



MATA Board of Commissioners Orientation – Planning Scheduling and Capital Projects

John Lancaster, AICP
Chief Development Officer
November 18, 2024

GO901
MOBILE

MATA
MEMPHIS AREA TRANSIT AUTHORITY

Agenda

- Introduction
- Responsibilities of Planning & Scheduling
- Title VI Program Responsibilities
- Overview of Capital Projects

John Lancaster, AICP

- 35 years experience in planning and construction
- Over 25 years at MATA
- Bound by American Institute of Certified Planners Code of Ethics
- Obligation to serve the public interest, do so with integrity, ensure equity, and safeguard the public trust



- **New Mission, Vision, & Goals (August 2011)**
- **New Standards and Performance Measures (December 2012)**
- **Short Range Transit Plan (March of 2014)**
- **Bus Stop Guidelines (April 2017)**
- **Guiding Principles for Route Design**
- **Hierarchy of Routes**



MEMPHIS 3.0

guiding memphis into our 3rd century



REQUEST FOR INTEREST

Innovate Memphis
516 Tennessee Street, Suite 223
Memphis, TN 38103

DEVELOPMENT OF A TRANSIT VISION FOR THE MEMPHIS 3.0 COMPREHENSIVE PLAN

Issued: May 20, 2017
Due: June 2, 2017 no later than 2:00 P.M. (Central Time)

Introduction

Innovate Memphis seeks to retain the services of a consultant team to provide professional services for the development of a Transit Vision as part of the City's Memphis 3.0 Comprehensive Plan. The Transit Vision will provide a 20-year look ahead to the type of transit system that will be required to meet the City of Memphis and region's transit needs through 2040. The Transit Vision will address transit expansion needs for the short-term and long-term from 2020 through 2040. The Transit Vision will address many critical issues to Memphis:

- Review of the city's most important transit corridors that carry high ridership today, as well as potential new ridership markets that may emerge as growth in jobs and residents occurs
- Selection of transit modes such as bus rapid transit, light rail, or street car that would work best in those corridors
- Integration of transit capital facilities and services with walking and biking infrastructure, and using transit to make great places
- Enhancement of bus transit performance through roadway recommendations such as bus bulbs and traffic signal priority
- Coordination with other agencies and private providers to create a seamless, fully integrated, and user friendly network of mobility services.



MEMPHIS 3.0

guiding memphis into our 3rd century



- A Plan for Memphis as it enters it's 3rd Century
- Two-Year Comprehensive Plan Process
- Develops a Shared Vision & Master Plan for the City
- Connects Land Use with Transportation
- Will Produce Goals & Objectives, policies and strategies – A “to-do” list for the City



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- **New Route Design**
- **Short Term Improvements for next 5-Years**
- **20-Year Future Plan**
- **Program of Projects**
- **Future Funding**
- **Leverage Improve Act Funding**

Transit Vision

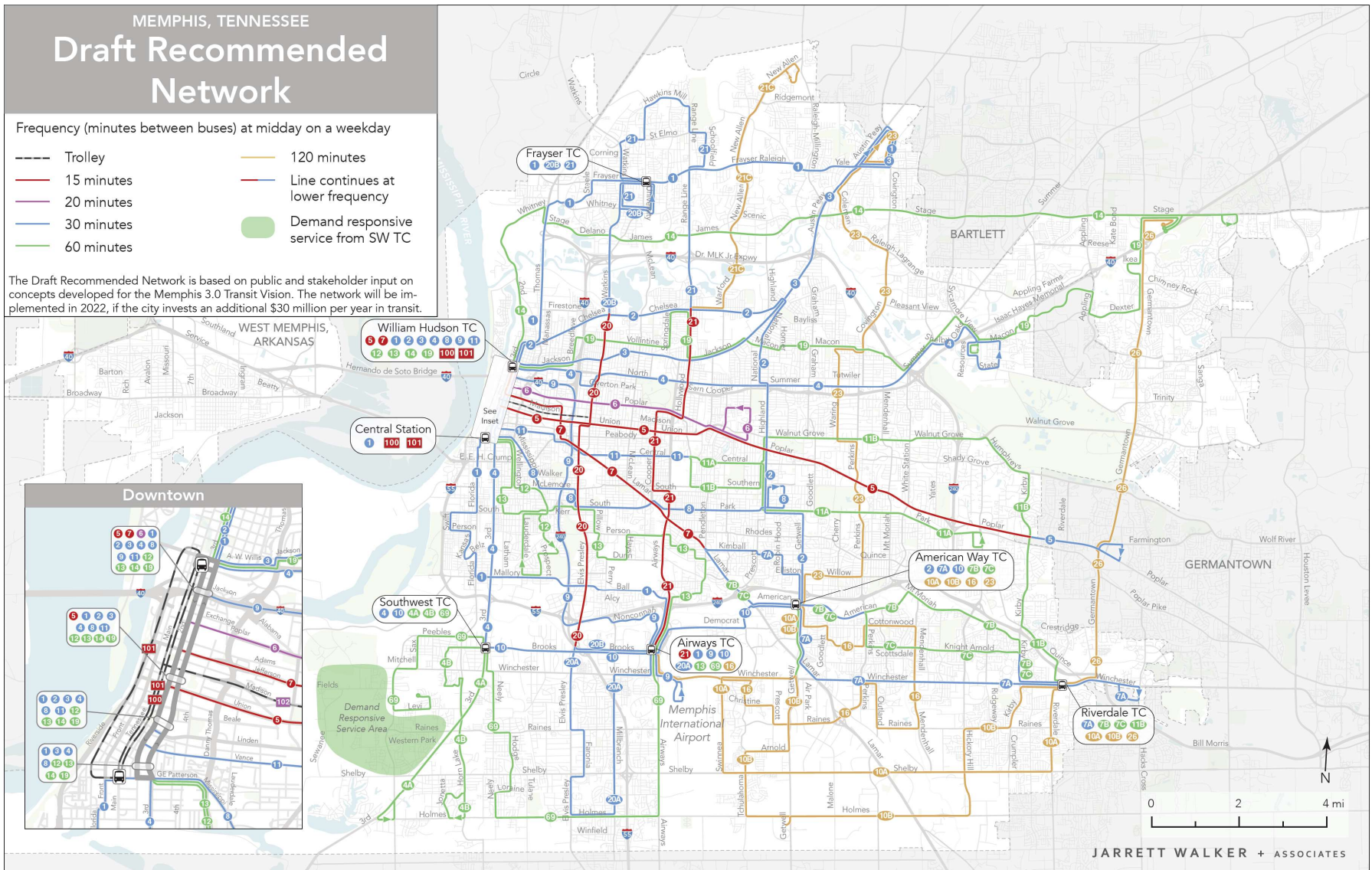
- An increase in frequency – More buses arriving more often
- 39% more jobs reachable in an hour by transit for the average Memphian
- 45% more jobs reachable in an hour for minority residents and 49% for low-income residents
- 79,000 more people and 103,000 more jobs near frequent service (every 15 minutes)
- More weekend and evening service

MEMPHIS, TENNESSEE Draft Recommended Network

Frequency (minutes between buses) at midday on a weekday

- Trolley
- 15 minutes
- 20 minutes
- 30 minutes
- 60 minutes
- 120 minutes
- Line continues at lower frequency
- Demand responsive service from SW TC

The Draft Recommended Network is based on public and stakeholder input on concepts developed for the Memphis 3.0 Transit Vision. The network will be implemented in 2022, if the city invests an additional \$30 million per year in transit.



City Strategy for Pilot Funding

- Repurpose Pre-K dedicated revenue streams
 - \$0.01 back to general fund
 - Expiring PILOT revenue to Transit Fund
- Requires City Council Action to Create Transit and Mobility Special Fund
- Resolution to allocate Funding to the Fund
- Modify Pre-K Ordinance to dedicate Fund 245 revenue stream
- Builds on existing GF contributions
- No Impact to Existing General Fund allocations

	EDGE and IDB Expiring PILOTs									
	Estimated Amount Available to CITY OF MEMPHIS									
	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032
	\$662,310	\$662,310	\$662,310	\$662,310	\$662,310	\$662,310	\$662,310	\$662,310	\$662,310	\$662,310
	\$726,643	\$726,643	\$726,643	\$726,643	\$726,643	\$726,643	\$726,643	\$726,643	\$726,643	\$726,643
	\$1,389,691	\$1,389,691	\$1,389,691	\$1,389,691	\$1,389,691	\$1,389,691	\$1,389,691	\$1,389,691	\$1,389,691	\$1,389,691
	\$442,281	\$442,281	\$442,281	\$442,281	\$442,281	\$442,281	\$442,281	\$442,281	\$442,281	\$442,281
	\$307,232	\$307,232	\$307,232	\$307,232	\$307,232	\$307,232	\$307,232	\$307,232	\$307,232	\$307,232
	\$587,355	\$587,355	\$587,355	\$587,355	\$587,355	\$587,355	\$587,355	\$587,355	\$587,355	\$587,355
		\$134,625	\$134,625	\$134,625	\$134,625	\$134,625	\$134,625	\$134,625	\$134,625	\$134,625
			\$557,563	\$557,563	\$557,563	\$557,563	\$557,563	\$557,563	\$557,563	\$557,563
				\$2,031,768	\$2,031,768	\$2,031,768	\$2,031,768	\$2,031,768	\$2,031,768	\$2,031,768
					\$1,197,910	\$1,197,910	\$1,197,910	\$1,197,910	\$1,197,910	\$1,197,910
						\$1,126,791	\$1,126,791	\$1,126,791	\$1,126,791	\$1,126,791
							\$2,105,666	\$2,105,666	\$2,105,666	\$2,105,666
								\$3,972,432	\$3,972,432	\$3,972,432
									\$661,132	\$661,132
										\$599,860
Expiring PILOT Proceeds	\$4,115,511	\$4,250,137	\$4,807,699	\$6,839,467	\$8,037,377	\$9,164,168	\$11,269,834	\$15,242,265	\$15,903,397	\$16,503,257
Total Dedicated Transit and Mobility Funding - City	\$4,115,511	\$4,250,137	\$4,807,699	\$6,839,467	\$8,037,377	\$9,164,168	\$11,269,834	\$15,242,265	\$15,903,397	\$16,503,257
Note:	Total amount available to Shelby County when EDGE and IDB lease agreements expire x 0.8 to account for overestimates, depreciating assets, unknowns. Excludes CCRFC PILOTs and expired PILOTs assigned to DMA PILOT extension Fund.									

County Strategy for Pilot Funding

- Requires County Commission Action to Create Transit and Mobility Special Fund
- Resolution to dedicate expiring PILOT revenue to Transit Fund
- No Impact to Existing General Fund allocations

EDGE and IDB Expiring PILOTs										
Estimated Amount Available to SHELBY COUNTY										
	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032
	\$488,619	\$488,619	\$488,619	\$488,619	\$488,619	\$488,619	\$488,619	\$488,619	\$488,619	\$488,619
		\$170,101	\$170,101	\$170,101	\$170,101	\$170,101	\$170,101	\$170,101	\$170,101	\$170,101
			\$1,123,607	\$1,123,607	\$1,123,607	\$1,123,607	\$1,123,607	\$1,123,607	\$1,123,607	\$1,123,607
				\$2,158,579	\$2,158,579	\$2,158,579	\$2,158,579	\$2,158,579	\$2,158,579	\$2,158,579
					\$1,527,173	\$1,527,173	\$1,527,173	\$1,527,173	\$1,527,173	\$1,527,173
						\$1,340,361	\$1,340,361	\$1,340,361	\$1,340,361	\$1,340,361
							\$3,833,281	\$3,833,281	\$3,833,281	\$3,833,281
								\$4,235,267	\$4,235,267	\$4,235,267
									\$732,462	\$732,462
										\$766,995
Expring PILOTs	\$488,619	\$658,720	\$1,782,327	\$3,940,906	\$5,468,079	\$6,808,439	\$10,641,721	\$14,876,987	\$15,609,450	\$16,376,445
Total Dedicated Transit and Mobility Funding - County	\$488,619	\$658,720	\$1,782,327	\$3,940,906	\$5,468,079	\$6,808,439	\$10,641,721	\$14,876,987	\$15,609,450	\$16,376,445
Note 1:	Total amount available to Shelby County when EDGE and IDB lease agreements expire x 0.8 to account for overestimates, depreciating assets, unknowns. Excludes CCRFC PILOTs and expired PILOTs assigned to DMA PILOT extension Fund.									

