



# WAKE BRT PROGRAM UPDATE

STAKEHOLDER COMMITTEE

OCTOBER 24, 2022



# WAKE BRT COMMITTEES



## Project Management Team (PMT)

Provide oversight and direction throughout the project on behalf of each perspective department or organization. Very high-level project decisions and streamline approval process.



## Technical Committee

Review technical information and provide feedback in their perspective areas of technical expertise.



## Stakeholder Committee

Receive updates on the status of the project, represent interests of their organizations, provide input from the perspective of the community on tradeoffs and priorities, as well as, give feedback on specific needs, desires and concerns of each group.

# WAKE BRT STAKEHOLDER COMMITTEE – MEETINGS

- Bi-annually to meet public engagement planned schedule
  - Fall and Spring
  - Special meetings, as needed
- Coordination with partner jurisdictions on-going
  - Monthly or bi-monthly
- COR technical coordination on-going
  - Internal COR departments and divisions

# WAKE BRT PROGRAM – OVERVIEW

## NORTHERN CORRIDOR

STATUS: Route Selection/MIS (initial review)

NEXT STEPS: Identification of LPA (2023)

## WESTERN CORRIDOR

STATUS: Preliminary Design (10%)

NEXT STEPS: Anticipated Final Design (2025)

Anticipated Construction (2027)\*

## NEW BERN AVENUE

STATUS: Advance Design (90%)

NEXT STEPS: Construction Start (2023)

Anticipated Service (2025)

## SOUTHERN CORRIDOR

STATUS: Preliminary Design (10%)

NEXT STEPS: Anticipated Final Design (2024)

Anticipated Construction (2026)\*



\* Note – Beginning of construction phase is contingent on federal funding allocation and award

NEW BERN

SOUTHERN

WESTERN

NORTHERN





# WAKE BRT PROGRAM – SMALL STARTS PROCESS



## STEP 1: Project Development

- PD Application
- Review Alternatives
- Locally Preferred Alternative (LPA)
- Local Funding Commitment
- Ratings Application
- Environmental Review (NEPA & SHPO)
- 3<sup>rd</sup> Party Agreements (NCDOT)
- Complete Engineering, Design, and Utility Coordination

## STEP 2: Full Funding Grant Agreement\*

- Construction

\* Note – Advancing to STEP 2: Full Funding Grant Agreement is contingent on federal funding allocation and award

NEW BERN

SOUTHERN

WESTERN

NORTHERN

# WAKE BRT: NEW BERN AVENUE

## Overview

- 5.39 miles, 3.3 miles dedicated
- Ten (10) stations, 19 platforms
- Seven (7) 60' articulated buses

STATION	DIRECTION	NAME
1	Outbound	GoRaleigh Station
2	Outbound	Morgan at Blount
	Inbound	Edenton at Blount
3	Outbound	New Bern at Swain
	Inbound	Edenton at Swain
4	Outbound	New Bern at Tarboro
	Inbound	Edenton at Tarboro
5	Outbound	Raleigh Blvd
	Inbound	
6	Outbound	King Charles
	Inbound	
7	Outbound	Medical District
	Inbound	
8	Outbound	Trawick Rd
	Inbound	
9	Outbound	Corporation Pkwy
	Inbound	
10	Outbound	New Hope Rd
	Inbound	East Raleigh

NEW BERN

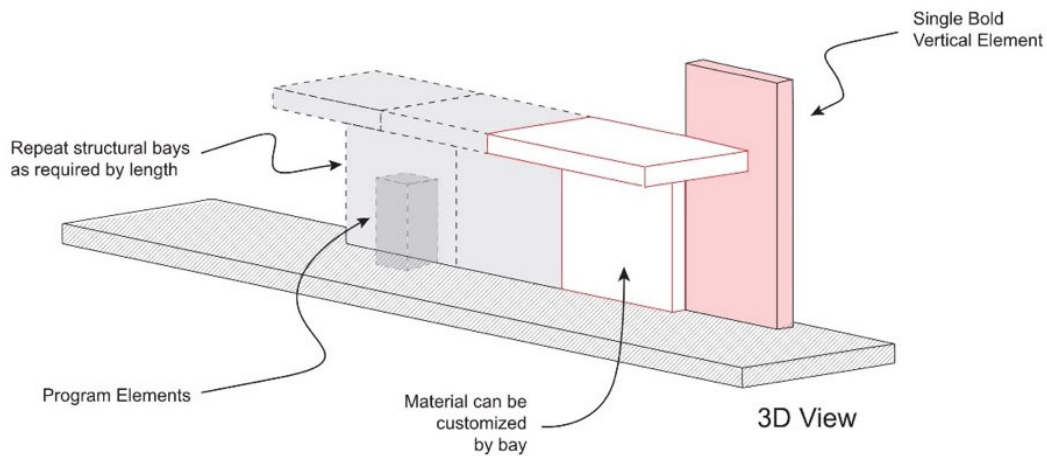
SOUTHERN

WESTERN

NORTHERN



# STATION DESIGN – GOALS



- 1 UNIFORMITY**  
Some elements of stations to be the same for uniformity, but provide an opportunity for some unique elements
- 2 SCALE**  
Design should be able to scale up/down depending on context
- 3 EXISTING STYLE**  
BRT stations should fit into current transit style
- 4 OPERATION & MAINTENANCE**  
Use materials easy to obtain or replace if needed
- 5 COST**  
Design should be fiscally responsible



EDENTON AT BLOUNT





RALEIGH BLVD





MEDICAL DISTRICT





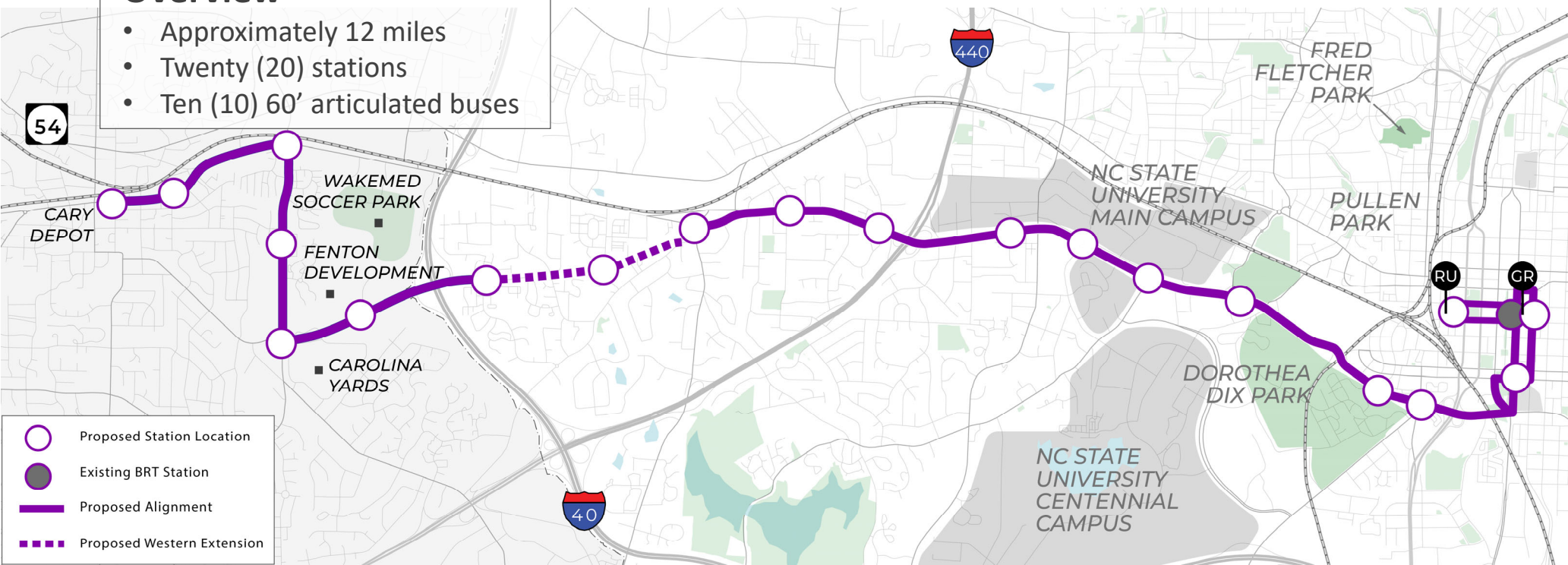
GORALEIGH STATION



# WAKE BRT: WESTERN CORRIDOR

## Overview

- Approximately 12 miles
- Twenty (20) stations
- Ten (10) 60' articulated buses



NEW BERN

SOUTHERN

WESTERN

NORTHERN

GO+



# WESTERN CORRIDOR – OTHER CAPITAL PROJECTS

## NCDOT Projects

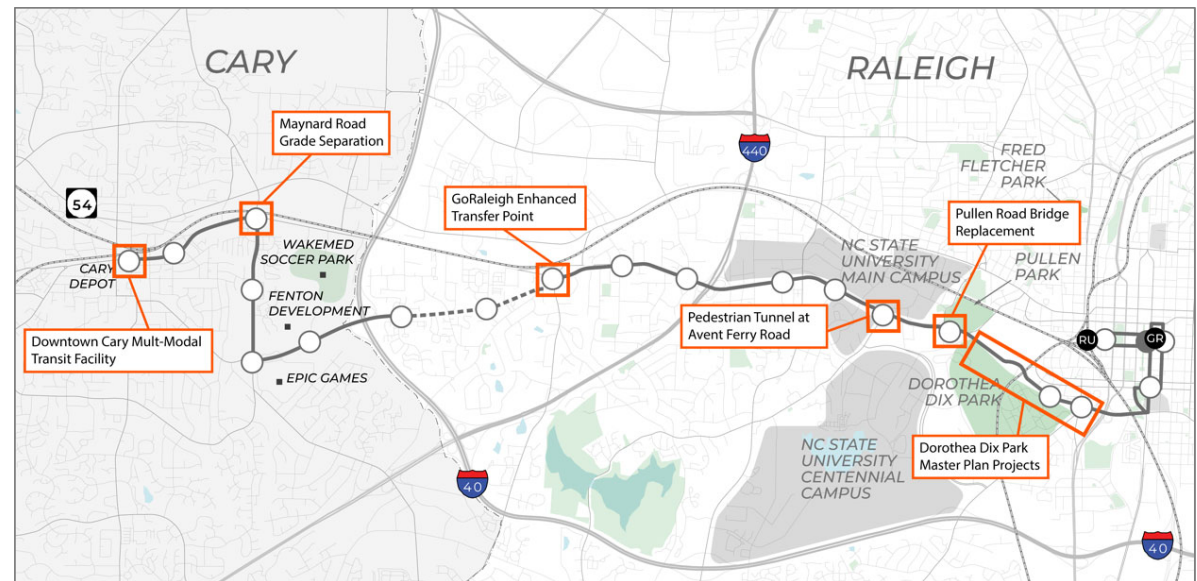
- Pullen Bridge Replacement (Structures)
- Avent Ferry Pedestrian Tunnel (SPOT)
- Maynard Grade Separation (Rail Division)

