



## ***WELCOME!***

*Today's Executive Board meeting is being held online.  
The meeting will begin shortly.*

***Please be prepared to mute your audio following roll call.***

**Call In: 650 479 3208   Meeting Code: 2531 311 2241   Meeting Password: meet**

### **PUBLIC COMMENTS SPEAKER SIGN UP SHEET:**

**<https://docs.google.com/spreadsheets/d/1W8wcWQGj1QqV4uQyKruJcdxH3zjr8eQ9bwbmii360Lg/edit?usp=sharing>**

**Download Presentation Slides: <https://campo.legistar.com/Calendar.aspx>**



NC Capital Area **Metropolitan Planning Organization**

# **Executive Board Meeting**

**March 15, 2022**

**4:00 PM**

## 1. Welcome and Introductions

### *Roll Call of Voting Members & Alternates*

Town of Angier

Town of Apex

Town of Archer Lodge

Town of Bunn

Town of Cary

Town of Clayton

City of Creedmoor

Franklin County

Town of Franklinton

Town of Fuquay-Varina

Town of Garner

GoTriangle Bd. Trustees

Granville County

Harnett County

Town of Holly Springs

Johnston County

Town of Knightdale

Town of Morrisville

NCDOT - Div 4

NCDOT - Div 5

NCDOT - Div 6

City of Raleigh

Town of Rolesville

Wake County

Town of Wake Forest

Town of Wendell

Town of Youngsville

Town of Zebulon

### Ex Officio Non-Voting Members:

Federal Highway Admin.

NC Turnpike Authority

## 2. Adjustments to the Agenda

Added item 6.6 ACT 23-352 - LAPP Additional Funding Request  
Mingo Creek Greenway Extension project

### 3. Ethics Statement:

*In accordance with the State Government Ethics Act, it is the duty of every Executive Board member to avoid conflicts of interest.*

*Does any Executive Board member have any known conflict of interest with respect to matters coming before the Executive Board today? If so, please identify the conflict and refrain from any participation in the particular matter involved.*

## 4. Public Comments

*This is an opportunity for comments by those in attendance. Please limit comments to three (3) minutes for each speaker.*

## 6. Consent Agenda

- 6.1 *February 15, 2023 Executive Board Minutes*  
**Approve the February 15, 2023 Meeting Minutes.**
- 6.2 *NCLM Insurance Pool Program*  
**Approve the interlocal agreement and resolutions and enter into NCLM insurance pool program.**
- 6.3 *Draft 2024-2033 TIP/STIP Update*  
**Approve the swap of U-5966 for U-5751 at the Regional Impact level and U-6193 for U-6117, U-6119, and TD-5307 at the Division Needs level in the 2024-2033 Transportation Improvement Program.**
- 6.4 *Enhanced Mobility of Seniors & Individuals w/Disabilities Section 5310 Program Memorandum of Understanding (MOU)*  
**Authorize the CAMPO Executive Director to execute the MOU.**
- 6.5 *Mobility Management Program Implementation Study*  
**Endorse the MMIS framework and Phase 1 recommendations.**
- 6.6 *LAPP Additional Funding Request – Mingo Creek Greenway*  
**Approve additional funding request for the Mingo Creek Greenway extension project.**

**Requested Action:**  
**Approve all Consent Agenda items.**

## 7. Public Hearing

### 7.1 TIP Amendment to FY 2020-2029 Transportation Improvement Program (TIP)



## 7.1 TIP Amendment #11 to FY 2020-2029 Transportation Improvement Program (TIP)

- CAMPO has received notification from NCDOT of changes to regional projects that require amending the Transportation Improvement Program.
- Posted to CAMPO Website for Public Review/Comment
  - February 24 through March 24
  - Public Hearing scheduled for March 15
- Revision – withdraw project HL-0033 from Amendment #11

### Requested Action:

**Conduct Public Hearing. Approve TIP Amendment #11 (as revised) at the conclusion of the public comment period, pending no negative comments.**

End of Public Hearings

## Roll Call Vote for Slate of Action Items

### *Slate:*

*6.1-6.5: Consent Agenda*

*7.1: TIP Amendment #11*

Town of Angier  
Town of Apex  
Town of Archer Lodge  
Town of Bunn  
Town of Cary  
Town of Clayton  
City of Creedmoor  
Franklin County  
Town of Franklinton  
Town of Fuquay-Varina  
Town of Garner

GoTriangle Bd. Trustees  
Granville County  
Harnett County  
Town of Holly Springs  
Johnston County  
Town of Knightdale  
Town of Morrisville  
NCDOT - Div 4  
NCDOT - Div 5  
NCDOT - Div 6  
City of Raleigh

Town of Rolesville  
Wake County  
Town of Wake Forest  
Town of Wendell  
Town of Youngsville  
Town of Zebulon

### Ex Officio Non-Voting Members:

Federal Highway Admin.  
NC Turnpike Authority

## 8. Regular Agenda

- 8.1 Recommended FY 2025-2030 Wake Bus Plan
- 8.2 Draft FY 2024 Wake Transit Work Plan
- 8.3 Rapid Bus Extensions Major Investment Study Update

## 8.1 Recommended FY 2025-2030 Wake Bus Plan



# Recommended FY 2025-2030 Wake Bus Plan

February 2023



# Agenda

- 1 Overview of the Wake Transit Plan
- 2 Draft Work Plan
- 3 Wake Bus Plan

# Overview



1



## OVERVIEW

# Wake Transit Plan

In 2016, Wake County voters approved a tax package to invest in public transit. Investments in public transit were designed around four big moves:

1. Connect Regionally
2. Connect All Wake County Communities
3. Invest in Frequent, Reliable Urban Mobility
4. Enhance Access to Transit

The investment program is the **Wake Transit Plan**.

## OVERVIEW

# Wake Transit Plan

Today's presentation is about two parts of the Wake Transit Plan

### Draft Work Plan

Wake Transit Plan projects scheduled for investment between July 1 2023, and June 30 2024 (FY24).

Includes all Wake Transit Plan projects, including bus projects, but also administration, investments related to Bus Rapid Transit, and Commuter Rail.

### Wake Bus Plan

Projects related to bus service and capital improvements.

Focus is on July 1 2025 through and June 30 2027 (FY25 – FY27).

Also includes projects scheduled between July 1, 2027 and June 30, 2030 (FY28 – FY30).

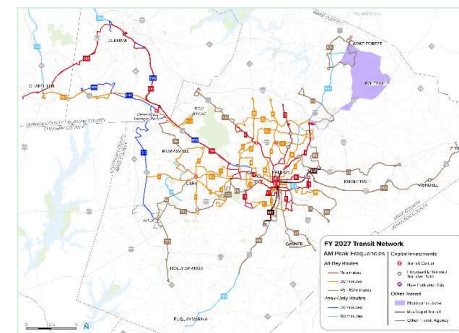
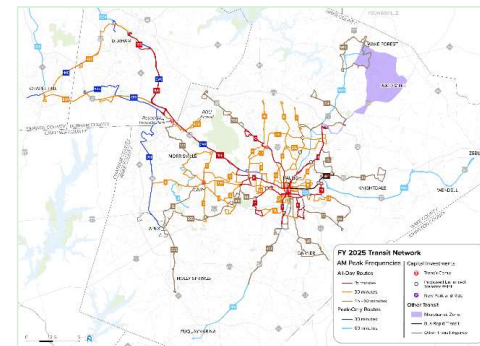
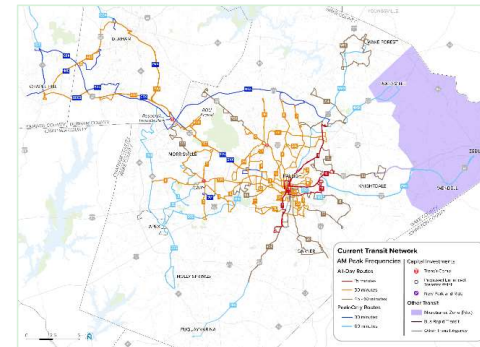
# Wake Bus Plan

A large orange circle containing the white number 2, positioned on the right side of the slide.

2

# Wake Bus Plan

- Overview of the Bus Plan
  - What it is and how it was prepared
  - What's included in the plan
- Key Themes and Recommendations
- Wake Bus Plan Outcomes



# What is the Wake Bus Plan?

The Wake Bus Plan is a year-by-year investment schedule for bus projects included in the Wake Transit Plan. It includes:

- Bus service or operating projects
  - Introduce new bus routes or bus services
  - Increase the frequency of bus routes
  - Extend the hours of operations
- Capital projects.
  - Passenger facilities (new bus stops, transit centers, etc.)
  - Vehicles (buses and vans)
  - Vehicle maintenance facilities

**Focus is on 2025 – 2027 but includes projects planned until 2030.**

# Creating the Draft Wake Bus Plan

**Bus Plan combines data and community/stakeholder input:**

- Data inputs:
  - Analysis of transit markets and needs
  - Assessment of gaps between existing services and needs
  - Evaluation of existing bus services

# Creating the Draft Wake Bus Plan

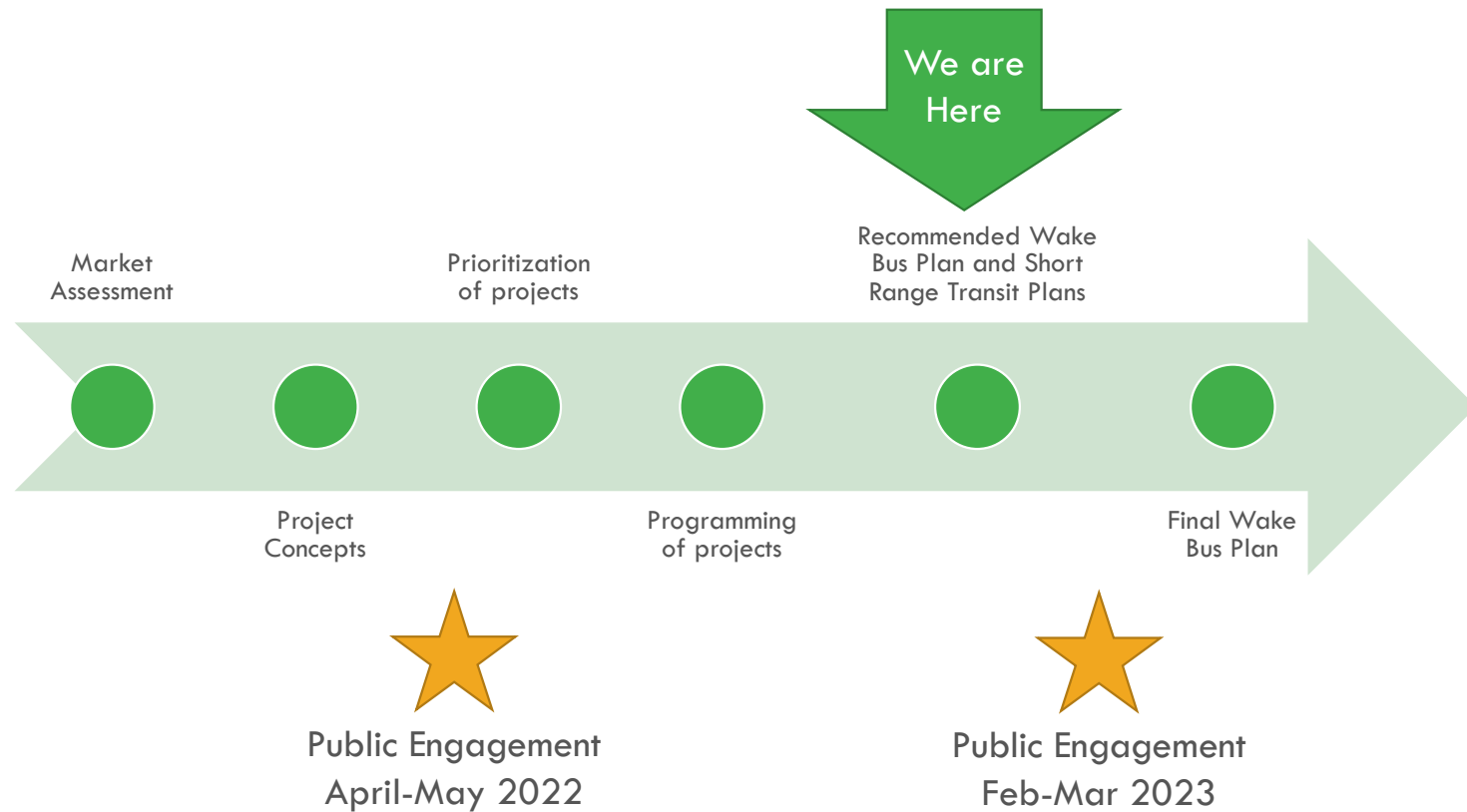
**Bus Plan combines data and community/stakeholder input:**

