# Bus Rapid Transit (BRT) RALEIGH BRT: NEW BERN AVENUE



# Welcome to the Raleigh BRT: New Bern Avenue Design Open House!

- A brief presentation will be given every hour beginning at 4:30PM. In the meantime, please feel free to spend as much time as you want at the stations.
  - Walk around to each station to learn more about the project and talk with staff.

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Fill out a comment form, add your comments to the project map or the map of the corridor, and to the community wall activity to give us your feedback.

# Bus Rapid Transit (BRT) WHAT IS BRT?



### **BUS RAPID TRANSIT (BRT)**

Bus Rapid Transit (BRT) is a flexible, high capacity transit solution that combines physical and operational elements to improve **speed and reliability**. BRT vehicles can operate in **dedicated bus lanes** to bypass traffic and remain on schedule. Buses will have priority at traffic signals along the four BRT corridors. BRT stations will feature raised platforms, making it easier for passengers with wheelchairs, strollers or bicycles to board the bus. Fares will be collected on the platform so riders can board without delay.

### WHAT ARE THE MAIN QUESTIONS?

BRT on New Bern Avenue will make it easier, quicker, and more reliable than ever for residents to travel between GoRaleigh Station and New Hope Road. Three big questions are asked here:

- 1) Are the proposed stations appropriately located?
- 2) Are there any station locations missing?
- **3)** What are your thoughts on BRT vehicles operating along the median or along the curb?

### WHO SHOULD PARTICIPATE?

Residents along New Bern Avenue
Anyone interested in the future of Raleigh
Anyone who cares about or uses public transit
Employers and employees along New Bern Avenue
Businesses and institutions along New Bern Avenue

### WHAT ARE THE NEXT STEPS?

This open house is about introducing BRT station locations and runningway design concepts along New Bern Avenue. Later this summer/early fall, we will have another open house where one runningway design concept will be selected. The design process will wrap up by the end of 2020.

### WHAT WILL THE FINAL DESIGN LOOK LIKE?

Using the input we receive from the community and roadway engineering, the final design will deliver premium BRT service along New Bern Avenue.

# Bus Rapid Transit (BRT) HOW DID WE GET HERE?





### **NEW BERN AVENUE CORRIDOR STUDY**

The improvements coming to New Bern Avenue are a part of the New Bern Avenue Corridor Study that was adopted by the City Council in 2012. The study provides recommendations to:

Improve the appearance of the corridor Support pedestrian, bicycle, and transit uses along the corridor with a vision for Bus Rapid Transit (BRT) Identify opportunities for revitalization, while maintaining the cultural heritage in the area

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## WAKE TRANSIT PLAN

Wake County residents voted in favor of the Wake Transit Plan in November 2016. The Plan recommends 20 miles of BRT infrastructure to be implemented along four (4) corridors in Wake County to provide frequent and reliable urban mobility.

### **NEW BERN AVENUE CORRIDOR BRT**

Preliminary design was initiated for BRT on New Bern Avenue. This project is approximately 5.1 miles in length, between GoRaleigh Station, WakeMed Raleigh Campus, and New Hope Road. The project includes about 3.3 miles of new dedicated transit infrastructure from GoRaleigh Station to Sunnybrook Road and 1.8 miles of service in general travel lanes from Sunnybrook Road to New Hope Road.