## COR Projects

- Dix Park Master Plan Projects
- GoRaleigh Enhanced Transfer Point

## Town of Cary Project

- Downtown Cary Multi-Modal Center



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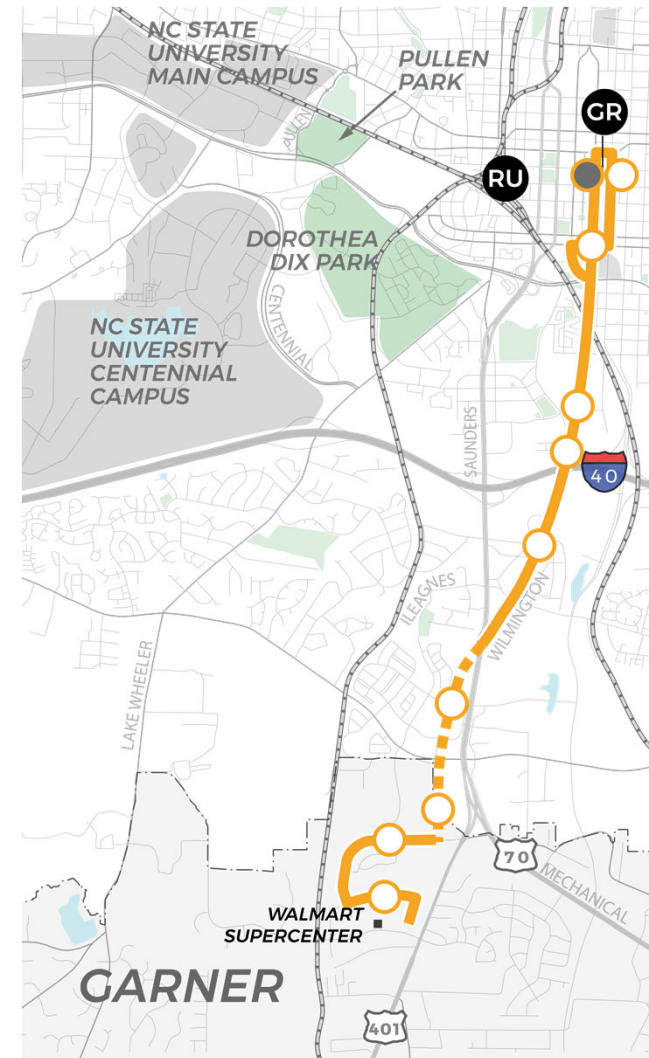
# WAKE BRT: SOUTHERN CORRIDOR

## Overview

- 5.1 miles, 3.8 miles of dedicated lanes
- Connecting downtown Raleigh and Rupert Road in Garner
- Ten (10) proposed stations – nine (9) new
- Seven (7) CNG or other alternatively fueled buses

## Timeline

- *Fall 2021 – Began preliminary design*
- *Summer 2022 – 10% design*
- *August 2022 – FTA CIG Small Starts Ratings Submission*
- **Spring/Summer 2023 – Anticipated 30% design**



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# SOUTHERN CORRIDOR – 10 PERCENT DESIGN

## SEGMENT 1

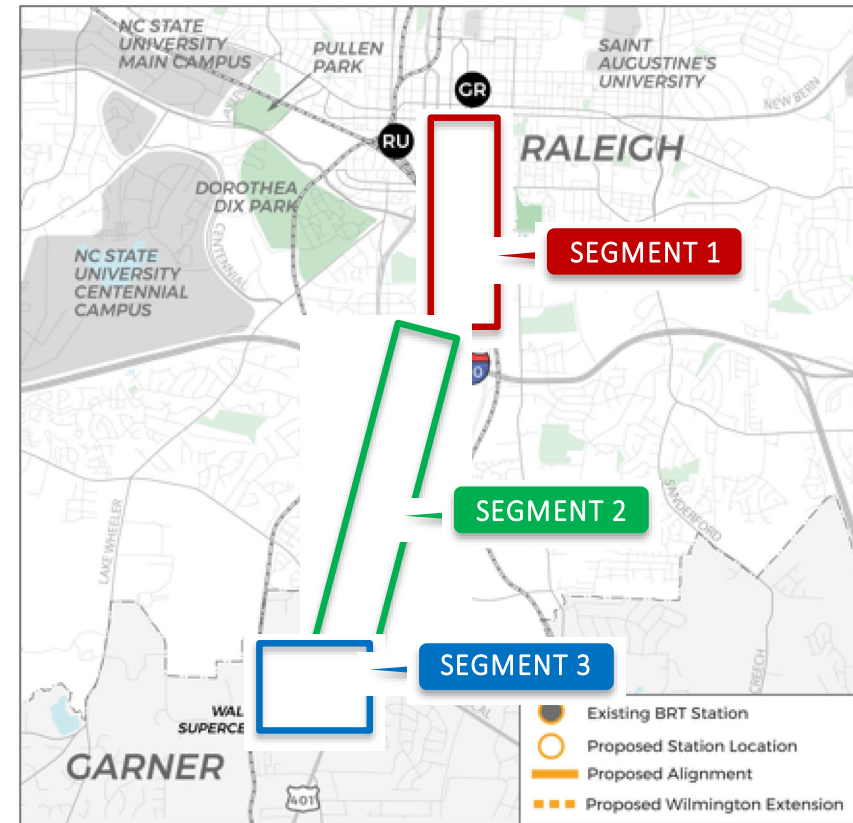
- Right Business Access and Transit (RBAT) - Downtown Raleigh (Wilmington Street and Blount Streets); Martin Luther King Jr. Boulevard to City Farm Drive/Keeter Center Road
- Mixed Traffic - South Street and Salisbury Street

## SEGMENT 2

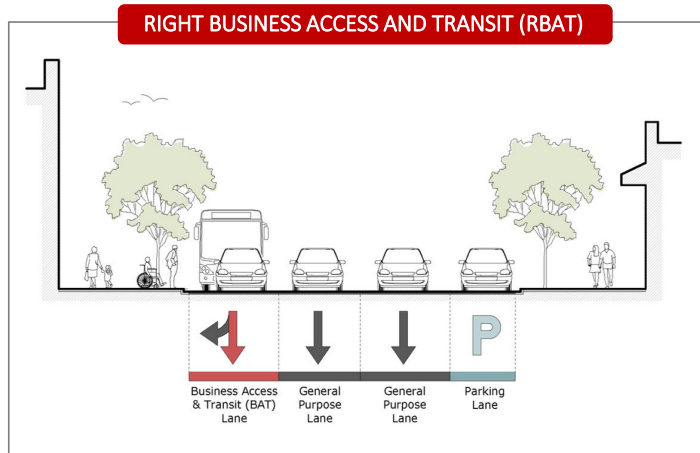
- Median Running Transitway - City Farm Drive/Keeter Center Road to Garner Station Boulevard (includes S. Wilmington Street Extension)
- Mixed Traffic - Southbound on the S. Wilmington Street flyover

## SEGMENT 3

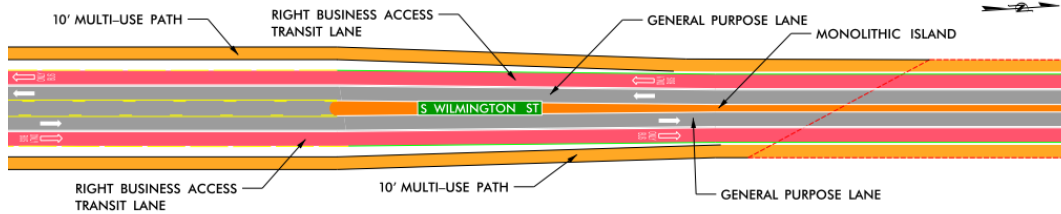
- Mixed Traffic - Garner Station Boulevard to Rupert Drive



