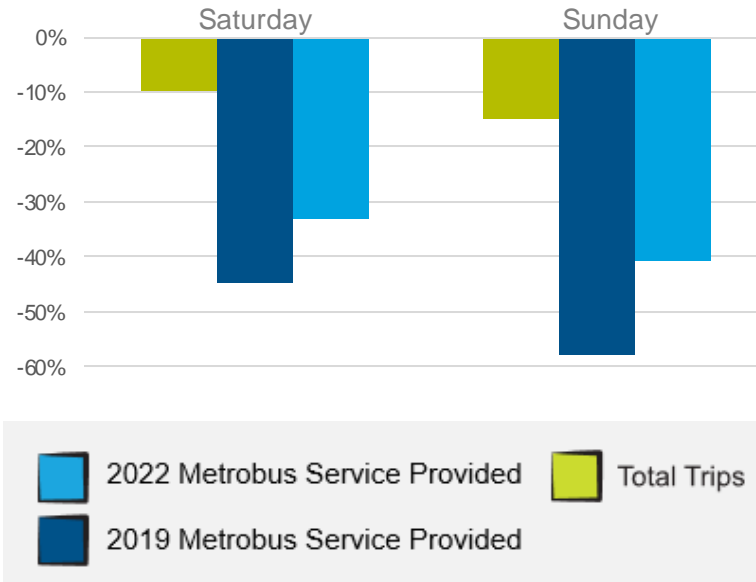
Designing for When People Travel

- 48% of trips in the region occur during the peak periods
- 46% of trips occurred during the midday and early night - more since the pandemic

Weekday Distribution of Trips and Metrobus Service



Weekend Trips and Metrobus Service as Compared to Weekdays



A great bus system operates quality service for trips that happen at any time

The redesigned network will:

Improve all-day service

Improve weekend service



Service changes since 2019 have better aligned service with demand across the day and the week, but more could be done



Designing to serve customer's complete daily travel

- Bus service has traditionally focused on serving M-F 9 to 5 commute trips, especially into DC
- But most weekday trips are for errands, shopping, social visits, entertainment, etc.
- 38% of commute trips occur outside of the traditional peak periods

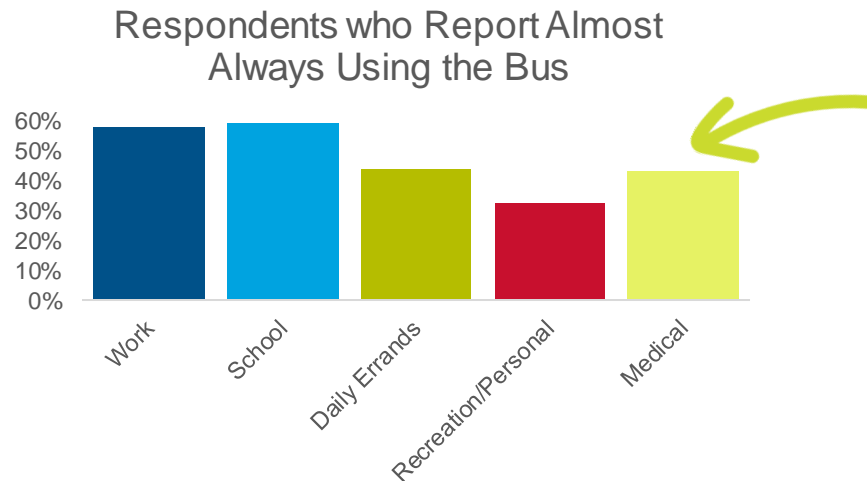
A great bus system serves a wide range of trip purposes

The redesigned network will:

Provide convenient connections to essential services, especially for Equity Focus Communities