# Bus Rapid Transit (BRT) NEW BERN AVENUE CORRIDOR STUDY

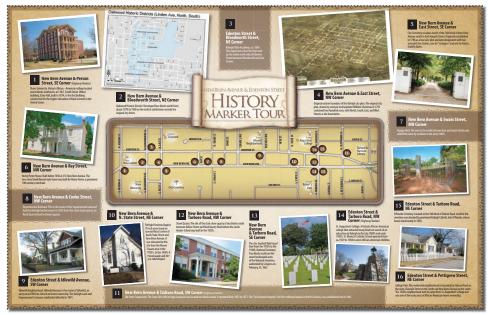


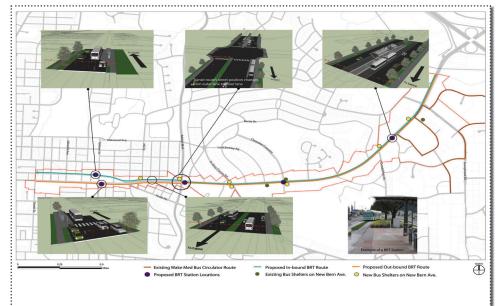
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The City conducted the *New Bern Avenue Corridor Study* to identify specific issues along the corridor, opportunities to enhance the appearance and function of the corridor. The Study introduced Bus Rapid Transit (BRT) on New Bern Avenue as a way to improve and enhance mobility throughout the corridor service area. With the Wake Transit Plan recommended New Bern Avenue Corridor BRT implementation now underway, there is the unique opportunity to celebrate the cultural history of the corridor and its neighborhoods through interpretive art, wayfinding and signage all integrated into the transit station design elements.

The study also included the assessment of the cultural landscape of the New Bern Avenue Corridor. New Bern Avenue is diverse and the cultural landscape provides a historical timeline of the City's physical development from the urban neighborhoods of the 1800s to 1920s, suburban neighborhoods of the 1930s to 1950s, the Medical District from the 1970s to the present. Land use planning around BRT will focus on efforts to preserve the cultural heritage, character, and uniqueness of these historic neighborhoods.

Each area has a unique set of cultural and physical characteristics that contribute to the history and sense of place established along the corridor. These elements are important to recognize and preserve not only to maintain that sense of place, but also to recall the efforts of past generations and their contributions to the evolution of what we know today as the New Bern Avenue corridor. Opportunities to recognize the history and identity of each area are possible through landscape plantings, public art, and wayfinding signage.