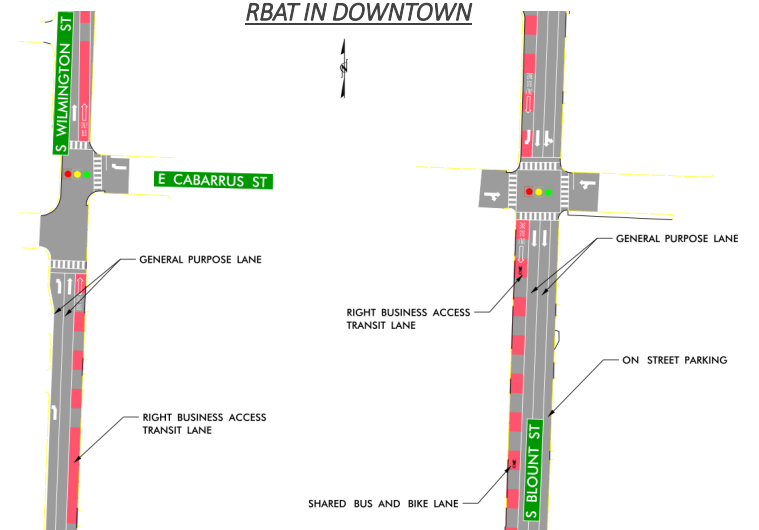
# SOUTHERN CORRIDOR – SEGMENT 1



*RBAT ALONG S. WILMINGTON ST.*

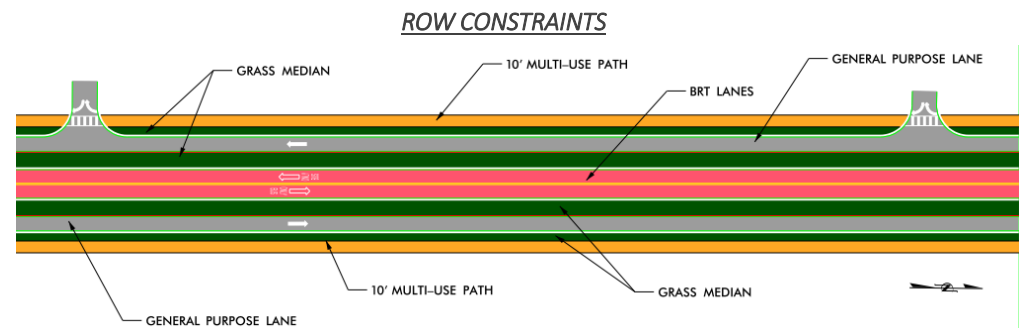
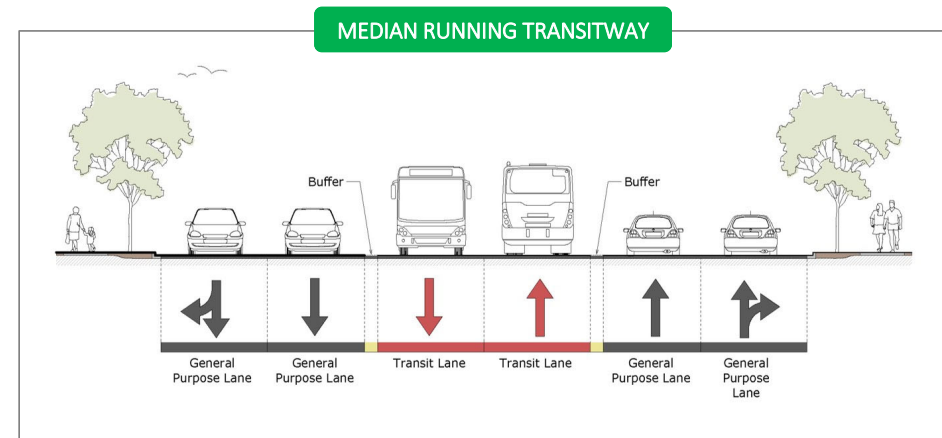
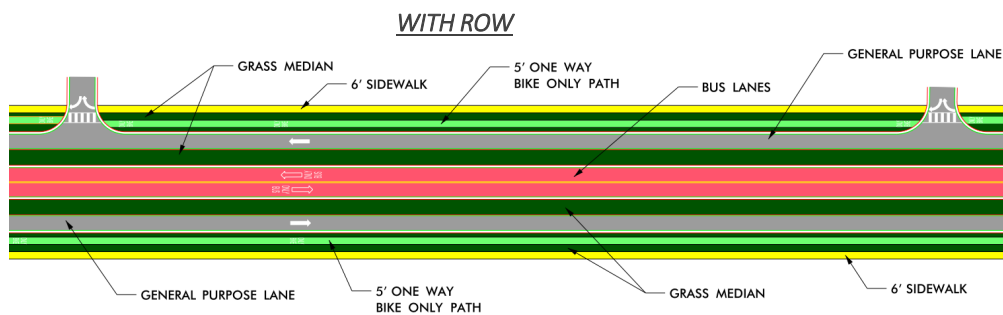


*RBAT IN DOWNTOWN*





# SOUTHERN CORRIDOR – SEGMENT 2



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**SOUTHERN**

WESTERN

NORTHERN



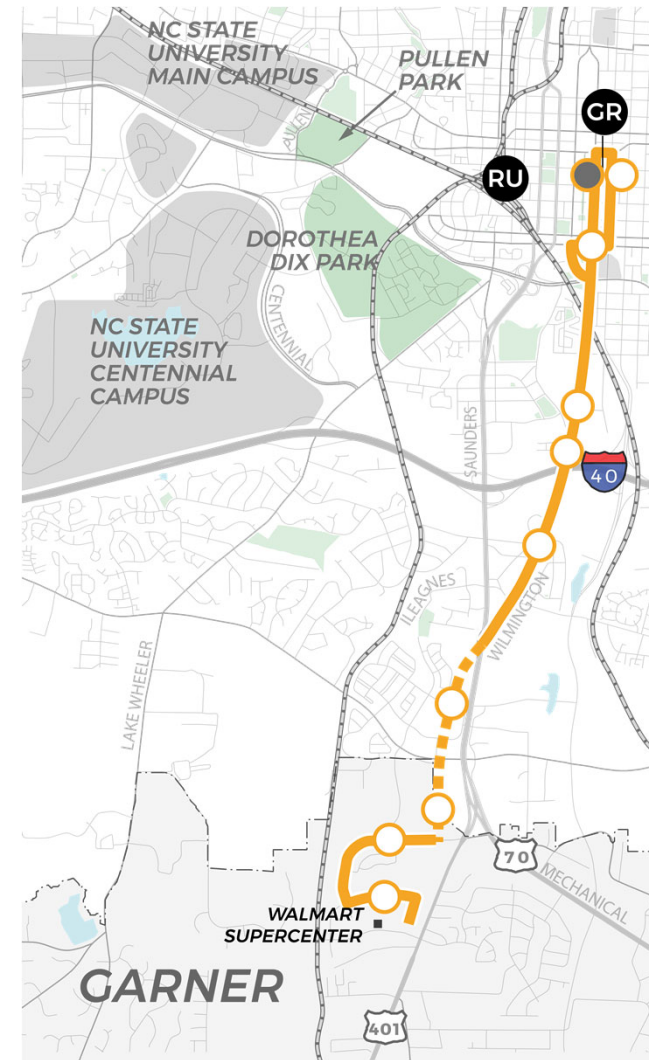
# SOUTHERN CORRIDOR – NEXT STEPS

Continue coordination to advance 10% design to 30% design

- Anticipated Spring/Summer 2023

Awaiting confirmation of FTA small starts ratings for federal funding eligibility

- Anticipated February 2023



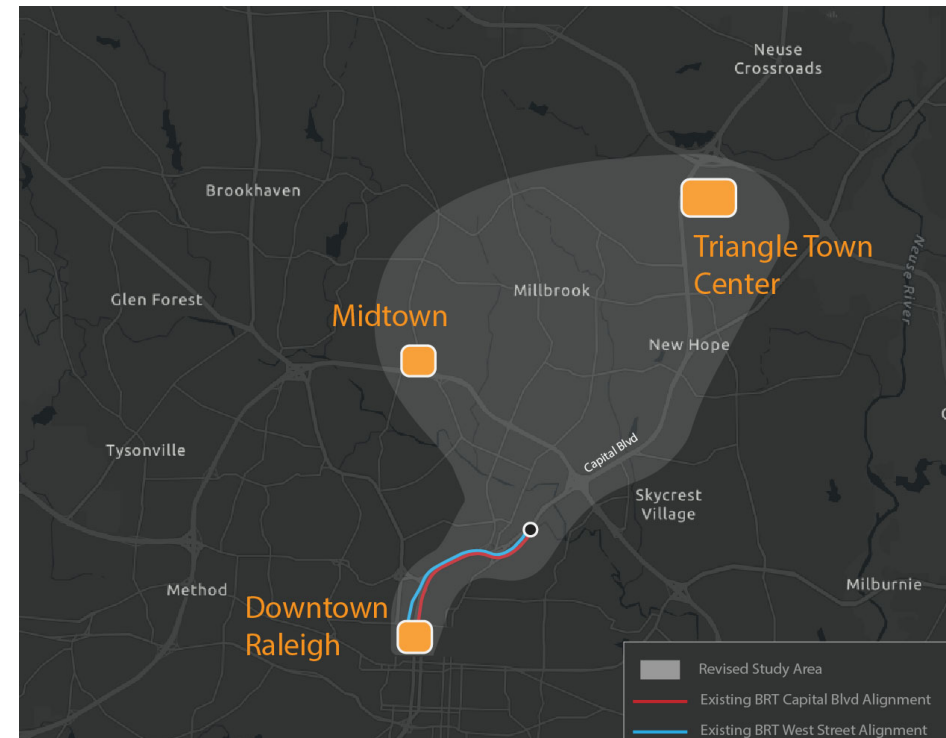
# WAKE BRT: NORTHERN CORRIDOR

## Overview

- Planning phase – currently undergoing a Major Investment Study (MIS)
- 2021 Wake Transit Plan Update recommended extensions to the Northern Corridor
- Purpose of the MIS is to develop recommendations to connect downtown Raleigh to Midtown and downtown Triangle Town Center, and phasing opportunities for implementation
- Study duration – 18 months

## Timeline

- *Spring 2022 – Major Investment Study Kickoff*
- **Fatal Flaw analysis (Fall 2022)**
- Review/study of alternatives further - refinement and detailed screening (2023)
- Locally Preferred Alternatives for downtown Raleigh to midtown and downtown Raleigh Triangle Town Center/Wake Tech (end of 2023)



