REPORT 2: KEY PLANS IN THE CAMPO REGION

# KEY PLANS IN THE CAMPO REGION

An Existing Plans and Studies Relevant Recommendations Report – Part of the CAMPO RED Lanes Study

# INTRODUCTION AND SUMMARY OF CONTENTS

#### **PURPOSE OF REPORT**

The CAMPO RED Lanes Study is taking a comprehensive look at transit priority lanes as a potential part of the region's approach to enhancing its transportation system to meet growing demand, improve transit operations, and diversify modal options for local and regional travel. The RED Lanes Study report, "RED Lane Fundamentals," (under separate cover) describes the costs, benefits, design and operational features of RED transit priority lanes, while also defining best planning and implementation practices based on past experience in other regions. In considering the application of transit priority lanes in the CAMPO region, it is also important to understand their relationship to existing and ongoing plans and studies in the region.

This report summarizes key plans and studies from throughout the region and their relevance to planning for transit priority lanes. It highlights the major themes and emphases of recent planning efforts and identifies how these might inform the development of a RED lanes evaluation process. It also includes considerations for the design and implementation of RED lanes based on regional standards and identifies candidate corridors in the CAMPO region for RED lanes evaluation.



This report is an early step in the development and testing of a RED lanes evaluation process for the CAMPO region, focusing on relevant past plans and studies.

#### **REPORT STRUCTURE**

This "Key Plans" report is organized into three major sections. The first section summarizes key findings from a thorough review of planning documents from throughout the region. It highlights common themes and goals relevant to evaluating and planning for transit priority lanes.

The second section provides a plan-by-plan summary of key plans reviewed for this report. Each planning document reviewed is briefly summarized, highlighting its major points of emphasis and relationship to transit priority lanes. The reviewed plans are broken down into three categories:

- Core Plans and Studies are comprehensive in geographical scope, applying to the region as a whole or a significantly-sized sub-area (Wake County, e.g.) and having a stated or implied focus on multimodal transportation. Summaries of these plans include notes organized into the RED Lanes Information Gathering Concept Matrix, described in the "RED Lanes Fundamentals" report. In this report, the concept matrix organizes key findings from a given planning document into five major topic areas demand, operations, design, contexts, and other each having a set of indicators/subtopics to consider. No single plan addresses all topic areas. The inclusion of the matrix provides an at-a-glance summary of Core Plans and Studies to facilitate understanding of the emphases of these major planning efforts that relate to the RED Lanes Study. *Note: In general, all plans emphasize safety, but the most relevant safety recommendations pertaining to RED lanes are generally focused on facility design and operations. As such, safety-related notes in the matrix are typically found in the operations and/or design topic areas rather than the safety sub-topic.*
- Complementary Plans and Studies include corridor and sub-area studies of regional significance, the most relevant of which focus on BRT or multi-modal travel in an area. Several studies are included that focus on rural and suburban corridors. Although these generally have only a modest transit component, they are included because of the broad regional emphasis on increasing multimodal travel choices and in recognition of the potential for evolving local priorities and/or localized delay mitigation through innovative strategies such as RED lanes.
- **Ongoing Plans and Studies** remain unfinished but are important to recognize as potential sources of fresh information regarding the vision for a portion of the CAMPO region. Most of these studies are focused on specific corridors or subareas, and many have a transit emphasis. They also suggest corridors or areas that should be included as candidate RED lane corridors, potentially allowing the findings of this study may inform the ultimate recommendations of the ongoing studies.

Additional studies considered but not reviewed for this report are included in an "additional reading" list at the end of the second section.

Finally, the third section highlights corridors throughout the CAMPO region that are potential candidates for RED lane evaluation and prioritization, to be completed in a subsequent phase of the RED Lanes Study. This final section includes a brief description of how and why these corridors were selected based on the reviewed planning documents and other relevant planning and programming sources.

# **KEY FINDINGS**

This section summarizes the major themes and emphases of the entire collection of planning documents reviewed for this report. It distills these plans into topic areas and planning priorities to encapsulate the relevant directives from planning efforts throughout the region as they relate to transit priority lanes. These key findings will be used to inform the development of a RED lanes evaluation methodology and potential implementation considerations. The plans reviewed also provide sources for identifying potential candidate corridors for RED lanes and related transit priority treatments, as described in the final section of this report.

# **COMMON THEMES**

Collectively, the plans reviewed for this report reveal several key emphasis areas of regional planning that can be organized into five primary topic areas.



#### Create a multimodal transportation network

- Many plans emphasize complete streets design principals, creating facilities that are safe and comfortable for all users. For many facilities, this includes designated space for transit vehicles, including transit priority lanes.
- Numerous plans, especially those with a regional scope, emphasize developing viable alternatives to auto travel and multi-modal strategies for congestion relief. They generally point to a need for greater connectivity among the region's centers via transit as well as non-motorized local connections.
- Sidewalks and bike lanes are important components of many plans, especially those focused on a specific corridor or sub-area. As the region grows, appropriate accommodation of non-motorized users will be increasingly important. RED lanes and related strategies should consider opportunities to accommodate these modes, such as allowing bicycles in RED lanes, for example.



#### Provide high quality transit on key corridors

- Several plans most notably the Wake Transit Plan call for significant augmentation to the regional bus network. This includes the designation of several BRT corridors, some of which are the subject of ongoing studies. RED lanes may be a supportive strategy in BRT implementation, either as a component of a BRT project or as a stepping stone to eventual BRT implementation in a corridor.
- The Wake Transit Plan also focuses on high-frequency fixed route local bus service. High-frequency services should operate at headways of 15-minutes or shorter to minimized wait times for transit patrons. Urban corridors not designated for BRT are strong candidates for high-frequency local bus, and RED lanes can play an important role in ensuring competitive and reliable travel times, especially when these corridors commonly experience congestion and/or delays at intersections.
- Finally, regional jobs and community centers should be connected by less-frequent (30- to 60-minute headways) by express and/or local bus services. These services will focus on jurisdictions and subareas with adequate population and/or employment density to support the transit service. While the corridors on which these routes would operate are unlikely to support RED lanes along their entire length, short treatments may alleviate delays at key bottleneck locations to maintain competitive travel times.



#### Reduce congestion on all roads, especially those providing key regional connections

• Although many plans emphasize increasing multi-modal options, they also acknowledge the automobile as the dominant mode for regional mobility and the need to continue to invest in highways to meet the region's travel needs while diversifying options over time.

- Congestion relief may be aided by multi-modal enhancements, including RED lanes, but in many cases, roadway widenings and new road construction will provide the primary mobility benefits needed in the region. In the right contexts, these projects may examine RED lanes as a potential design alternative.
- Generally, RED lanes should be considered where high frequency transit service is provided or planned, where sufficient right-of-way is available, and where the transit lane can reasonably be expected to provide a comparable level of person throughput to a general use lane.
- Operational and technological solutions may help to mitigate congestion without the addition of new roads or lanes. When planning for operational improvements to a corridor, transit signal priority (TSP) systems should be evaluated for potential travel time savings and reliability benefits for transit users.<sup>1</sup>



#### Improve safety and mobility for all modes

- All plans emphasize safety, aiming to reduce incidents and minimize risk to all travelers. In many cases, safety is addressed through operational and design enhancements to facilities or intersections.
- Several corridor and sub-area studies identify intersection or interchange design changes to reduce congestion and ensure safe travel along a corridor. In some cases, non-traditional designs could pose challenges for RED lane implementation. For example, a displaced left turn may be difficult to access from a curbside transit lane. Future consideration of facility and intersection design should consider the operational implications for buses in RED lanes in high-scoring candidate corridors.
- Another design approach to enhancing safety focuses on access management, including turning restrictions and driveway/parking consolidation. This facilitates more continuous traffic flow along the facility and reduces potential collisions. Since RED lanes often allow turning vehicles to utilize the transit lane, this strategy may be appropriate in RED lane corridors, especially as high volumes of turning vehicles can undermine the travel time benefits to transit vehicles in the RED lane.



#### Integration of land use and transportation plans

 Increasingly, planning documents are directly addressing the connection between land use or land development patterns and transportation system design and performance. Many plans in the CAMPO region acknowledge this connection and call for context-sensitive strategies that accommodate/prioritize modes and movements appropriately based on built environment characteristics that extend beyond the limits of the right-of-way.

<sup>&</sup>lt;sup>1</sup>This study is not focused on TSP except as a potential component of optimal RED lane implementation. As such not all corridors being studied for operational improvements are considered candidate corridors for RED lanes, but only those having other attributes suggesting the potential implementation of a RED lane (with a potential TSP component) as a viable strategy. However, this finding may have significance beyond the scope of the current study as TSP can provide transit travel time benefits even in the absence of a RED lane.

- High-quality transit service is planned in areas that currently have or are planned to have high density development. Density is a key consideration for stop spacing, on-street parking, bicycle and pedestrian facilities, and other facility characteristics that could impact the viability and/or ultimate design of a RED lane.
- Transit-oriented development (TOD) has emerged nationally as important growth strategy, and several plans in the CAMPO region emphasize TOD to concentrate new development in strategic locations to optimize existing infrastructure and enhance transit utilization.