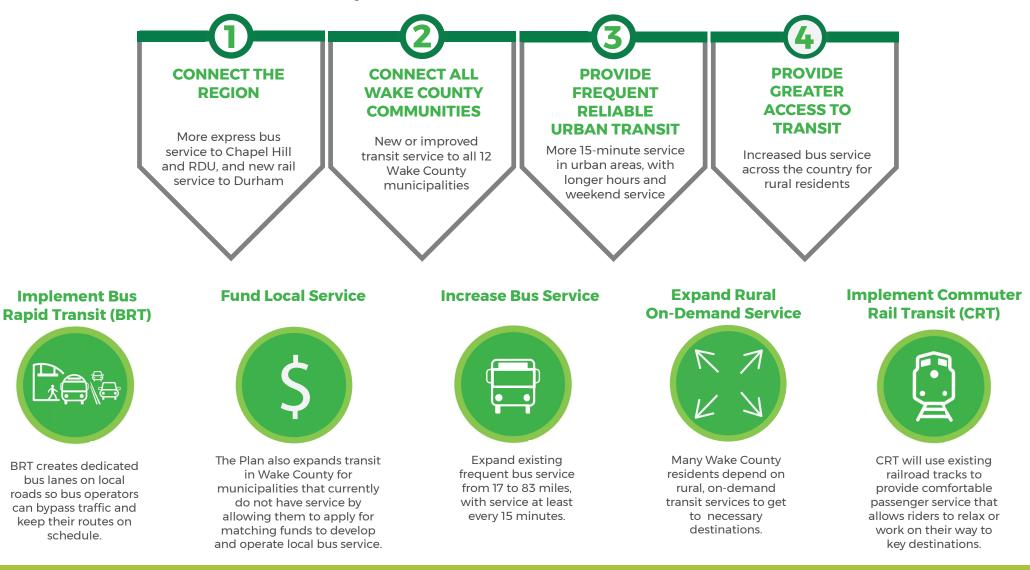




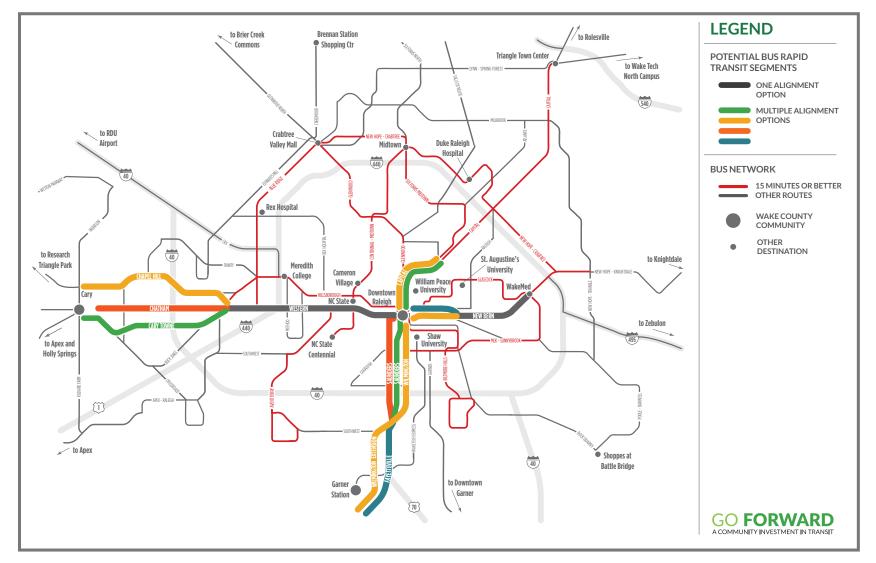
# Bus Rapid Transit (BRT) WAKE TRANSIT PLAN



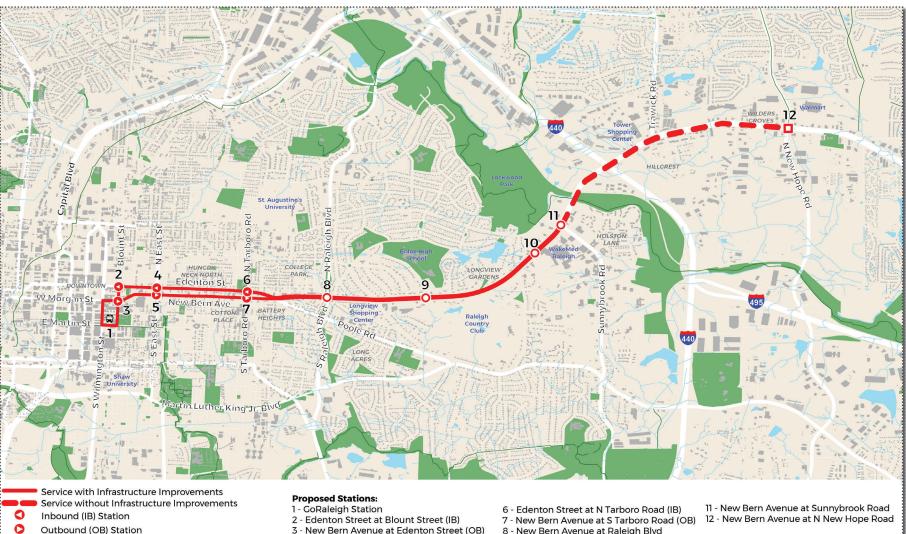
The Wake County Transit Plan Includes Four "BIG MOVES"







# Bus Rapid Transit (BRT) **RALEIGH BRT: NEW BERN AVENUE PROJECT MAP**



- 0 **Two-Way Station**
- Station with Park and Ride (separately funded)
- Q **GoRaleigh Station**

- 3 New Bern Avenue at Edenton Street (OB)
- 4 Edenton Street at N East Street (IB)
- 5 New Bern Avenue at S East Street (OB)
- 8 New Bern Avenue at Raleigh Blvd
- 9 New Bern Avenue at Longview 10 - New Bern Avenue at WakeMed

0.5

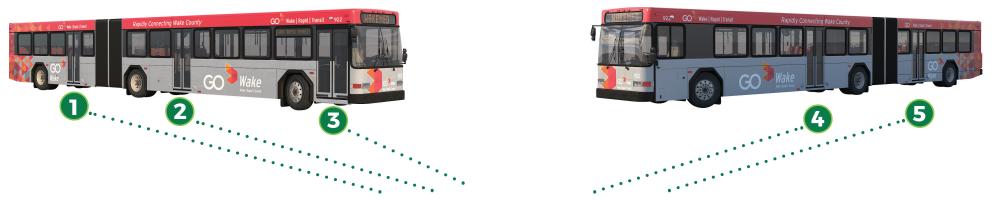
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# Bus Rapid Transit (BRT) BRT VEHICLE CHARACTERISTICS