NEW BERN

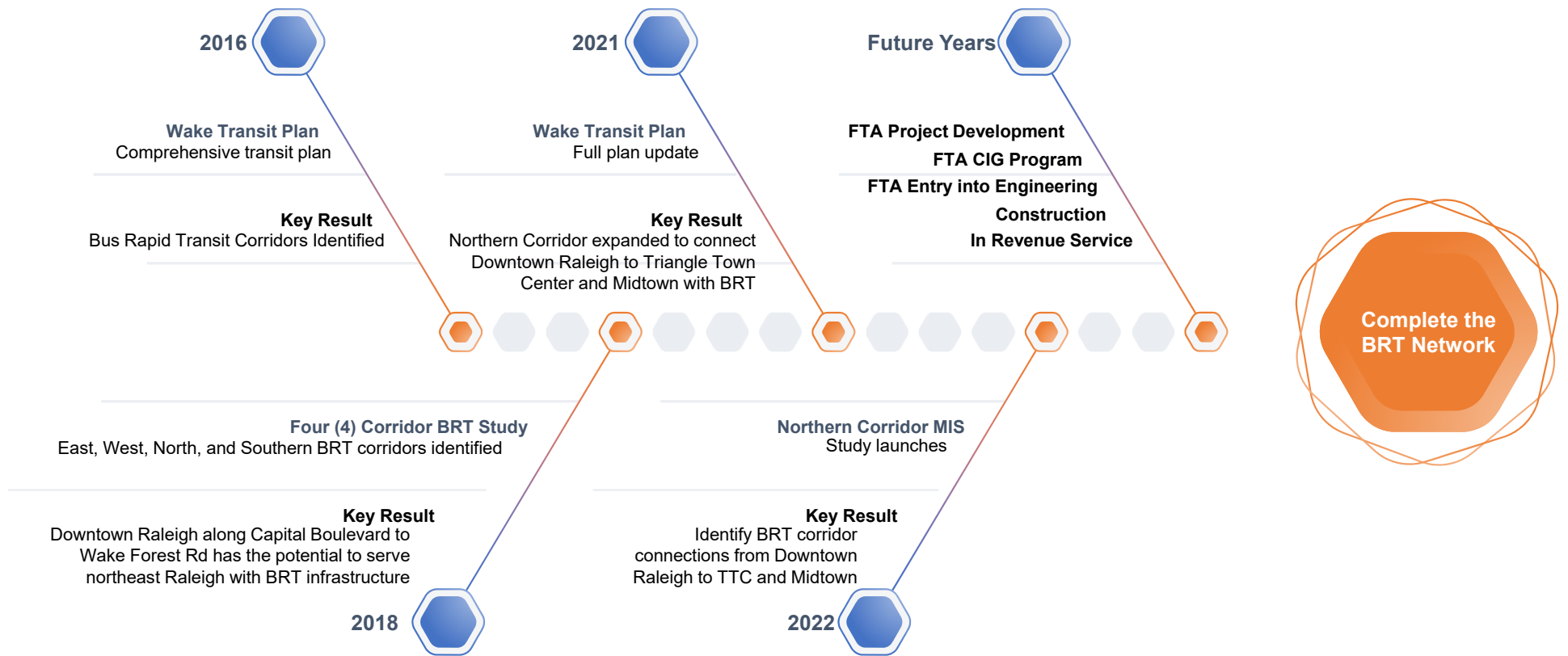
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# MAJOR INVESTMENT STUDY (MIS) – ORIGIN



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WESTERN

**NORTHERN**



# OBJECTIVES OF THE UPDATE

- Introduce and share the intent of the Northern Corridor Major Investment Study
  - Two (2) locally preferred alternatives connecting
    - Connect Downtown and Triangle Town Center
    - Connect Downtown and Midtown
- Provide a Summary of the Current Analysis Phase
  - Fatal Flaw Analysis
    - What it is
    - Why it is needed
    - What methodology was used
    - What were the results
- Obtain committee insight
- Share immediate next steps

# WHAT IS BRT?

FTA defines it as 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.



**Consistency of Color & Features**



**Cohesiveness of Experience**



**Inviting Landscapes**



**Importance of Complementary Materials**

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WESTERN

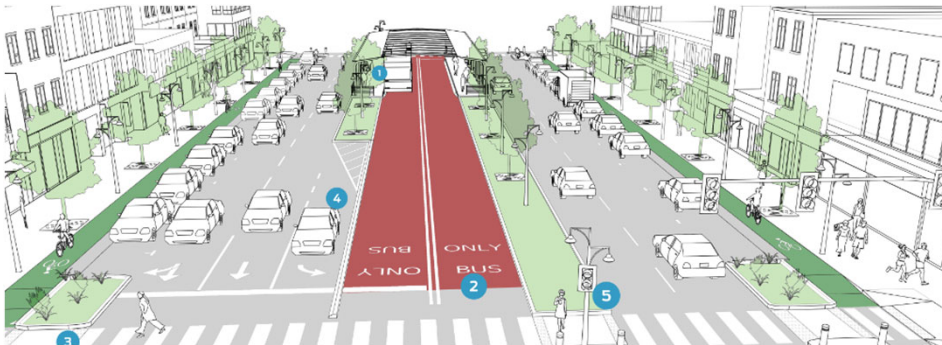
**NORTHERN**

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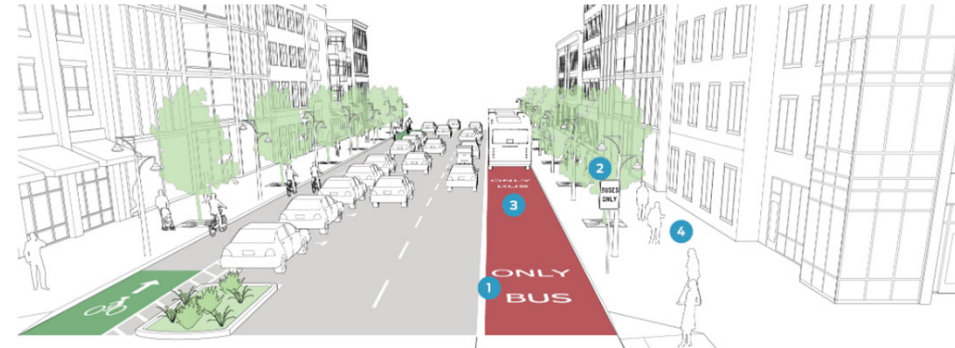


# DIFFERENT GUIDEWAY DESIGNS

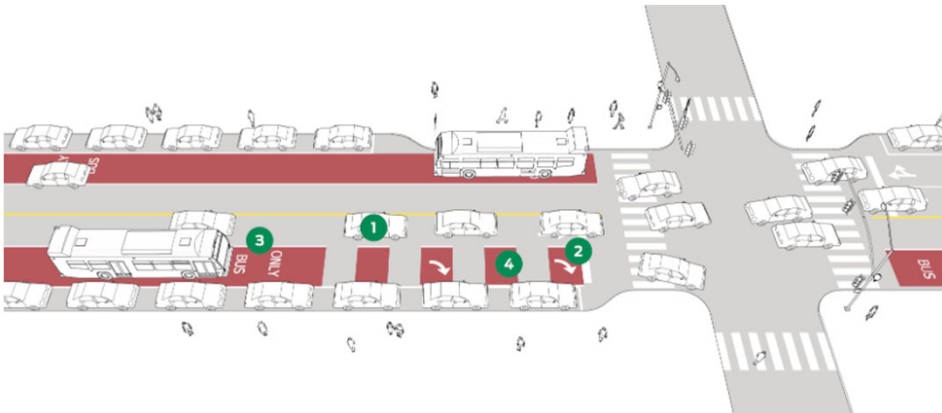
## CENTER RUNNING



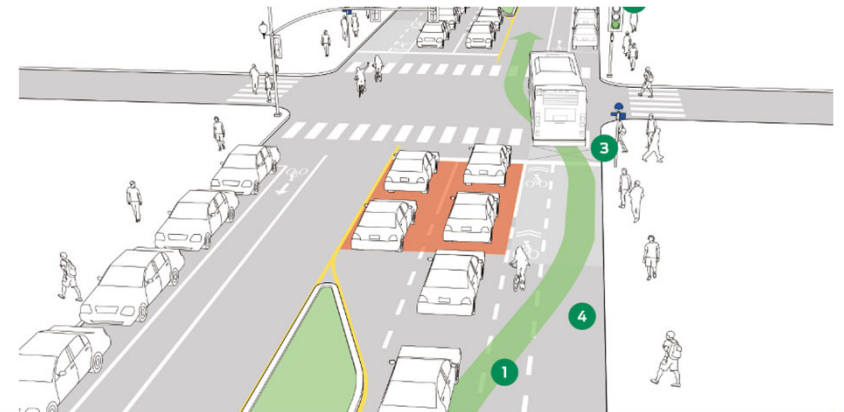
## RIGHT SIDE RUNNING (CURB RUNNING)



## BUSINESS ACCESS & TRANSIT LANES



## BUSINESS ACCESS & TRANSIT LANES



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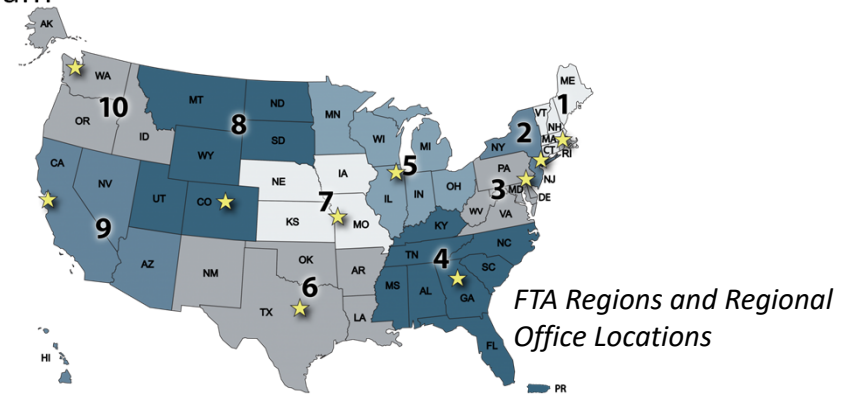
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# TO DELIVER, FEDERAL SUPPORT IS NEEDED