- Community/stakeholder engagement
  - Collected feedback on locations and types of accessibility improvements
    - Needs for investments like sidewalks, crosswalks, bike lanes, etc.
    - Conducted in Fall 2021
  - Shared draft service improvement ideas
    - Ideas for new bus routes and new service types
    - Conducted in Spring 2022
  - Current input on recommended improvements and timing
    - Ongoing (Winter 2023)



OVERVIEW

# Where are we in the process?





## Invest in Frequency

- Frequent bus routes performed well, even during COVID.
- Bus Plan looked to areas where increasing service levels – especially more frequent service – would better serve people and attract more riders.
- Examples of frequent service investments:
  - GoRaleigh Route 5 Biltmore Hills
  - GoRaleigh Route 11 Avent Ferry
  - Go Raleigh Route 3 Glascok
  - GoRaleigh Route 7L Carolina Pines
  - GoTriangle Route 100X

## All-Day Service

- Community input and changes in travel plans demonstrated a need to operate service all day long and on weekend days.
- Bus Plan expanded some services during the middle of the day and on Saturdays and Sundays.
- Examples of investments in all day service include:
  - GoTriangle Route 305 Holly Springs-Apex-Raleigh
  - GoTriangle Route ZWX Zebulon-Wendell-Raleigh
  - GoCary Route 12 ACX
  - GoRaleigh Route 12 Method

## New Service Models

- Changes in work schedules and growth in areas that have lower density develop meant the Bus Plan considered new service models, like microtransit.
- Examples of new service models:
  - GoRaleigh North Wake Microtransit (replaces Route 401X Rolesville)

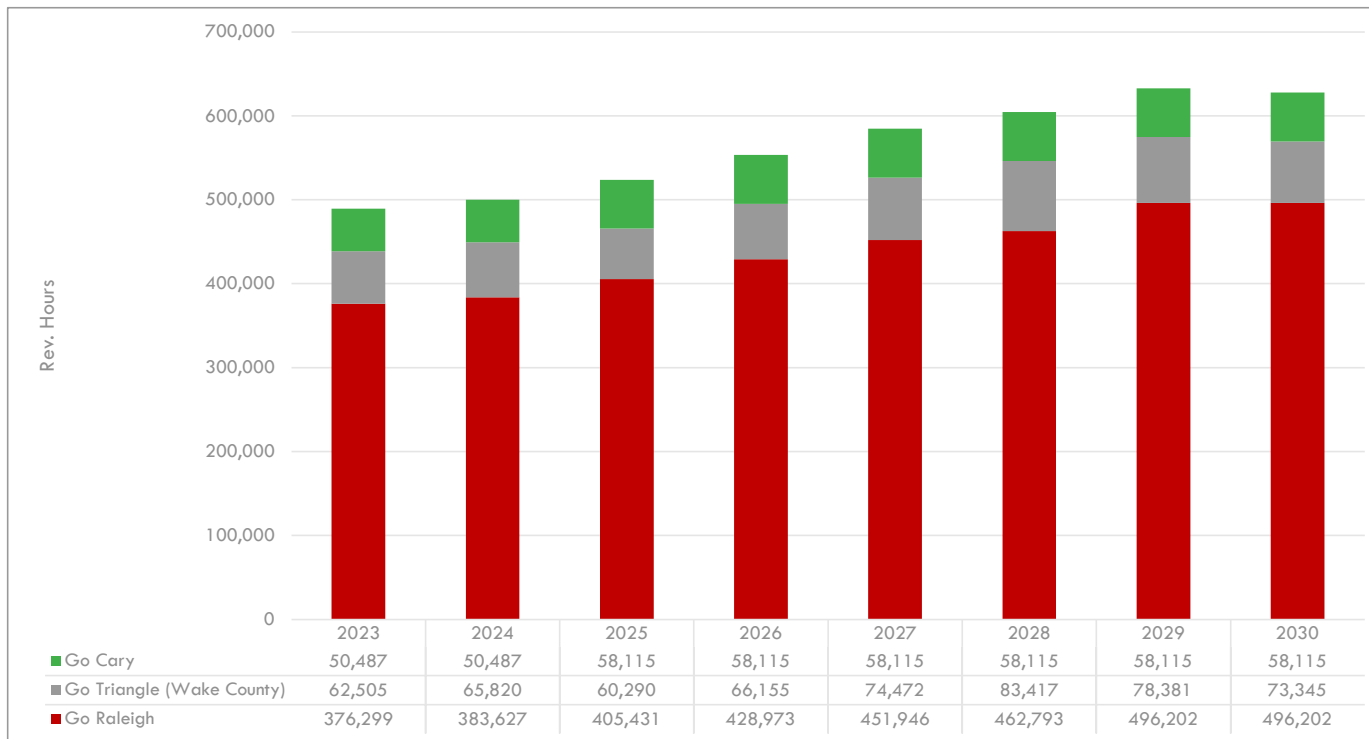
## Improve Service Performance

- Adjust route alignments or eliminate underperforming routes to ensure that the Wake Transit Plan funds and other funding sources are serving the highest need.
- Examples of adjustments and eliminations:
  - GoRaleigh North Wake Microtransit (replaces Route 401X Rolesville)
  - GoRaleigh Route 26 elimination with realignment of Route 27L and Route 4
  - GoTriangle 311 and NRX route elimination

## OUTCOMES

# Bus Service Investments

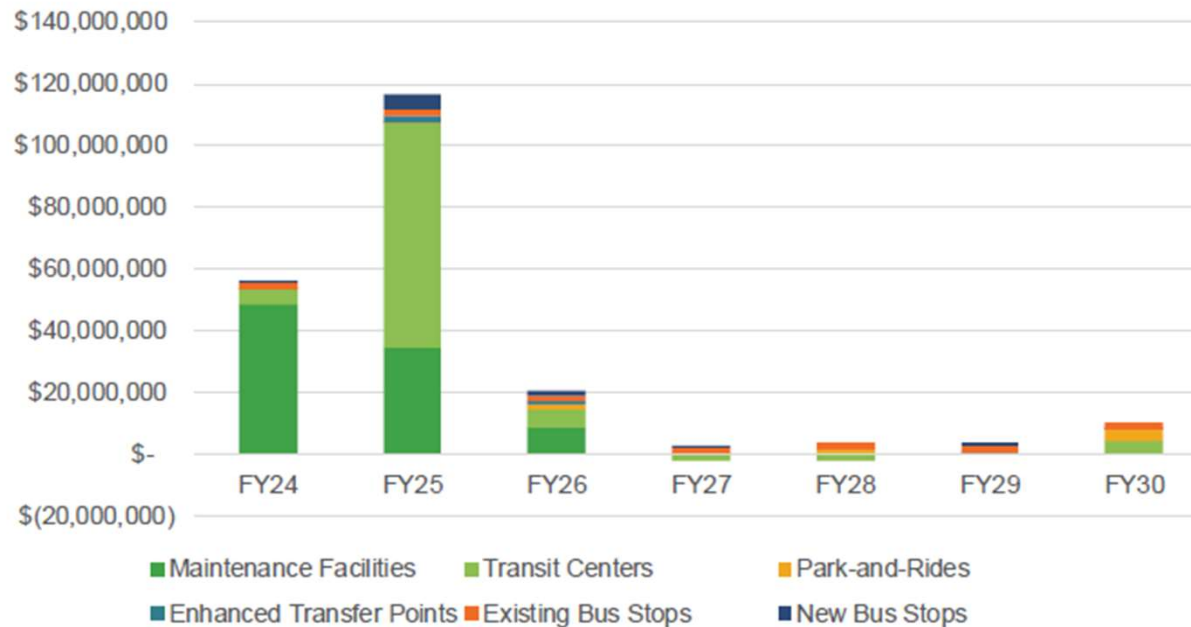
**Wake Bus Plan will increase bus service in Wake County. Adds roughly 29% more service by 2030. Most new service will be in Raleigh.**



## OUTCOMES

# Capital Project Investments

Adding service means adding and improving passenger facilities. It also means buying more buses. Plan allocates \$292 million to capital projects.

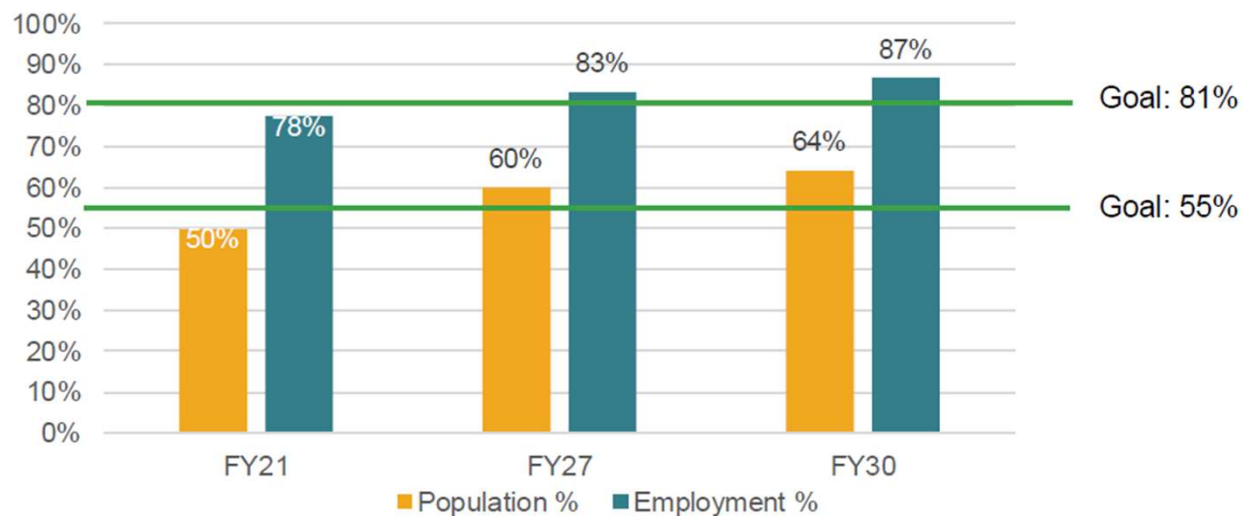


Source: Nelson\Nygaard Consulting Associates

## OUTCOMES

# Goal: Expand Access to All-Day Bus Service

**Achieves the Wake Transit Plan goal of ensuring that all-day transit service is accessible to 55% of Wake County residents and 81% of jobs in Wake County by 2027.**



Source: Nelson\Nygaard Consulting Associates

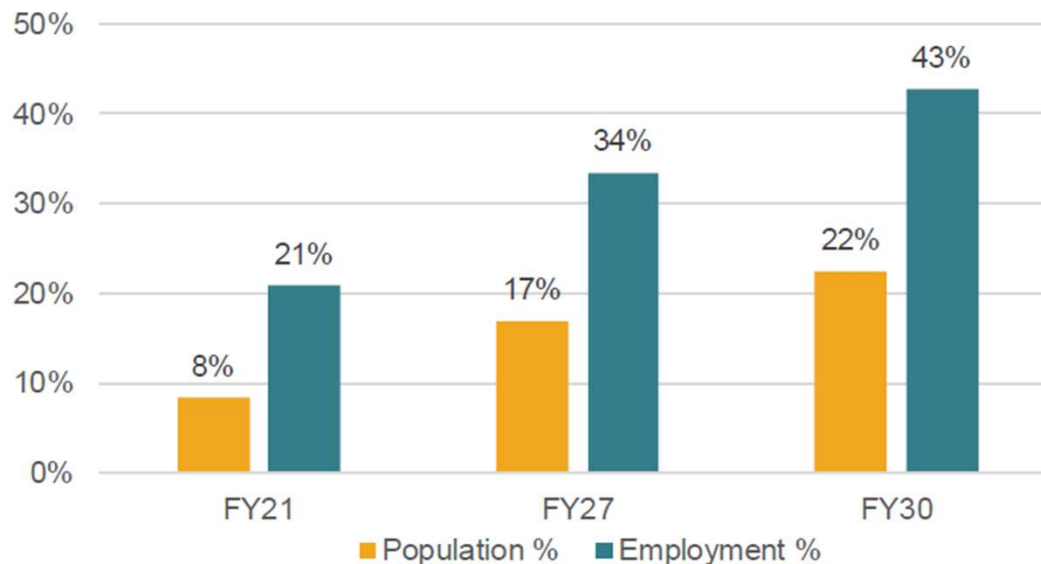
Assumes combined funding sources (contributions from individual transit agencies and Wake Transit Plan)

Includes bus, bus rapid transit, and microtransit services (within 3/4 mile of a Smart Shuttle node or within the boundaries of an on-demand microtransit zone)

## OUTCOMES

# Goal: Expand Access to Frequent Bus Service

Providing frequent and reliable urban mobility is one of the four Big Moves. The Wake Bus Plan increases the percent of residents and jobs in proximity to high frequency transit.