\* Vehicle branding and design to be determined



### Multiple doors on left and right side of vehicle

### **60-Foot Articulated Bus Benefits**

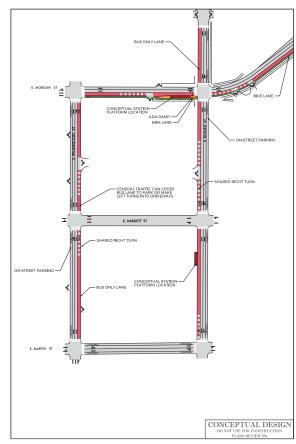
Connects two bus sections with a flexible joint Maximum passenger capacity compared to local GoRaleigh buses Rapid, simultaneous boarding through multiple, wide doors and lower floors Maximizes design options and station placements for future BRT corridors Highly visible and unique branding distinguishes BRT from other transit services Communicates with traffic signals to bypass congestion with transit signal priority

## Bus Rapid Transit (BRT) SEGMENT A: DOWNTOWN RALEIGH



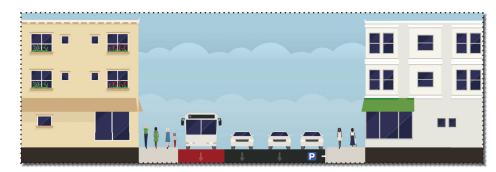
#### **DESIGN CONCEPT: RIGHT BUSINESS ACCESS AND TRANSIT**

Allows right turns across bus lane into driveways

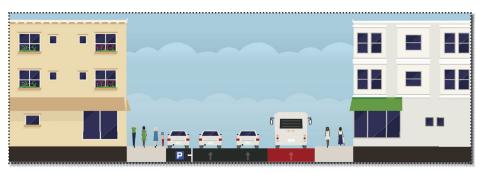




#### **TYPICAL CROSS SECTION**



**LOCATION: BLOUNT STREET** 



### LOCATION: WILMINGTON STREET

#### RIGHT BUSINESS ACCESS AND TRANSIT CHARACTERISTICS

- $\cdot$  Allows general traffic to make right turns into driveways
- · Semi-exclusive lane (painted/striped)
- $\cdot$  Curbside station integrates with sidewalks
- Interacts with general purpose traffic
- $\cdot$  Mixed flow traffic to the left of buses

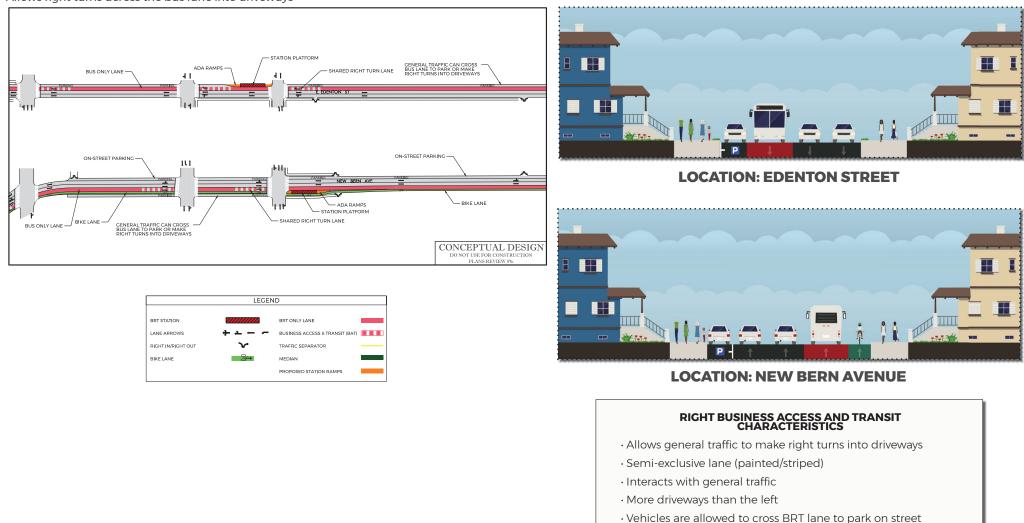
# Bus Rapid Transit (BRT) SEGMENT B: ONE-WAY PAIR