#### IMPLICATIONS FOR RED LANES EVALUATION

The RED Lanes Study will develop an evaluation/prioritization methodology to rank corridors throughout the region on their suitability/readiness for RED lanes or other transit priority improvements. Based on the summary of key plans, a RED lanes evaluation/prioritization approach should focus on the following key considerations/locations/designations (organized according to the RED Lanes Information Gathering Concept Matrix Topic Areas):

- Demand
  - Corridors serving high ridership routes or expected to accommodate high volumes of transit passengers through the confluence of multiple routes should be elevated in the prioritization process. Ridership estimates may be based on existing data or forecasts.
  - Transit plans in Wake County have consistently cited 25 passengers per revenue hour as a critical ridership threshold for high-frequency transit services and transit priority treatments. This figure has been quoted for route performance evaluation but may also be applied in a corridor basis (accounting for multiple routes using the same corridor) in the RED lanes evaluation.
  - The GoTriangle Short Range Transit Plan (2018) acknowledges the difficulty of serving commuting demand from Durham and Orange Counties to Wake County since trips originate from many disparate locations. This may prompt an initial emphasis in RED lane planning on corridors with primarily local fixed-route bus service and BRT plans focused on CAMPO jurisdictions. It may be appropriate to elevate such corridors in the prioritization process above those primarily serving long-distance commutes and monitor shifts in transit service and demand for long range trips from Durham and/or Orange Counties over time.
- Operations
  - Weight should be given to segments identified as **bottlenecks** or otherwise posing delays to transit vehicles. The derivation of scores for such segments should consider the magnitude of typical delay, the frequency of transit service and ridership trends, and the potential travel time benefit(s) of RED lanes.
  - The prioritization process should consider routes or segments with observed **on-time performance or travel time reliability issues**, to the extent such data are available.
  - Buses should operate at 15-minute headways (or more frequently) during peak periods on priority corridors. If a given RED lane project is seen as a pre-cursor to BRT, a target average travel speed of 16 miles per hour may be considered based on regional standards but is not required due to the operational differences between BRT and RED lanes.

- Contexts
  - Urban corridors in moderate- to high-density areas are the most appropriate corridors for RED lanes and other transit priority treatments. Other corridors would be expected not to perform as well in the prioritization process.
  - It would be appropriate to identify corridors or segments in areas identified for high density growth, TOD station areas, and/or locations with form-based codes or complete streets policies to reflect future transit ridership potential. Multi-modal supportive policies provide the appropriate contexts for RED lanes and will maximize their effectiveness.
  - It may be appropriate to identify **connectivity gaps** that could enhance accessibility via transit mobility/connectivity as potential areas for RED lane implementation.
  - The process should focus on the arterial roadway network rather than limited access highways such as interstates (I-40) or toll facilities (NC-540). The implementation of "managed lanes" on these facilities requires consideration of high-occupancy vehicle (HOV) and value pricing elements that are broader than transit vehicle design and operations on arterials. Limited access highway treatments such as the Bus on Shoulder System (BOSS) already allow some routes to operate on highway shoulders at safe speeds to bypass congestion and maintain competitive travel times.

#### IMPLICATIONS FOR RED LANES DESIGN AND IMPLEMENTATION CONSIDERATIONS

While the RED lanes evaluation/prioritization process will highlight corridors with the highest suitability for RED lane implementation, the specific design choices and components of each facility will vary on a caseby-case basis. The review of regional, corridor, and subarea plans define the following service and facility design elements for BRT (generally based on the Wake Transit Plan BRT Design Standards and Performance Measures). A similar table could be developed for RED lanes as part of a later phase of the RED Lanes Study. Some topics included in the BRT standards may not be relevant to RED lanes, such as bicycle parking and level boarding requirements. The indicators thought to be most relevant to RED lane implementation are included in the RED Lanes Information Gathering Concept Matrix, which has some overlap with the BRT design standards and performance measures. Certain feature requirements, performance measures, and criteria thresholds are generally more rigid for BRT than for other transit priority treatments, due to funding requirements. As such, a similar table for RED lanes would probably include a different set of considerations and offer ranges of guideline values as opposed to "standards" per se.

Consideration	BRT
Ridership	25 passengers/revenue hour for weekday service
Average transit vehicle speed	16 mph
Transit Signal Priority	Applied at all intersections where a travel time savings can be
	demonstrated/ modeled
On-time performance (-1/+5	85%
minutes of scheduled time)	
Queue jumps	At major intersections where dedicated running way is unavailable
Stop spacing (stops per mile)	2 in moderate/high density areas; 1 in low density areas
Length of dedicated running way	50% of route length
Branded stations	Yes
Off-board fare payment	Ticket machines at all stations
Real time arrival information	Yes
Schedule and route information	Yes
Enhanced comfort (large	Yes
shelters and lighting)	
Bicycle parking	Yes
ADA accessibility	Yes
Level boarding	Yes
Span of service	Weekdays: 5 am to 12 am
	Weekends: 6/7 am to 12 am
Frequency of Service	Early/late/weekends: 20 minutes
	All other times: 15 minutes
Vehicle loading maximums	120% peak commuting periods; 100 percent all other times
Operating costs per boarding	\$6.00
Farebox recovery	20%

# SUMMARIES OF KEY PLANS

**Core Plans** and Studies are comprehensive in geographical scope, applying to the region as a whole or a significantly-sized sub-area (Wake County, e.g.) and having a stated or implied focus on multimodal transportation. The documents reviewed in this section include:

**Complementary Plans and Studies** include corridor and sub-area studies of regional significance, the most relevant of which focus on BRT or multi-modal travel in an area. Several studies are included that focus on rural and suburban corridors. Although these generally have only a modest transit component, they are included because of the broad regional emphasis on increasing multi-modal travel choices and in recognition of the potential for evolving local priorities and/or localized delay mitigation through innovative strategies such as RED lanes.

**Ongoing Plans and Studies** remain unfinished but are important to recognize as potential sources of fresh information regarding the vision for a portion of the CAMPO region. Most of these studies are focused on specific corridors or subareas, and many have a transit emphasis. They also suggest corridors or areas that should be included as candidate RED lane corridors, potentially allowing the findings of this study may inform the ultimate recommendations of the ongoing studies.

The table below provides a list of the plans and studies summarized with page numbers for reference.

Core Plans and Studies	_ R2-11
Wake County Transit Plan Major Investment Study: BRT Design Standards and Performance Measures $\_$	R2-11
Wake Transit Plan	R2-13
GoTriangle Short Range Transit Plan	R2-15
Wake Bus Plan	R2-17
GoRaleigh/Capital Area Transit (CAT) 2012 Short Range Transit Plan	R2-19
Capital Area Bus Transit Development Plan (TDP)	R2-21
2045 Metropolitan Transportation Plan	R2-23
Wake County Comprehensive Transportation Plan	R2-25
Complementary Plans and Studies	_ R2-27
City of Raleigh Downtown Plan	R2-27
New Bern Avenue Corridor Study	R2-28
Six Forks Road Corridor Study	R2-29
Blount St – Person St Corridor Study	R2-30
Southern Gateway Study	R2-31
Cameron Village Hillsborough Street Small Area Plan	R2-32
Jones Franklin Area Study	R2-33
Blue Ridge Road District Study	R2-34
Lake Wheeler Road Corridor Study	R2-35
Western Boulevard Crossing Study	R2-36
Capital Boulevard Corridor Study	R2-37
US 1 Corridor Study: Phase I	R2-38
US 1 Corridor Study: Phase II	R2-39
NC 50 Corridor Study	R2-40
NC 56 Corridor Study	R2-41
NC 98 Corridor Study	R2-42
Northeast Area Study	R2-43
Southeast Area Study	R2-44

Southwest Area Study	R2-45
Ongoing Plans and Studies	R2-46
Regional Technology Integration Study	R2-46
Commuter Corridors Study	R2-46
Raleigh Downtown Transportation Plan	R2-46
Raleigh Union Station Phase II – RUS BUS	R2-46
Western Boulevard Corridor Plan	R2-46
Avent Ferry Road Corridor Study	R2-47
Midtown-St Albans Area Plan	R2-47
Capital Boulevard North Corridor Study	R2-47
Falls of Neuse Area Plan Update	R2-47
Downtown Cary Multimodal Transit Facility	R2-48
Southwest Area Study Update	R2-48
Additional Plans	R2-48

# **CORE PLANS AND STUDIES**

# WAKE COUNTY TRANSIT PLAN MAJOR INVESTMENT STUDY: BRT DESIGN STANDARDS AND PERFORMANCE MEASURES<sup>2</sup>

This document was prepared for the BRT Major Investment Study as a part of the Wake Transit Plan. It envisions the features of BRT in Wake County and establishes a framework for future investment. Design standards establish the baseline for features that should be included in construction and operation of the BRT service, whereas performance measures report on the efficiency of that service. Both design standards and performance measures are important to ensure that the BRT service achieves the goal of providing "frequent, reliable urban mobility".

Two elements of the design standards that are relevant to the CAMPO RED lanes study are dedicated runningway and transit signal priority. This study identified dedicated runningway as a priority for delivery of reliable, high-frequency service in BRT operations. Therefore, the BRT infrastructure should include dedicated runningway in over 50 percent of the corridor. The type of runningway could closely resemble transit priority lanes. Transit signal priority (TSP) is another element of the BRT design that contributes to service reliability. The study recommends 100% of the signalized intersections on a BRT corridor be equipped with TSP technology; however, the level of implementation and combination of signal prioritization treatments can vary on an intersection-by-intersection basis, depending on traffic conditions and the expected impact TSP would have on alleviating delay.