Source: Nelson\Nygaard Consulting Associates

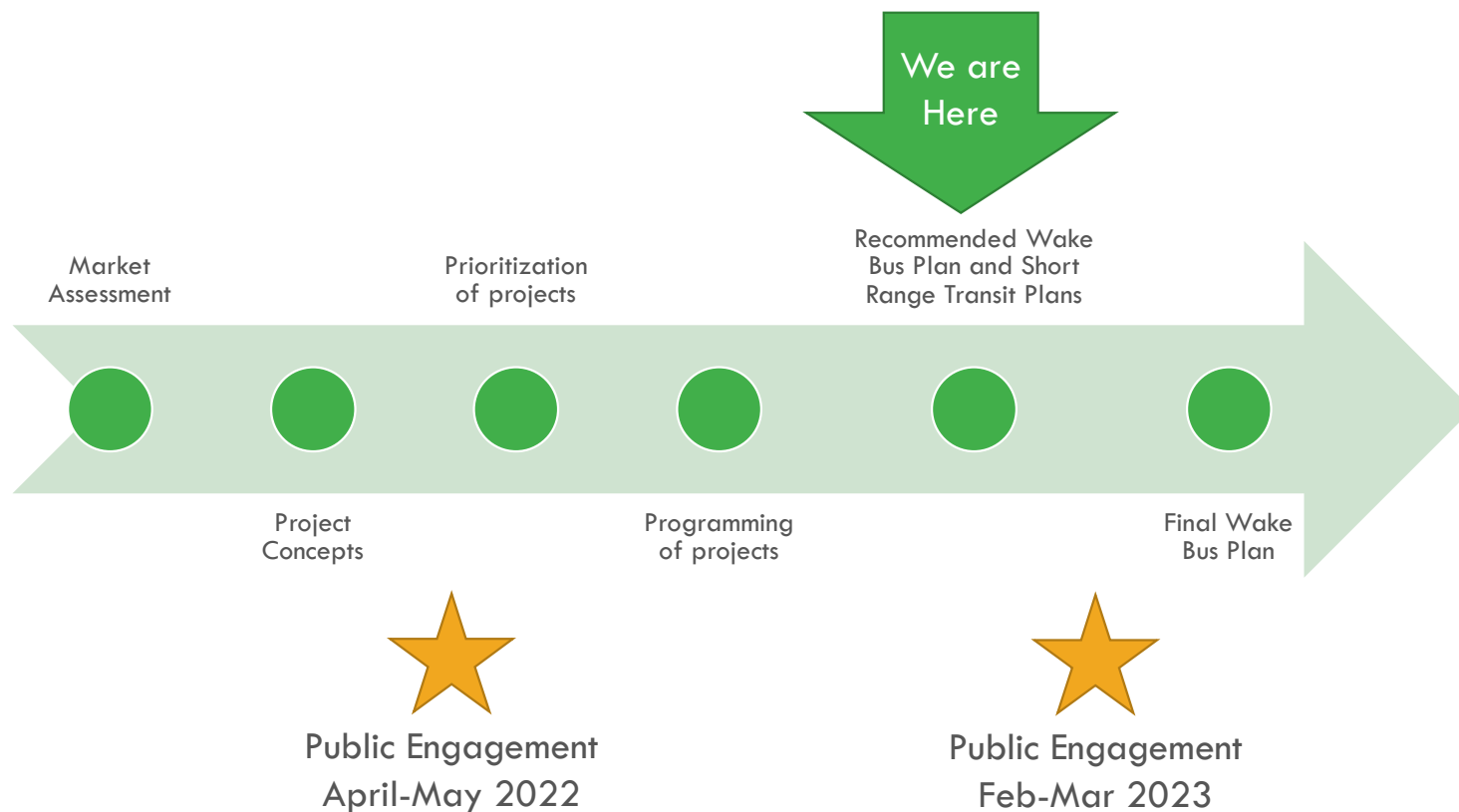
Assumes combined funding sources (contributions from individual transit agencies and Wake Transit Plan)

Includes bus and bus rapid transit.



LOOKING AHEAD

## Next Steps



# Thank You!

Jennifer Green, GoTriangle

Wake Bus Plan Project Manager

[jgreen@gotriangle.org](mailto:jgreen@gotriangle.org)

## 8.1 Recommended FY 2025 - 2030 – Wake Bus Plan

**Requested Action:**  
**Receive as Information**

## 8.2 Draft FY 2024 Wake Transit Work Plan

## Draft FY24 Work Plan Development

### Key Dates

ACTION	2023 DATE
TPAC Considers Draft Work Plan for Public Release	February 15
30-Day Public Comment Period	February 20 – March 22
Updated/Modified Work Plan Funding Requests Due	March 15
TPAC Refines Work Plan Based on Public/Project Sponsor Input & Funding Requests Received	March 22 – April 5
Distribute Recommended Work Plan to TPAC	April 5
TPAC Reviews Engagement & Considers Recommending Work Plan for Adoption	April 19
14-day public review and comment period for the recommended Work Plan	May 1 – May 14
CAMPO and GoTriangle Boards Consider Work Plan Adoption	By June

## Document Overview

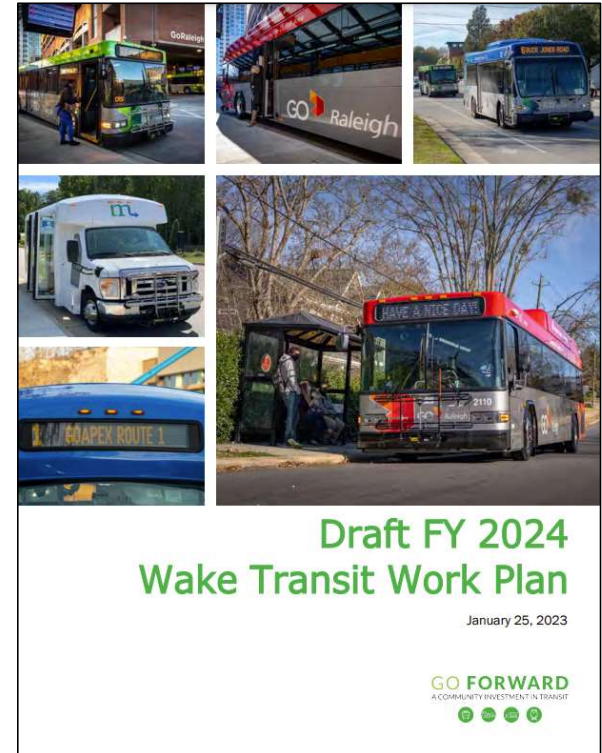
### Main Document (Pg 1 -70)

- FY24 Operating Budget
- FY24 Capital Budget
- Financial Model Assumptions

### Appendix (Pg 71 – 201)

- Multi-Year Operating Program
- Capital Improvement Plan

## Draft FY24 Work Plan Overview



# Proposed Operating Budget

FY 2024 OPERATING REVENUES	
Source	Amount
Half-Cent Local Option Sales Tax	\$21.1 million
Vehicle Rental Tax	\$4.8 million
\$7 Vehicle Registration Tax	\$6.9 million
\$3 Vehicle Registration Tax	\$2.9 million
Other: Federal, State, Fares (currently suspended), Debt Proceeds, Transit Provider Contributions, Allocation from Capital Fund Balance	\$3.3 million
TOTAL	\$39.0 million

## Draft FY24 Work Plan Overview

FY 2024 OPERATING EXPENDITUES	
Category	Amount
Bus Operations	\$32.1 million
Transit Plan Administration	\$6.3 million
Tax District Administration	\$0.6 million
TOTAL	\$39.0 million

# Proposed Capital Budget

FY 2024 CAPITAL REVENUES	
Source	Amount
Half-Cent Local Option Sales Tax	\$99 million
BRT - Southern Corridor Federal Share	\$85.9 million
Allocation from Wake Capital Fund Balance	\$18.9 million
TOTAL	\$203.8 million

## Draft FY24 Work Plan Overview

FY 2024 CAPITAL EXPENDITUES	
Category	Amount
Bus Rapid Transit	\$143.2* million
Bus Infrastructure	\$56.8 million
Vehicle Acquisition	\$3.6 million
Capital Planning	\$0.2 million
TOTAL	\$203.8 million



## Operating Highlights

The Draft FY24 Work Plan allocates \$39 million to the Wake Operating Budget. \$31.9 million of that would be designated for the continuation of services that were funded in previous years. The remaining funds would be used to:

- Realign GoRaleigh Route 5 (Biltmore Hills) and add to the frequent network
- Increase frequency and hours of service on GoTriangle Route 100 (Raleigh-Durham) & Route 300 (Cary-Raleigh)
- Increase frequency and begin all-day service on GoTriangle Route 305 (Holly Springs-Apex-Raleigh)

## Draft FY24 Work Plan Overview



## Operating Highlights (cont'd)

- Increase Sunday service on select GoRaleigh and GoCary routes
- Increase mid-day service on select GoCary routes
- Support GoWake Access Rural, Elderly and Disabled services across the county
- Continue Wake Transit Community Funding Area Program contributions to Apex Route 1, Morrisville's Smart Shuttle, and the Wake Forest Circulator
- Allocate additional Community Funding Area Program funds to new projects selected through the FY2024 application process

## Draft FY24 Work Plan Overview



## Capital Highlights

The Draft FY24 Work Plan allocates \$203.8 million to the Wake Capital Budget. \$85.9 million of the total comes from federal funding allocated for the Wake BRT: Southern Corridor, and \$19 million was allocated from the Wake Capital Fund balance. Capital funds will be used to support:

- Construction phase of the new shared GoRaleigh Access and GoWake Access paratransit operations and maintenance facility
- Replacement of the current GoCary Operations Ctr
- Wake County's share of GoTriangle's expansion of the bus operations and maintenance facility

## Draft FY24 Work Plan Overview





### Capital Highlights (cont'd)

- Design and construction of new bus stops / improvement of amenities and access to existing stops
- Improvements to GoTriangle's park-and-ride facilities
- Phase II (Land acquisition, design and construction) of the new Regional Transit Center.
- Maintenance at GoRaleigh's transit facilities including bus stops, park-and-rides, stations and centers
- Repowering buses & purchasing paratransit vehicles / buses to support transit expansion & replacement
- Technology upgrades and updates to support system-wide activities



# Greater Triangle Commuter Rail

Page 66: “To reflect that no decision has been made on if or how the project should move forward, and that decision-makers wished to explore potential options for implementation, the FY 2024 Wake Transit Work Plan includes capital and operating ‘place-holder scenarios’ for commuter rail funding.”