Improve connections to diverse job centers across the region

Almost 60% report using the bus to get to work and school almost all the time



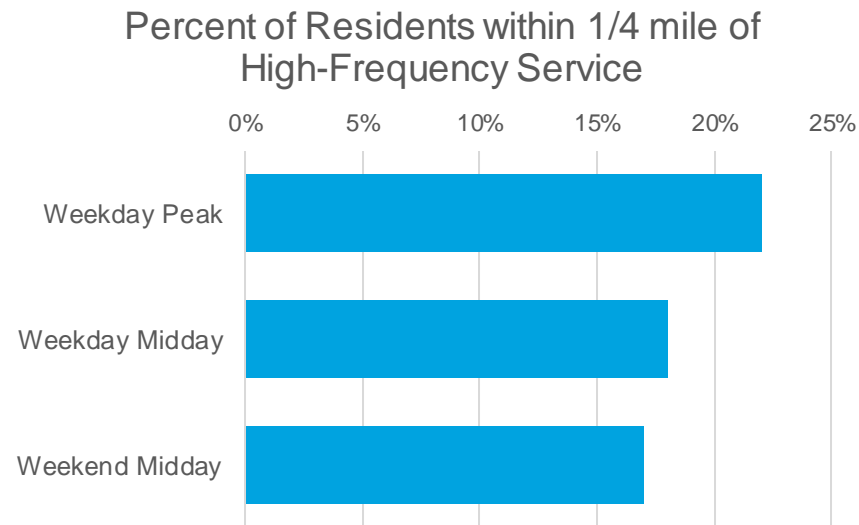
More than 40% report almost always using the bus for errands and medical needs





Designing for where people need bus service

- 74% of residents of the WMATA Compact Area live within 1/4 mile of a bus stop
 - 22% live near high-frequency service during the peak periods
 - 18% live near high-frequency service during the weekday midday
 - 17% live near high-frequency service during the weekend midday
- Metro's investment in the Frequent Service Network resulted in 2X better ridership recovery on those routes since the pandemic



A **great bus system** provides frequent service for as many people in the region as possible.

The redesigned network will:

Maintain coverage for communities that rely on transit

Expand access to high-frequency service all day and all week

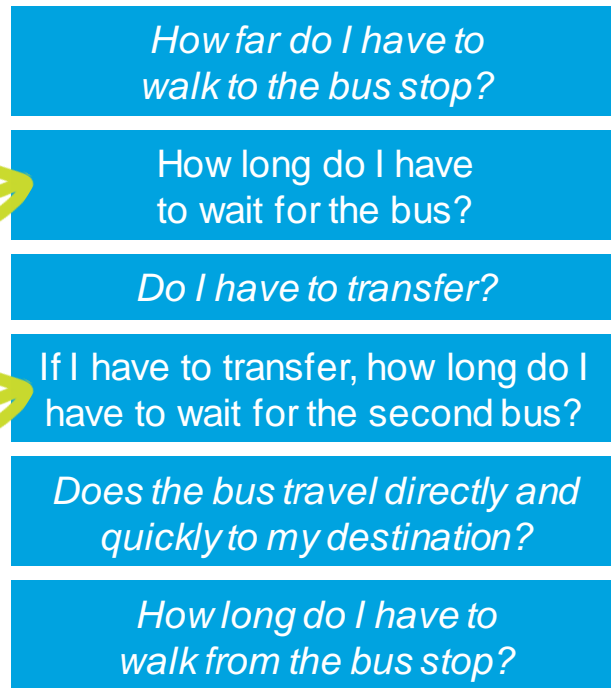




Designing for bus service that is convenient to use

- Customers make decisions about how to travel based on what is most convenient for them

Among the highest priority improvements desired by current and potential customers



- For short trips, customers consider options with short wait times and no transfers to be convenient
- For long trips, customers consider direct, fast bus routes with well-timed transfers to be convenient
 - Limited stop service benefits customers making long trips
 - Branching service also tends to benefit customers making long trips

A great bus system provides convenient travel times for the trips customers want to make.