Combined Funding Strategy

				Combined Funding						
	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032
Total Dedicated Transit and Mobility Funding - City	\$4,115,511	\$4,250,137	\$4,807,699	\$6,839,467	\$8,037,377	\$9,164,168	\$11,269,834	\$15,242,265	\$15,903,397	\$16,503,257
Total Dedicated Transit and Mobility Funding County	\$488,619	\$658,720	\$1,782,327	\$3,940,906	\$5,468,079	\$6,808,439	\$10,641,721	\$14,876,987	\$15,609,450	\$16,376,445
Total dedicated funding City and County	\$4,606,153	\$4,910,881	\$6,592,052	\$10,782,399	\$13,507,483	\$15,974,636	\$21,913,583	\$30,121,283	\$31,514,878	\$32,881,733

April 2023

Proposed Transit Vision Implementation Plan

**PRESENTATION TO MATA BOARD
OF COMMISSIONERS**

Milbrey Heard, AICP – Nelson\Nygaard

John Lancaster, AICP - MATA



BACKGROUND

As part of the Memphis 3.0 Comprehensive Plan, the Transit Vision Network will improve and expand transit services as the city grows and develops



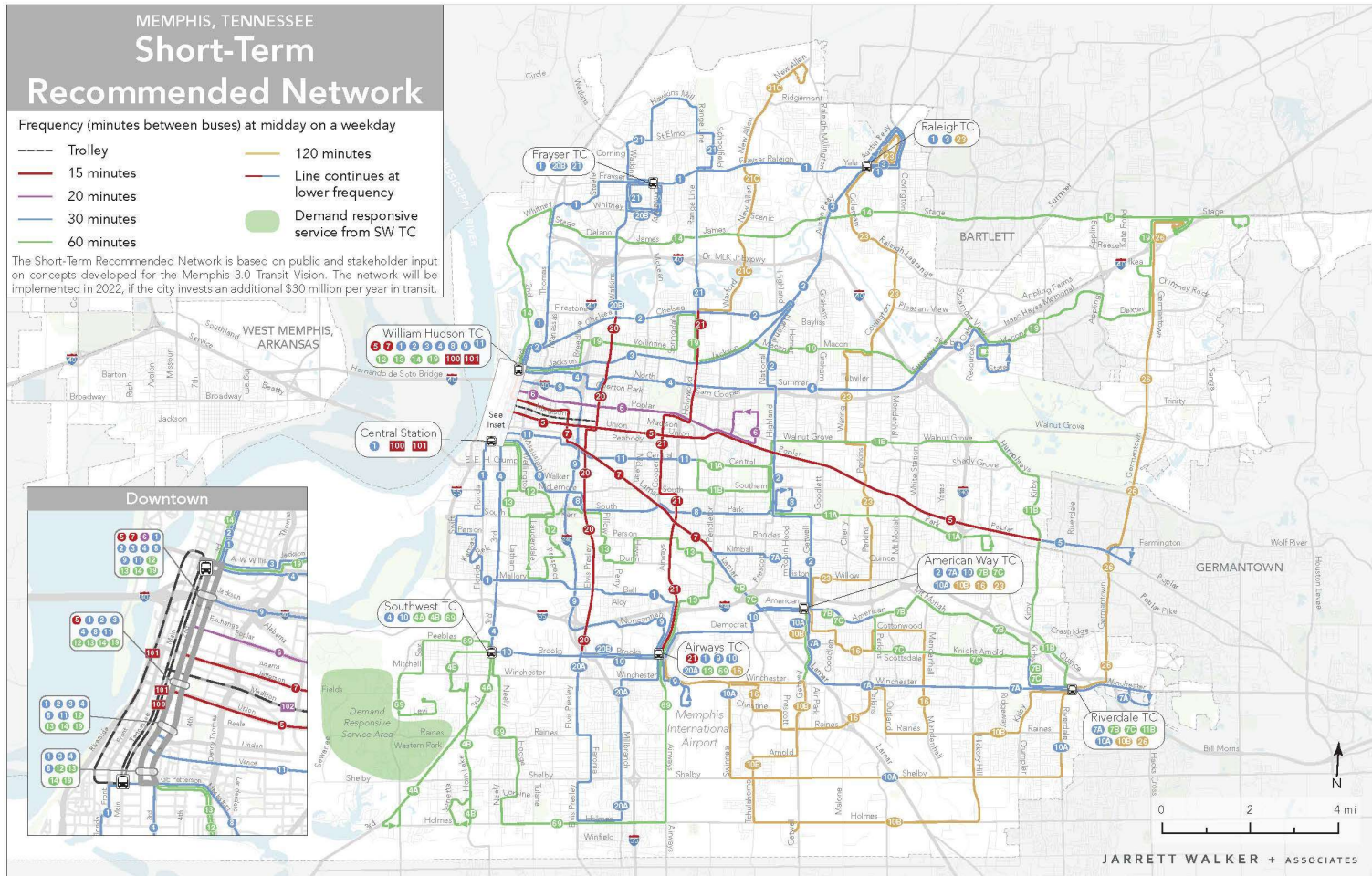
Memphis3.0

Comprehensive Plan



BACKGROUND

Recommended Network - Original



Recommended Network - Original

- Calls for increased investment
 - More frequency on more routes
 - More weekend and evening service
 - New and expanded bus routes
 - New services (on-demand) in some parts of the network
- **Requires major increased investment of \$30m annually (in FY 2020)**



New and redesigned bus routes that change how people connect across the city



39% more jobs reachable in an hour by transit for the average Memphian (17,000)

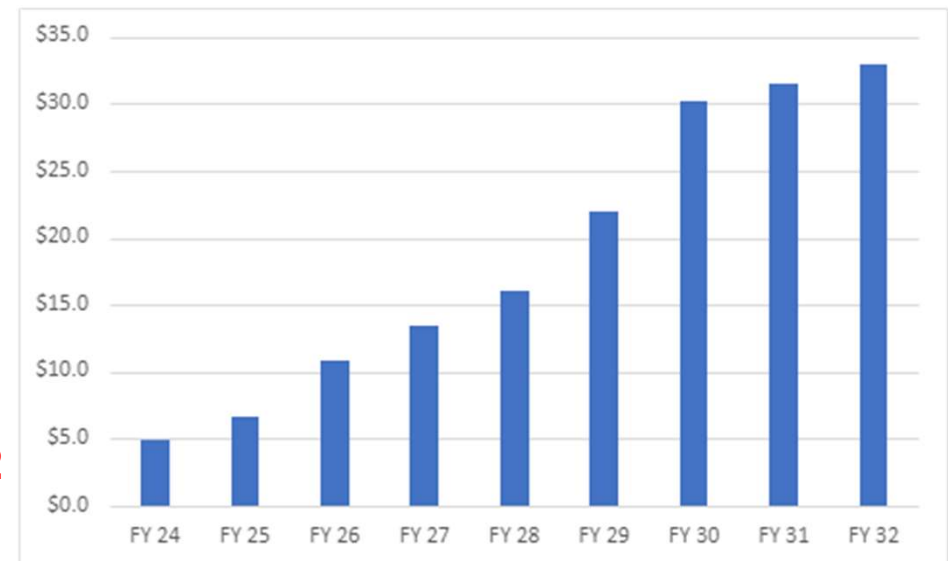


45% more jobs reachable in an hour for minority residents and 49% for low-income residents

Recommended Network - Original

- Implementation required major increase in funding of \$30M annually (in FY 20)
- The City of Memphis and Shelby County approved special revenue funding dedicated to the Transit Vision plan in June of 2022
 - Payments in lieu of taxes (PILOT)
 - Funding to start at \$4.9M and build up year over year
 - **Funding estimated to reach \$32.9M by FY 32**

Estimated City and County PILOT Funding Dedicated to Transit Vision by Year (in \$M)

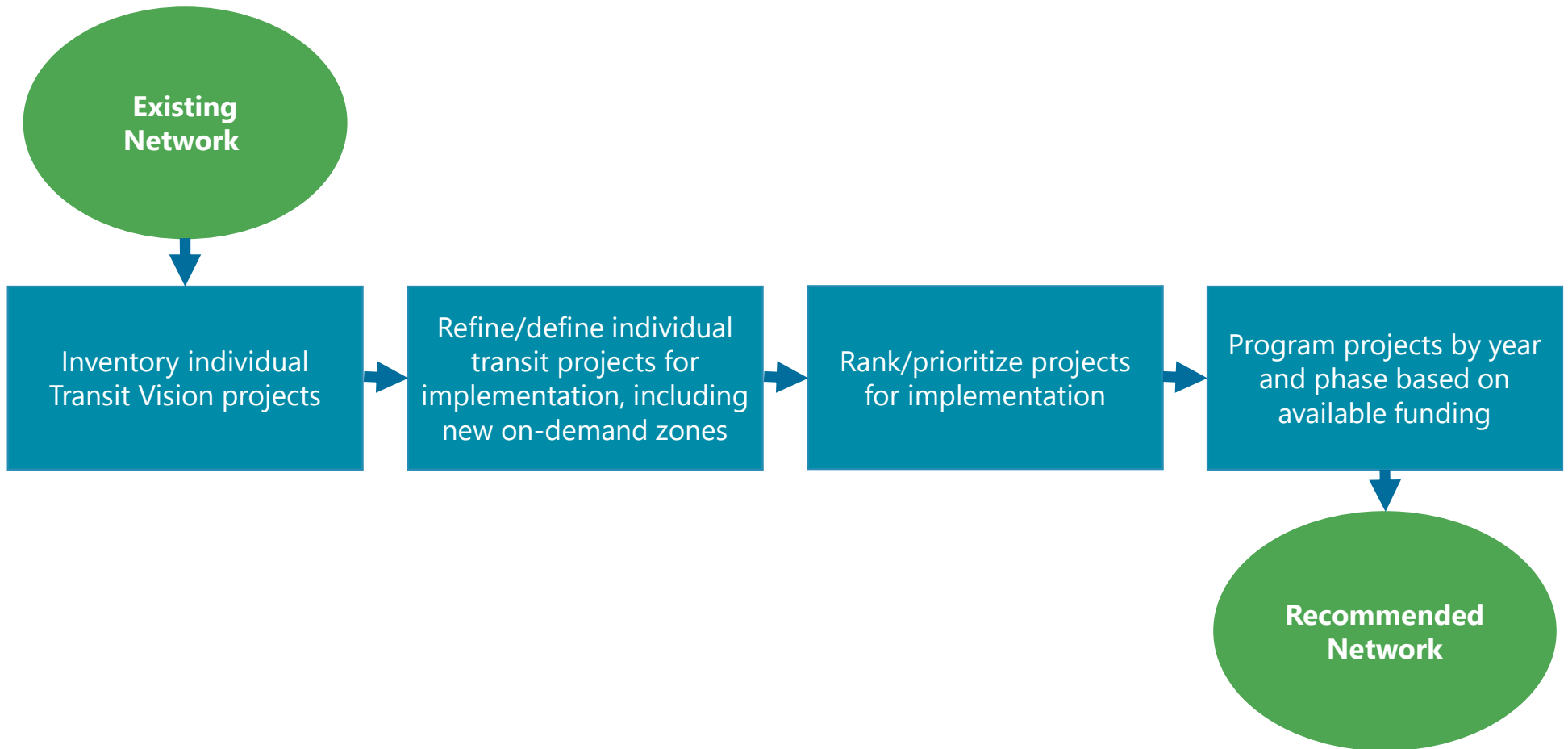


The draft implementation plan shows how MATA will use new funding to improve the existing network over a nine-year period

Transit Vision Implementation Plan

- **Scaled and phased to match available funding**
- Adapts to current ridership
- Coordinates with other MATA investment projects and programs
 - On-Demand Zones (Groove and Ready!)
 - Bus Rapid Transit (Memphis Innovation Corridor)
 - Electric Bus Program
 - Crosstown Corridor Connector