**Greater Triangle Commuter Rail Process and Assumptions:** As of the publication of the Draft FY 2024 Wake Transit Work Plan, the technical analysis for the Greater Triangle Commuter Rail (GTCR) Phase 2 Feasibility Study had concluded. This study reported significantly higher costs and larger technical challenges associated with completing the full commuter rail corridor than anticipated and programmed in the FY 2023 Adopted Wake Transit Work Plan. The Study also noted challenges, based on expected costs and anticipated ridership, with the 50% federal match assumption in the FY 2023 Work Plan. While the Study recommended that no matching federal grants be programmed for the initial stages of the commuter rail project, there is potential for federal funding in subsequent phases of the project. To reflect that no decision has been made on if or how the project should move forward, and that decision-makers wished to explore potential options for implementation, the FY 2024 Wake Transit Work Plan includes capital and operating “place-holder scenarios” for commuter rail funding.

The Greater Triangle Commuter Rail (GTCR) Phase 2 Feasibility Study introduced the potential need for a phased approach for implementing the full ~38 miles from West Durham to Garner. The Study presented the following potential segments with the following track length and costs:

- Western (End Points: West Durham to RTP | Miles: ~12 | Capital Cost: \$1.6B);
- Central (End Points: Ellis Road or RTP to Raleigh Union Station | Miles: ~20 | Capital Cost: \$800M - \$1B); and
- Eastern (End Points: Raleigh Union Station to Auburn Station in Garner | Miles: ~10 | Capital Cost: \$600 - \$700M)

The FY 2024 Wake Transit Work Plan capital commuter rail “place-holder scenario” allocates funding for two segments, anticipating a build out of approximately 80% of the corridor by 2037 at a total cost of \$2.1B, \$1.4B of which is assumed to be the Wake County Share of the project. The operating commuter rail “place-holder scenario” allocates \$16.1 million for the Wake County share of the first full year of annual operations in FY 2033. The FY23 work plan assumed \$28.0 million for the Wake County share of the first full year of annual operations in FY 2031. Both scenarios assume a 20% farebox recovery. It is expected that the capital and operating “place-holder scenarios” will be updated in the Wake Transit Financial Model after key decisions are made.

GTCR PROJECT ASSUMPTIONS: Adopted FY 2023 vs. Draft FY 2024 Work Plans		
	Adopted FY 2023 Wake Transit Work Plan	Draft FY 2024 Wake Transit Work Plan “place-holder scenario”
Total Project Mileage	~38 miles (from West Durham to Garner)	30 miles*
Total Wake Transit Project Cost	\$1.3B	\$2.1B*
Wake County Share	\$0.7B	\$1.4B*
Federal Participation Share	\$0.7B	\$0.7B*
Projected Debt	\$0.6B	\$0.9B*
Projected Debt Term & Pay-Off Date	30-year term, final payment FY 2059	35-year term, final payment FY 2072
Assumed Federal Support	FFGA Match	RRIF Loan (Both Phases), FFGA Match (Phase 2)
Projected Completion Date	FY 2030	FY 2033 (Phase 1), FY 2037 (Phase 2)

\* Assumed in the FY 24 WTWP is the completion of two of the three segments, but which two remains undetermined. Exact mileage and cost will depend upon which segments are selected to move forward. Amounts rounded to the nearest billion.

## Joint Bus Plan / Work Plan Public Comment Period



**GO FORWARD**  
A COMMUNITY INVESTMENT IN TRANSIT

Thank You



**GO FORWARD**  
A COMMUNITY INVESTMENT IN TRANSIT

## 8.2 Draft FY 2024 Wake Transit Work Plan

**Requested Action:**  
**Receive as Information.**



## 8.3 Rapid Bus Extensions Major Investment Study Update

# Wake BRT: Rapid Bus Extension Study

## CAMPO Executive Board

March 15, 2023



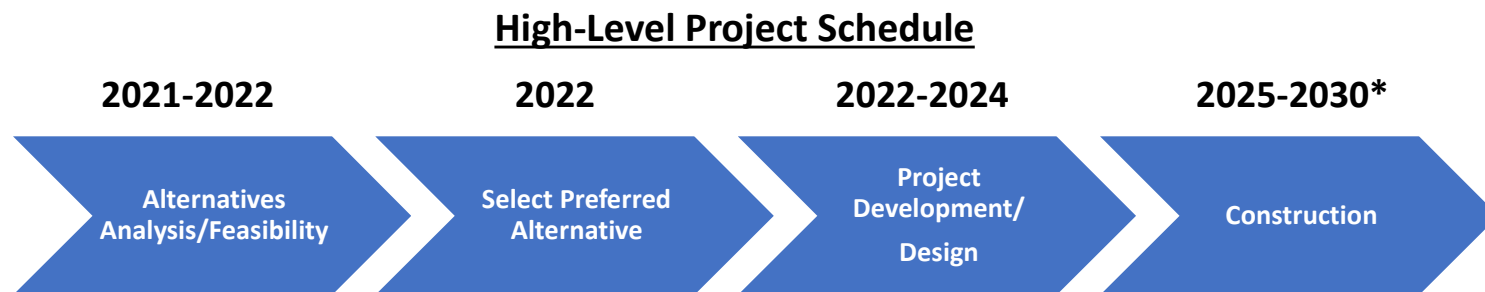
**GO FORWARD**  
A COMMUNITY INVESTMENT IN TRANSIT

# Agenda

- Project Overview
- Alternatives Development and Evaluation Process
- Community Engagement Summary
- Recommendations
- Next Steps

# Wake BRT Program

- \$115M in State Funding for Supporting Infrastructure/Vehicles for Entire Corridor
- Funding Currently Programmed in FYs 25-31 (in TIP)
- Must Integrate with Other BRT Corridors Under Development



\*BRT Extension projects cannot be constructed before Raleigh – Garner and Raleigh-Cary segments; and State funding must be available

# Rapid Bus and Bus Rapid Transit (BRT)

**Rapid Bus** transit service has four key elements: **Reliability, Speed, Comfort, and Convenience.**

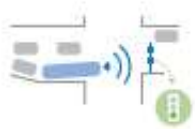
**Bus Rapid Transit (BRT)** is a high-quality bus-based transit system that delivers fast and efficient service that may include dedicated lanes, busways, traffic signal priority, off-board fare collection, elevated platforms and enhanced stations. - FTA