## FTA Capital Investments Grant (CIG) program

Position corridors to qualify for federal funding through FTA's CIG program

National competitive  
federal grant program



Only \$3B appropriated  
each year nationally



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# CIG PROGRAM REQUIREMENTS

## Project CAN fund...



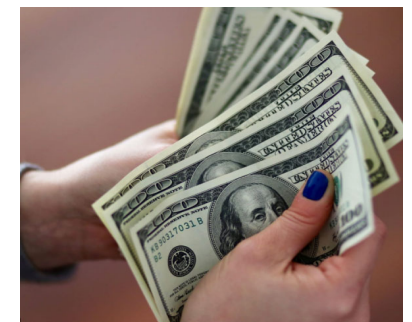
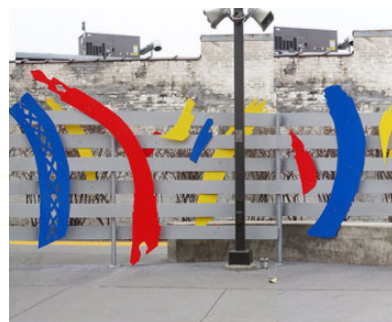
New roadway expansion for guideway and new guideway structures

Stations and bike and ped access to stations

ITS upgrades to support BRT

Maintenance Facility changes

## Project CANNOT fund...



Excess landscaping

Public art

Off-corridor roadway improvements

Cash mitigation

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# PURPOSE – PROVIDE PREMIUM, HIGH-CAPACITY SERVICE

Cleveland Healthline



ABQ



Las Vegas MAX



## Bus Rapid Transit

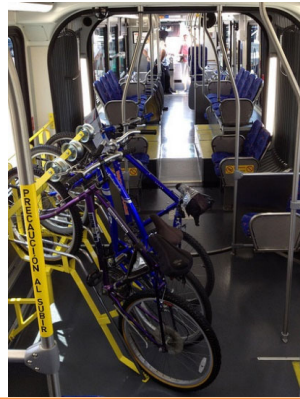
sbX



EmX



Pulse



NEW BERN

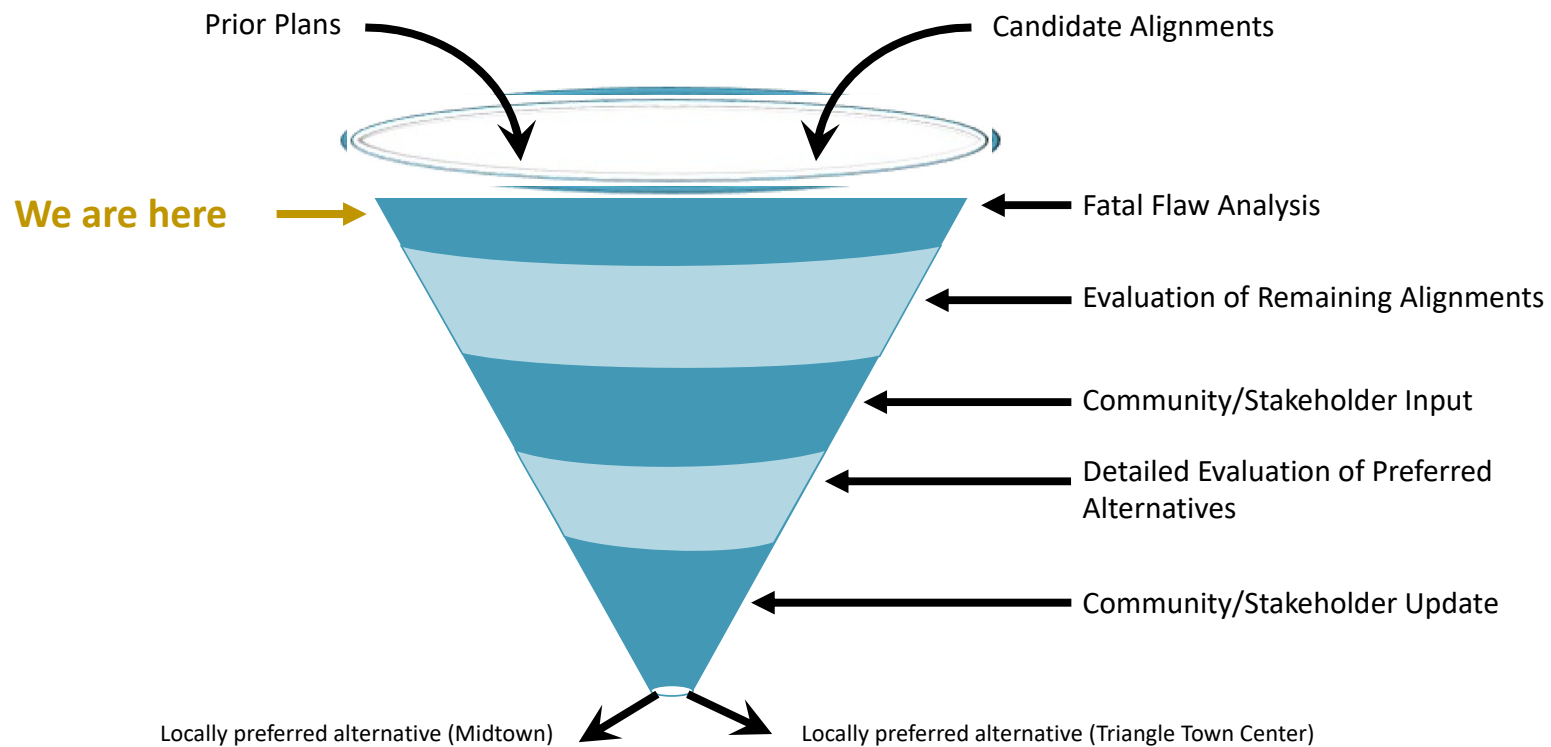
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# NORTHERN CORRIDOR MIS – EVALUATION PROCESS



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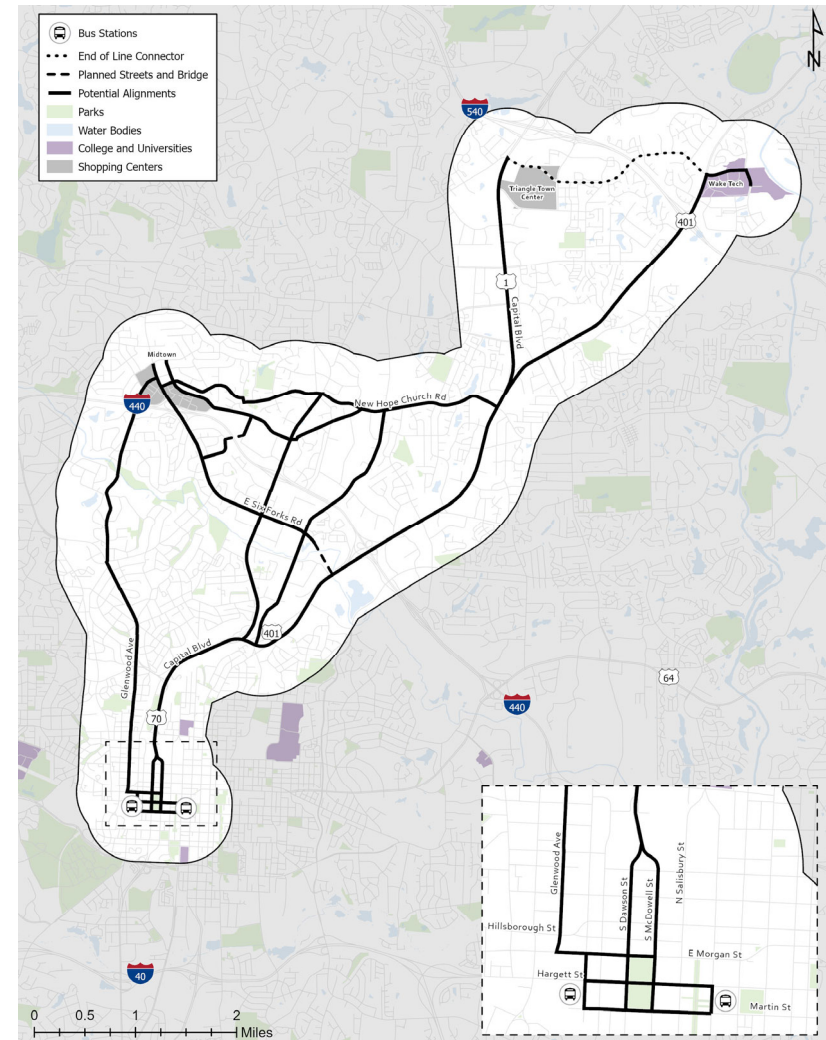
**NORTHERN**

GO+

# NCMIS – INITIAL STUDY AREA

## Insight from:

- Previous and ongoing studies
- Arterial road and bus network
- Connections to
  - GoRaleigh Station
  - Raleigh Union Station Bus Facility (RUS Bus)
  - Raleigh Central Business District
  - Midtown
  - Triangle Town Center
  - Wake Technical Community College (North Campus)



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WESTERN

**NORTHERN**

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# NCMIS – FATAL FLAW SCREENING METHODOLOGY