Implementation Planning Process

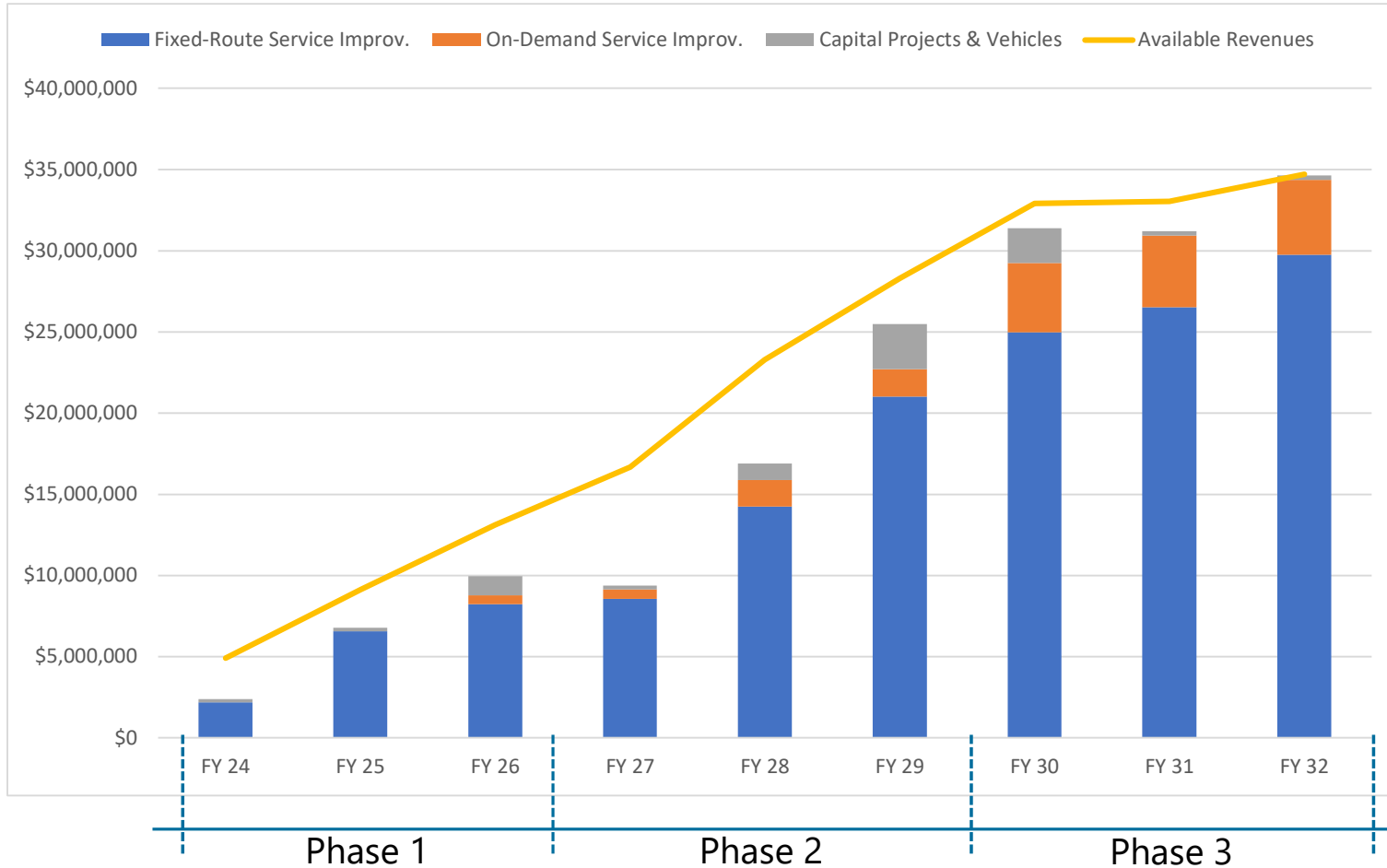


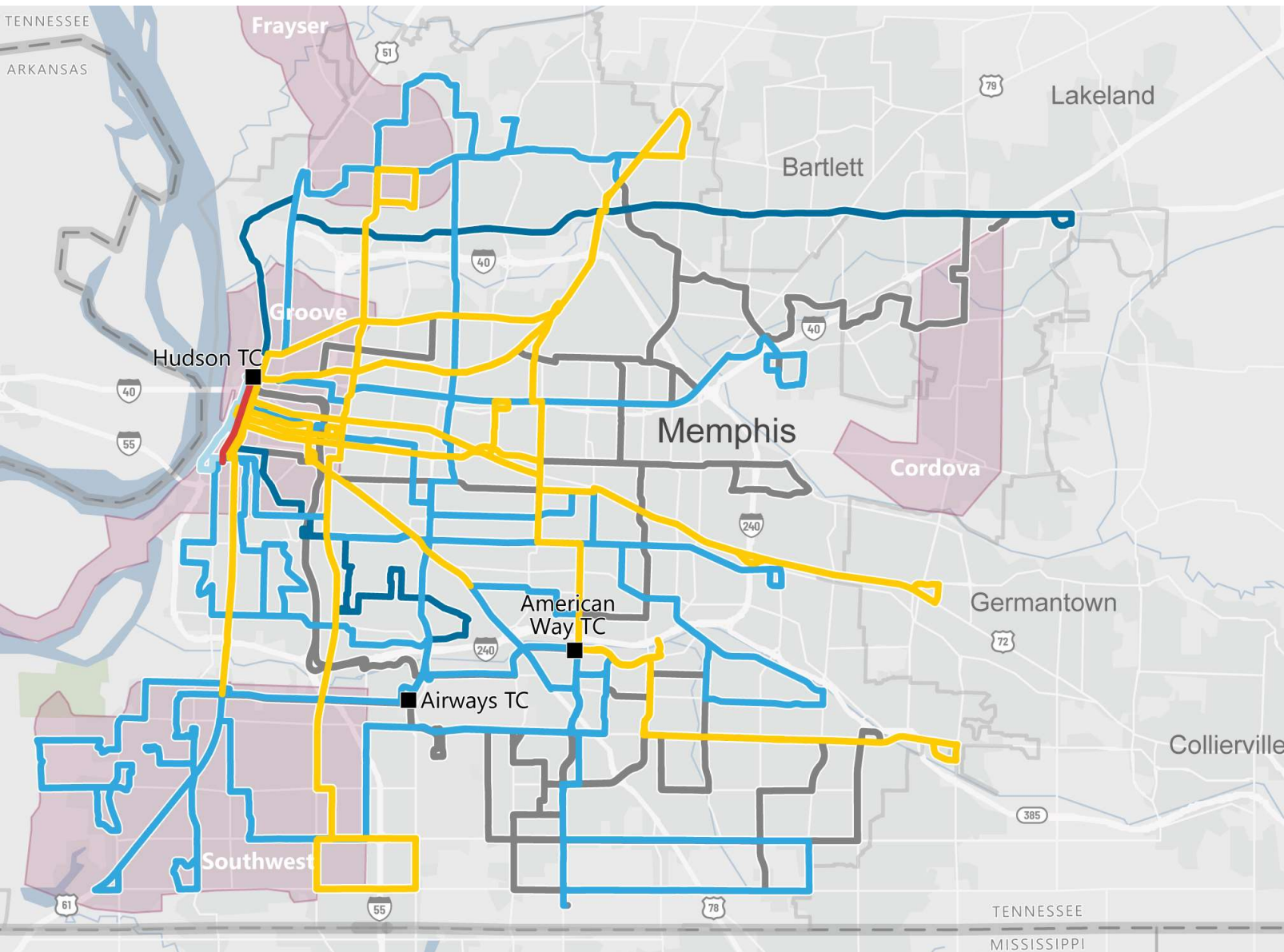
Evaluation, Prioritization, and Programming

- **Evaluation Framework**
 - Used to prioritize and rank individual (operating and capital) projects
- **Rankings**
 - Used to program project costs based on available funding
- **Assumptions**
 - Annual inflation of 4% for operating and capital projects
- **Prioritization Phases**
 - Phase 1: FY 24 – FY 26
 - Phase 2: FY 27 – FY 29
 - Phase 3: FY 30 – FY 32

Transit Vision Evaluation Criteria	
Connect	Population
	Minority Population
	Low Income Population
	Zero Car Population
Opportunities	Jobs
Essentials	Health Facilities
	Higher Education
	Grocery Stores
Sustainability	Passengers per Revenue Hour
	Operating Cost per Passenger Trip

End Result: Projected Revenues and Expenses





Existing Network

Fixed Routes and
On-Demand Zones

Weekday Midday Frequency

- 15 minutes
- 20 minutes
- 30 minutes
- 40 minutes
- 60 minutes
- 90 minutes
- 120 minutes

On-Demand Zones

Transit Centers

Data Sources: City of Memphis, Esri, MATA

0 2.5 5 Miles



Phase 1: FY 24 – FY 26

Fixed Route Network

- Route 1: Alignment change and weekday/weekend frequency improvements
- Route 32: Alignment change and weekday frequency improvements
- Route 36: alignment change and weekday/weekend frequency improvements
- Route 42: Alignment change and weekday/Saturday frequency improvements
- Route 50: alignment change and weekday/weekend frequency improvements
- Route 57: Weekday and Saturday frequency improvements

On-Demand Network

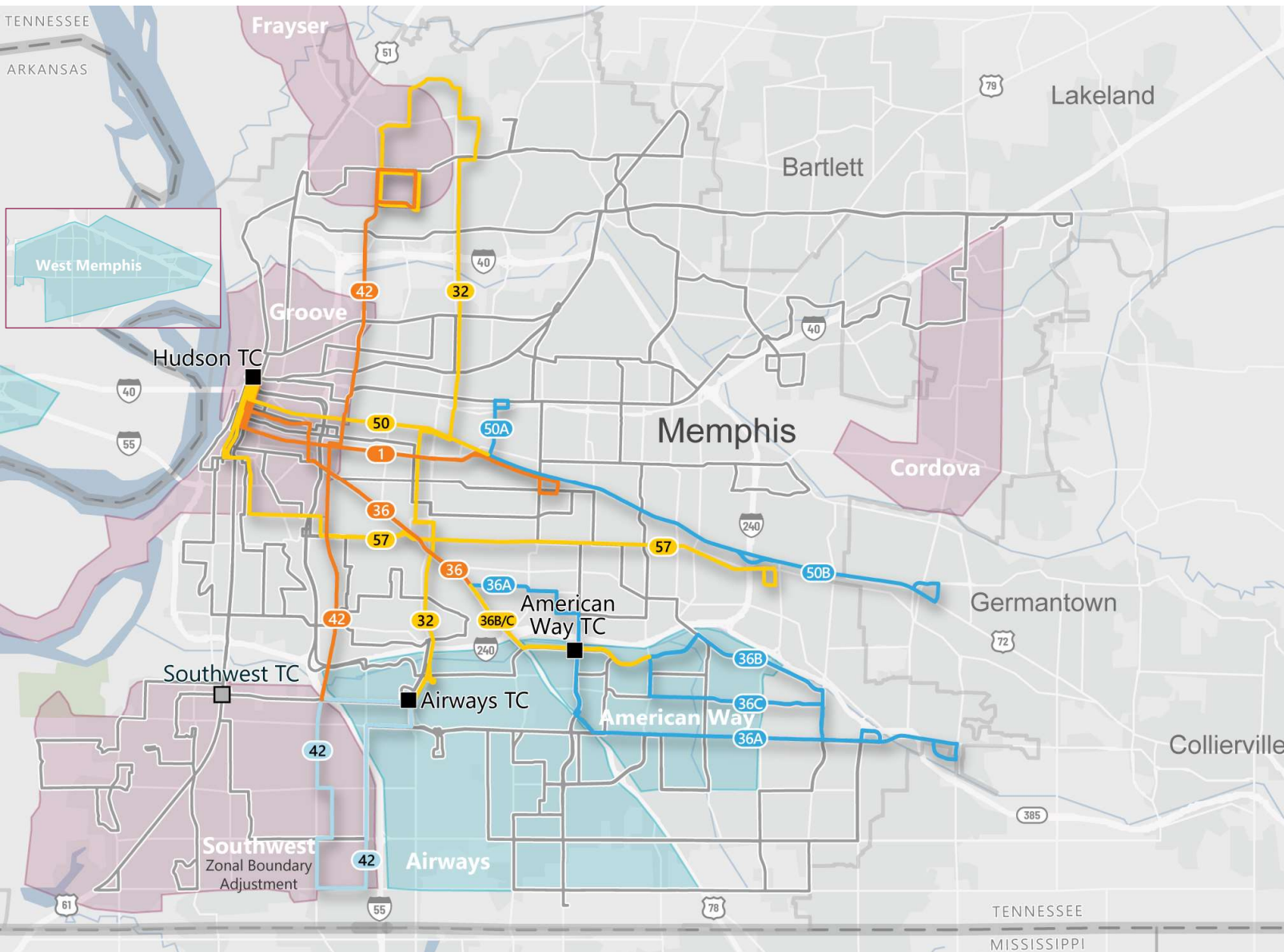
- Zonal Boundary Adjustments (Southwest)
- New Ready! Zones and Supporting Vehicles (Airways and American Way)
- New Ready! Zones and Supporting Vehicles (West Memphis) – separate funding source

Other

- New Transit Centers (Southwest and Airways)

Additional Funding by Year

FY 24	\$4.9 million
FY 25	\$6.6 million
FY 26	<u>\$10.8 million</u>
Ph 1	\$22.3 million



Recommended Network - New

Phase 1: FY 24 - 26

— Routes
no alignment or frequency changes

Phase 1 Route Changes

Phase also includes service span expansion for select routes

Weekday Midday Frequency

— 15 minutes

— 20 minutes

— 30 minutes

— 40 minutes

— 60 minutes

— 90 minutes

— 120 minutes

■ Transit Centers

■ Phase 1 Transit Centers

■ On-Demand Zones

■ Phase 1 On-Demand Zones

Data Sources: City of Memphis, Esri, MATA

0 2.5 5 Miles



Phase 2: FY 27 – FY 29

Bus Rapid Transit

- Route 1: Upgrade to Innovation Corridor BRT

Fixed Route Network

- Route 11: Weekday and Saturday frequency improvement
- Route 30: Alignment adjustments, weekday and weekend frequency improvement
- Route 52: Saturday frequency improvement
- Route 53: Weekday and Sunday frequency improvement

On-Demand Network

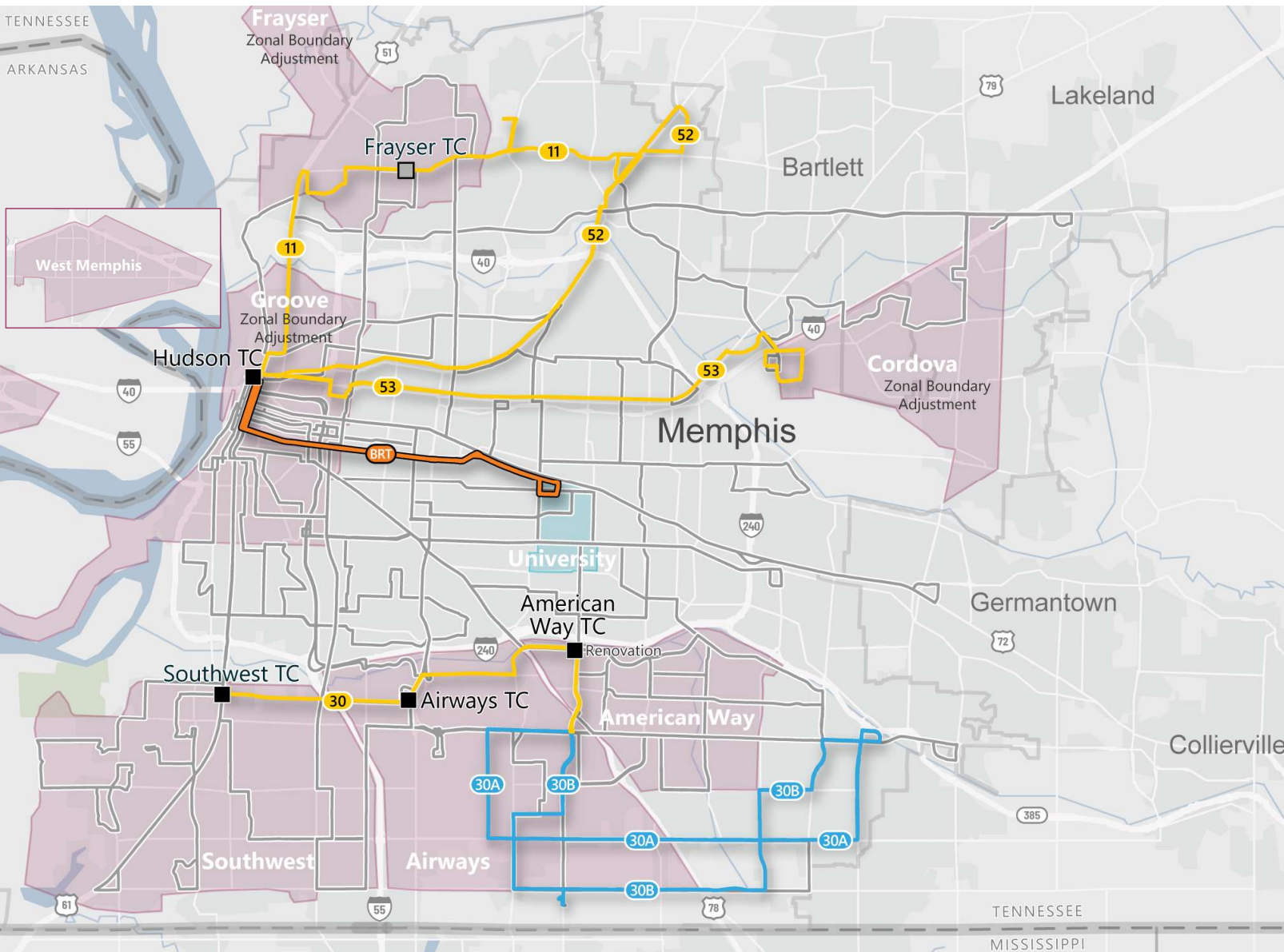
- Zonal Boundary Expansion (Cordova, Frayser, and Groove)
- New Ready! Zones and Supporting Vehicles (University of Memphis)

Other

- Transit Center Reconstruction (American Way)
- New Transit Center (Frayser)

Additional Funding by Year

FY 27	\$13.5 million
FY 28	\$16.0 million
FY 29	<u>\$21.9 million</u>
Ph 2	\$51.4 million



Phase 3: FY 30 – FY 32

Fixed Route Network

- Route 4: Weekday and weekend frequency improvement
- Route 12: Saturday frequency improvement
- Route 19: Weekday and Saturday frequency improvement
- Route 34: Weekday and Saturday frequency improvement
- Route 37: Weekday and Saturday frequency improvement
- Route 40: Weekday and weekend frequency improvement