*Keeps buses  
on time*



*Accommodates  
changing traffic*



*Smarter  
traffic signals*



*A distinct  
look and feel*



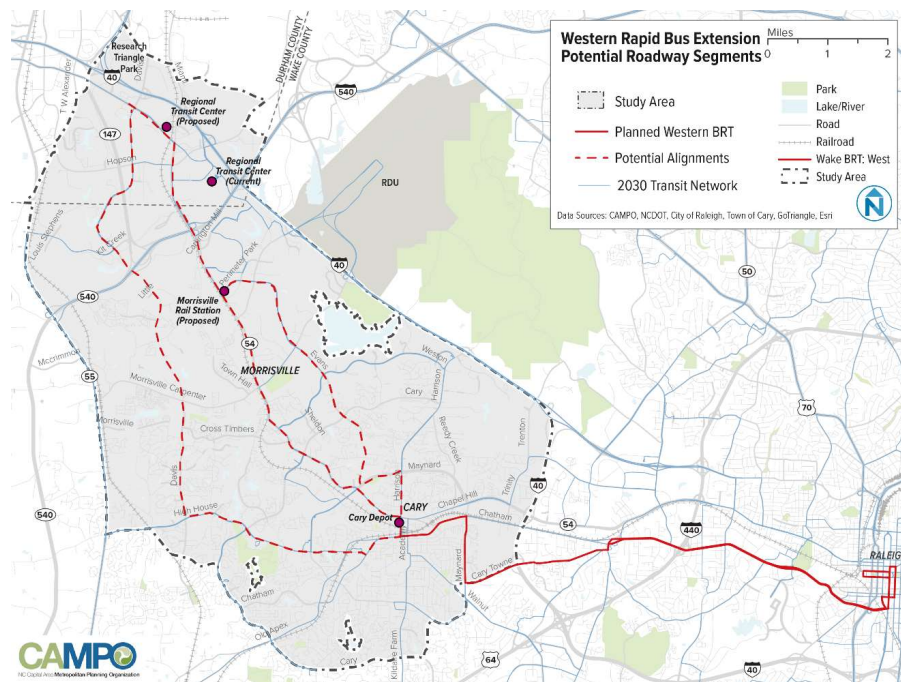
*Simpler  
fare payment*



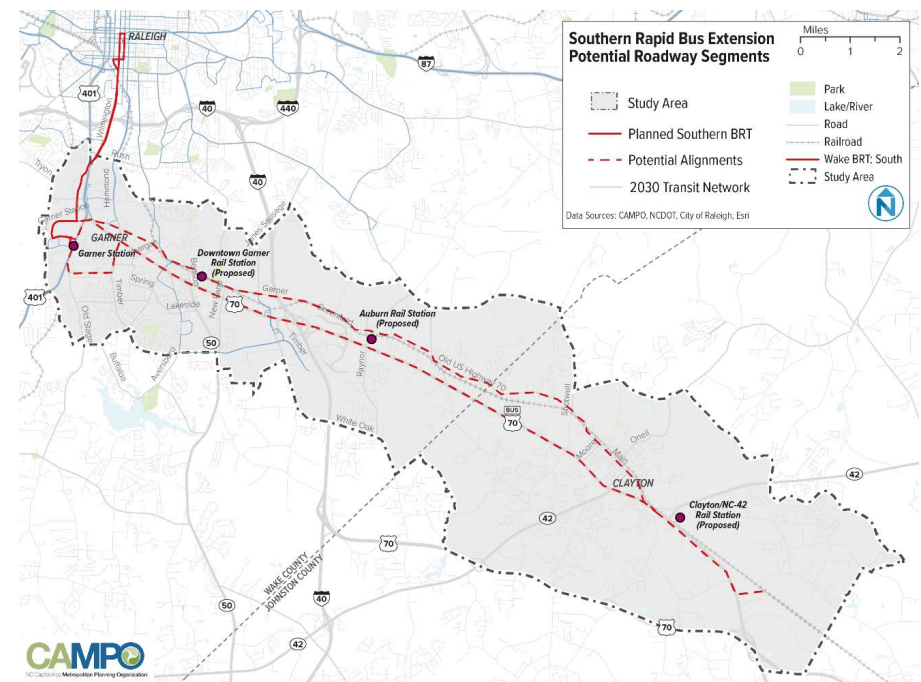
*Comfortable  
stations*

# Rapid Bus Extension Study Areas

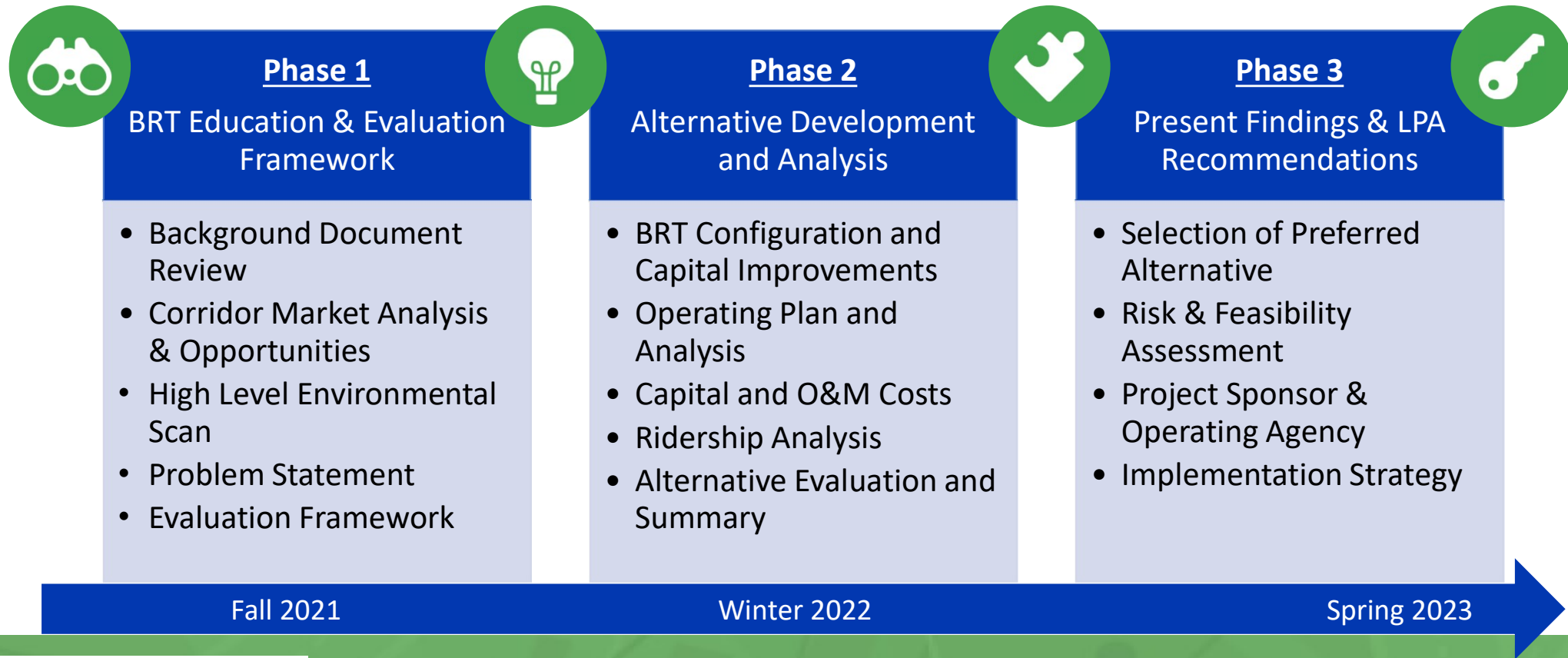
## Western Extension



## Southern Extension



# Alternatives Analysis Milestones



# Alternative Development and Evaluation Process





# Step 1 Objectives and Criteria

## STEP 1: INITIAL SCREENING

### GOAL: Access to local or regional destinations and major activity centers



#### Activity Center Connectivity

Where are the most people and jobs and daily activities centers located?



#### Supporting Plan and Policies

What infrastructure (roadway, housing, etc.) investments are included in local and county plans?

### GOAL: Access to transit services



#### Fixed Route and Regional Transit Connectivity

How can rapid bus service connect existing local and regional transit services?



#### Regional Travel Patterns

How do people travel now and in the future?

### GOAL: Productive and sustainable service



#### Direct Services

How can rapid bus connect popular destinations?

### GOAL: Safety and compatibility with the surrounding environment



#### Critical Infrastructure

What is the current state of roadways and how do they currently perform?



#### Transit Supportive Land Use

Do current and future land uses support transit?



#### Station Area and Pedestrian Environment

How walkable is the study area now and what improvements are planned?



#### Congestion

What will traffic be like in 2045 and can current roadways support it?

## Objective: Alignment Identification & Initial Screening

- Review corridor roadway segments and combine most suitable candidates into potential end-to-end alignments for detailed evaluation

## Step 2 Objectives and Criteria

### Objective: Alternative Refinement & Evaluation

- Develop detailed capital investment and operating assumptions to analyze potential benefits and tradeoffs

#### STEP 2: DETAILED EVALUATION



Station area connections to daily needs (supermarkets, hospitals, schools, retail, etc.)



Future station area employment density and total jobs

**GOAL: Access to local or regional destinations and major activity centers**



Station area population served



Equitable station area access (low-income and carless households, affordable housing, etc.)

Local and regional transit connectivity

Non-motorized connections (existing/future bikeways and trails)

Future commuter rail connections

**GOAL: Access to transit services**



Construction costs (includes purchase of land and vehicles, other capital costs)

Ongoing costs (includes cost of operation, salaries, repairs, insurance, etc.)

Potential future ridership (all riders and transit-reliant riders)

Rapid bus versus automobile travel times

**GOAL: Productive and sustainable service**



Planned roadway improvements



Roadways compatible with transit investments (speed & reliability treatments)



Station area pedestrian safety (availability of existing/planned pedestrian safety and connections)

**GOAL: Safety and compatibility with the surrounding environment**



NC Capital Area Metropolitan Planning Organization

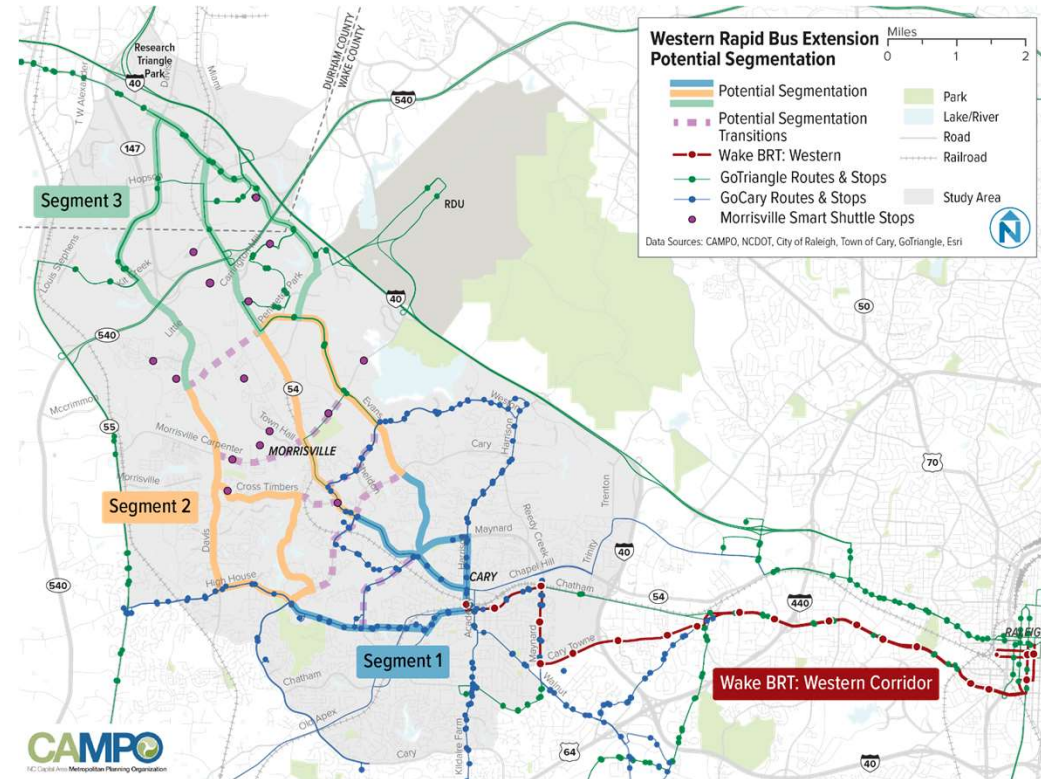
**GO FORWARD**  
A COMMUNITY INVESTMENT IN TRANSIT

# Define Draft Alternatives

## Approximate Segment Limits

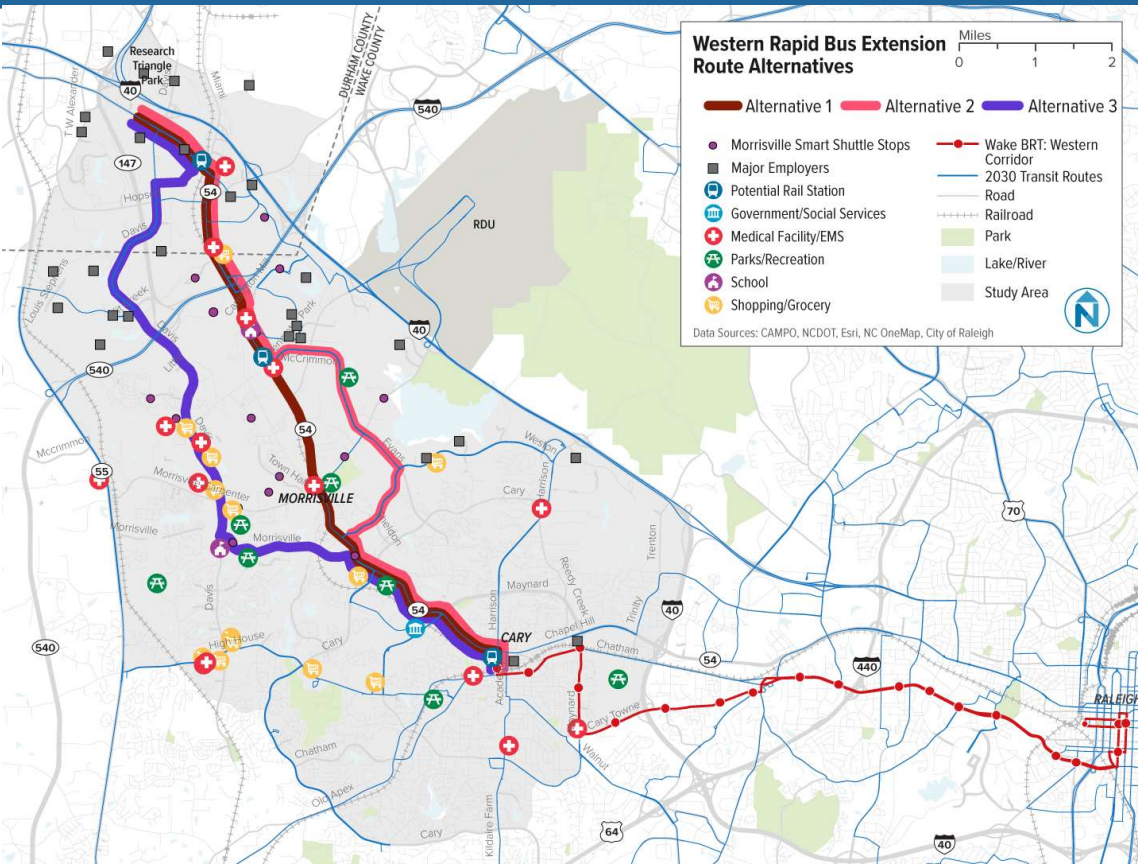
	From	To
Segment 1	Cary Depot	Cary Pkwy
Segment 2	Cary Pkwy	McCrimmon Pkwy
Segment 3	McCrimmon Pkwy	(future) RTC site
Transitions	Varies (TBD)	Varies (TBD)

*NOTE: I-40 Corridor does not address transit access and activity center connectivity needs within the corridor*





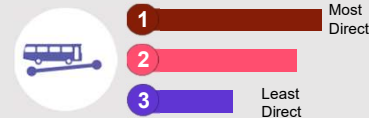
# Western Extension Alternatives



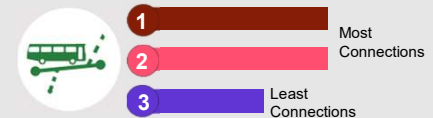
Screening results from step one of the evaluation process identified three (3) alternatives that could support rapid bus service from Cary to RTP. Each alternative also supports connection to the (future) Hub at RTP but has unique strengths and challenges.

Public input will help identify a preferred alternative.