## Step 1

Test fit of BRT features at  
Signalized Intersections



## Step 2

Test fit of BRT features on  
Roadway Segment



## Step 3

Visual Assessment



## Result

Alignments for further  
evaluation

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SOUTHERN

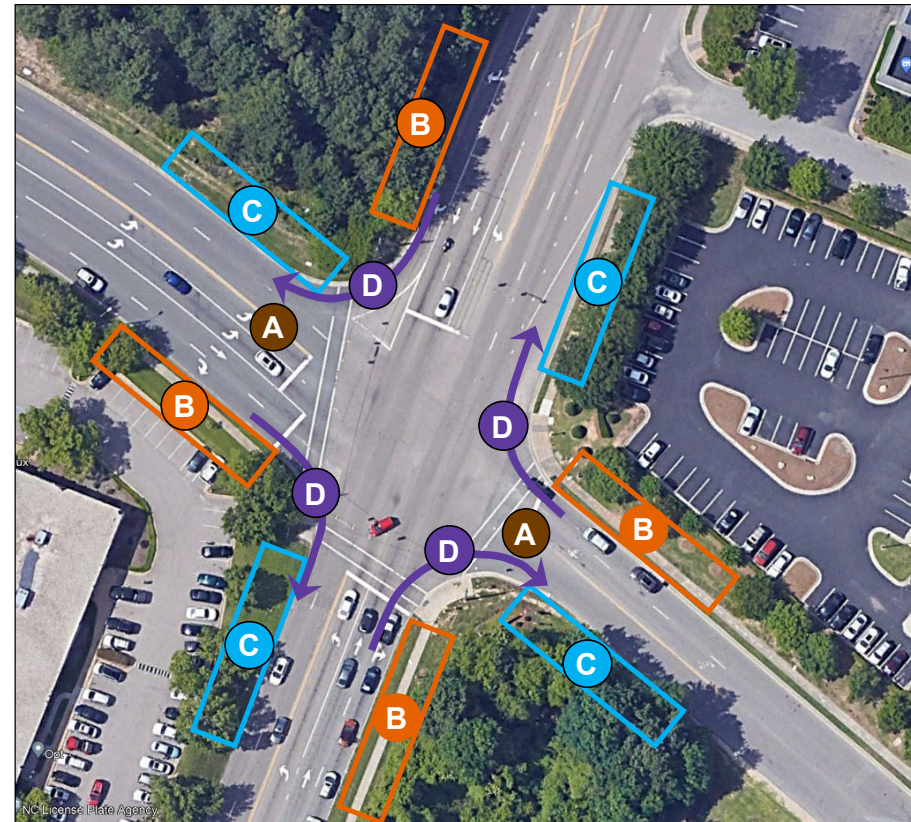
WESTERN

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# METHODOLOGY (STEP 1) – SIGNALIZED INTERSECTIONS

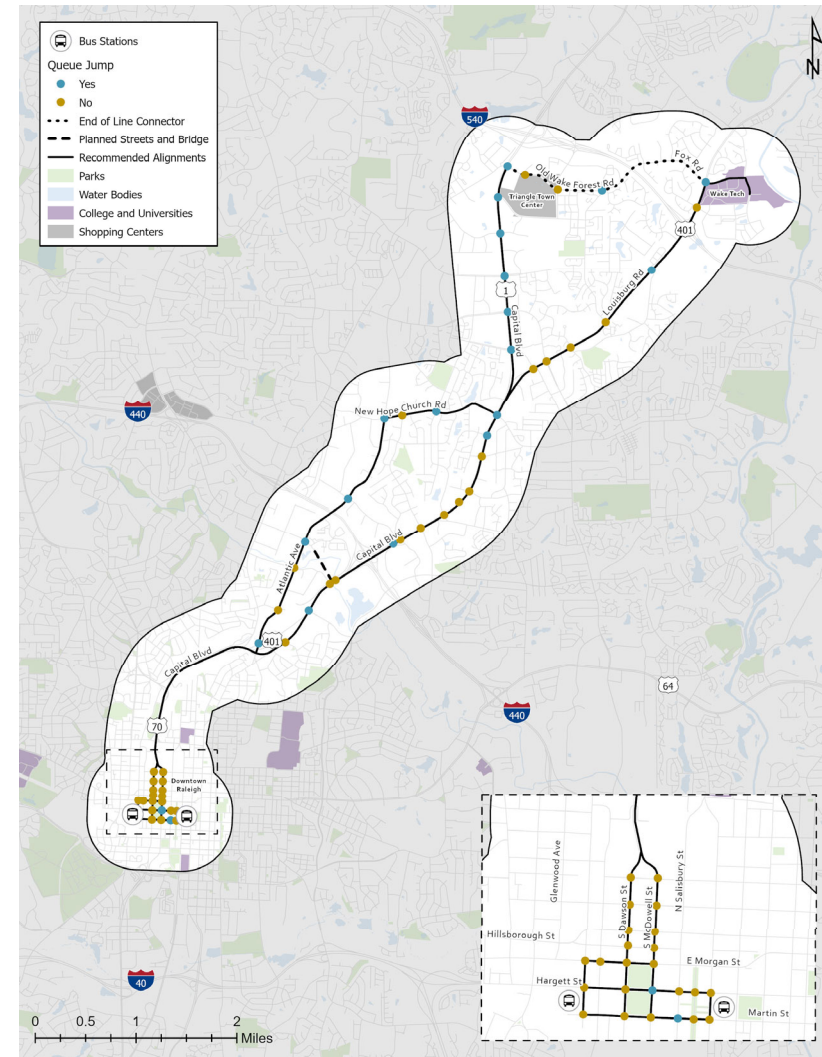
- A** Is there any available median space?
- B** Is there any available space on the near-side of the intersection on the outside?
- C** Is there any available space on the far-side of the intersection outside? (for a downstream pullout)
- D** Are the necessary movements at the location physically viable?



# RESULTS OF STEP 1 REVIEW

## TRIANGLE TOWN CENTER ALIGNMENTS

- Identification of areas where BRT infrastructure was not possible at the intersection level because of:
  - Available median space
  - Near-side placement opportunities
  - Far-side placement opportunities
  - Vehicle maneuverability



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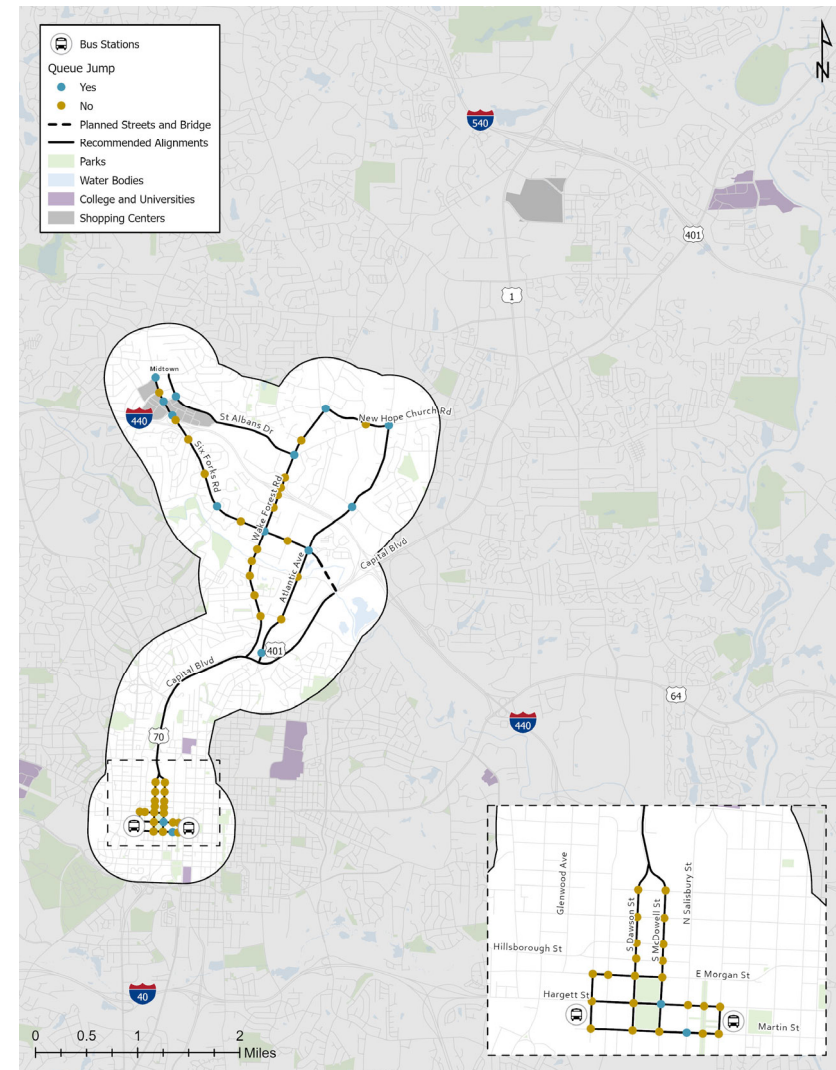
GO+



# RESULTS OF STEP 1 REVIEW

## MIDTOWN RALEIGH ALIGNMENTS

- Identification of areas where BRT infrastructure was not possible at the intersection level because of:
  - Available median space
  - Near-side placement opportunities
  - Far-side placement opportunities
  - Vehicle maneuverability