The study also recommends stop spacing standards of two stops per mile maximum in moderate-to-high density areas (10 or more jobs + population per acre) and one stop per mile maximum in low-density areas (less than 10 jobs + population per acre). It sets an on-time performance target of 85% of transit vehicles departing from stops less than one minute before and less than five minutes after the scheduled departure time. It targets a 16 miles-per-hour average operating speed for BRT service. These performance targets could shape expectations for the travel time and quality of service impacts associated with transit priority lanes.

<sup>&</sup>lt;sup>2</sup> <u>http://goforwardnc.org/wp-content/uploads/2018/11/Wake-MIS-BRT-Design-Standards-Performance-Measures-FINAL.pdf</u>

WAKE COUNTY	WAKE COUNTY BRT DESIGN STANDARDS AND PERFORMANCE MEASURES						
Topic Area	Indicator	Findings					
Demand	Transit Ridership	Minimum passenger boardings per revenue hour of					
(Existing v.		operation: 25 (weekday service)					
Forecast v.	Transit Mode Share						
Targets, Peak	Traffic Volume						
v. Off-Peak v.	Non-Motorized Users						
Daily]	Person Throughput	Vehicle loading standards (number of riders on the bus					
		relative to the seating capacity of the vehicle):					
		• 120% in peak hours					
		<ul> <li>100% off-peak</li> </ul>					
Operations	Transit On-Time	On-time performance measured as the share of trips					
(Existing v.	Performance	leaving -1 to +5 minutes of scheduled time. The target					
Forecast v.		for this measure is 85%.					
Targets, Peak	Transit Reliability (Route						
v. Off-Peak v.	Travel Time)						
Daily]	Transit Service Frequency	Minimum service frequency: 15 minutes (20 minutes in					
		early morning/night/Saturday/Sunday service hours)					
	Transit Signal Priority	TSP should be applied to 100% of intersections where it					
		will provide a benefit to transit speed and/or reliability;					
		queue jumps are appropriate where dedicated running					
		way is not available					
	Person/Vehicle Delay						
	Average Travel Speeds	Target: 16 mph. Stop spacing standards are key to					
		maintaining target speed (2 stops/mile in					
		moderate/high density areas, 1 stop/mile in low density					
		areas)					
Contexts	Adjacent Land Uses						
(Nearby uses,	Context Classification/						
disadvantaged	Complete Streets						
population,	Parking/Curb space						
connectivity,	Accessibility						
freight routes,	Facility Functional/Access						
emergency	Class						
routes)							
Design	Number of Lanes						
(Available	Lane Width						
ROW, shared	Intersection Design						
modes/							
movements/							
Other	Safety						
	Enforcement						
	Maintenance						
	Cost						

#### WAKE TRANSIT PLAN<sup>3</sup>

The Wake County Transit Plan (WTP), adopted in November 2016, focuses on projects and investments needed to enhance transit travel throughout the county. The plan calls for more frequent bus service throughout a larger service area, operating for longer hours. The WTP highlights frequent and rapid bus service on major corridors to connect population and employment centers in the region. In the WTP targets service general, frequencies of 15-minutes or less for a network of key routes, supported by less frequent service on secondary routes to provide comprehensive coverage.

BRT provides frequent, high speed bus service, often in dedicated right-of-way or in transit priority lanes. The following BRT corridors are defined in the WTP:

- 1. Capital Boulevard
- 2. Wilmington Street
- 3. Western Boulevard/Chatham Street
- 4. New Bern Avenue

In addition to BRT infrastructure, the WTP calls for a frequent service network, on which buses would operate at 15-minute



headways (or more frequently) all day. The proposed frequent service network includes the following major roads: Blue Ridge; Glenwood; Northbrook; Six Forks; St. Albans; Oberlin; Hillsborough; Martin Luther King, Jr.; State; Capital Boulevard; and Lassiter Mill.

For local fixed-route service, the Plan recommends enhanced service frequencies during peak commuting hours, extended service hours for most routes, and expanded service areas in both Raleigh and Cary. Finally, the plan establishes a Community Funding Area mechanism through which smaller municipalities that do not currently fund transit systems may establish local transit service, expanding system coverage over time.

Transit priority lanes are an appropriate strategy for achieving the rapid and frequent transit service network proposed by the WTP. Corridors identified in the WTP should be included for consideration as transit priority lane candidate corridors, and conditions along these corridors that impact transit travel speeds or reliability should be highlighted for potential resolution through transit priority lanes.

<sup>&</sup>lt;sup>3</sup> <u>http://goforwardnc.org/wp-content/uploads/2018/03/November-2016-Wake-Transit-Plan\_small.pdf</u>

WAKE TRANSIT PLAN					
Topic Area	Indicator	Findings			
Demand (Existing v.	Transit Ridership	Central Raleigh accounts for the majority of high-ridership stops and corridors.			
Forecast v.	Transit Mode Share				
Targets, Peak v. Off-Peak v. Daily]	Traffic Volume	Forecasted (2040) traffic volumes indicate that many major roads will be above capacity. Transit investments like BRT and CRT are recommended as congestion mitigation tools/alternatives.			
	Non-Motorized Users				
	Person Throughput				
<b>Operations</b> (Existing v.	Transit On-Time Performance Transit Poliability (Pouto	BRT improvements along several corridors will improve the speed, reliability, and amenities of bus services.			
Targets, Peak	Travel Time)				
v. Off-Peak v. Daily]	Transit Service Frequency	The existing frequent service network serves NCSU and central Raleigh, extending to Wake Forest and Knightdale. The frequent network (15 minutes or better all day) in Raleigh and Cary will increase from 17 miles to 83 miles			
	Transit Signal Priority	Transit signal priority is planned along the following corridors: Western Boulevard between Raleigh and Cary; on or near Capital Boulevard between Peace Street and Wake Forest Road; New Bern Avenue between Raleigh Boulevard and WakeMed; along South Wilmington Street between Raleigh and Garner at US 401.			
	Person/Vehicle Delay				
	Average Travel Speeds				
Contexts	Adjacent Land Uses				
(Nearby uses,	Context Classification/				
disadvantaged	Complete Streets				
population,	Parking/Curb space				
connectivity, freight routes, emergency	Accessibility	Plan seeks to maximize number of people and jobs near any all-day transit service and near Frequent Service Network.			
routes)	Facility Functional/Access Class				
Design	Number of Lanes				
(Available	Lane Width				
ROW, shared modes/ movements)	Intersection Design				
Other	Safety				
	Enforcement				
	Maintenance				
	Cost				

# GOTRIANGLE SHORT RANGE TRANSIT PLAN<sup>4</sup>

The GoTriangle Short-Range Transit Plan (SRTP) provides guidance for how the agency will develop and implement bus service through FY 2027. The Plan is oriented around three goals: (1) Make service faster and more time-competitive; (2) provide more frequent service; and (3) provide more all-day service. The components of the plan include an existing conditions and market analysis, a service analysis, a report on public involvement, and recommendations. The recommendations are derived from the existing conditions, market factors, and public input. Ultimately, the recommendations are focused on the broad goal of offering a regional network that meets current and future travelers' needs and maintains financial sustainability.

More specifically, the SRTP recommendations include service changes that help realize the plan goals. Key recommendations relevant to the CAMPO RED lanes study include:

Replace service between Cary and the RTC with new Route 310. providing service to Morrisville and Wake Tech RTP campus in western Wake County, and expand service to operating later hours and higher frequencies on weekends.



- Add service later at night and add more frequent service on weekends to Route 100.
- Add midday, night, and weekend service between Raleigh and Apex on Route 305. Convert Routes 102 (Garner-Raleigh) and KRX (Knightdale-Raleigh Express) to all-day services operated by GoRaleigh.
- Replace Route 201 with new Route NRX service along I-540 between Triangle Town Center and the RTC, and double frequency; also add park-and-ride capacity in the I-540 corridor to support ridership growth.
- Combine resources from Routes 105, 700, and DRX to provide all-day weekday express service between Duke/VA Hospitals, downtown Durham, NC State University, and downtown Raleigh. The route would add a stop at a relocated RTC but receive additional peak period trips and new, 30-minute midday service on weekdays.
- Route 300 Cary-Raleigh will be replaced by the Western Blvd BRT line.