On-Demand Network

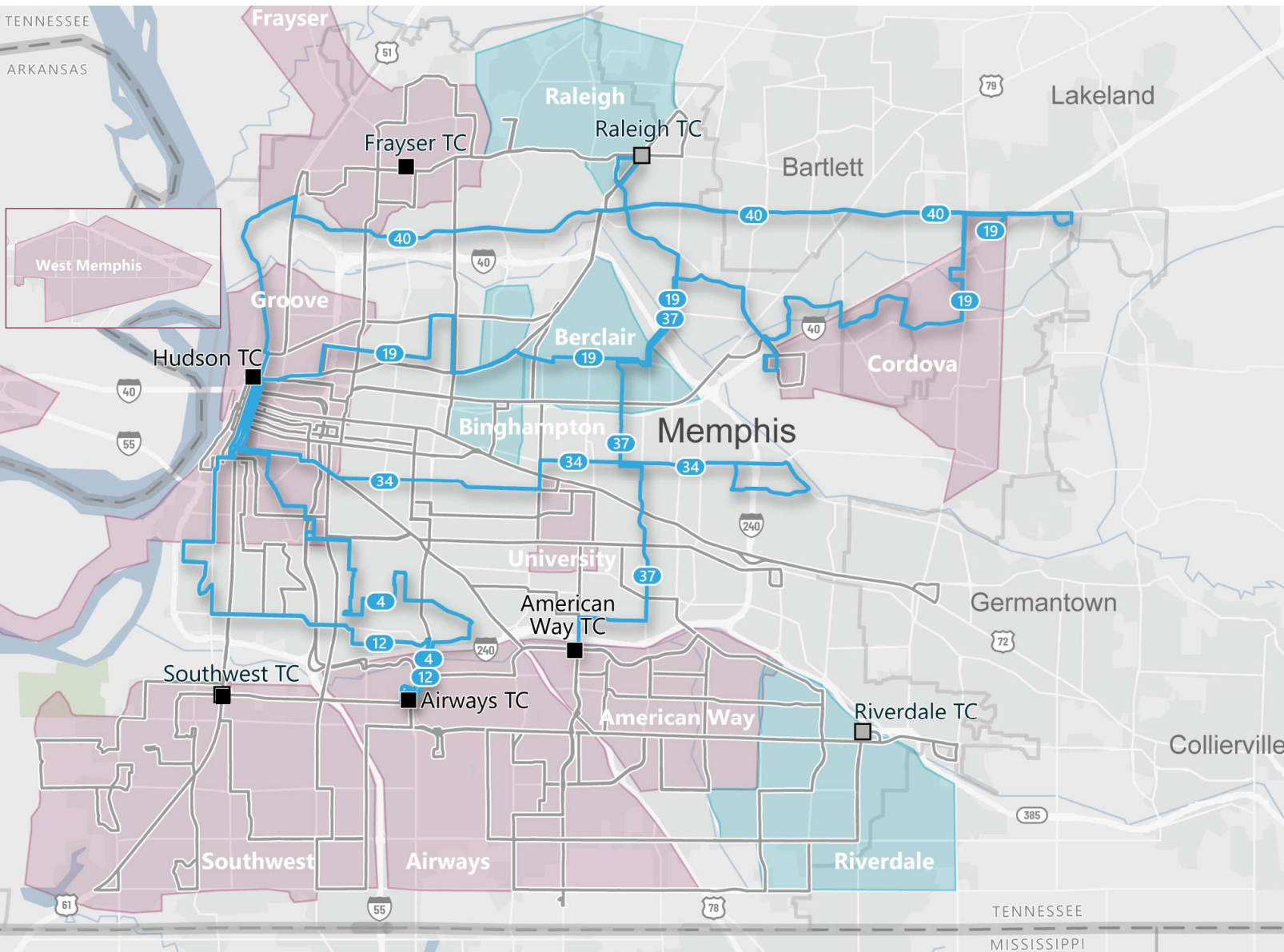
- New Ready! Zones and Supporting Vehicles (Berclair, Binghampton, Raleigh, and Riverdale)

Other

- New Transit Centers (Raleigh and Riverdale)

Additional Funding by Year

FY 30	\$30.1 million
FY 31	\$31.5 million
FY 32	<u>\$32.9 million</u>
Ph 3	\$94.5 million



Recommended Network - New

Phase 3: FY 30 - 32

Routes
no alignment or frequency changes

Phase 3 Route Changes

Phase also includes service span expansion for select routes

Weekday Midday Frequency

15 minutes

20 minutes

30 minutes

40 minutes

60 minutes

90 minutes

120 minutes

Transit Centers

Phase 3 Transit Centers

On-Demand Zones

Phase 3 On-Demand Zones

Data Sources: City of Memphis, Esri, MATA

0 2.5 5 Miles



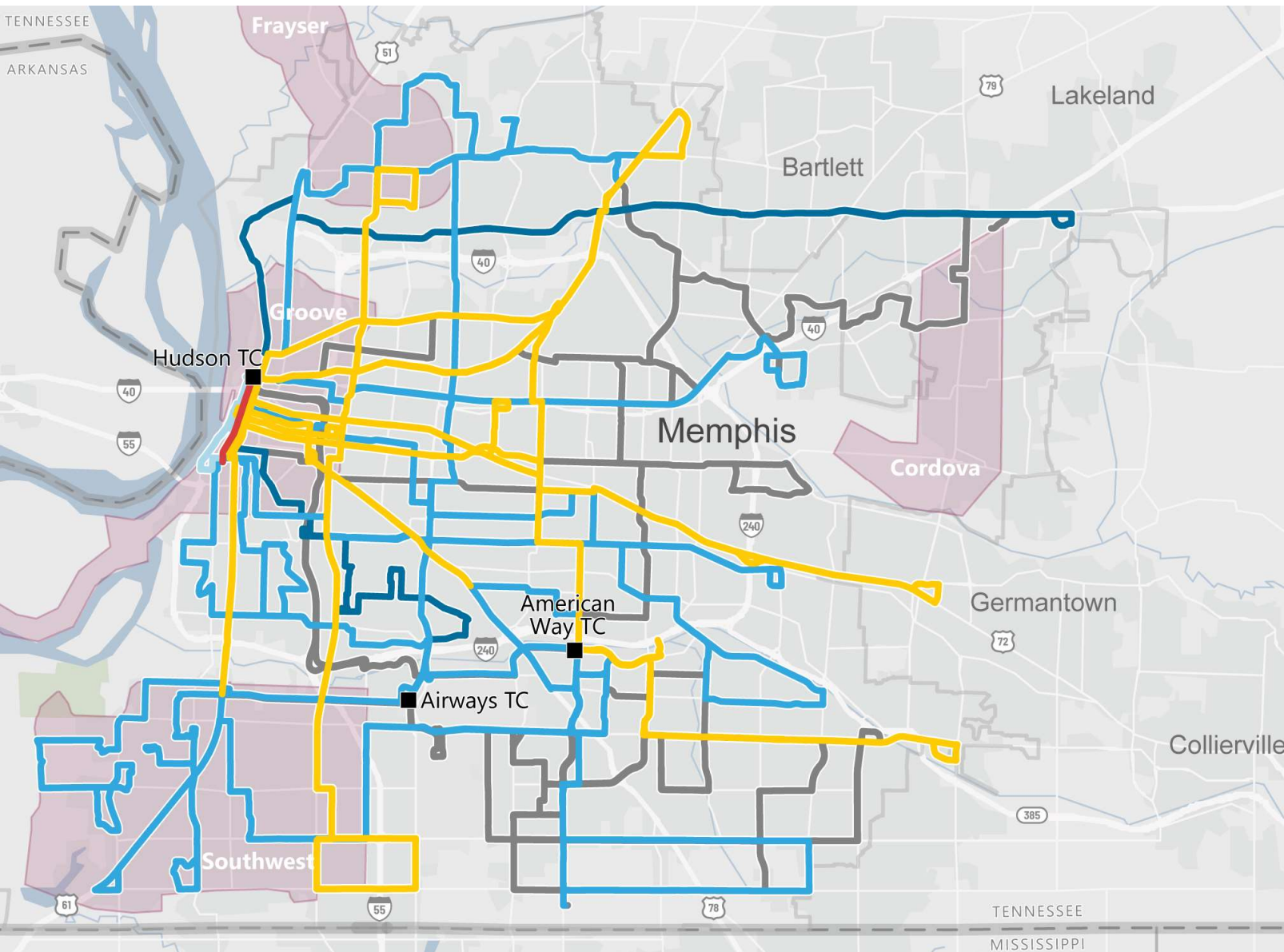
Putting it All Together: Benefits to Riders

- Expanded Access to Opportunities
- New Transit Centers
- Expanded Service Coverage
 - Harder to serve areas covered by new Ready! zones
 - New coverage (particularly south of I-240)
- Frequency Improvements
 - No more 120-minute service
 - More 20-minute and 30-minute service
- Improved and More Consistent Spans of Service
 - Weekday minimum span: 6 am - 7 pm
 - Weekend minimum span: 7 am - 7 pm

**Existing and Proposed Fixed Route
Service Frequencies**

Route	Weekday Pk. Freq.		Weekday Mid. Freq.		Saturday Freq.		Sunday Freq.	
	Existing	Planned	Existing	Planned	Existing	Planned	Existing	Planned
1	30	20	30	20	60	30	60	30
2	30	30	30	30	30	30	60	60
4	90	60	90	60	90	60	90	60
7	60	60	60	60	60	60	60	60
8	30	30	30	30	30	30	30	30
11	60	30	60	30	60	30	60	60
12	60	60	60	60	120	60		
13	60	60	60	60	60	60	60	60
16	120	60	120	60	120	60	120	60
19	120	60	120	60	120	60		
28	120	60	120	60	120	60	120	60
30	60	30	60	30	60	30	60	30
32	60	30	60	30	60	60	60	60
34	120	60	120	60	120	60		
36	20	20	30	20	30	30	30	30
37	120	60	120	60	120	60		
39	30	30	30	30	30	30	30	30
40	90	60	90	60	90	60	90	60
42	30	20	30	20	60	30	60	60
50	30	20	30	20	60	30	60	30
52	30	30	30	30	60	30	60	60
53	60	30	60	30	60	60	120	60
57	60	30	60	30	60	30	60	60
69	60	60	60	60	60	60		

20-min.
 30-min.
 60-min.
 90-min.
 120-min.



Existing Network

Fixed Routes and
On-Demand Zones

Weekday Midday Frequency

- 15 minutes
- 20 minutes
- 30 minutes
- 40 minutes
- 60 minutes
- 90 minutes
- 120 minutes

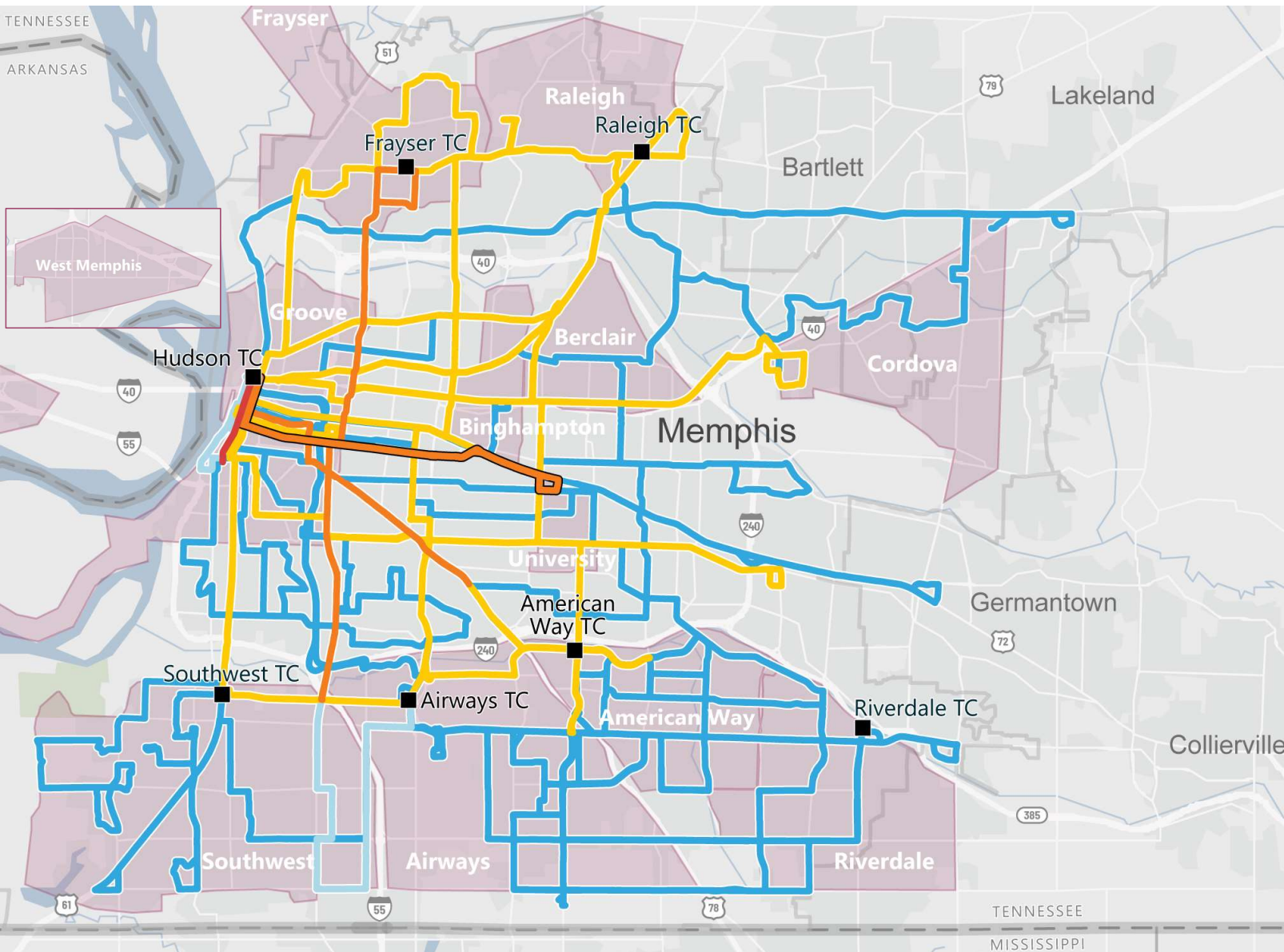
On-Demand Zones

Transit Centers

Data Sources: City of Memphis, Esri, MATA

0 2.5 5 Miles





Recommended Network - New

Fixed Routes and On-Demand Zones

Weekday Midday Frequency

- 15 minutes
- 20 minutes
- 30 minutes
- 40 minutes
- 60 minutes
- 90 minutes
- 120 minutes