NEW BERN

SOUTHERN

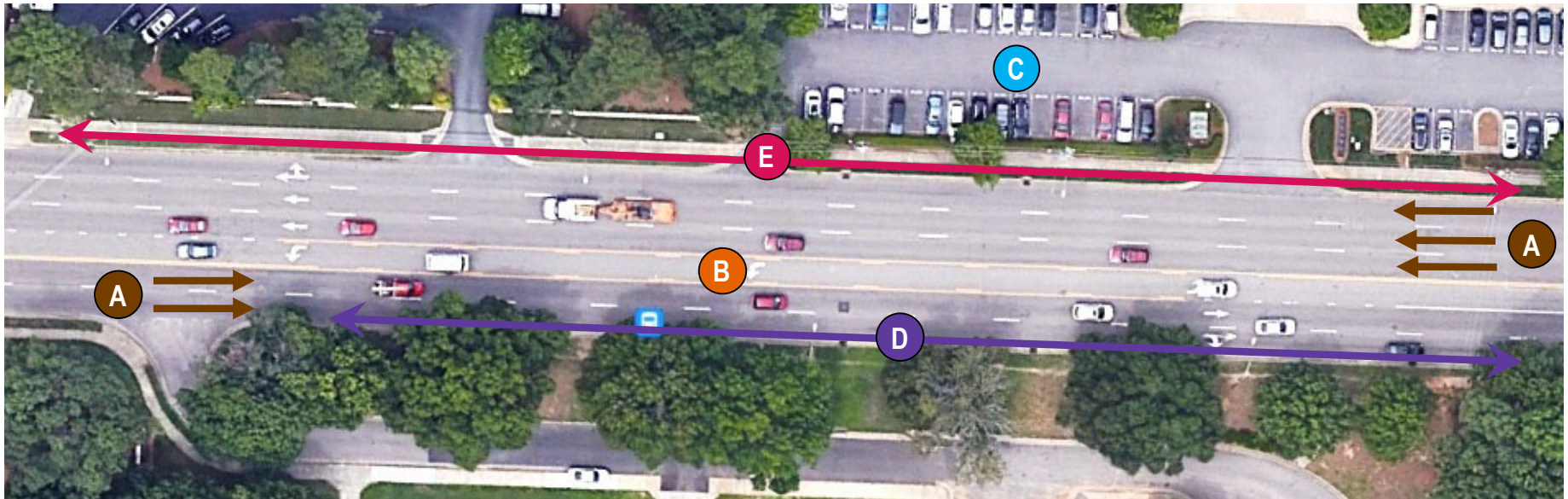
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# METHODOLOGY (STEP 2) – ROADWAY SEGMENT

- A** Existing number of travel lanes
- B** Is there a median present (yes or no)?
- C** Right-of-way (ROW) characteristics
- D** Is a bike lane present (informational)?
- E** Does a sidewalk exist (informational)?



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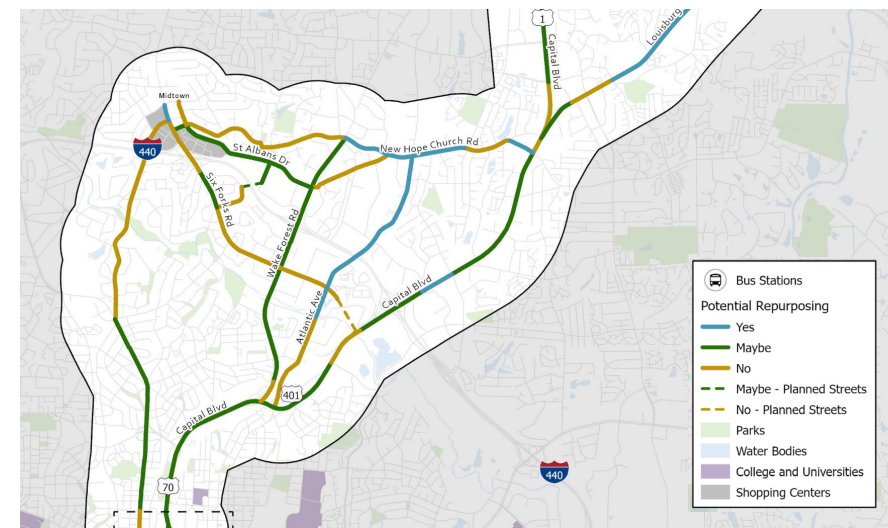
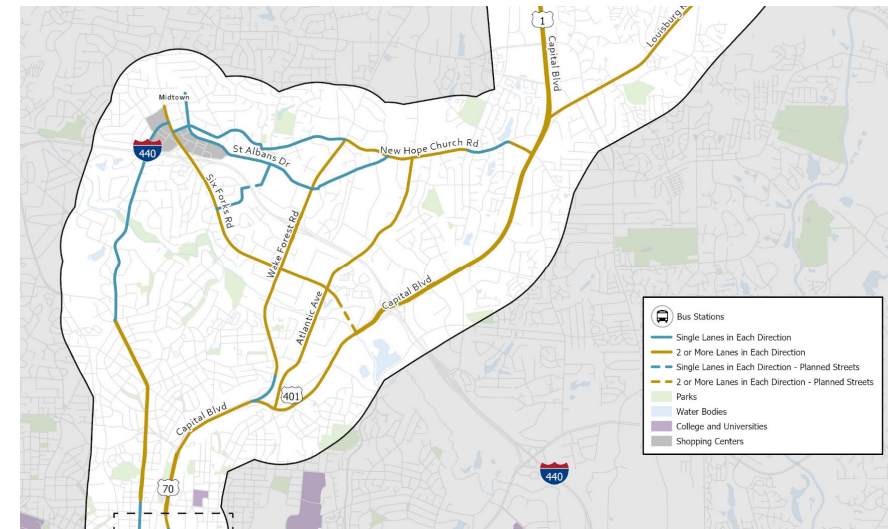
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# RESULTS OF STEP 2 REVIEW

- Identification of areas where BRT infrastructure was not possible at the segment level because of:
  - Travel lanes
    - Lane repurposing
    - Traffic counts and movements
  - Number of lanes
    - Two or more lanes in each direction
  - Roadway characteristics
    - Widening road would be needed to accommodate BRT and/or BAT lanes



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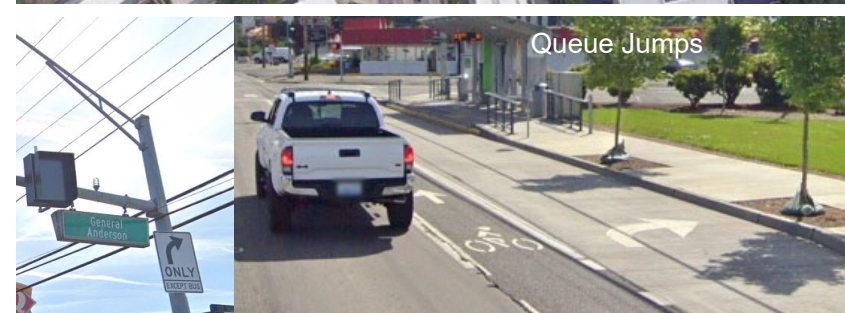
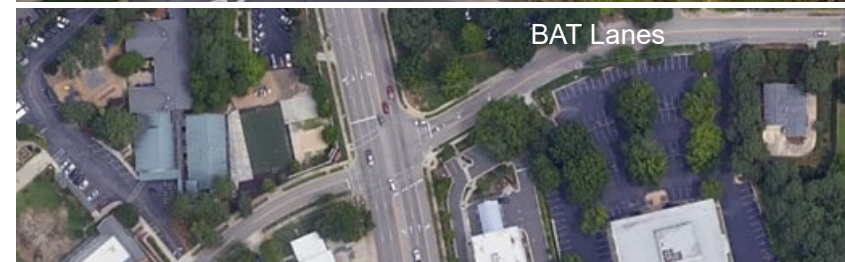
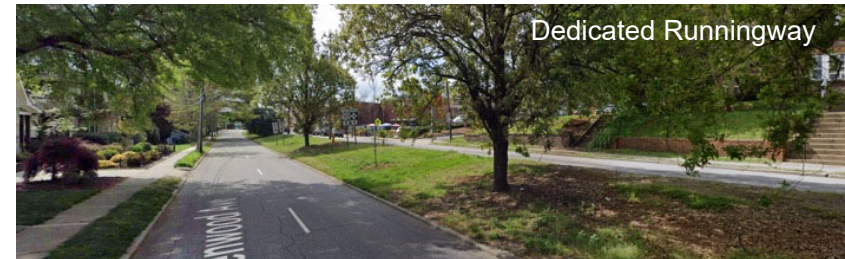
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# METHODOLOGY (STEP 3) – VISUAL ASSESSMENT