<sup>&</sup>lt;sup>4</sup><u>https://gotriangle.org/sites/default/files/att\_a\_gotriangle\_short-range\_transit\_plan\_final\_nov\_2018.pdf</u>

GOTRIANGLE SHORT RANGE TRANSIT PLAN					
Topic Area	Indicator	Findings			
Demand (Existing v. Forecast v. Targets, Peak v. Off-Peak v. Daily)	Transit Ridership	Existing high ridership commuter routes include: 700 (Durham to RTC); 800 (RTC to UNC Hospital via Southpoint); 805 (RTC to UNC Hospital via Woodcroft); CRX (Chapel Hill to Raleigh); DRX (Durham to Raleigh). These routes generally utilize freeways such as I-40 or NC-147.			
	Transit Mode Share				
	Traffic Volume				
	Non-Motorized Users				
	Person Throughput	The plan acknowledges limited commuter demand from Durham/Orange to Wake.			
<b>Operations</b> (Existing v.	Transit On-Time Performance				
Forecast v.	Transit Reliability (Route	A goal of the plan is to make transit service faster and			
Targets, Peak	Travel Time)	more time-competitive.			
v. Off-Peak v.	Transit Service Frequency	A goal of the plan is to provide more frequent, all-day			
Daily]		service.			
	Transit Signal Priority				
	Person/Vehicle Delay				
-	Average Travel Speeds				
Contexts	Adjacent Land Uses				
(Nearby uses,	Context Classification/				
disadvantaged	Complete Streets				
population,	Parking/Curb space				
connectivity,	Accessibility				
merganav	Facility Functional/Access				
routes)	Class				
Design	Number of Lanes				
(Available	Lane Width				
ROW, shared	Intersection Design				
modes/					
movements)					
Other	Safety				
	Enforcement				
	Maintenance				
	Cost				

#### WAKE BUS PLAN<sup>5</sup>

The Wake Bus Plan was adopted in February 2019. It is a 10-year implementation plan focused on nearterm transit capital and operational investments that support the fulfillment of the Wake Transit Plan (2016). The bus plan offers a year-by-year implementation plan and schedule for strategic investments that address the Wake Transit Plan's "Four Big Moves":

- Connect regionally Connect major destinations throughout the Triangle region with reliable transit, such as commuter rail and express bus.
- Connect all Wake County Communities Connect municipalities throughout Wake County as well as RDU and RTP using regional and express bus.



- Frequent, Reliable Urban Mobility Develop frequent service in the county's urban core, including BRT and high frequency fixed route bus service.
- Enhanced access to transit Make services more convenient, extend operating hours, and ensure the bus is fast, reliable, and comfortable.

The plan focuses on bus service rather than other potential major investments like BRT and commuter rail. A schedule of capital and operating investments is laid out for growing the region's bus system and serves as a guide for programming specific investments through annual Wake Transit Work Plans.

There are 10 frequent service routes identified in the plan, offering headways of 15-minutes or shorter and operate for 18 hours a day. They are focused in county's densest corridors. Additionally, an increase in local fixed route bus service is envisioned. These routes will operate at 30-minute headways for most of the day and service will be available for 18 hours a day. Community routes operate at one-hour headways up to 14 hours per day, serving lower density areas and connecting to the system's more regular services. Finally, express routes operate during peak periods and provide regional connections with minimal stops to maintain competitive travel times.

The plan anticipates significant increases in transit funding from various sources over its 10-year horizon. Overall, the existing system that offers 300,000 annual hours of bus service will be expanded to offer 800,000 annual hours of service by 2027. Spending on Wake County bus service will grow from \$30 million today to roughly \$85 million in the same timeframe. These investments and service increases will equip transit providers in the region to shift from service models focused on coverage (with low levels of service) to an emphasis on ridership.

<sup>&</sup>lt;sup>5</sup>http://files.www.campo-nc.us/about-us/committees/wake-county-transit-planning-advisory-committee-tpac/documentlibrary/Wake\_Transit\_10-Year\_Bus\_Plan\_final.pdf The Wake Bus Plan includes the most recent Short Range Transit Plans (Proposed Transit Service Projects and Changes) for GoRaleigh, GoCary, and GoTriangle.

WAKE BUS PL	WAKE BUS PLAN						
Topic Area	Indicator	Findings					
Demand (Existing v. Forecast v. Targets, Peak v. Off-Peak v. Daily)	Transit Ridership Transit Mode Share Traffic Volume Non-Motorized Users	<ul> <li>Devote increasing investment toward ridership-oriented services (frequent service, e.g.).</li> <li>2018 - 26% ridership/74% coverage</li> <li>2024- 54% ridership/46% coverage</li> <li>2027 - 66% ridership/34% coverage</li> <li>Target - 75% ridership/25% coverage</li> </ul>					
	Person Throughout						
<b>Operations</b> (Existing v. Forecast v. Targets, Peak	Transit On-Time Performance Transit Reliability (Route Travel Time)						
v. Off-Peak v. Daily]	Transit Service Frequency	Increase access to frequent service (15-minute max. headways) throughout the region by developing/funding more high-frequency routes.					
	Transit Signal Priority						
	Person/Vehicle Delay						
	Average Travel Speeds						
Contexts	Adjacent Land Uses						
(Nearby uses,	Context Classification/	Enhance service frequency and reliability in the county's					
disadvantaged	Complete Streets	urban core and densest corridors.					
population,	Parking/Curb space						
connectivity, freight routes,	Accessibility	Steadily increase the number of jobs and residents within walking distance (¾-mile) of high-frequency transit					
emergency routes)	Facility Functional/Access						
Desian	Number of Lanes						
(Available	Lane Width						
ROW, shared modes/ movements]	Intersection Design						
Other	Safety						
	Enforcement						
	Maintenance						
	Cost						

# GORALEIGH/CAPITAL AREA TRANSIT (CAT) 2012 SHORT RANGE TRANSIT PLAN<sup>6</sup>

The City of Raleigh/Capital Area Transit (CAT) Short Range Transit Plan adopted in 2012 sets forward recommendations in a three to five-year timeframe. The aim of the plan is to initiate implementation of the long-range transit plans developed for Wake County. The plan is formulated around the following goals: (1) develop an enhanced, expanded bus system; and (2) introduce a long-range rail transit system. Any actions to realize these goals should satisfy the following objectives: (1) improve mobility; (2) increase regional connectivity; (3) create new employment opportunities; and (4) reduce the impact of congestion.

More specifically, to create the envisioned enhanced bus service network. service changes should enhance corridors. One existing particular service change that achieves this is the establishment of "Premium Transit Corridors", corridors that have high ridership, potential for growth, and demand for high frequency transit service. Premium Transit Corridors will offer all-day service at frequencies of every 15 minutes during the weekday peak period and 30 minutes off peak and on weekends. The corridors designated "premium" are: Capital Boulevard; New Bern Avenue; Rock Quarry Road; South Saunders Street; Avent Ferry



Road; Hillsborough Street; Glenwood Avenue/Oberlin Road; Six Forks Road; and Falls of Neuse Road.

Overall, the SRTP set performance measures for ridership levels and annual hours of service. For regular routes, targeted passengers per revenue hour (p/h) is 25 for weekdays, 20 for Saturdays, and 15 for Sundays. This measure was developed based on current performance levels and projected network development. The annual hours of service are anticipated to increase significantly in the 5-year planning period, approximately 77%. This could translate to an increase in ridership of 4 million annual riders, reaching approximately 9.2 million riders annually in 2016.

<sup>&</sup>lt;sup>6</sup> https://www.raleighnc.gov/services/content/PWksTransit/Articles/ShortRangeTransitPlan.html

GORALEIGH/C	GORALEIGH/CAPITAL AREA TRANSIT 2012 SHORT RANGE TRANSIT PLAN					
Topic Area	Indicator	Findings				
Demand (Existing v. Forecast v. Targets, Peak v. Off-Peak v. Dailv)	Transit Ridership	Existing high-ridership routes include: Route 15 (WakeMed); Route 1 (Capital); Route 7 (South Saunders); Route 4 (Rex Hospital); Route 2 (Falls of Neuse) Performance target of 25 passengers per hour on local weekday routes.				
7-	Transit Mode Share					
	Traffic Volume					
	Non-Motorized Users					
	Person Throughput					
<b>Operations</b> (Existing v.	Transit On-Time Performance					
Forecast v. Targets, Peak	Transit Reliability (Route Travel Time)					
v. Off-Peak v. Daily]	Transit Service Frequency	Target maximum headway of 30 minutes on all routes throughout the 14-hour weekday span of service. Establish premium transit corridors with service headways				
		of 15-minutes or shorter during peak periods.				
	Transit Signal Priority	Signal timing and queue jumper lanes at intersections recommended for the New Bern Avenue and Capital Boulevard Premium Transit Corridors.				
	Person/Vehicle Delay					
	Average Travel Speeds					
Contexts	Adjacent Land Uses					
(Nearby uses,	Context Classification/					
disadvantaged	Complete Streets					
population,	Parking/Curb space					
connectivity,	Accessibility					
freight routes, emergency routes)	Facility Functional/Access Class					
Design	Number of Lanes					
(Available	Lane Width					
ROW, shared	Intersection Design					
modes/						
Othor	Safoty					
	Enforcement					
	Maintenance					
	Post	The cost for premium transit corridor improvements on New				
	0031	Bern Avenue is estimated at \$2.43 million. The cost for improvements on Capital Boulevard is estimated at \$4.6 million.				

# CAPITAL AREA BUS TRANSIT DEVELOPMENT PLAN (TDP)

The Capital Area Bus Transit Development Plan (TDP) was published in 2011 and has a planning horizon of 2040. The Plan offers a framework for transit service and capital improvements to improve mobility in the CAMPO region. The Plan examines existing conditions and forecasted growth and makes financially-feasible recommendations for transit service and capital improvements. One of the key recommendations of this TDP is an enhanced bus system that improves mobility, connects the region, and reduces vehicular traffic. An element of the recommended enhancements to existing transit service that is relevant to the CAMPO RED lanes study is the establishment of Premium Transit Corridors and Commuter Corridors. Premium Transit Corridors serve local bus routes and offer pedestrian and transit facilities. Commuter Corridors permit bus on shoulder operations and signal prioritization. These corridors may be strong candidates for future RED lane implementations.