- On-Demand Zones
- mConnect BRT
- Transit Centers

Data Sources: City of Memphis, Esri, MATA

0 2.5 5 Miles



Plan Engagement and Adoption

- Outreach Activities
 - In-Person Events
 - Virtual Engagement
- **Plan Update & Adoption by MATA Board?**

Future Opportunities

On-Demand Zones

Routes
no alignment or frequency changes

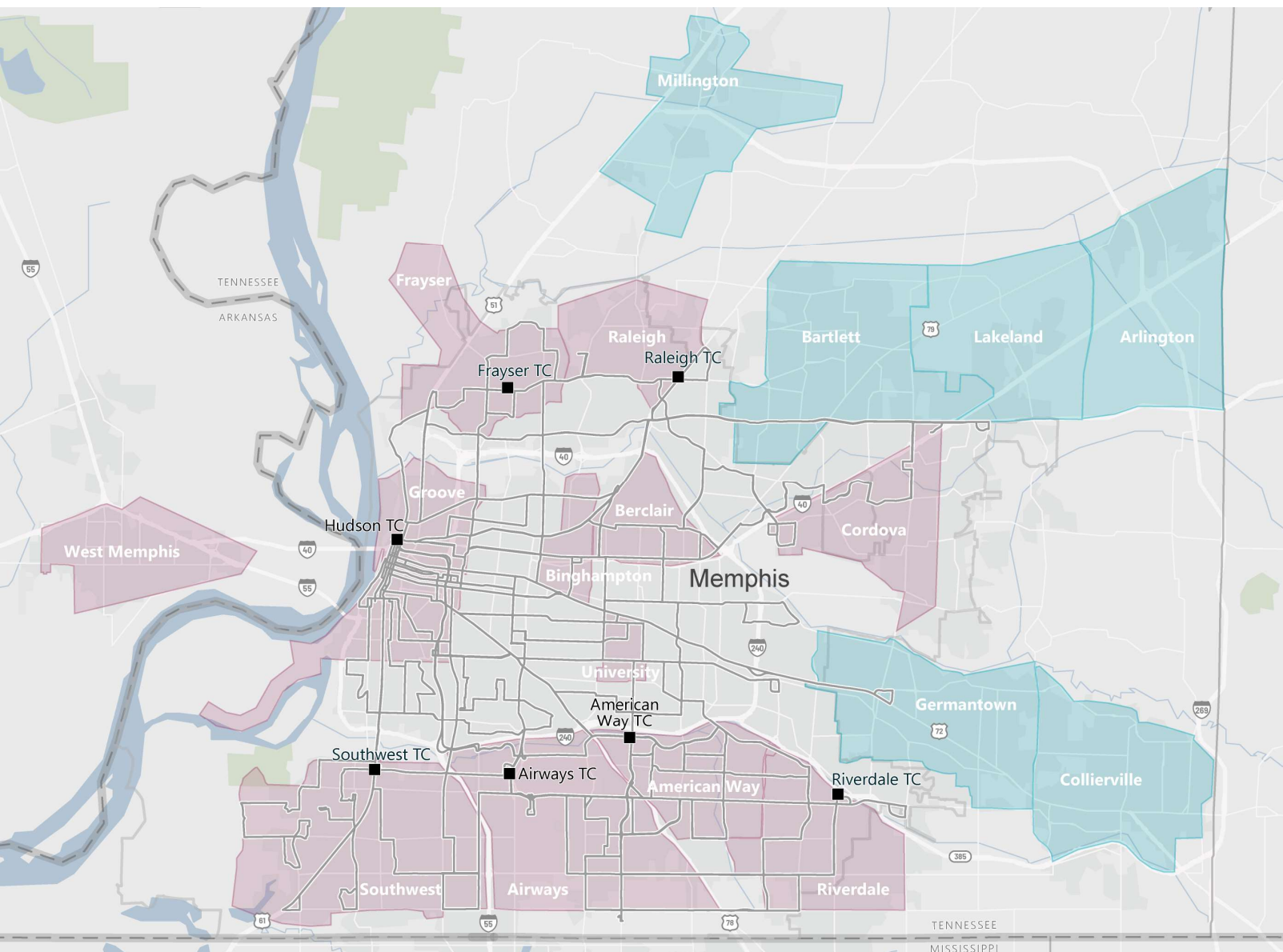
On-Demand Zones

Future On-Demand Zones

Transit Centers

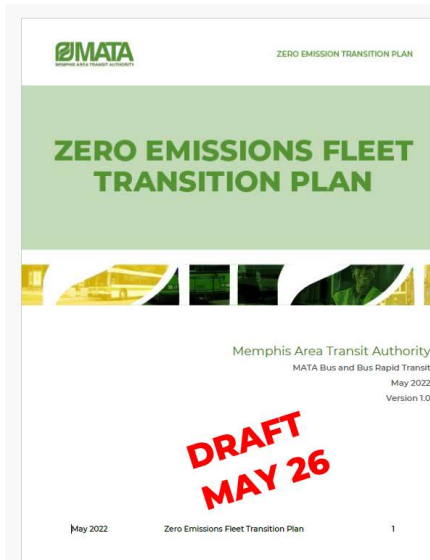
Data Sources: City of Memphis, Esri, MATA

0 2.5 5 Miles



Plans and Planning Activities

- Bus Fleet Management Plan
- Transit Asset Management Plan (Required by FTA, updated every 4 years)
- Zero Emissions Fleet Transition Plan
- Memphis Area Climate Action Plan



Title VI Program Overview

- FTA Requirements
- Adopted Policies
- Title VI Program Updates
- Service Change Equity Analysis

Title VI Program & Requirements

FTA

FEDERAL TRANSIT ADMINISTRATION

Overview of Final Circular 4702.1B Title VI Requirements and Guidelines for Recipients



FTA

FEDERAL TRANSIT ADMINISTRATION

Rev. October 2012

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MEMPHIS AREA TRANSIT AUTHORITY

Title VI Program & Requirements

Submitting Title VI Program

- All recipients must submit Title VI Program every three years (TEAM)
- Title VI Program must be approved by grantee's Board of Directors or appropriate governing entity (including sub-recipients) and submit documentation of such action
- Title VI Programs will be due 60 days prior to expiration dates

FTA

FEDERAL TRANSIT ADMINISTRATION

12



Title VI Program & Requirements

Requirements for Fixed Route Transit Providers

Requirement	Fixed Route Transit Providers that do not meet the threshold	Transit Providers with 50 or more fixed route vehicles in peak service, located in large UZA
Set system-wide standards and policies	Required	Required
Collect and report data	Not required	Required: <ul style="list-style-type: none"> • Demographic and service profile maps and charts • Survey data regarding customer demographic and travel patterns
Evaluate service and fare equity changes	Not required	Required
Monitor transit service	Not required	Required

FTA

FEDERAL TRANSIT ADMINISTRATION

Title VI Program & Requirements

Effective Practices to Fulfill the Service Standard Requirement

- Vehicle load for each mode
- Vehicle headway for each mode
- On-time performance for each mode
- Service availability for each mode

Title VI Program & Requirements

Effective Practices to Fulfill the Service Policy Requirement

- Distribution of transit amenities for each mode
- Vehicle assignment for each mode

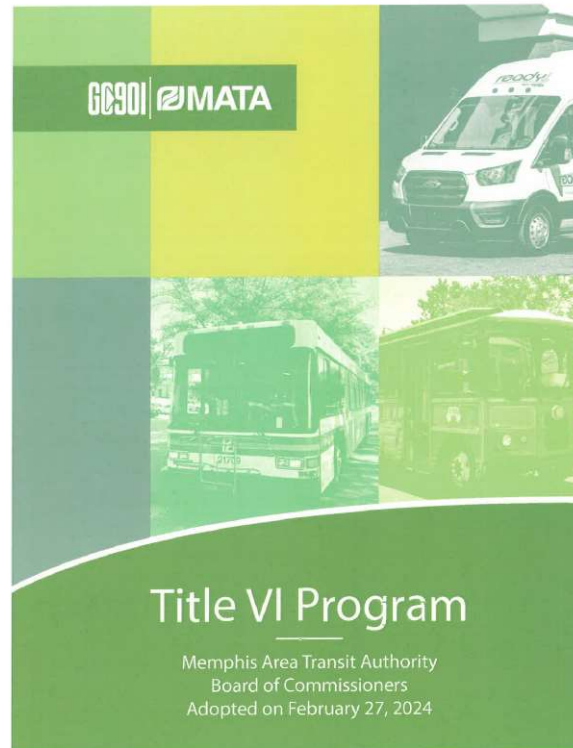
MATA Board Adopted Title VI Policies

- Title VI Major Service Change Policy (Adopted 2013)
- Title VI Minor Service Change Policy (Adopted 2019)
- Title VI Disparate Impact Policy (Adopted 2013)
- Title VI Disproportionate Burden Policy (Adopted 2013)
- Public Participation Program (Adopted 2024)

Title VI Program & Requirements

Title VI Program Update (Adopted 2024, update required every 3 years)

Service Equity Analysis (Service Changes)



TO: MATA Board of Commissioners
FROM: Bacarra S. Mauldin, Interim Chief Executive Officer
DATE: June 26, 2024
RE: Title VI Service Equity Analysis for:
Proposed August 2024 Routes and Service Changes

As required by Federal Transit Administration (FTA) Circular 4702.1B, MATA staff has conducted a Title VI Service Equity Analysis for the proposed August 2024 route and service changes to determine the impact of the proposed service changes on minority and low-income populations. FTA requires recipients such as MATA to evaluate significant system-wide service changes and proposed improvements at the planning and programming stages to determine whether those changes have a discriminatory impact.

MATA's Board of Commissioners adopted a new Major Service Change Policy, Disparate Impact Policy, and Low-Income Burden Policy on March 25, 2013. The proposed route modifications and service changes proposed for the August 2024 route and service change do not exceed the criteria set forth in the adopted Major Service Change Policy and are covered by MATA's adopted Minor Service Change Policy. Although not required by the Minor Service Change Policy, the following Service Equity Analysis has been conducted to assess potential adverse impacts to populations protected by the provisions of Title VI.

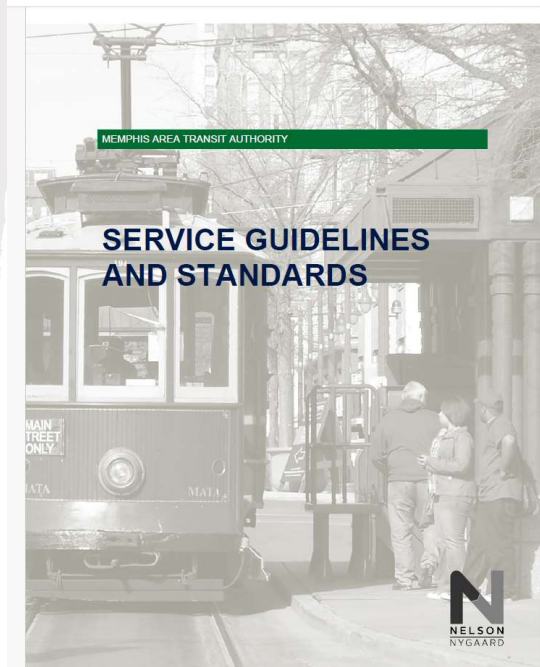
Definitions

Minority: The FTA defines a minority person as one who self-identifies as American Indian/Alaska Native, Asian, Black or African American, Hispanic or Latino, and/or Native Hawaiian/Pacific Islander. The minority percentage for the MATA service area is 72.0% as illustrated in Table 1: Service Area Population Data for Proposed Changes.

Low Income: The FTA defines a low-income individual as one whose household income is at or below the poverty guidelines set by the Department of Health and Human Services (DHHS). DHHS poverty thresholds are based on household size and income and are nearly identical to the guidelines used to define poverty in the 2015-19 U.S. American Community Survey (ACS), which form the basis of this review. The low-income percentage for this analysis is listed in Table 1: Service Area Population Data for Proposed Changes.

Board Adopted Service Standards & Guidelines

- Service Standards
(Adopted 2014)
- Bus Stop Design & Accessibility
Guidelines (Adopted 2017)



Service Guidelines & Standards

- Minimum Span of Service
- Minimum Service Frequency
- Passenger Load (crowding)
- On-time Performance
- Productivity (passengers per hour)
- **New Service Standards Needed**



Figure 4-1 Minimum Span of Service

	Key Corridor Routes	Emerging Key Corridor Routes	Mainline Routes	Express	Feeder Routes	Flex Routes	Shuttle Services
				AM Peak PM Peak			
Weekdays							
Begin	5:00 am	6:00 am	6:00 am	6:00 am 3:30 pm	6:00 am 5:30 pm	8:00 am	5:00 am
End	11:00 am	10:00 pm	7:00 pm	8:30 am 6:00 pm	6:00 pm	4:00 pm	11:00 pm
Saturdays							
Begin	5:00 am	6:00 am	--	--	--	8:00 am	5:00 am
End	10:00 pm	8:00 pm	--	--	--	4:00 pm	10:00 pm
Sundays							
Begin	6:00 am	7:00 am	--	--	--	8:00 am	6:00 am
End	6:00 pm	6:00 pm	--	--	--	4:00 pm	6:00 pm

Notes: The beginning span of service refers to the departure of the first inbound trip, and the ending span of service refers to the departure time of the last peak direction trip. "--" indicates that the guideline does not apply.

MINIMUM SERVICE FREQUENCIES

The minimum service frequency guidelines define the minimum service frequencies at which each type of service should operate. Based on demand, many services could operate more frequently, and in these cases, the service frequencies would be based on ridership and loading levels (as described in the next section). Minimum service frequency guidelines are shown in Figure 4-2.