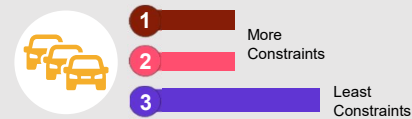
## Direct Service



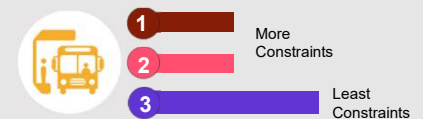
## Transit Connections



## Transit Priority and Traffic Operations



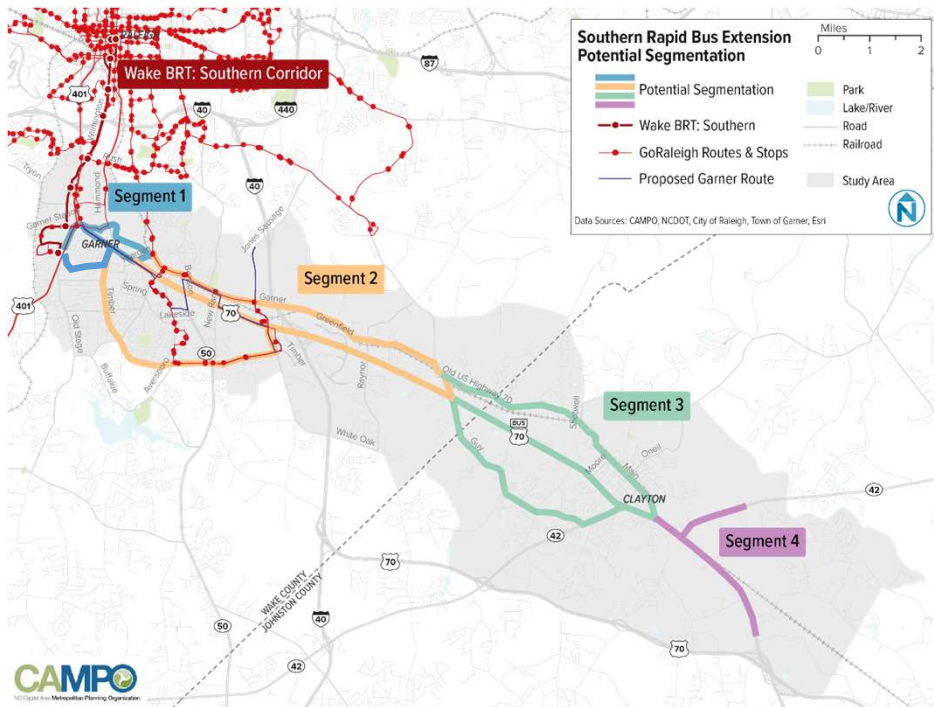
## Capital infrastructure Needs/Costs



Western Corridor Rapid Bus Extension

[WakeBRTExtensionsStudy.com](http://WakeBRTExtensionsStudy.com)

# 01 | Southern Corridor Segment Options

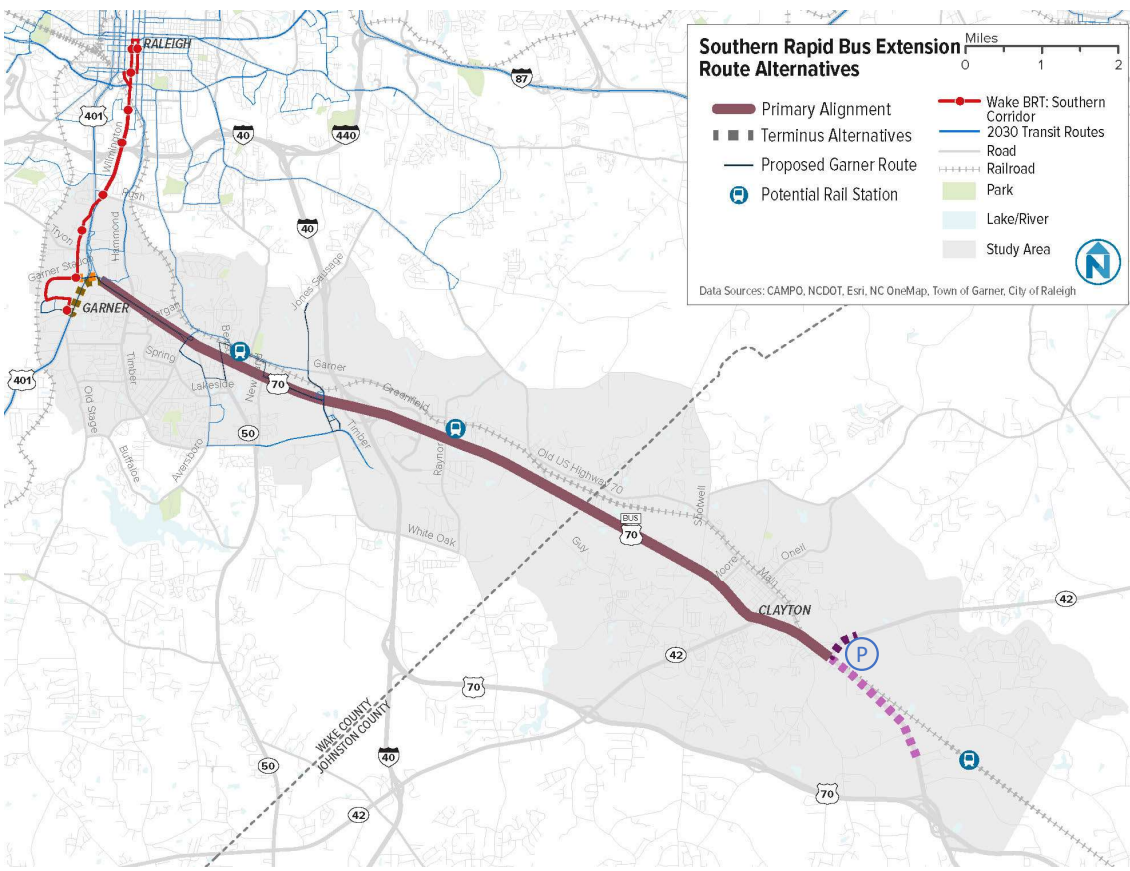


## Approximate Segment Limits

	From	To
Segment 1*	Garner Station	US 70 @ Timber Dr
Segment 2	US 70 @ Timber Dr	US 70 Bus @ Guy Rd
Segment 3	US 70 Bus @ Guy Rd	Downtown Clayton
Segment 4	Downtown Clayton	Powhatan <u>or</u> East Clayton

Note: Connection to Wake BRT Southern Corridor terminus TBD

# Southern Corridor Alternative Identified



Initial screening results from step one of the route evaluation process identified US 70/US 70 Business as the most appropriate route alignment between Timber Drive in Garner and NC 42 in Clayton. Public input will help identify preferred alternative for both ends of the segment at Garner Station and Clayton / Powhatan.

## Strengths

- Connects to major activity and employment centers
- Connects to existing and planned future transit services
- Opportunity for development in Garner and Clayton, including new developments south of Clayton on NC 42

## Challenges

- Congestion along US 70 through the Town of Clayton including the US 401 and I-40 interchanges

## Aligned Community Priorities from Phase 1



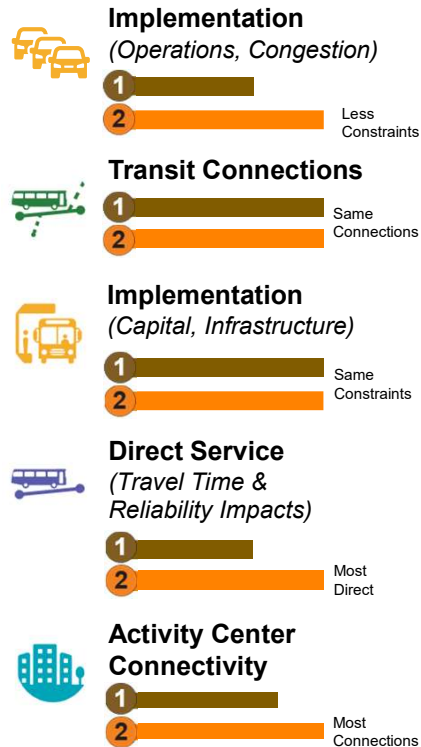
Connect to daily activities and transfer opportunities

Support economic development



# Two Options for Garner Endpoint

## Comparing the Options

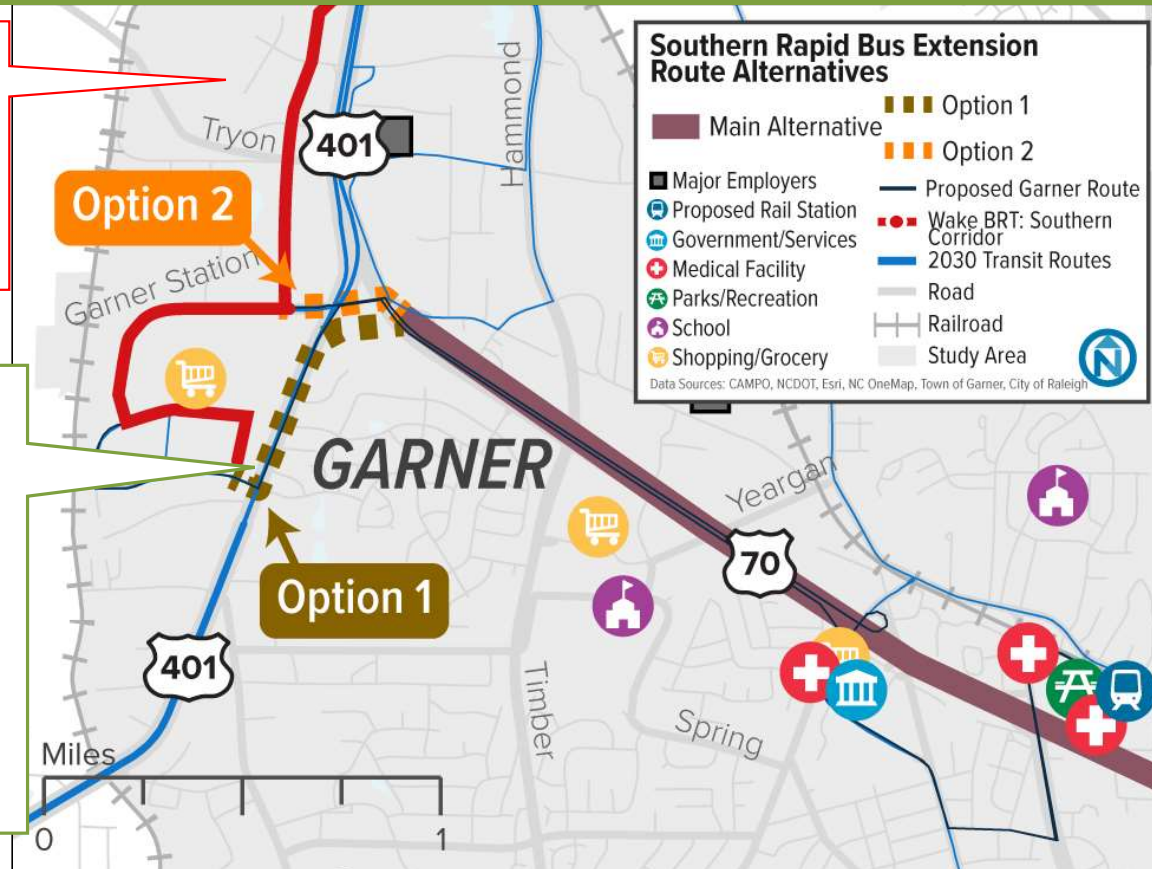


Shown in red is the planned Wake BRT: Southern Corridor route. It will bypass the busy US 70/Hwy 401 interchange by traveling on a new road proposed to connect Tryon Rd to Garner Station Blvd.