#### Premium Transit Corridors

- 1. Avent Ferry
- 2. Capital
- 3. Hillsborough/Chatham
- 4. Crabtree
- 5. Falls of Neuse
- 6. New Bern
- 7. Rock Quarry
- 8. Saunders
- 9. Six Forks

#### Commuter Corridors

- 1. I-40 West
- 2. I-40 East
- 3. US 1 North Capital
- 4. US 401 South
- 5. US 64 East
- 6. US 1 South
- 7. Creedmoor/Glenwood



Key Plans in the CAMPO Region

June 2020

CAPITAL AREA BUS TRANSIT DEVELOPMENT PLAN						
Topic Area	Indicator	Findings				
Demand (Existing v. Forecast v. Targets, Peak v. Off-Peak v.	Transit Ridership	Existing high-ridership routes include: Route 15 (WakeMed); Route 1 (Capital); Route 7 (South Saunders); Route 4 (Rex Hospital); Route 2 (Falls of Neuse) Performance target of 25 passengers/hour for local fixed route weekday service				
Daily)	Transit Mode Share					
	Traffic Volume	Forecast (2035) traffic volumes indicate the following desired travel patterns: Apex-Holly Springs-Fuquay-Varina; Apex-Cary; Cary-Morrisville; RDU Airport-North Raleigh; and Wake Forest-North Raleigh.				
	Non-Motorized Users					
	Person Throughput					
Operations (Existing v.	Transit On-Time Performance					
Forecast v. Targets, Peak	Transit Reliability (Route Travel Time)					
v. Off-Peak v. Daily]	Transit Service Frequency	<ul> <li>30 minutes (local routes, weekdays)</li> <li>15 minutes (commuter routes, weekday peak)</li> <li>30 minutes (neighborhood circulators, weekday peak)</li> <li>10 minutes (activity center special circulators)</li> <li>15 minutes (peak)/30 minutes (off-peak) on premium transit corridors</li> </ul>				
	Transit Signal Priority					
	Person/Vehicle Delay					
	Average Travel Speeds					
Contexts (Nearby uses,	Adjacent Land Uses	Transit-supportive density identified as 7,500 "persons" (i.e., jobs plus residential population) per square mile				
disadvantaged	Context Classification/					
population,	Complete Streets					
connectivity,	Parking/Curb space					
freight routes,	Accessibility					
emergency	Facility Functional/Access					
routes)	Class					
Design	Number of Lanes					
(Available ROW,	Lane Width					
shared modes/	Intersection Design					
movements)						
Uther	Satety					
	Enforcement					
	Muintenance					
	COST					

# 2045 METROPOLITAN TRANSPORTATION PLAN<sup>7</sup>

The 2045 MTP is a joint planning effort of the Capital Area Metropolitan Planning Organization (CAMPO) and the Durham-Chapel Hill-Carrboro Metropolitan Planning Organization (DCHC MPO). This plan was approved in 2018 to guide future investment in roads, transit service, and bicycle and pedestrian facilities in the Triangle region. Focusing on the intersections between land development and transportation investment, the plan is organized around three planning focal transit points: (1)station area development; (2) access management for major roads; and (3) context-sensitive complete streets, serving the needs of all users.



The transportation investments recommended in the MTP are typical of most long-range transportation plans, highlighting projects to build new roads and widen existing ones, strategically invest in increased local and regional transit facilities and services, and maximize the effectiveness of existing transportation capacity, usually through the use of technology, transportation demand management strategies, and operational enhancements to key corridors that improve safety and traffic flow without adding capacity.

The plan also suggests a key role for bus rapid transit (BRT) in meeting the region's future travel demand:

- A BRT system connecting Raleigh, Cary, Morrisville, Research Triangle Park, and Garner;
- Development of dedicated fixed guideway for the initial BRT corridors in Wake County (see Wake Transit Plan below);
- The addition of BRT service to Midtown Raleigh;
- An extension of dedicated fixed guideway and BRT service to New Hope Rd. along the New Bern BRT corridor in Raleigh; and
- A north-south BRT corridor in Cary along the Harrison-Kildaire Farm-Tryon Rd. corridor.

In addition to identifying several potential BRT corridors and others potentially suited for transit priority lanes, the MTP's emphasis on multimodal solutions, access management, and complete streets suggests that transit priority lanes should be considered on all major roadways, acknowledging access needs and sharing space with other modes as much as feasible. RED lanes, as a strategy, fit with highway capacity, transit capacity, and multimodal operational approaches to addressing transportation issues.

<sup>&</sup>lt;sup>1</sup>http://files.www.campo-nc.us/transportation-plan/2045-metropolitan-transportationplan/Final\_Report/2045\_Joint\_MTP\_Adopted\_Chap1-10\_combined.pdf

<b>2045 METROP</b>	2045 METROPOLITAN TRANSPORTATION PLAN					
Topic Area	Indicator	Findings				
Demand (Existing v. Forecast v.	Transit Ridership	The plan acknowledges an increased emphasis on transit for regional mobility, connecting regional centers, and offering reliable service in urban corridors.				
Targets, Peak	Transit Mode Share					
v. Off-Peak v. Daily]	Traffic Volume	The regional emphasis on highway capacity and performance remains strong, and numerous highway capacity projects are planned to address expected increases in travel demand and traffic volume.				
	Non-Motorized Users					
	Person Throughput					
Operations (Existing v.	Transit On-Time Performance					
Forecast v. Targets, Peak	Transit Reliability (Route Travel Time)					
v. Off-Peak v. Daily]	Transit Service Frequency	Grow the county's frequent bus network from 17 miles in 2016 to 83 miles by 2027. Frequent service is defined as 15-minute or shorter headways.				
	Transit Signal Priority	Not specifically mentioned, but technology-based system enhancements and management approaches are highlighted as strategies to enhance operations and safety. These could include TSP.				
	Person/Vehicle Delay					
	Average Travel Speeds					
Contexts (Nearby uses, disadvantaged	Adjacent Land Uses	The MTP aligns planned transportation investments with supportive land development patterns. Transit-oriented development is a key focus of the plan.				
population, connectivity, freight routes, emergency routes)	Context Classification/ Complete Streets	The future transportation system will provide greater transportation choices and evolve to suit changing needs and travel preferences. This is highlighted by the plan's emphasis on "safe and healthy" streets accommodating a full range of users.				
	Parking/Curb space					
	Accessibility	Noted emphasis on first/last-mile access to transit.				
	Facility Functional/Access Class	Roadway access management is a key focus of the plan.				
Design	Number of Lanes					
(Available	Lane Width					
ROW, shared	Intersection Design					
modes/ movements]						
Other	Safety					
	Enforcement					
	Maintenance					
	Cost					

# WAKE COUNTY COMPREHENSIVE TRANSPORTATION PLAN<sup>8</sup>

The 2003 Wake County Transportation Plan addresses mobility needs in unincorporated areas of Wake County. Initially envisioned as a collector street plan, the study expanded to encompass thoroughfares, public transit, bicycle, and pedestrian needs. The comp plan builds on the 2025 CAMPO Plan that was

adopted in 2002. The comp plan identifies safety and roadway capacity improvements and defines concepts for new roadway corridors. Many corridors in the County experience high daily traffic volumes and/or are heavily congested. This plan anticipates traffic future growth by recommending road widening projects on kev major thoroughfares. The plan also establishes ten "priority transit corridors"; major transit routes should be planned around these



corridors to connect activity centers. These priority transit corridors are listed below:

- 1. TTA Phase I Regional Rail Corridor connects Spring Forest Road in North Raleigh through downtown Raleigh, Cary, Morrisville, and RTP before ending west of downtown Durham
- 2. US 1/CSX corridor Extends from Spring Forest Road to downtown Wake Forest
- 3. Wake Forest/Rolesville corridor connects Wake Forest and Rolesville using Rogers Road
- 4. Rolesville/Wendell/Knightdale corridor aligned with Louisburg Road, Rolesville Road, and Eagle Rock Road
- 5. EASTRANS-US 64/US 70/Norfolk Southern Railway/North Carolina Railroad
- 6. US 401/Norfolk Southern Corridor
- 7. NC 55 Corridor
- 8. NC 55/Davis Drive/CSX Railroad Corridor
- 9. Apex to Cary corridor
- 10. Wake Forest/Rolesville area to RTP and Durham

In addition to regional transit service, the plan recommends other transit-supportive improvements, such as Park and Ride locations in Wake Forest and at the US 64 Bypass Interchange. Other relevant elements of the plan are traffic management solutions for regional connections, particularly HOV lanes on the Outer Loop between NC 55 in Holly Springs and US 401 South.