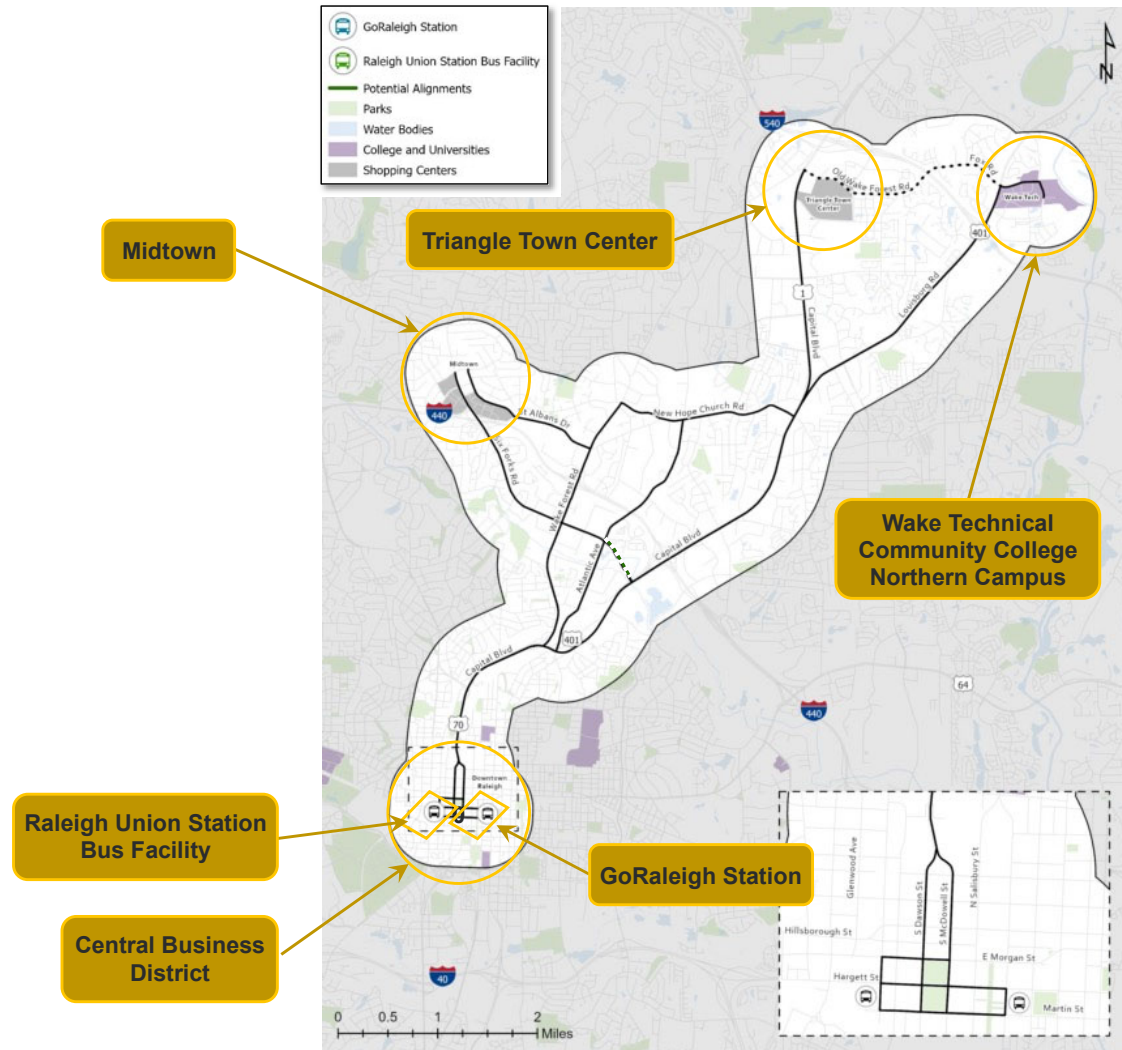
- Which of the following are possible?
  - Dedicated runningway
  - BAT lanes
    - Extended right-turn lanes
    - ROW available to connect right-turn lanes
  - Queue jumps
    - Requires traffic signal adjustment
    - Requires a dedicated right turn bay
  - Business access



# ALIGNMENT OPTIONS MOVING FORWARD

- Wake Forest Road
- Atlantic Avenue
- Capital Boulevard
- New Hope Church Road
- Louisburg Road
- Old Wake Forest Road/Fox Road
- St. Albans Drive
- Six Forks Road\*

*\*Note: New bridge would be required to connect Six Forks Rd to Capital Blvd. Also, we can connect the termini, but the mode may not 100% meet the FTA CIG HCT definition, service may require mixed traffic operation.*



NEW BERN

SOUTHERN

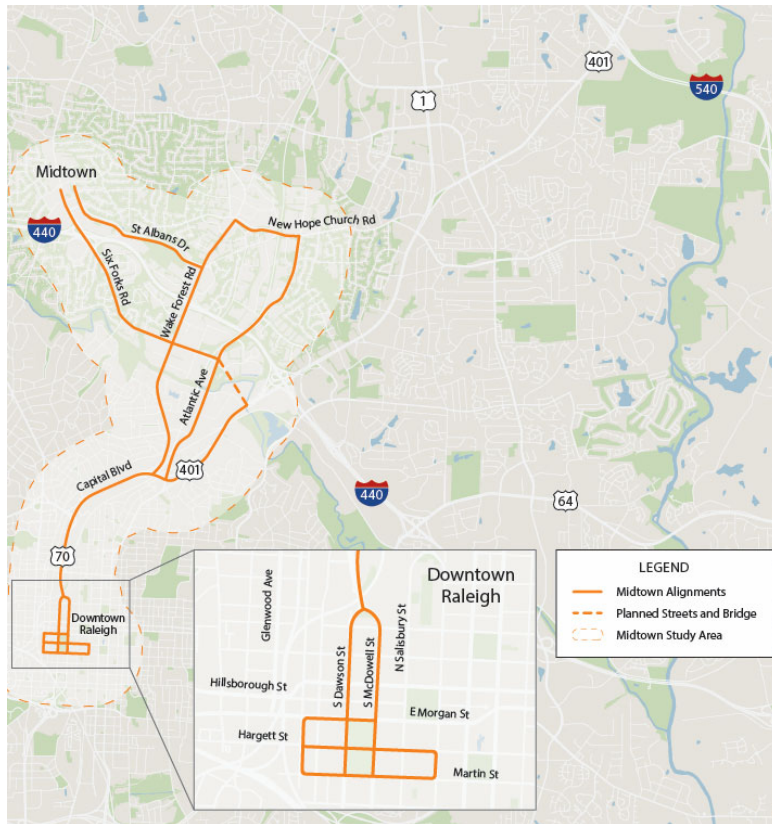
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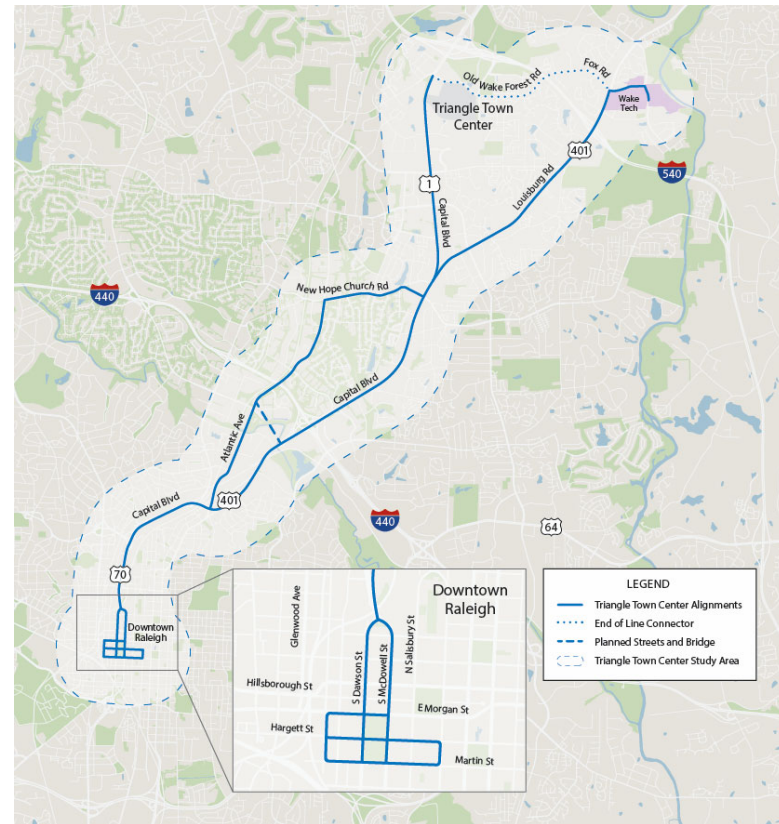


# ALIGNMENT AREAS FOR ANALYSIS

## DOWNTOWN TO MIDTOWN



## DOWNTOWN TO TRIANGLE TOWN CENTER





# TOUCHPOINTS AND FEEDBACK RECEIVED

- Transit Department – 8/30/2022
- Mobility, Strategy, and Infrastructure Department – 9/16/2022
- Planning Department – 9/23/2022
- Wake BRT Technical Committee – 10/10/2022
- Wake BRT Project Management Team (PMT) – 10/13/2022
- Insight to Date:
  - Ensure the right mix of purpose, need, and opportunity
  - Enhance maps
  - Connect project effectiveness and aspirational scenarios
  - Updates on potential segments (West St., Atlantic Blvd., Old Wake Forest Rd.)
  - Clarify “Rapid” – reliability and service speed
  - Some travel lanes may have room to be slimmed down
  - Separate Downtown roads with the two alignment
  - Other local bus improvements
  - Consider BRT lite
  - Others
- Today – Wake BRT Stakeholder Committee

# NCMIS – IMMEDIATE NEXT STEPS

- Confirm support for alignments to advance to the next phase
- Wake Transit Plan Concurrence Points 1 and 2
- Refinement and screening of remaining alignments
  - Screening criteria will be based on Purpose and Need, review may include:
    - Land Use Patterns
    - Multimodal Connections
    - Environmental Impacts
    - Transit Connections
    - Service Reliability
    - Travel Times
    - Transit Dependency
    - Population Density
    - Employment Density
    - Ridership
    - Parking Impacts



# FALL 2022 PUBLIC OUTREACH OPPORTUNITIES

## Save the Date!

### **Virtual Open House**

Oct. 31 through Dec. 2, 2022. Visit [raleighnc.gov/brt](http://raleighnc.gov/brt) for project updates.

### **Virtual 'Ask a Planner' Event**

Nov. 30 from 6 p.m. to 7 p.m. at [raleighnc.gov/bus-rapid-transit](http://raleighnc.gov/bus-rapid-transit)

### **In Person 'Ask a Planner' Event**

Nov. 17 & Nov. 29 between 9 a.m. to 11 a.m. at Go Raleigh Station, 214 South Blount St, Raleigh, NC 27601

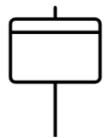
### **In Person 'Ask a Planner' Event**

Nov. 18 between 9 a.m. to 1 p.m. at Raleigh Union Station, 510 W Martin St, Raleigh, NC 27601



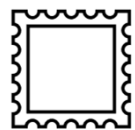


# NOTIFICATION OF EVENTS



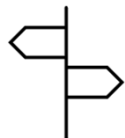
## **Yard Signs**

Targeting placement around High Ridership Bus Shelters in the Corridors



## **Postcards**

Estimated 2,200 mailed and 500 to provide at tabling events (targeting 1 per corridor)



## **Community Centers**

10 Libraries & 8 Community Centers located on/near corridors and provide postcards to Stakeholders for distribution





**QUESTIONS?  
THANK YOU!**

*STAKEHOLDER COMMITTEE*

OCTOBER 24, 2022