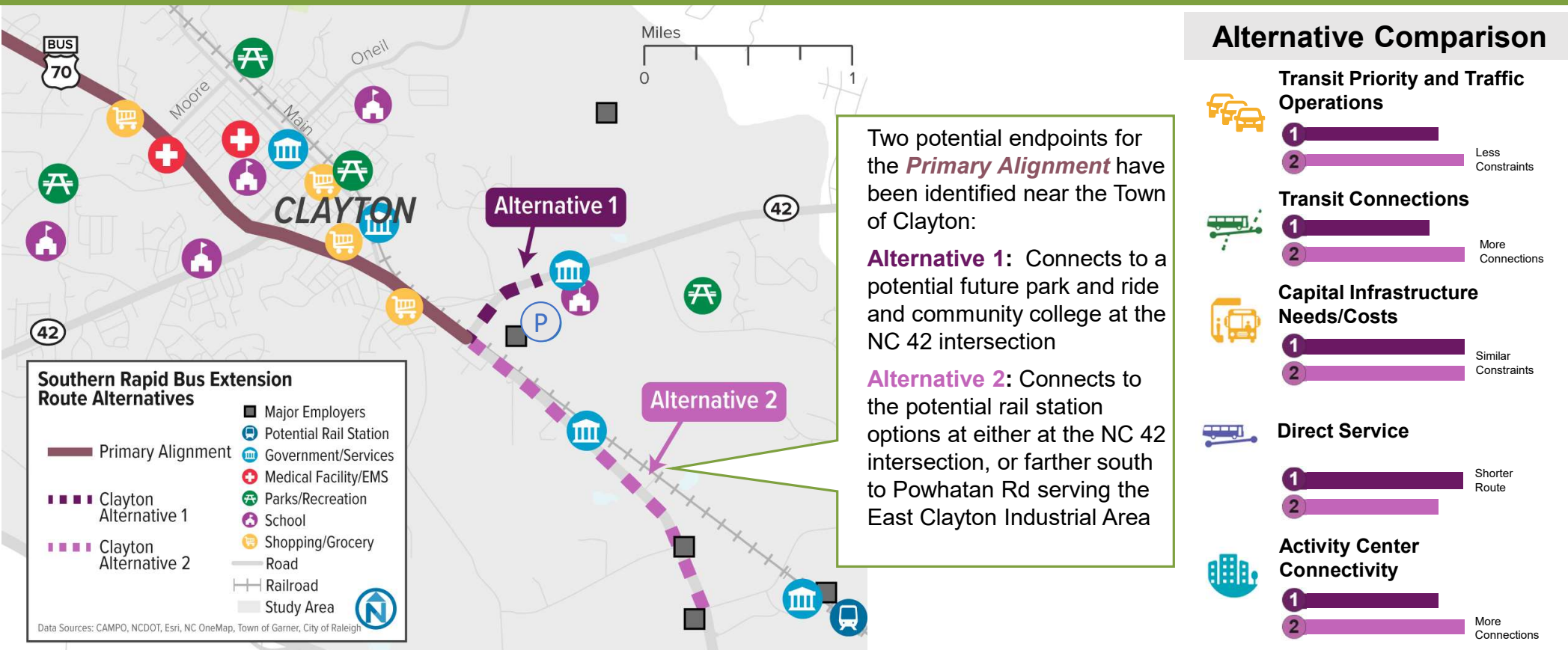
The Southern Extension route could connect to the core BRT route at one of two locations:

**Option 1:** Connects at the US 401/Fayetteville Rd Walmart

**Option 2:** Connects to the stop at Garner Station



# Clayton Alternative Endpoints

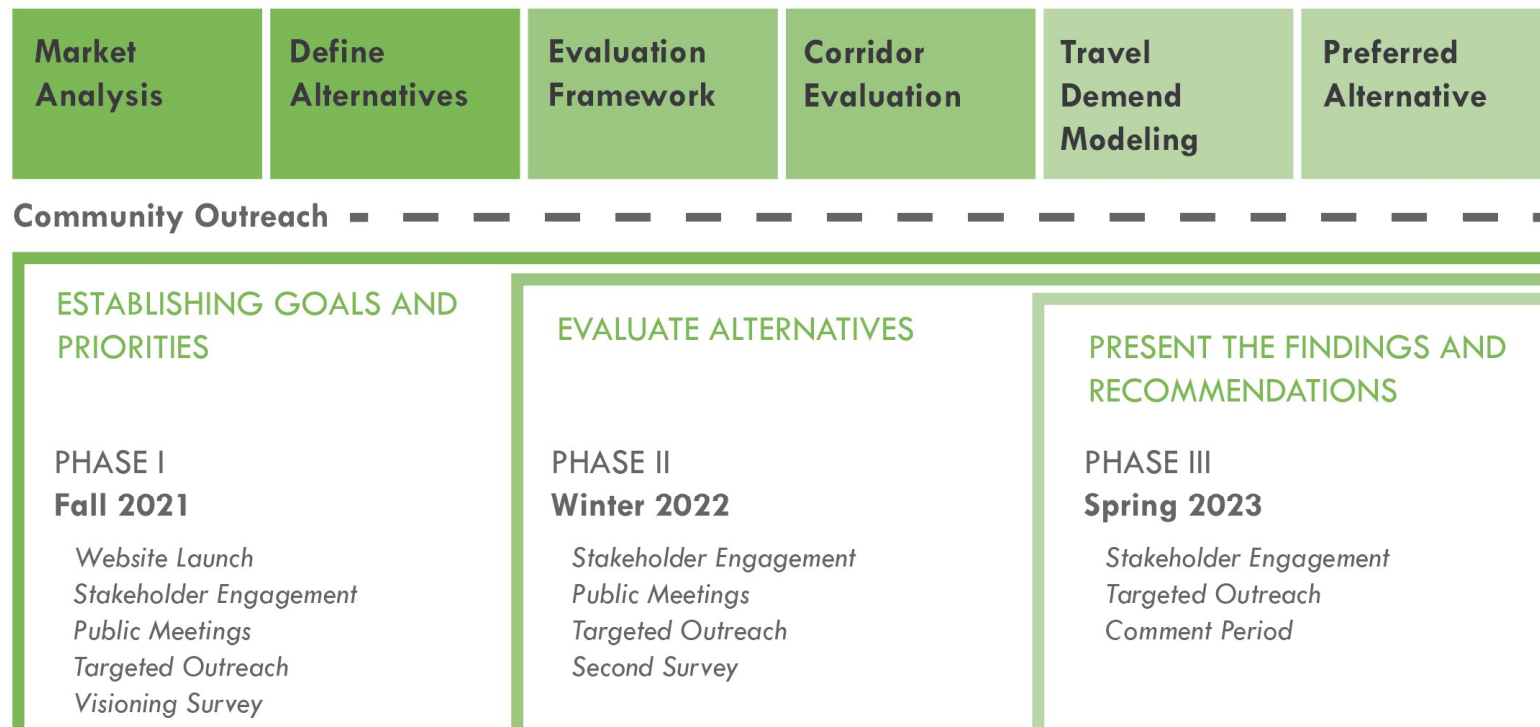




# Community Engagement Summary



## Public and Stakeholder Engagement Schedule



# Phase 1 Community Survey Results – Southern

185 Survey  
Responses

## Goal: Provide access to local and regional destinations and major activity centers.

- Connect to daily activities (grocery, retail, healthcare, and education facilities)
- Connect to transfer opportunities between different travel modes (other bus routes, trains, airplanes, etc.)
- Support economic development through connectivity with planned land-uses and transit-oriented development

## Goal: Improve access to transit services.

- Locate stations and stops in areas to reach a wide range of potential transit users

## Goal: Ensure safety and compatibility with the surrounding environment.

- Transit-specific infrastructure to improve service speed and reliability

## Goal: Develop an efficient and sustainable service.

- Provide a reliable, convenient and competitive alternative to driving
- Provide rapid bus solutions that are scalable/can grow with future needs

# Phase 1 Community Survey Results – Western

159 Survey  
Responses

## Goal: Provide access to local and regional destinations and major activity centers.

- Connect to daily activities (grocery, retail, healthcare, and education facilities)
- Connect to transfer opportunities between different travel modes (other bus routes, trains, airplanes, etc.)
- Support economic development through connectivity with planned land-uses and transit-oriented development

## Goal: Improve access to transit services.

- Locate stations and stops in areas to reach a wide range of potential transit users

## Goal: Ensure safety and compatibility with the surrounding environment.

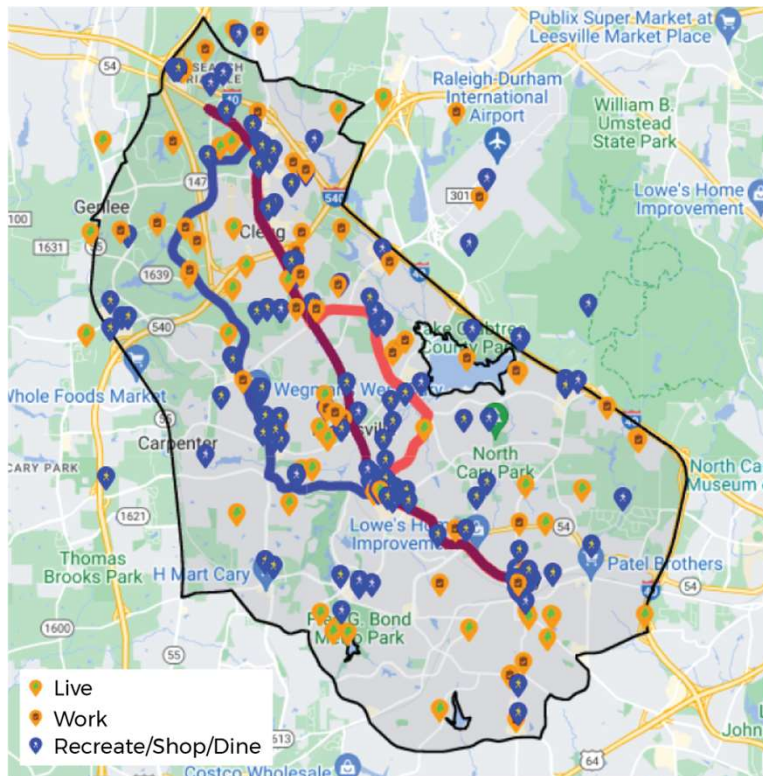
- Transit-specific infrastructure to improve service speed and reliability

## Goal: Develop an efficient and sustainable service.

- Provide a reliable, convenient and competitive alternative to driving
- Provide rapid bus solutions that are scalable/can grow with future needs

## Phase 2 Online Survey Results – Western

94 Survey  
Responses

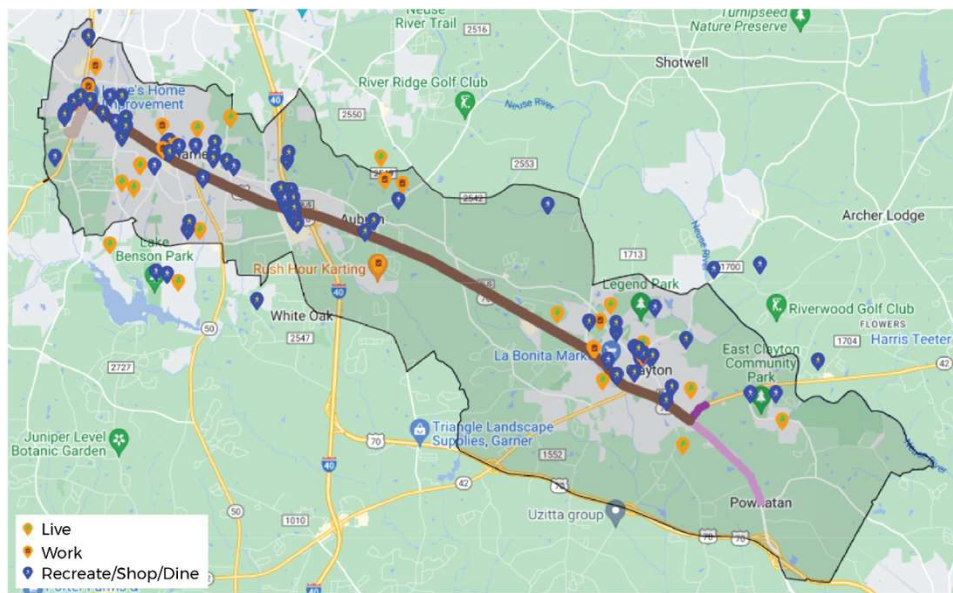


Western Corridor Results – Online Survey	Alt 1	Alt 2	Alt 3
Meets community needs very well	<b>43</b>	17	<b>40</b>
Somewhat meets community needs	29	<b>39</b>	27
Doesn't meet community needs well	7	22	13
<b>Total Responses</b>	79	78	80

Qualitative feedback will be considered in the technically  
***Recommended Alternative***, and (future) selection of station locations

## Phase 2 Online Survey Results – Southern

56 Survey  
Responses



Southern Corridor Results - Online Survey	Garner Station Alt 1	Garner Station Alt 2	Clayton Station Alt 1	Clayton Station Alt 2
Meets community needs very well	19	18	<b>31</b>	17
Somewhat meets community needs	<b>24</b>	<b>27</b>	14	<b>25</b>
Doesn't meet community needs well	7	6	3	6
<b>Total Responses</b>	50	51	48	48