<sup>&</sup>lt;sup>8</sup> http://www.wakegov.com/planning/transport/Documents/Wake%20County%20Transportation%20Plan.pdf

WAKE COUNTY COMPREHENSIVE TRANSPORTATION PLAN					
Topic Area	Indicator	Findings			
Demand (Existing v. Forecast v.	Transit Ridership	Existing (2002) CAT service carries 10,000 weekday riders. Existing (2002) TTA service carries 2,550 weekday riders.			
Targets, Peak	Transit Mode Share				
v. Off-Peak v. Daily]	Traffic Volume	The most heavily congested major thoroughfares include sections of US 1 (Capital Boulevard), US 70, US 64, and NC 55. Falls of the Neuse Road, Holly Springs Road, Ten Ten Road, and US 401 (north) also experience heavy traffic and long delays in peak hours.			
	Non-Motorized Users				
	Person Throughput				
Operations	Transit On-Time				
(Existing v.	Performance				
Forecast v.	Transit Reliability (Route				
Targets, Peak	Travel Time)				
v. Off-Peak v.	Transit Service Frequency				
Daily)	Transit Signal Priority				
	Person/Vehicle Delay				
	Average Travel Speeds				
Contexts	Adjacent Land Uses				
(Nearby uses, disadvantaged population, connectivity, freight routes,	Context Classification/ Complete Streets	This plan recommends that all thoroughfares, connectors and collectors have a sidewalk on at least one side of the street. It is acknowledged that this is a long-term goal (100 year horizon) and unlikely to be realized in the planning horizon for this plan.			
emergency	Parking/Curb space				
routes)	Accessibility				
	Facility Functional/Access Class				
Design (Available ROW, shared modes/ movements)	Number of Lanes	The plan recommends high occupancy vehicle lanes on sections of the Outer Loop between NC 55 in Holly Springs and US 401 South. Widening improvements are recommended on several key corridors in the study area to accommodate future traffic volumes. These improvements often include the addition of medians, turn lanes, and wide outside lanes.			
	Lane Width				
	Intersection Design				
Other	Safety				
	Enforcement				
	Maintenance				
	Cost	Transit expansions were estimated to cost \$750 million.			

#### **COMPLEMENTARY PLANS AND STUDIES**

#### CITY OF RALEIGH DOWNTOWN PLAN<sup>9</sup>

The Downtown Plan was adopted in 2015 and lays out goals and action items to realize a vision for downtown Raleigh for the next 10 years. The plan is framed by four themes: Breathe, Move, Stay and Link. Move – or making walking, biking, and transit the preferred ways to get in and around downtown Raleigh - supports the goal of greater sustainability and emphasizes transportation access. Goal 3 of Move, "Enhance transit accessibility in downtown through service improvements", is aligned with the aim of this RED Lanes study. In particular, Action 21 to "Conduct a follow-up study to the 2015 Wake County Transit Investment Strategy that refines and finalizes transit operation and infrastructure investment details in downtown Raleigh" is currently underway and includes improvements such as route consolidation and increased frequency. The strategy to realize this action is represented by the Phase II of the Raleigh Union Station, which would support high frequency bus service within downtown and throughout the region. Finally, the plan focuses on several catalyst areas that are the centers of growth and activity in downtown Raleigh. Two catalyst areas – Moore Square and Nash Square/Raleigh Union Station – emphasize transit as a part of their development.



<sup>&</sup>lt;sup>9</sup> https://www.raleighnc.gov/business/content/PlanDev/Articles/UrbanDesign/DowntownPlan.html

# New Bern Avenue Corridor Study<sup>10</sup>

The New Bern Avenue Corridor Study, approved in 2012 by the Raleigh City Council, is the collaborative effort of City of Raleigh, community members, property owners, businesses, and other stakeholders. New Bern Avenue is a corridor of historic significant to the City of Raleigh, traversing east from downtown Raleigh to Wake Medical Center. One of the City's most heavily used transit corridors, New Bern Avenue required an upgrade to efficiently serve its role in the transportation network.

The goals of the study include: (1) improve the aesthetic and appearance of the corridor; (2) encourage nonauto travel along the corridor; and (3) stimulate economic activity in the corridor area. The recommended improvements renew New Bern Avenue as a symbolic and literal gateway to Raleigh and improve the safety and mobility of travelers through the corridor. The improvements that are relevant to the CAMPO RED lanes study include streetscape design and transit patterns. In particular, the plan recommends supporting transit use by implementing a complete streets design approach, as well as reducing bus headways to 15 minutes all day and upgrading passenger amenities.



<sup>&</sup>lt;sup>10</sup> https://www.raleighnc.gov/business/content/PlanDev/Articles/UrbanDesign/NewBernAvenueCorridorStudy.html

#### SIX FORKS ROAD CORRIDOR STUDY

The Six Forks Road Corridor Study, adopted in 2018, is the outcome of a multi-year collaborative planning effort that engaged city staff, consultant team, citizens, stakeholders, community leaders, residents, and businesses to create a shared vision for the Six Forks Road corridor. This vision is "to enhance the Six Forks Road corridor in a way that defines a unique sense of place with enhanced fluidity of movement, environmental sensitivity, and connectivity for residents, workers, students, and visitors using transportation modes of all types, including cars, bikes, pedestrian, and public transit."

In particular, key stakeholders are interested in transforming Six Forks Road into a high priority transit corridor that allows for future high quality transit service, such as bus rapid transit. To realize that future vision, near term actions will include simplifying and consolidating bus stop locations to promote ridership and facilitate higher frequency service. The plan recommends high quality, high amenity bus stops be spaced at half-mile intervals along the corridor – allowing transit riders access to a bus shelter within a quarter-mile radius, generally. Finally, the provision of dedicated transit lanes, queue jumps, and signal prioritization are recommended as a strategy for future transit service.







Example of Existing Conditions



Example of Proposed Condition

#### BLOUNT ST – PERSON ST CORRIDOR STUDY

In 2013, the Raleigh City Council approved the Blount Street/Person Street Corridor Plan. The study corridor extends more than five miles from Capital Boulevard to I-40 and includes Wake Forest Road and Hammond Road. The core of the corridor is the Blount Street/Person Street one-way couplet.

The plan uses a phased approach to create a corridor that is safe and attractive to all users. The corridor is a critical access point to Downtown Raleigh, surrounding neighborhoods and regional destinations. The speed and behavior of vehicular traffic should be managed, and the plan aims to address this need. The plan provides examples of multiple road reconfigurations and ultimately recommends a multi-part, three-phase approach that will improve the pedestrian experience, calm traffic, and improve landscaping/aesthetics. In addition to the vehicular and pedestrian modes, Blount and Person Streets are a key transit corridor. Therefore, the proposed street design balances pedestrian and vehicular mobility with transit needs.



June 2020

#### SOUTHERN GATEWAY STUDY

The Southern Gateway Study, adopted in 2017, focuses on South Saunders and South Wilmington Streets, which form the southern gateway to Downtown Raleigh. These roads are major corridors that connect surrounding areas to downtown and I-40. The first phase of the project identified the issues in the planning area and defined a vision for South Saunders and South Wilmington Streets. The second phase formed design ideas and developed an implementation plan. Finally, the final report and corresponding comprehensive plan amendments were submitted and approved by Raleigh City Council and the Planning Commission. A key theme of this study is to improve safety for all users, to provide transportation options, and identify places with excess capacity to improve options for multimodal mobility. Thus, the major recommendation of this study is to transition South Wilmington Street into a complete street, with two vehicular travel lanes, a separate bike facility, and dedicated transit lanes in preparation for bus rapid transit. Other recommendations of this study include:

- Improve key intersections along S. Saunders Street to address bike/pedestrian safety and access to transit.
- Improve and augment east-west road connections to link neighborhoods to each other and to the redesigned S. Wilmington Street.
- Evaluate the district's connection to the southern edge of downtown by urbanizing the interchanges along MLK Boulevard and by providing a better bike / pedestrian connection to downtown (at Fayetteville Street).
- Transform the S. Wilmington Street flyover to accommodate transit connections south to Tryon Road.
- Establish Lake Wheeler Road as a bike / pedestrian corridor.



# $\textit{CAMERON VILLAGE HILLSBOROUGH STREET SMALL AREA PLAN^{11}}$

The Cameron Village Hillsborough Street Small Area Plan was adopted in 2017. The plan includes a community vision that prioritizes conservation of historic neighborhoods, offers guidance for new development, and recommends investment for multimodal mobility.

The recommendations of this plan are centered around seven planning strategies: (1) complete pedestrian and bicycle networks; (2) improve and expand parks and open space; (3) increase transit options; (4) distribute and calm traffic; (5) plan for adequate and accessible parking; (6) zone for the future; and (7) promote quality design. Public input collected as a part of this planning process ranked "high frequency bus service and transit stops" as a high priority. With regards to improving transit options, the following recommendations were provided:



- 1. Continue to improve coordination between systems
- 2. Consolidation and improvement to some stops
- 3. Continue to strategically increase frequency
- 4. Continue to utilize technological improvements, such as signal prioritization
- 5. Work with employers and groups of employers to increase transit use
- 6. Implement the Wake County Transit Plan recommendations for the area

<sup>&</sup>lt;sup>11</sup> https://www.raleighnc.gov/business/content/PlanDev/Articles/UrbanDesign/CameronHillsborough.html

# JONES FRANKLIN AREA STUDY

The Jones Franklin Area Study was adopted in 2011 by Raleigh City Council. The study explores the area near the intersections of Jones Franklin Road, Western Boulevard and Hillsborough Street. More specifically, the study explores transportation and land uses in the area and offers recommendations to guide future development, including a land use classification for the Future Land Use Map. The results of the study fall into three categories:

- 1. Authorize a Comprehensive Plan amendment to the future land use map and the thoroughfare upgrades map with the recommended land use and street classification found in this study.
- 2. Use the recommendations in this study to inform the application of form-based, mixed-use districts that will be applied to this area during the new development code process.
- 3. Focus on creating a strong multi-modal transit hub. This district is situated at the nexus of several transit routes, and infrastructure improvements should be prioritized to strengthen the district's connectivity.