### DESIGN CONCEPT: RIGHT BUSINESS ACCESS AND TRANSIT

#### **TYPICAL CROSS SECTION**

Allows right turns across the bus lane into driveways

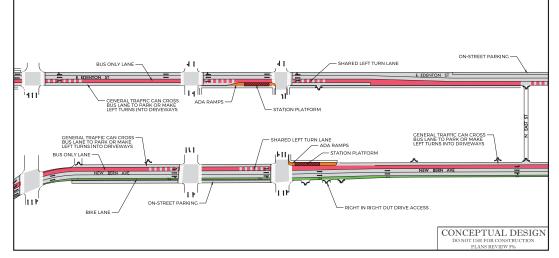


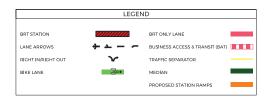
# Bus Rapid Transit (BRT) SEGMENT B: ONE-WAY PAIR



#### **TYPICAL CROSS SECTION**

Allows left turns across the bus lane into driveways







### **LOCATION: EDENTON STREET**



### LOCATION: NEW BERN AVENUE

#### LEFT BUSINESS ACCESS AND TRANSIT CHARACTERISTICS

- · Allows general traffic to make left turns into driveways
- · Semi-exclusive lane (painted/striped)
- $\cdot$  Requires buses with left doors
- $\cdot$  Fewer driveways than the right
- Interacts with general traffic
- $\cdot$  Vehicles are allowed to cross BRT lane to park on street



# Bus Rapid Transit (BRT) SEGMENT C: TWO-WAY SECTION

SUSINESS ACCESS & TRANSIT (BAT)

TRAFFIC SEPARATOR

PROPOSED STATION RAMPS

MEDIAN

### **DESIGN CONCEPT: MEDIAN RUNNING TRANSITWAY**

LANE ARROWS

BIKE LANE

PIGHT IN/PIGHT OUT

Bus only lane that is physically separated from general traffic by a median

#### CRASS MEDIAN WITH BEAUTIFUL LANDSCAPING BUS ONLY TRANSITWA RIGHT IN RIGHT OUT DRIVE ACCESS GRASS MEDIAN WITH BEAUTIFUL LANDSCAPING PROTECTED MEDIAN REFUGI PEDESTRIAN PUSH BUTTON TRAFFIC SEPARATOR CENTER RIGHT SIDE STATION PLATFORM BUS ONLY TRANSITWAY UDEW/ALK W BERN GRASS MEDIAN WITH BEAUTIFUL LANDSCAPING SIDEWAL CENTER RIGHT SIDE STATION PLATFORM ra ADA RAMP **LOCATION: NEW BERN AVENUE** TRAFFIC SERADATOR PROTECTED MEDIAN REFUGE WITH PEDESTRIAN PUSH BUTTON - RIGHT IN RIGHT OUT DRIVE ACCESS GRASS MEDIAN WITH BEAUTIFUL LANDSCAPING MEDIAN RUNNING TRANSITWAY CHARACTERISTICS CONCEPTUAL DESIGN USE FOR CONSTRUCTION PLANS REVIEW 5% · Opportunity for beautiful landscaping • Provides safe pedestrian refuge at median stations · Utilizes existing median right-of-way LEGEND Most exclusive and visible BRT STATION BRT ONLY LANE

• Straightest, smoothest ride

**TYPICAL CROSS SECTION** 

- Physically separated from general purpose traffic
- · Limited interaction with general purpose traffic
- $\cdot$  Restricts left turns between intersections
- $\cdot$  Ideal travel time and reliability

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# Bus Rapid Transit (BRT) SEGMENT C: TWO-WAY SECTION