Figure 4-2 Minimum Service Frequency (Minutes)

	Key Corridor	Emerging Key Corridor	Mainline Routes	Express	Feeder	Shuttle
Weekdays						
Early Morning	30	60	60	--	--	30
AM Peak**	20	30	60	3 Trips	60	30
Midday (Base)	45	60	60	--	60	30
PM Peak**	20	30	60	3 Trips	60	30
Evening/Night	60	60	--	--	--	30
Saturdays						
All Day	30	60	60	--	--	30
Sundays						
All Day	45	60	60	--	--	30

Notes: "--" indicates that the guideline does not apply. Also, the guidelines apply to services that are provided, and do not imply that all services will be provided at all times.
** AM Peak is defined as 8:30 AM to 9:30 AM and PM peak period is defined as 3:00 pm to 5:00 pm. Evening is defined as 7:00 pm to service ends. Time period between 5:00 pm and 7:00 pm is considered same as Midday/PM Peak service. Early morning is prior to 8:30 AM.



Figure 5-1 Minimum Productivity Levels (Passengers per Revenue Vehicle Hour)

	Key Corridor	Emerging Key Corridor	Mainline	Express	Feeder	Flex	Shuttle
Weekdays							
Early Morning	10	10	8	--	--	--	6
Late Night	10	10	8	--	--	--	6
All Day	30	20	15	10	6	5	15
Saturdays							
Early Morning	6	6	--	--	--	--	6
Late Night	6	6	--	--	--	--	6
All Day	20	15	--	--	--	5	10
Sundays							
Early Morning	6	6	--	--	--	--	6
Late Night	6	6	--	--	--	--	6
All Day	20	15	--	--	--	5	10

Note: "Early morning" and "Late Night" refers to service before and after the minimum span of service. All day refers to the complete span of service, including early morning and late night service. "--" indicates that the standard does not apply. Most existing MATA routes currently meet the all day standard.



Draft MATA Service Standards

In support of the Transit Vision Plan for 2022-2040
December 2, 2020

Purpose of Service Standards	2
Principles Governing these Standards	2
MATA Network Design Principles	3
Consistent route spacing	3
Directness	3
Simplicity	3
Consistent frequencies	3
Pulsing	3
Service Area	4
Summary of the Service Categories	4
Rapid and Frequent	4
Basic	4
Coverage (fixed route or demand response)	5
Paratransit	5
Defining features	5
Frequency	5
Daily and Weekly Span	6
Stop Spacing and Stop Placement	6
Average Stop Spacing	6
Minimum Stop Spacing, and the Value of Even Stop Spacing	8
Service quality targets	9
Travel Speed	9
Reliability	10
On-Time Departures	11
Reliable Pooled Connections	11
Stop Amenities	12
Passenger Load (crowding)	13
Vehicle Assignment	15
Outputs	15
Productivity	16

Board Adopted Standards & Ridership Analysis (Weekday)

Route	Route Name	Weekday Revenue Hours	Weekday Daily Boardings	Passengers Per Revenue Hour
100	MAIN STREET TROLLEY	56.67	1,103	19.46
11	FRAYSER	26.40	437	16.56
57	PARK	31.13	504	16.18
50	POPLAR	68.63	1,056	15.38
52	JACKSON	43.45	601	13.83
102	MADISON AVENUE TROLLEYBUS	9.20	126	13.74
53	SUMMER	24.00	296	12.33
12	MALLORY	21.93	236	10.74
1	UNION	36.50	387	10.61
39	SOUTHTHIRD	48.50	475	9.80
4	WALKER	24.27	237	9.78
36	LAMAR	112.00	1,040	9.29
8	CHELSEA&HIGHLAND	63.22	540	8.54
32	HOLLYWOOD&HAWKINSMILL	47.18	401	8.49
42	CROSTOWN	104.75	864	8.25
19	VOLLINTINE	33.37	251	7.53
16	SOUTHEASTCIRCULATOR	10.73	77	7.18
7	SHELBY&HOLMES	17.17	120	6.98
28	AIRPORT	11.32	73	6.47
2	MADISON	49.27	282	5.72
34	CENTRAL&WALNUTGROVE	12.02	51	4.28
37	PERKINS	11.03	47	4.27
40	STAGE&LAUDERDALE	48.93	196	4.01
101	RIVERFRONT TROLLEYBUS	6.80	26	3.83
69	WINCHESTER	40.30	136	3.38
30	BROOKS	59.87	161	2.68
Total All Routes		1,018.64	9,723	9.54

The Board Adopted Minimum Productivity Levels (Passengers per Revenue Vehicle Hour):

Key Corridor Routes	30
Emerging Key Corridor Routes	20
Mainline Routes	15
Early Morning & Late Night	6

Board Adopted Standards & Ridership Analysis (Saturday)

Route	Route Name	Saturday Revenue Hours	Saturday Daily Boardings	Passengers Per Revenue Hour
100	MAIN STREET TROLLEY	52.67	1,347	25.58
52	JACKSON	17.12	372	21.70
50	POPLAR	26.00	453	17.44
1	UNION	10.95	150	13.70
57	PARK	20.20	262	12.98
42	CROSSTOWN	36.40	428	11.76
11	FRAYSER	19.07	222	11.64
12	MALLORY	7.83	78	9.90
53	SUMMER	14.40	133	9.21
102	MADISON AVENUE TROLLEYBUS	7.82	60	7.67
36	LAMAR	61.33	468	7.64
8	CHELSEA&HIGHLAND	44.00	324	7.36
39	SOUTHTHIRD	39.15	286	7.30
4	WALKER	15.60	108	6.94
32	HOLLYWOOD&HAWKINSMILL	32.28	164	5.09
19	VOLLINTINE	26.80	123	4.57
16	SOUTHEASTCIRCULATOR	9.20	33	3.59
37	PERKINS	7.63	27	3.51
2	MADISON	35.10	117	3.32
28	AIRPORT	8.08	26	3.20
7	SHELBY&HOLMES	10.80	33	3.01
34	CENTRAL&WALNUTGROVE	8.58	25	2.93
30	BROOKS	34.42	81	2.34
40	STAGE&LAUDERDALE	43.23	99	2.28
69	WINCHESTER	27.90	57	2.03
101	RIVERFRONT TROLLEYBUS	6.80	-	0.00
Total All Routes		623.36	5,474	8.78

The Board Adopted Minimum Productivity Levels (Passengers per Revenue Vehicle Hour):

Key Corridor Routes	30
Emerging Key Corridor Routes	20
Mainline Routes	15
Early Morning & Late Night	6

Board Adopted Standards & Ridership Analysis (Sunday)

Route	Route Name	Sunday Revenue Hours	Sunday Daily Boardings	Passengers Per Revenue Hour
100	MAIN STREET TROLLEY	26.00	500	19.25
52	JACKSON	11.85	172	14.49
50	POPLAR	19.50	236	12.12
1	UNION	8.52	77	9.04
11	FRAYSER	13.20	112	8.48
57	PARK	13.47	111	8.21
42	CROSSTOWN	24.27	199	8.20
53	SUMMER	8.00	64	8.02
36	LAMAR	42.67	262	6.15
4	WALKER	15.60	93	5.96
8	CHELSEA&HIGHLAND	31.17	174	5.58
39	SOUTHTHIRD	26.68	148	5.53
2	MADISON	12.90	63	4.90
28	AIRPORT	6.20	24	3.90
32	HOLLYWOOD&HAWKINSMILL	22.33	85	3.80
40	STAGE&LAUDERDALE	29.67	95	3.22
16	SOUTHEASTCIRCULATOR	7.67	20	2.59
7	SHELBY&HOLMES	10.80	26	2.36
30	BROOKS	27.53	57	2.06
101	RIVERFRONT TROLLEYBUS	6.80	1	0.17
Total All Routes		364.83	2,519	6.90

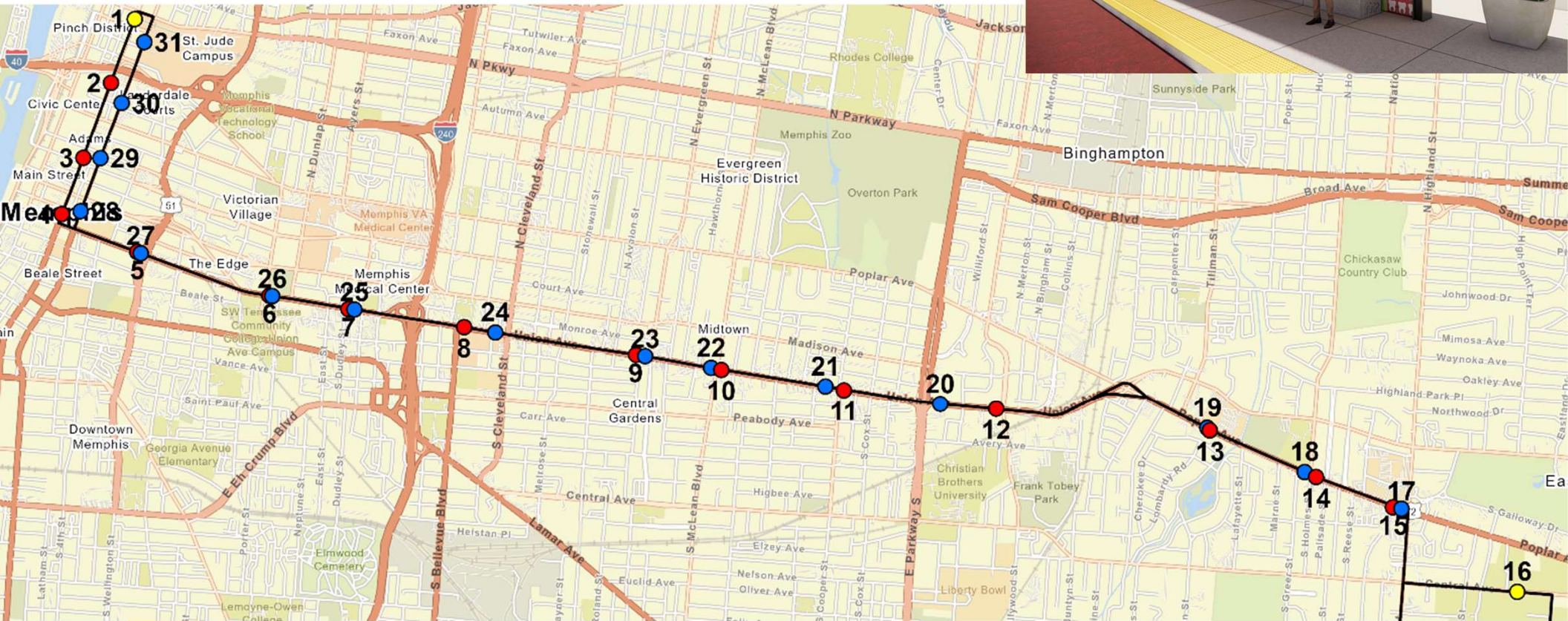
The Board Adopted Minimum Productivity Levels (Passengers per Revenue Vehicle Hour):

Key Corridor Routes	30
Emerging Key Corridor Routes	20
Mainline Routes	15
Early Morning & Late Night	6

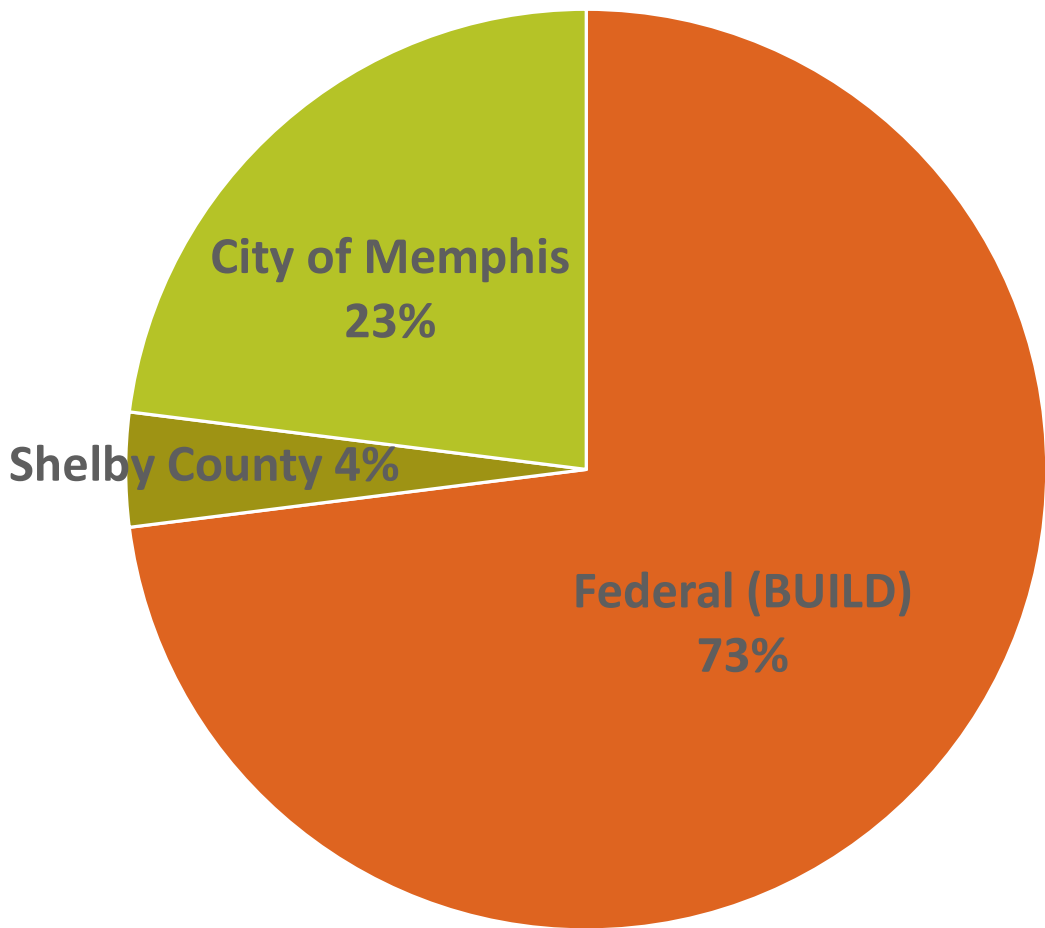
Overview of Capital Projects

- Memphis Innovation Corridor (BRT)
- Battery Electric Bus Program
- New Operations & Maintenance Facility
- Crosstown Connector (BRT)

Memphis Innovation Corridor – Bus Rapid Transit (BRT)