Specific transportation infrastructure recommendations are provided as a part of this study. These include: (1) improving and coordinating transit facilities; and (2) consolidating bus services through shared facilities.



#### BLUE RIDGE ROAD DISTRICT STUDY

The Blue Ridge Road District Study was adopted in 2012 and addresses a two-mile stretch of Blue Ridge Road in Raleigh, surrounded by some of the city's most attractive destinations: the North Carolina Museum of Art. PNC Arena. **Carter-Finley** Stadium, and the North Carolina State Fairgrounds. While Blue Ridge Road is an important destination, the area is not wellsuited to support the visitor traffic, due to its limited connector road network, a lack of amenities, and lack of economic development. This study aimed to provide guidance for future development within a newly defined Blue Ridge Road District to be implemented over time. The goal of this study is to establish a "sense of place" in the Blue Ridge Road District. This study was conducted utilizing stakeholder feedback to develop a shared vision for the future of the Blue Ridge Road District. This vision



The above diagram illustrates existing transit lines, and bigblights the existing transit gap between Lake Boone Trail and Wade Avenue.

can be delineated into three elements: Transportation, Green Infrastructure, and Development. Within the Transportation element, the following actions were recommended:

- Blue Ridge Road to serve as a pilot project for NCDOT Complete Streets program
- Support the planned extension of the Wake County Transit Plan's Creedmoor Road/PNC Service
- Recommend a bus line that serves Blue Ridge Road District at 10-minute frequency, connecting Crabtree Valley Mall to Western Boulevard
- Connect the District to regional light rail transit

# LAKE WHEELER ROAD CORRIDOR STUDY

Adopted in 2013, this study examines a 1.3-mile portion of Lake Wheeler Road between I-40 and Tryon Road. The recommended improvements and overall strategy developed for this corridor are reflective of the community's desire to expand multimodal options travel on Lake Wheeler Road to include pedestrians, cyclists and transit users.

The final recommendation for this corridor is a three-lane and two-lane median divided cross section, representative of α context-appropriate roadway design. This is a complete streets design, including sidewalks and bicycle lanes on both sides. The aim of this approach is to improve safety, reduce congestion, and improve transit access in the corridor. Existing transit service is provided by GoRaleigh and operates at transit stops located near Sierra Drive,



Lineberry Drive and the Raleigh Oaks Shopping Center. While this study does not recommend expanded bus service, it is aligned with the Wake County Transit Plan to provide 30-minute frequency peak hour service on Lake Wheeler Road from Tryon Road to downtown Raleigh.

#### Western Boulevard Crossing Study<sup>12</sup>

The Western Boulevard Crossing Study, published in 2013, was initiated by CAMPO to examine and improve the infrastructure and safety for all modes of travel in this major corridor in Raleigh. The corridor approximately one-mile long - carries over 30,000 vehicles per day and hosts hundreds of crossings at various locations. The purpose of this study was to craft a solution for a safe crossing for cyclists, pedestrians, and transit vehicles, as well as to create a complete streets environment throughout the corridor. Specifically, bicycle, pedestrian and transit movements over or under the boulevard, or an additional interchange, were analyzed. Special attention was paid to the Avent Ferry Road intersection, since there is high transit demand and a high level of pedestrian crossings. The Plan offers three options for the improvement. Two of the options incorporate transit service – a bicycle, pedestrian, and transit tunnel or a full interchange. Based on qualitative and quantitative analysis, the recommended option is a bicycle and pedestrian only tunnel at the Avent Ferry Road intersection. This solution will leave buses and other motorized vehicles navigating the intersection at-grade. However, this solution could simplify the implementation of transit priority lanes by reducing potential conflicts between transit vehicles and nonmotorized users.



- 2
- Gorman Street: Buffered Bicycle Lane Faucette Drive: Improve Transit Stop (Shelter/Bicycle Rack)
- 4 Faucette Drive: Complete Gaps in Sidewalk
- Faucette Drive: Create Two-Way Cycle Track
- 6 East of Gorman/Southside: Resurface and Widen Greenway/Sidepath
- East of Gorman/Southside: Pedestrian-Scale Lighting
- 8 Varsity Drive/Northside: Sharrows
- Various Intersections: High Visibility Crosswalks
- 10\* Various Intersections: Red pavement markings at conflict points / intersection approaches Varsity Drive/Southside: Bicycle Lane
- 13 Dan Allen to Avent Ferry: Install Median Fencing / Replace Landscapin 14
- Avent Ferry/Southside: Mid-Block Crossing 15 Avent Ferry: Pork Chop Island / Turn Lane Rerouting
- 16 Avent Ferry: Textured/High Visibility Crosswalks 17 East of Crusader Drive/Southside: Pedestrian-Scale Lighting
- 18 Pullen Road: Bulb-Out Extension
- 19 Pullen Road Bridge: Sidewalks and Bicycle Lanes
- 20 Pullen Road Extension / Roundabout: Adjacent Sidepath
- Closure of Bilyeu Street at Western Boulevard; Re-Design of Ashe Avenue access Avent Ferry/Morrill Drive: Bicycle and Pedestrian Tunnel Under Western Boulevard 21 22

<sup>&</sup>lt;sup>12</sup> https://facilities.ofa.ncsu.edu/files/2015/04/Western-Boulevard-Crossing-Study-Capital-Area-Metropolitan-Planning-Organization-2013.pdf

# CAPITAL BOULEVARD CORRIDOR STUDY<sup>13</sup>

The Capital Boulevard Corridor Study, adopted in 2012, was developed by the City of Raleigh in coordination with community leaders. residents. business owners, and other stakeholders. The vision of the study is to develop α strategy for "revitalization. redevelopment, and renewal of Capital Boulevard from Downtown to the I-440 Beltline". Capital Boulevard is a highly traveled gateway into Raleigh and has been neglected for improvements. This plan is a part of a city and regional process to enhance the corridor's local and regional significance through programmed infrastructure improvements, transit investment, and mobility considerations. The plan outlines the vision for the boulevard, including recommendations for improving transit service and infrastructure within the corridor



and a plan to phase implementation of the recommended improvements over time. It calls for improved transit access within the corridor by providing new bs routes, improving the pedestrian realm, and capitalizing on future rail investments. The plan considers the planned regional transit improvements surrounding the Capital Boulevard corridor and intends to connect local transit service along the corridor to these regional facilities. The plan offers the following recommendations:

- Extend Johnson and Harrington Streets to intersect with Peace Street.
- Add bike lanes and widen sidewalk on Peace Street.
- Add a landscaped median and widen sidewalks on Capital Boulevard.
- Construct a greenway to extend from West Street to the Wade Avenue off-ramp.

<sup>&</sup>lt;sup>13</sup> https://www.raleighnc.gov/content/PlanDev/Documents/UrbanDesign/CapitalBlvd/CapitalBlvdFinal-08-09-12.pdf

# US1 CORRIDOR STUDY: PHASE I14

The US 1 Corridor Study was published in 2006 and commissioned by CAMPO. The study area, referred to as Capital Boulevard, extends from I-540 in Raleigh to Park Avenue in Franklin County. The purpose of this study was to develop a locally-preferred alternative (LPA) for a multimodal corridor with high mobility. The plan analyzed existing conditions and solicited public feedback on proposed plans to develop the LPA. The recommended LPA includes two commuter bus routes that may benefit from transit priority treatments in the future: one from Wake Forest to downtown Raleigh and the other from Wake Forest to the Research Triangle Park (RTP). Both routes would operate on NC 98 west to US 1, then south on US 1 to I-540, where the routes would operate with transit signal priority (TSP) and/or queue jumps and, as US 1 is converted to a freeway facility (per NCDOT Strategic Transportation Corridors plans), the bus or BRT service could operate on the road shoulders.



<sup>&</sup>lt;sup>14</sup> https://www.ncdot.gov/projects/us-1-corridor/Documents/usl\_corridor\_report.pdf

# US1 CORRIDOR STUDY: PHASE II<sup>15</sup>

Phase II of the US 1 Corridor Study was initiated in 2011 by CAMPO and Franklin County. This study area includes a segment of US 1 that includes the Town of Franklinton and a portion of the Town of Youngsville, as well as the CSX Railroad. The goal of this study is to produce a plan for the corridor that considers existing land uses and projected growth patterns to make relevant recommendations for a multimodal corridor. To develop context appropriate recommendations, the corridor was divided into three segments: South Segment, Central Segment, and North Segment; additionally, the study area was divided into an East Section and a West Section. All modes of travel were assessed for this corridor and recommendations were developed for each. Recommendations for transit service include: to provide transit mobility for commuters; establish park & ride locations as a short term solution to regional mobility; and a long-term solution connects Franklinton to regional destinations by express bus service.