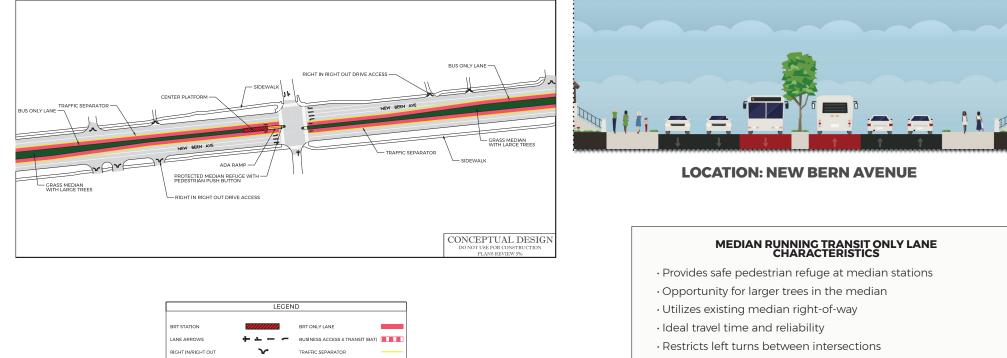


BIKE LANE

### **TYPICAL CROSS SECTION**

Traffic can only cross the transit lane at designated locations to make left turns into driveways

MEDIAN



- Minimal interaction with general purpose traffic
- Requires buses with left doors

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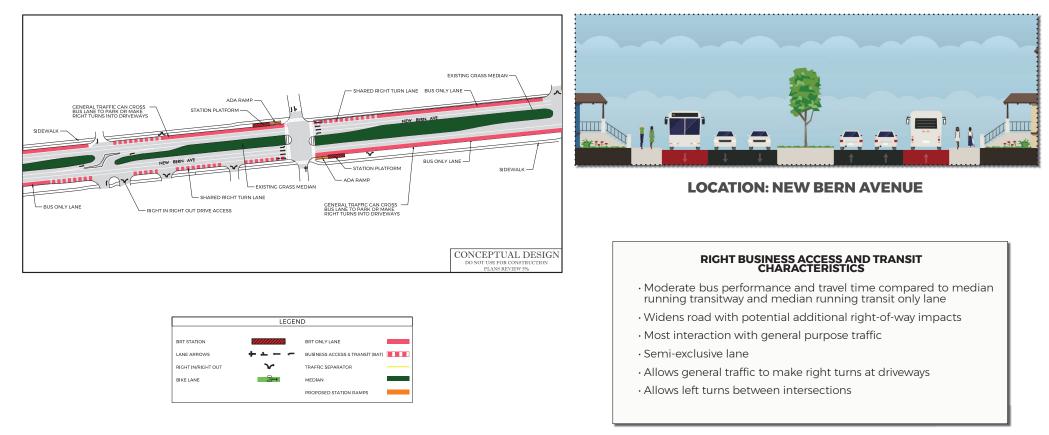
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## Bus Rapid Transit (BRT) SEGMENT C: TWO-WAY SECTION



#### **DESIGN CONCEPT: RIGHT BUSINESS ACCESS AND TRANSIT**

Allows right turns across the bus lane into driveways



# Bus Rapid Transit (BRT) **SCHEDULE**

### **RALEIGH BRT: NEW BERN AVENUE**

The Wake Transit Plan, adopted in November 2016, creates more frequent bus services that cover larger service areas and span longer hours to connect Wake County. The New Bern Avenue Corridor BRT is one of four BRT corridors identified in the Wake Transit Plan and was selected as the first corridor: the schedule for this corridor is shown below.

Apr 19	Мау	Jun	Jul	Aug	Sep	Oct	Nov	Dec	2020	2021-2022	2023
		Open House			<b>Open House</b>			Open House			
Confirm BRT route alignment and length Identify initial station locations Introduce BRT runningway design concepts			Refine station locations Select one BRT runningway and vehicle option Introduce transit signal priority options Develop preliminary cost estimates			Finalize station locations Develop station footprint			Complete Final Design	Construction	BRT Service Begins
Coordinate wi	with other transportation projects		Submit Small Starts Grant Application								



**GoRaleigh Station to New** Hope Road

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