The redesigned network will:

- Increase high-frequency service where customers are making shorter trips
- Rethink use of limited-stop and branching service to identify where they can provide the most benefit
- Improve transfers across the system
- Provide direct service where demand supports





Designing Service that is reliable to ride and operate

- Metrobuses were on-time 78% of the time in 2022
 - Reliable service was a priority improvement requested by both existing and potential customers
- Reliability improved by up to 18% on three corridors where bus lanes were added in 2020
- Bus operators report difficulty in maintaining schedules and taking relief breaks

A great bus system is reliable for customers and operators

The redesigned network will:

Use dedicated bus lanes and transit priority across the region

Shorten bus routes where appropriate to make routes easier to operate on schedule



Designing to Build Equity

- Approximately 25% of all trips in the region are made by residents of Equity Focus Communities (EFCs) – but they make more than 50% of Metrobus trips
 - Tend to make more trips early in the morning, evening and late at night
 - 35% more likely to commute on the weekends
 - More likely to live with ¼ mile of a bus stop
 - More likely to live near high-frequency bus service
 - Have access to fewer jobs within 45 mins on transit
 - Have access to fewer colleges/universities and grocery stores within 30 mins on transit

A great bus system provides great service to communities that need it the most

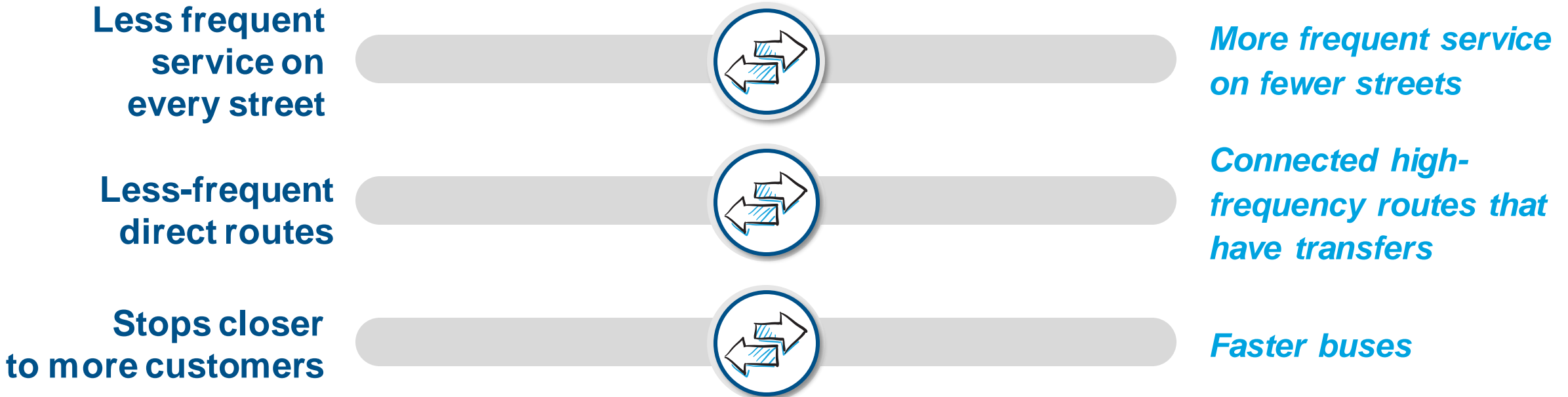
The redesigned network will:

Continue to focus resources in EFCs and for other groups that rely heavily on bus

Continue to improve access to opportunity in communities that need it the most

Even Great Bus Systems Must Make Tradeoffs

Designing a Bus Network requires tradeoffs in how resources are applied. Decisions will be needed about the extent to which network should provide for:



A Great Bus System Also Includes



Legible, intuitive, coordinated, and accessible information to plan, pay, and ride, regardless of the operator



Clean, comfortable, secure vehicles that are environmentally sustainable



Transit hubs with **seamless connections** to transit, bikeshare, and carshare, providing safe, secure, easy to use transfers



Exceptional customer experience from start to finish



Transit priority and enforced, dedicated lanes to enable reliable service



Bus stops with shelters, seating, lighting, and accurate real-time information, connected with sidewalks and safe pedestrian crossings



Consistent work schedules and attractive facilities that improve quality of life for front-line staff