Project Funding – BUILD Grant



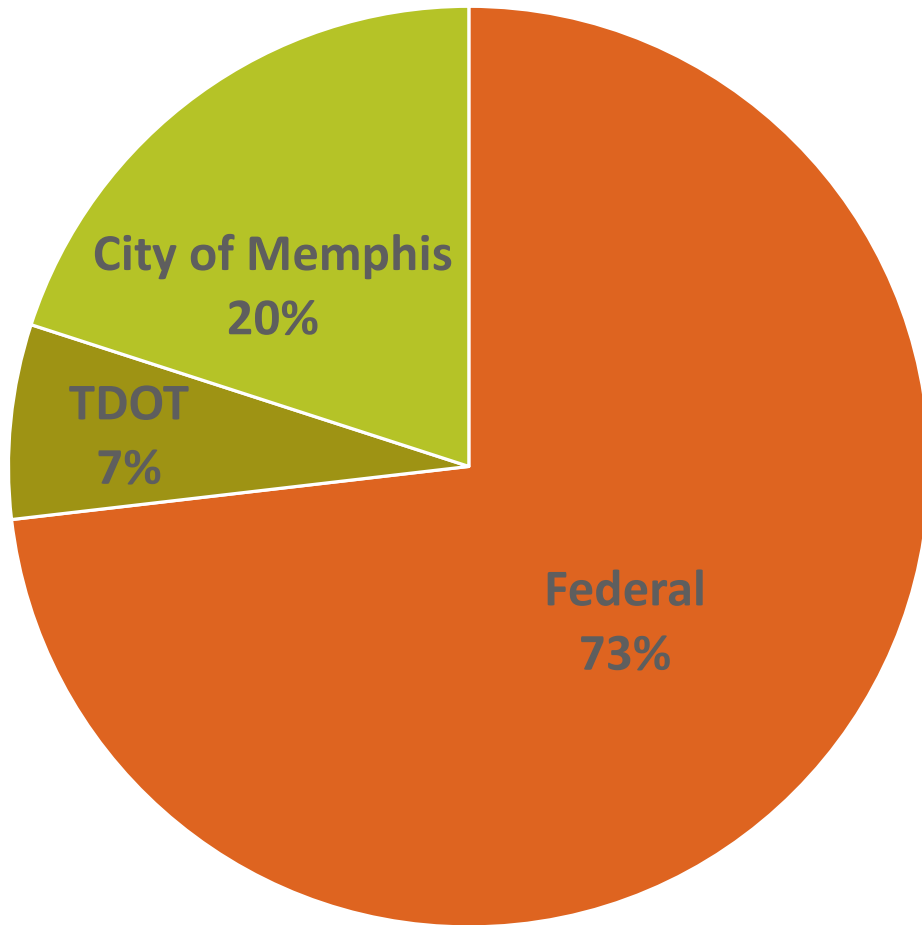
Source	Cost	Percent
Federal (BUILD)	\$17,800,000	73%
Shelby County	\$1,000,000	4%
City of Memphis	\$5,755,000	23%
Total	\$24,555,000	100%

BUILD Grant - Scope

- Battery Electric Buses and Charging Equipment (14 Buses)
 - Contract awarded to Gillig, December 2023
 - Notice to Proceed, March 2024
 - Pre-Production Meeting November 2024
- Advance Traffic Management System (ATMS)
 - Contract awarded to Kimley-Horn, August 2024
 - Notice to Proceed and project kick-off, October 2024
- Off Board Fare Collection – Ticket Vending Machines (41)
 - MATA Board rescinded Flowbird award, May 2024
 - Re-evaluation pending



Project Funding – Small Starts Grant



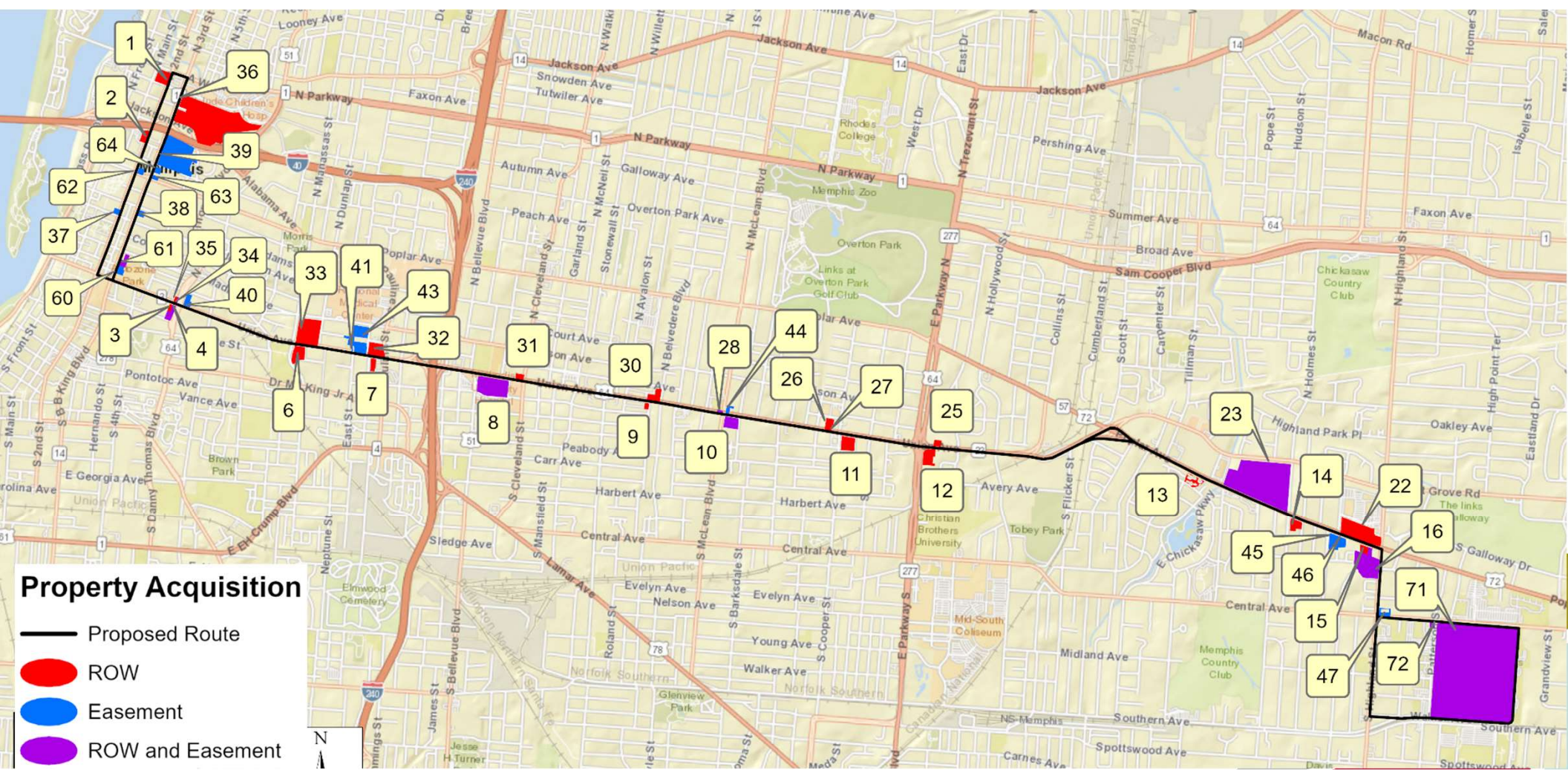
Source	Cost	Percent
Federal	\$83,425,452	73%
State (IMPROVE Act)	\$7,775,000	7%
City of Memphis		
GO Bonds	\$18,317,227	
Stormwater	\$2,075,000	
General Fund	\$2,425,718	
Total City of Memphis	\$22,817,945	20%
Total	\$114,018,185	100%

Small Starts Grant

- Scope
 - Traffic Signal Improvements / Reconstruction
 - Install Fiber Optic Communications
 - Traffic Safety Improvements (Union Avenue)
 - Pedestrian Improvements
 - Drainage Improvements / Bioswales
 - Construct Bus Rapid Transit (BRT) Stations
 - Bus Only Lanes
- Status
 - FTA Small Starts Capital Improvement (CIG) Grant Approval Process
 - Right of Way Acquisition

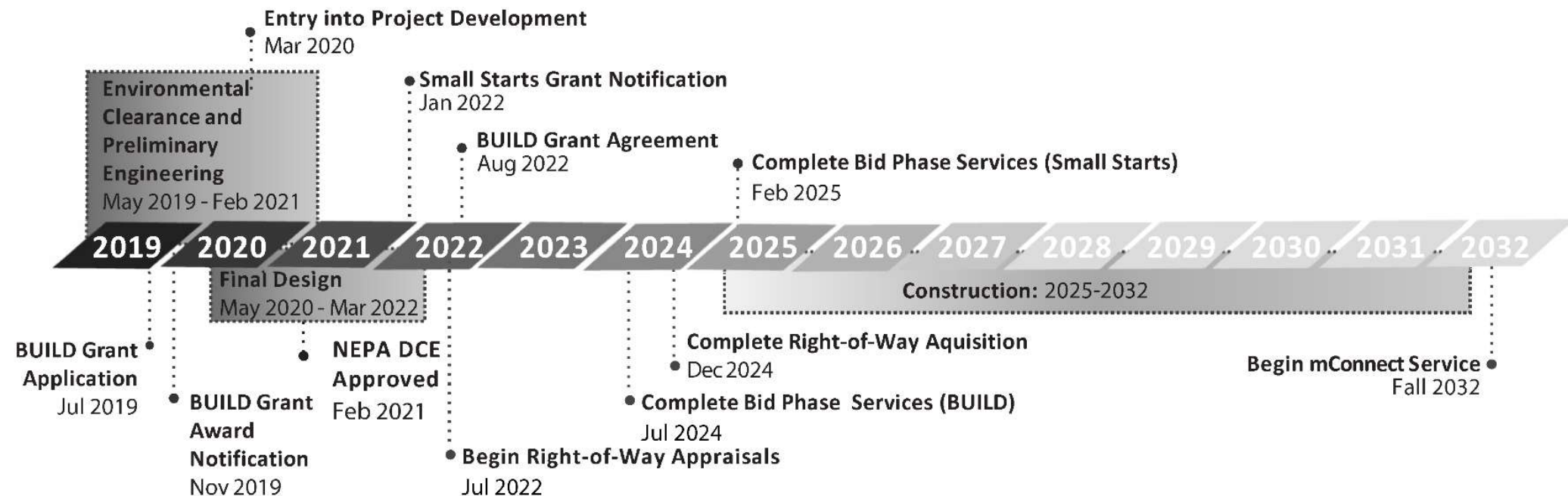


Memphis Innovation Corridor – Right of Way



Memphis Innovation Corridor – BRT Project

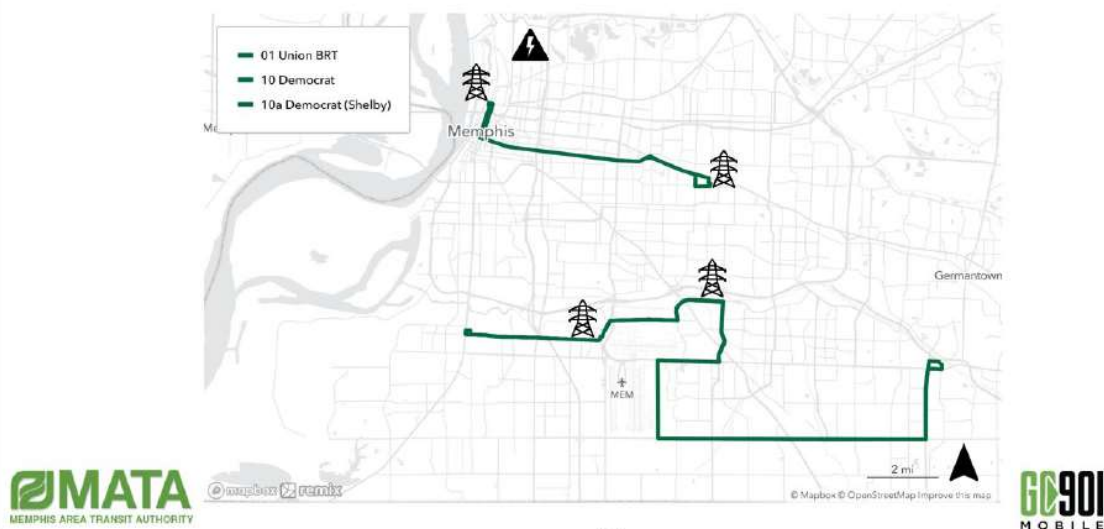
• Project Schedule, Status, and Completion Forecast



Battery Electric Bus Program

- Project Cost = \$ 68,968,031
- Total Battery Electric Buses = 43
- Phase 1 Chargers = 4/19/2023
- TDEC Grant = 6/23/2023
- Low/No Grant = 8/23/2023
- CMAQ Grant = 12/31/2025
- BUILD Grant = 12/31/2026
- Complete BEB Program = 3/30/2029

MATA's Electric Bus Network



Funding Source	Quantity of Buses	Federal Funding	State Funding	Other Funding (TDEC)	Local Funding	Total Funding
VW Settlement	3	\$ 0	\$ 0	\$ 2,112,750	\$ 989,250	\$ 3,102,000
CMAQ	10	\$ 11,120,000	\$ 0	\$ 0	\$ 2,780,000	\$ 13,900,000
BUILD Grant	14	\$ 17,800,000	\$ 0	\$ 0	\$ 6,755,000	\$ 24,555,000
Low/No-Emission	16	\$ 22,378,905	\$ 0	\$ 0	\$ 5,032,126	\$ 27,411,031
Total	43	\$ 28,920,000	\$ 0	\$ 2,112,750	\$ 10,524,250	\$ 68,968,031.00

Source: MATA (Updated as of October 2022)

MATA Board of Commissioner's Approval for Purchase of 40 Battery Electric Buses

Passed 12/19/2023

MEMPHIS AREA TRANSIT AUTHORITY
BOARD OF COMMISSIONERS

RESOLUTION NO. 23-55

**RESOLUTION TO AWARD A CONTRACT TO GILLIG LLC. FOR THE
PURCHASE OF FORTY (40) NEW ELECTRIC BUSES**

WHEREAS, The Memphis Area Transit Authority (MATA) is a public agency responsible for providing public transportation services within the City of Memphis and surrounding communities; and

WHEREAS, MATA needs to purchase up to forty (40) new forty-foot electric buses for projects such as the Memphis Innovation Corridor BRT Line and Crosstown Connector BRT Line; and

WHEREAS, the proposal includes an option to additionally add up to ten (10) new electric buses in accordance with the terms and conditions set forth in RFP 23-13; and

WHEREAS, MATA solicited for this project and received demonstrations from two companies; and

WHEREAS, MATA determined one of the two companies was deemed non-responsive; and

WHEREAS, MATA has grant funds available for this procurement; and

WHEREAS, MATA Evaluation Committee recommends the purchase of up to forty (40) new forty-foot electric buses at a unit price of \$1,139,995.00 each for a total not to exceed the amount of \$45,599,800.00.