Qualitative feedback will be considered in the technically **Recommended Alternative**, and (future) selection of station locations



## Phase 3 Comments Received

- 8 Public comments about Western Ext
  - alignment preferences, connectivity interests and opportunities
- 2 Public comments about Southern Ext
  - both supportive of recommendations
- 3 General comments
  - Zero emission vehicles, implementation timeline, network investment and frequency improvements
- NC Dept of Natural and Cultural Resources -- State Historic Preservation Office (SHPO)
  - Section 106 – National Historic Preservation Act
  - Section 4(f) – National Transportation Act
- Town of Morrisville
  - Supportive of Western Alt 2 recommendation
  - City's continued investment in TOD plans and land uses



# Recommendations





## Comparison of Alternatives - Western

Alt	Description	Weekday Ridership	Capital Cost	Annual O&M Cost	Pk Run Time	Evaluation Score
1	Chapel Hill Rd / NC 54	1,050	\$26.1	\$1.8 to \$2.4 M	28:20	28.4
2	Evans / McCrimmon to NC 54	750	\$29.2	\$1.8 to \$2.4 M	30:35	28.7
3	Davis Dr	600	\$27.6	\$1.8 to \$2.4 M	33:40	25.6
--	1-Seat Ride (RTP to Raleigh)	2,200	\$36 M to \$43 M	\$3.6 M to \$4.8 M	(+) 26:20	--

<sup>†</sup> includes 30% allocated + 20% unallocated contingencies

<sup>††</sup> Variations in 1-seat ride run time may require additional resources to maintain frequency, resulting in increased O&M cost

## Recommended Locally Preferred Alternative (LPA)

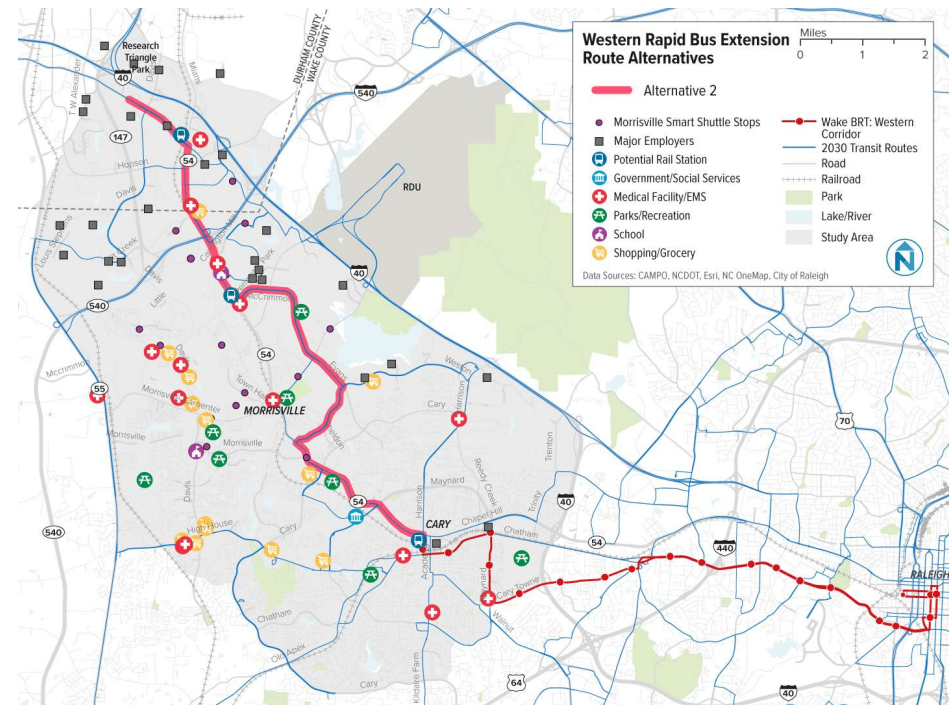
**Recommended Mode:** Zero-emission buses, with speed and reliability investments (TSP and queue jump lanes) were feasible.

**Recommended Alignment:** **Alternative 2 (NC 54 and Evans Rd)** has better redevelopment opportunity and potential for transit speed and reliability treatments. It also avoids constrained segments of NCRR right of way.

RTP to Raleigh 1-seat service

**Opening year:** beyond 2035

*LPA may be amended following future studies*



## Comparison of End-to-End Alternatives - Southern

Dist. (mi)	Description	Weekday Riders (2050)	Capital Cost†	Annual O&M Cost††	Peak Travel Time (min)
13.9	<b>Garner Station to NC 42</b>	2,340	\$32 M	\$1.8 to \$2.4 M	31:15
17.0	<b>Garner Station to Powhatan (ECIA)</b>	2,400	\$34 M		35:15
22.0	Powhatan to Raleigh (1-seat ride)	4,500	\$38 M	\$3.5 to \$4.5 M*	50:45

Alt	Description	Evaluation Score
G1	<b>Garner Station Blvd</b>	<b>21.5</b>
G2	<b>Fayetteville Rd</b>	<b>31.4</b>

Alt	Description	Evaluation Score
C1	<b>US 70 Bus at NC 42</b>	<b>28.5</b>
C2	<b>Powhatan (ECIA) Extension</b>	<b>28.3</b>

† includes 30% allocated + 20% unallocated contingencies

†† Variations in 1-seat ride run time may require additional resources to maintain frequency, resulting in increased O&M cost

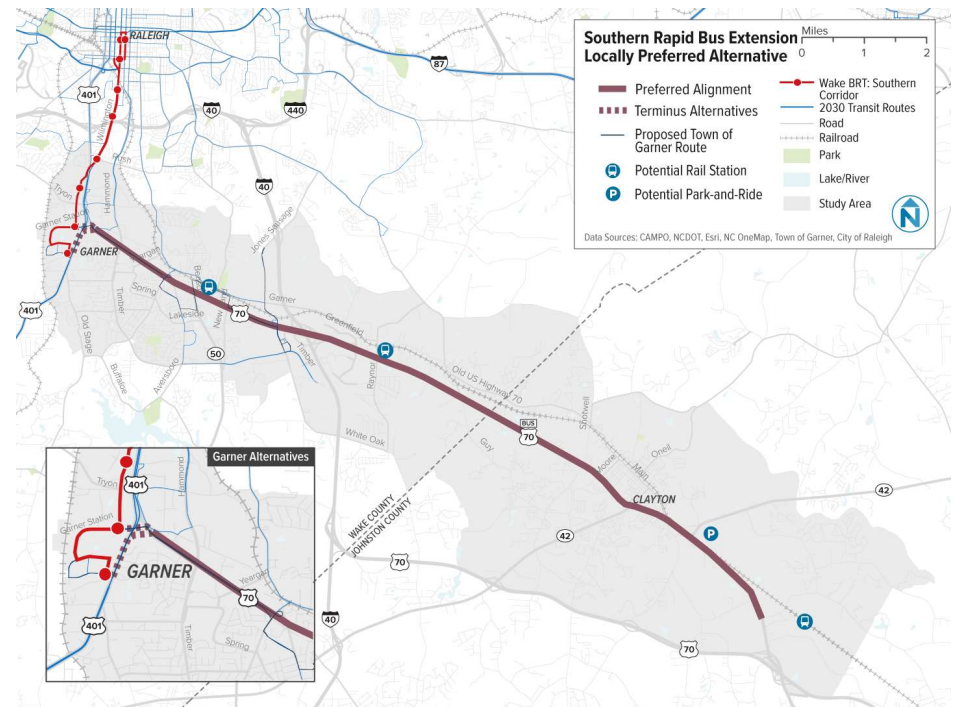
## Recommended Locally Preferred Alternative (LPA)

**Recommended Mode:** Zero-emission buses, with speed and reliability investments (TSP and queue jump lanes) were feasible.

**Recommended Alignment:** US 70 / 70 Business to Powhatan Rd provides additional connectivity to East Clayton Industrial Area (ECIA). Routing at Garner Station terminus will optimize for through service to Raleigh.

**Opening year:** beyond 2035

*LPA may be amended following future studies*



# Next Steps



# Further Study and Analyses

## Operational Questions

- Should Express Bus extensions operate at the same (or lower) frequency as Core BRT?
- Can Express Bus segment operate at different frequency than BRT if they are using the same/interlined fleet?
- Will Rapid Bus operate as an overlay to BRT (Cary to Raleigh)?
  - If yes, is Rapid Bus serving all stops vs skip-stop?

## Zero Emissions Vehicles

- Compatibility with Western BRT (Cary to Raleigh)
  - 40' standard or 60' articulated
  - Equipped for left-door boarding at center-running BRT stations
- Supporting facilities

## Future Iterations

- Wake Bus Plan updates
- MTP updates
- Land Use and Travel Demand Modeling
  - Effects of Commuter rail
  - Changes to regional travel patterns
  - Continued land use changes
- Operation of critical first-last mile mobility services (circulators, microtransit, shuttles, etc.)

## Path to Project Development

- Update Wake BRT standards 2023 - 24
- Rapid Bus Ext: Concept of Operations (Con-Ops) and analyses 2024 - 25
- Update demand-modeling forecasts 2025 - 26
- Project Sponsorship determination 2025 - 26
- Local funding and FTA competitiveness and/or application 2026 - 27



## Rapid Bus Corridor Extension: LPA Adoption Process Next Steps

- TCC (Mar 2)
- DCHC (Mar 8, 22)
- CAMPO Exec Board, TPAC (Mar 15)
- Additional Funding >> Operational Study >> Project Sponsor Determination >> LPA Adoption (through '25 – '26)
- Wake Transit concurrence





Thank You



**GO FORWARD**  
A COMMUNITY INVESTMENT IN TRANSIT

## 8.3 Rapid Bus Extension Major Investment Study

Requested Action:  
Receive as Information.

## 9. Informational Items: Budget

### 9.1 Operating Budget – FY 2023

### 9.2 Member Shares - FY 2023

**Requested Action:**  
**Receive as information.**

## 10.1 Informational Item: Project Updates

### Studies:

- Project Prioritization Methodology
- Southeast Area Study Update
- U.S. 401 Corridor Study

### Other Updates:

- Wake Transit/TPAC Updates
- Mobility Coordination Committee
- Safe Routes to School (SRTS)
- Non-Motorized Volume Data Program
- Triangle Transportation Choices (TDM Program)
- NCDOT Highway Project U-2719
- NC 540 Bonus Allocation Projects

## 10.2 Informational Item: Public Engagement Updates

**Requested Action:**  
**Receive as information.**

## 11. Informational Item: Staff Reports

- MPO Executive Director
- TCC Chair
- NCDOT Transportation Planning Division
- NCDOT Division 4
- NCDOT Division 5
- NCDOT Division 6
- NCDOT Rail Division
- NC Turnpike Authority
- NCDOT Integrated Mobility Division
- Executive Board Members

# ADJOURN

## Upcoming Events

Date	Event
March 15 4:00 p.m.	Executive Board Meeting
March 16 8:45 a.m.	Training: MPO 101
March 29 8:30 a.m.	Joint MPO Boards Meeting
April 6 10:00 a.m.	Technical Coordinating Committee Meeting

You are Confirmed!

**MPO 101**

**THURSDAY, MARCH 16, 2023**

**9 AM - 12:30 PM**

**Location**  
**Map**  
**(PDF)**

LOCATION:  
CAMPO OFFICE - LARGE CONF. RM.  
ONE FENTON MAIN STREET, SUITE 201, CARY, NC 27511  
[HTTPS://WWW.CAMPO-NC.US/CONTACT-US](https://www.campos-nc.us/contact-us)

This training is targeted at Executive Board and TCC members and alternates, as well as other interested public officials. It is a primer on the core functions of the MPO and how they relate to our member agencies. Additional elected officials or staff members are welcome to attend.







**SAVE the DATE**

**JOINT BOARDS MEETING  
CAMPO & DCHC MPO**

**Wednesday**  
**March 29, 2023**  
CAMPO Board Room  
Details to follow