NOW, THEREFORE, BE IT RESOLVED BY THE MEMPHIS AREA TRANSIT AUTHORITY BOARD OF COMMISSIONERS that MATA purchase up to forty (40) new forty-foot electric buses from Gillig LLC at a total cost not to exceed \$45,599,800.00 based upon the unit prices stated above.

BE IT FURTHER RESOLVED that the Chief Executive Officer, Chief Administrative Officer, Chairman or Vice-Chairman be authorized to execute the necessary contract documents.

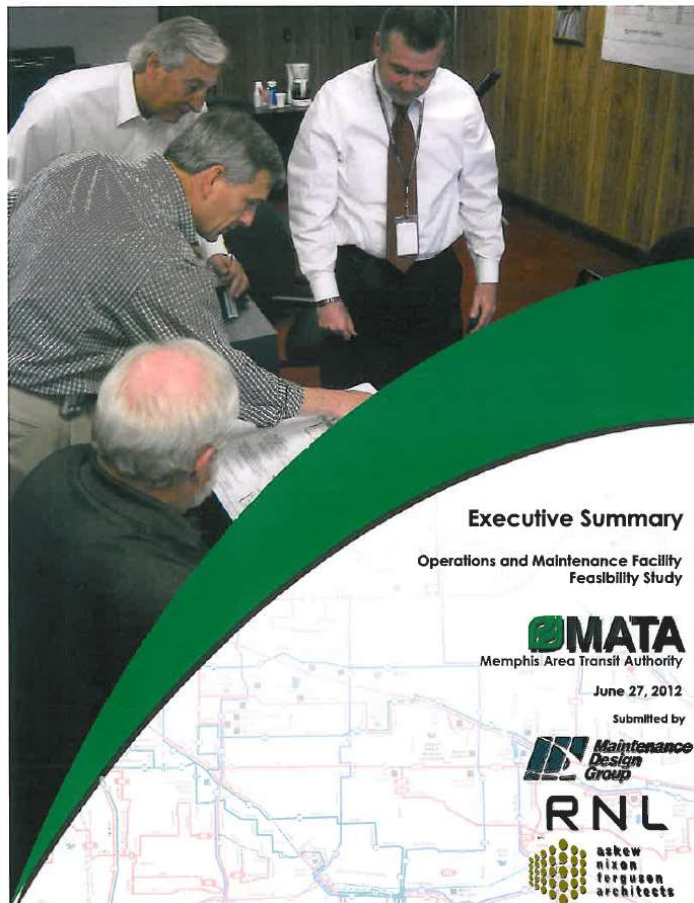
City of Memphis FY 2025-2029 Capital Improvement Program (CIP)

Summary of Requests

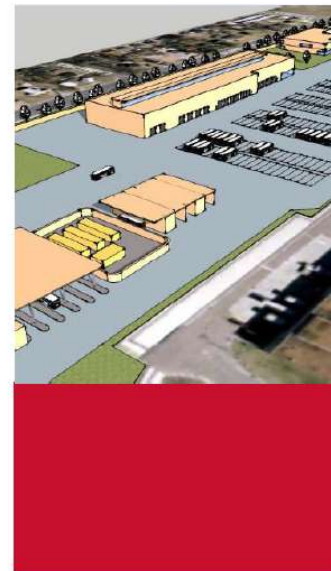
Project No. / Category	FY2025	FY2026	FY2027	FY2028	FY2029	Total
GA03028 Innovation Corridor BRT	\$7,041,500	\$0	\$0	\$0	\$0	\$7,041,500
GA03029 Transit Amenities	\$0	\$0	\$1,000,000	\$1,000,000	\$100,000	\$2,100,000
GA-TBD Fixed Route Buses	\$4,440,000	\$3,285,000	\$3,885,000	\$3,030,000	\$2,175,000	\$16,815,000
GA-TBD New Operations/Maintenance Facility	\$0	\$1,200,000	\$5,000,000	\$5,000,000	\$2,300,000	\$13,500,000
GA-TBD Paratransit Vehicles	\$287,500	\$287,500	\$287,500	\$287,500	\$287,500	\$1,437,500
GA-TBD Bus Facility Improvements	\$523,231	\$273,231	\$273,231	\$273,231	\$273,231	\$1,616,155
GA-TBD Rail Vehicles	\$0	\$0	\$0	\$2,000,000	\$1,200,000	\$3,200,000
GA-TBD Rail Facility Improvements	\$0	\$712,300	\$3,012,300	\$3,012,300	\$312,300	\$7,049,200
Total Summary of Requests	\$12,292,231	\$6,283,031	\$13,943,031	\$16,628,031	\$10,668,031	\$59,814,355



New O&M Facility Studies



SSR / HDR



MATA O&M Facilities
Study Technical
Memorandum

DRAFT

Memphis, TN
August 30, 2019

Existing 1370 Levee Road Facility Condition (2012 Feasibility Study)



Operations and Maintenance Facility Feasibility Study Executive Summary

Exhibit 1.A Levee Road Facility Condition Summary Table

Summary Table: 25-year Outlook - Recommendations for Existing Infrastructure					
	Site Utilities & Grounds	Maint. Bldg	Ops. Bldg	Admin. Bldg	Serv. Bldg
Site / Geotechnical	4	4	3	3	3
Functional and Space Utilization	2	2	3	3	3
Architectural	2	3	2	2	4
Structural	n/a	2	1	1	4
HVAC	n/a	4	4	4	4
Plumbing	4	4	3	3	4
Fire Protection	n/a	2	2	2	2
Electrical and Lighting	3	4	4	4	4
Legend of Recommendations					
1 = Generally Adequate					
2 = Basic Upgrades Needed					
3 = Extensive Upgrades Needed					
4 = Not Adequate (Extensive repairs or replacement needed)					

New Operations & Maintenance Facility (2010 Programming Report)

Exhibit 4.A Space Needs Program Summary

SUMMARY		Area (SF)		Area (SF)		Area (SF)	
<u>Building Areas</u>							
Total MATA Transit Administration Areas		11,368		16,758		16,930	
Total Fixed Route Bus Operations Area		5,700		13,504		15,861	
Total MATAPlus Areas		1,287		6,223		6,734	
Total MATA Bus Maintenance Office and Support		8,446		7,860		8,748	
Total MATA Bus Maintenance Areas		93,130		112,552		155,458	
Total MATA Service Areas		18,044		18,261		26,945	
Total All Building Areas		137,975		175,157		230,676	
<u>Exterior Parking Areas</u>							
Total Exterior MATA Parking Areas		301,607		577,660		824,318	
Total All Exterior Areas		301,607		577,660		824,318	
Total All Areas		439,582		752,818		1,054,995	
Site Circulation Factor (includes setbacks, landscaping, etc.)		71%	331,200	75%	564,613	75%	791,246
GRAND TOTAL		908,757.65		1,317,431		1,846,240	
ACRES		20.86		ACRES	30.24	ACRES	42.38

MATA New Operations and Maintenance Facility Project

- National Environmental Policy Act (NEPA)
 - SHPO Finding of No Adverse Impacts - April 30, 2024
 - DCE approved May 21, 2024
- Site Selection and Real Estate Acquisition
 - FTA Appraisal Concurrence – September 27, 2024
 - FTA Approval of Scope Change Request November 4, 2024
 - Purchase Sale Agreement Negotiations – November 2024
 - MATA Board Approval - December 2024
 - City of Memphis City Council Approval – January 2024

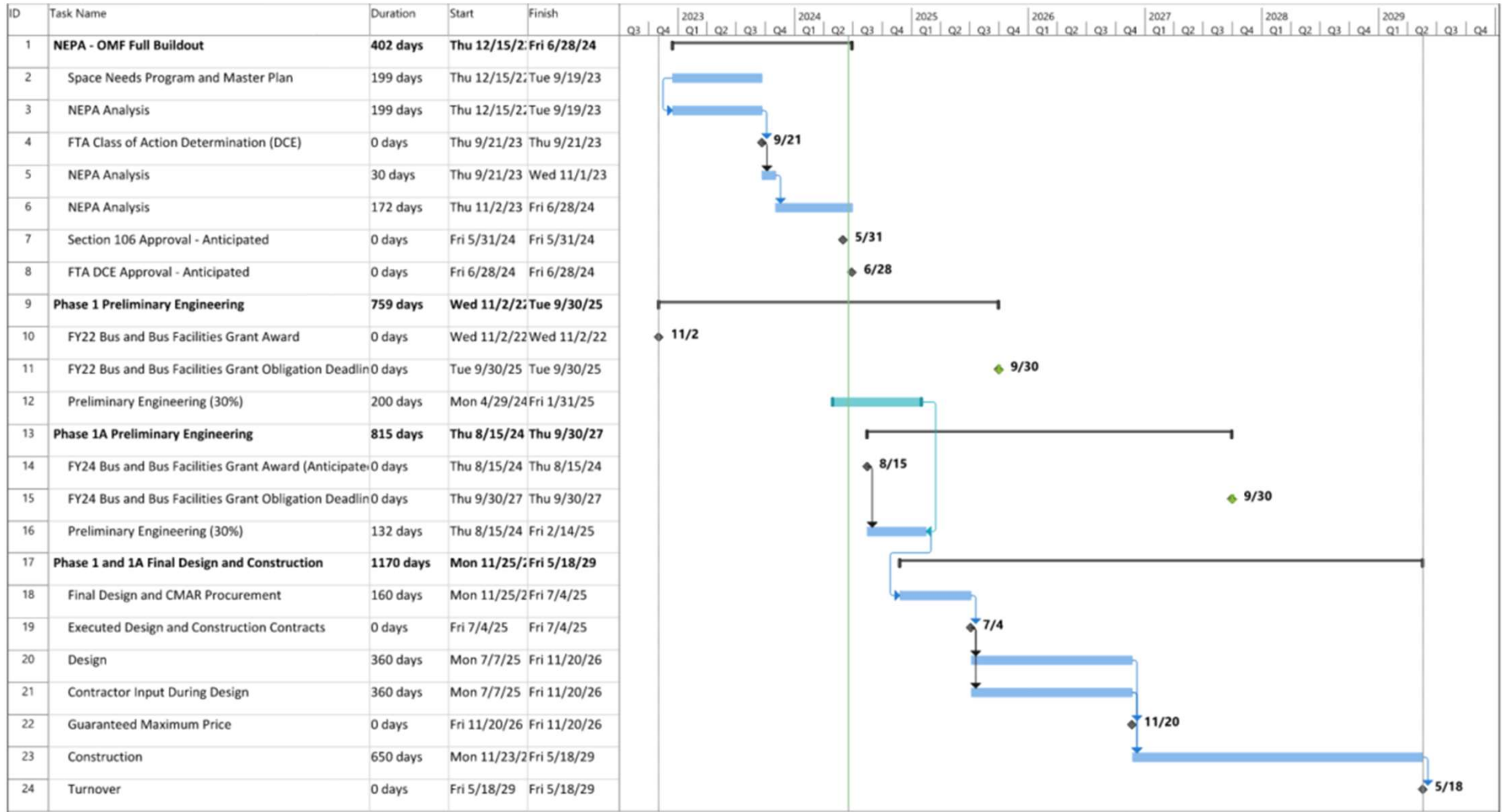


FY 2022 Bus and Bus Facilities Grant – Phase 1

- Zero Emissions Fixed route Facility
 - Serves a Fleet of 50 BEB
 - Property Acquisition
 - Dispatch
 - Repair Bays
 - Fare Recovery
 - Interior Cleaning and Bus Wash
 - Exterior Surface Parking
- Preliminary Engineering in Progress



Implementation Schedule – Phase 1



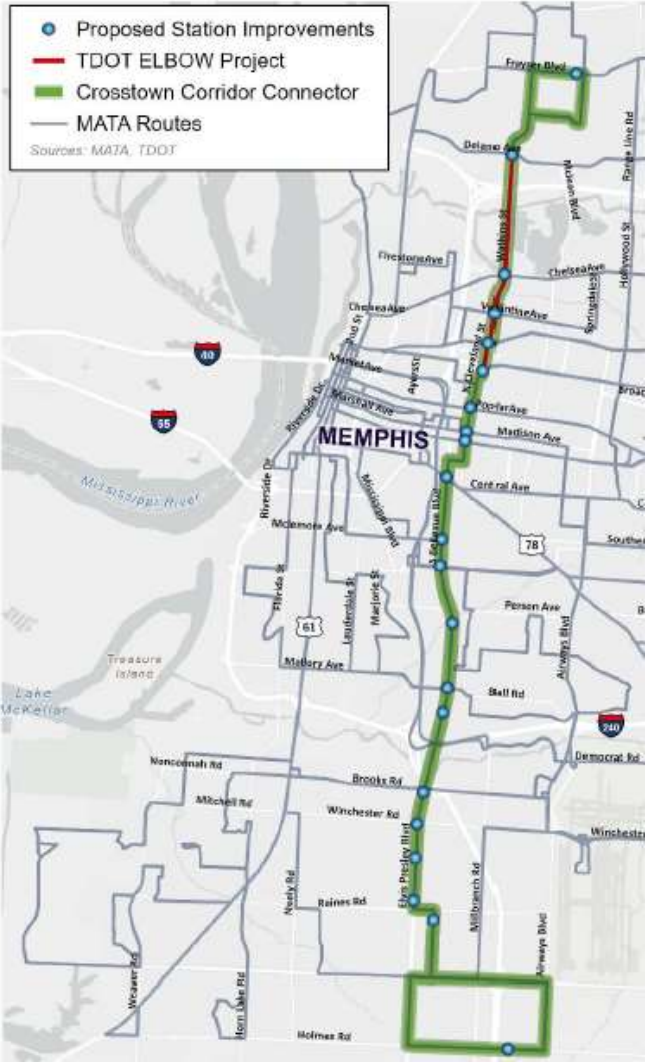
Memphis Crosstown Corridor Project

CROSSTOWN CORRIDOR CONNECTOR

"Connecting Memphis from Inside"

Project Readiness

Figure 3: Detailed Program Schedule



Questions / Comments?