<sup>&</sup>lt;sup>15</sup> http://www.us-lcorridornorth.com/USIDocs/USIPh2/ExecutiveSummarywithFigures-USIStudy9-10-12.pdf

# NC 50 CORRIDOR STUDY<sup>16</sup>

Published in January 2011, the NC 50 Corridor Study is a joint effort of CAMPO and NCDOT. Three project deliverables were generated during the study process: Existing Conditions Report, NC 50 Workbook and NC 50 Playbook. The Existing Conditions Report summarizes conditions for transportation, land use, and environment. The Playbook explains the strategy for the NC 50 corridor; and the Workbook presents recommendations and a detailed Action Plan for implementing priority projects that achieve the community's vision for NC 50. The Workbook was reviewed for the purposes of the CAMPO RED lanes study and includes recommendations for



multimodal transportation mobility and safety, as well as context-sensitive roadway improvements that satisfy the travel needs of multimodal users.

NC 50 is a two-lane, regionally significant corridor that serves growing suburban residential populations around I-540 in North Raleigh and in southern Granville County near the City of Creedmoor. The study covers the NC 50 corridor from I-540 in Wake county to NC 56 in downtown Creedmoor, approximately 15 miles. When considering the study area using a context-sensitive approach, four distinct context zones appear each requiring unique design treatments: Suburban Residential Context Zone, Natural Context Zone, Rural Residential Context Zone, and Main Street Context Zone.

High frequency transit is not planned on the NC 50 corridor for the 2035 horizon year, although express bus is recommended as a long-term solution.

<sup>&</sup>lt;sup>16</sup>http://files.www.campo-nc.us/programs-studies/corridor-studies/NC\_50/NC\_50\_Workbook\_FINAL\_reduced.pdf

#### NC 56 CORRIDOR STUDY

The NC 56 Corridor study, completed in June 2015, was a combined planning effort of CAMPO, Town of Butner, City of Creedmoor, Granville County, NCDOT, and the Kerr-Tar Rural Planning Organization (RPO). The extent of the study is a 4.5-mile section of NC 56 between 33rd Street in Butner and Darden Drive in Creedmoor. This study defines a longterm vision for the corridor. kev east-west α



NC 56 Corridor Study - Year 2040 Recommendations Overview

connection through south Granville County serving the Town of Butner and City of Creedmoor that provides travelers with local accessibility to commercial, institutional, and residential land development, and regional mobility as a critical connection to I-85. The plan proposes a combined strategy of short-term operations improvements, long-term infrastructure investments, and coordinated policies. Sections of the corridor vary tremendously in traffic volume, adjacent land uses, and expected development; therefore, the corridor was separated into three distinct segments: western, middle, and eastern. Recommendations for each segment are as follows:

- Western Segment:
  - Widen to a 3-lane segment from 33rd Street to the at-grade railroad crossing west of West Lyon Station Road.
  - Widen to a 4-lane divided section beginning at the at-grade railroad crossing, and ultimately 0 extending east to approximately the Butner Town Limits.
  - Widen the bridge over I-85 to 5 lanes
- Middle Segment:
  - Widen to a 3-lane section from approximately the Butner Town Limits east to Brogden Road
- Eastern Segment:
  - Widen to a 4-lane section from Brogden Road to a point approximately 800 feet east of North Main Street
  - Widen to a 3-lane segment from approximately 800 feet east of North Main Street to Darden 0 Drive (Figure ES-3).

# NC 98 CORRIDOR STUDY<sup>17</sup>

The NC 98 Corridor Study, initiated in December 2016, was adopted in July 2018. NC 98 is an important connection between Franklin, Wake, and Durham Counties. The extent of this corridor study originates at US 70 in Durham County, runs through Wake County, and terminates at US 401 in Franklin County. The study evaluates several transportation elements, including: safety and mobility, planned and existing roads, bicycle and pedestrian facilities, and transit. To develop context sensitive recommendations, the corridor was divided into three segments: west, central, and east. Overall, the corridor is expected to experience tremendous growth relative to existing conditions; approximately 20,000 new housing units and 17,000 new jobs are anticipated in the corridor, the majority of which are expected in the eastern segment. While transit is not expected to be a major component of travel on the NC-98 corridor in the near or intermediate future, strong growth in areas served by the corridor may prompt its consideration for longer-term implementation of transit priority lanes. The plan recommends the following long-term improvements that may be relevant to the CAMPO RED lanes study:

• Widen the central segment of NC 98 from Sherron Road to Old Falls of Neuse Road.



• Widen the eastern segment of NC 98 from Jones Dairy Road to US 401.

<sup>&</sup>lt;sup>17</sup> http://www.nc98corridor.com/pdfs/final%20nc%2098%20corridor%20study%20report%20100318.pdf

#### NORTHEAST AREA STUDY<sup>18</sup>

The Northeast Area Study (NEAS) is a visionary planning document published in 2014. The study was initiated by CAMPO to define a transportation strategy for the communities in the Northeast area of the CAMPO region, including: Wake Forest, Knightdale, Raleigh, Wendell, Zebulon, Rolesville, Bunn, Franklinton, and Youngsville. The study integrates land use and transportation factors to identify costfeasible recommendations. These recommendations represent a blend of current contexts and community input and are representative of a long-term view of the region. A roadway connectivity element was examined and recommends the construction and widening of major arterials, improved access management, and increased mobility and connectivity. The study area is not adequately served by transit and currently does not have the activity density to support high frequency service; however, future growth projections will require more reliable, frequent transit service in the study area. The study recommends transit service implementation, either through commuter rail, fixed-route bus, or express



bus, in short-term, medium-term, and long-term timelines.

- Short term recommendations
  - Expanded Local Service Wake Forest to Raleigh (Shorter Headways)
  - Express Bus Zebulon to Raleigh (Shorter Headways)
  - Local Service Rolesville to Raleigh
  - Local Service Knightdale Circulator Bus Service
- Medium term recommendations
  - High Frequency Transit Wake Forest to Triangle Town Center
  - High Frequency Transit Wendell to Triangle Town Center
  - Express Bus Franklinton to Raleigh
  - Express Bus Bunn to Raleigh
- Long term recommendations
  - o Commuter Rail Zebulon to Raleigh
  - o Commuter Rail Wake Forest/Franklinton to Raleigh

<sup>&</sup>lt;sup>18</sup> <u>http://www.campo-nc.us/programs-studies/area-studies/northeast-area-study</u>

#### SOUTHEAST AREA STUDY<sup>19</sup>

The Southeast Area Study was published in 2017 and represents a collaborative effort of CAMPO and 11 municipalities, Archer Lodge, Benson, Clayton, Four Oaks, Garner, Kenly, Micro, Raleigh, Selma, Smithfield, and Wilson's Mills. This document identifies strategies to establish a multimodal transportation system in the southeast area of the CAMPO region, which includes a southern portion of Wake County and portion of Johnston County. Additionally, the recommendations that come out of this study inform transportation planning by the MPO and for Johnston County. The study utilized scenario planning to develop appropriate recommendations that would align with future growth in the area. The following service improvements are recommended as a part of this study:

- 1. An all-day bus service with 60-minute headway from White Oak Road between Garner and Clayton to downtown Raleigh
- 2. A bus route between Selma and Benson
- 3. BRT service between Raleigh and Garner Station
- 4. A bus route between Raleigh and Wilson's Mill with 60-minute headway
- 5. A circulator route between Garner and Clayton with 30-minute headway



#### **Recommended Transit Improvements**

<sup>&</sup>lt;sup>19</sup> http://files.www.campo-nc.us/programs-studies/area-studies/southeast-area-study/SEAS\_Final\_Report\_1-3.pdf

#### SOUTHWEST AREA STUDY<sup>20</sup>

CAMPO commissioned a study in 2012 for the southwest area of the region – covering the southwest portion of Wake County and northern Harnett County. This plan aims to address the tension between the growing demand of commuters on transportation facilities and the increasing density of development in this area. A multimodal, context appropriate solution is required to address these different demands. The study utilized scenario planning that considered land use, environmental factors, and transportation to address issues between those competing interests. A multimodal future includes phased implementation of high quality transit in the study area. This document recommends the following transit service enhancements, specifying frequency and service hours:

- Phase I Recommendations
  - o Holly Springs to RTP Commuter Express Service
  - o Holly Springs to NC State and Downtown Raleigh Commuter Express Service
  - Fuquay-Varina to Downtown Raleigh Commuter Express (CAT Route 40E Extension)
- Phase II Recommendations
  - Fuquay-Varina to Downtown Raleigh Commuter Express (CAT Route 40E Extension)
  - Local service Fuquay Varina
  - Local service "Holly Trolley"
  - Local service Apex to Angier



<sup>&</sup>lt;sup>20</sup> http://www.southwestareastudy.com/

# **ONGOING PLANS AND STUDIES**

#### REGIONAL TECHNOLOGY INTEGRATION STUDY 21

The Regional Technology Integration Study is funded by Wake Transit Plan and GoTriangle. The study effort is being led by GoTriangle. The plan intends to identify existing technologies in use among transit operating agencies in Wake County as well as GoDurham and Chapel Hill Transit. Examples of relevant technologies include fare-box equipment or mobile fare payment options, camera systems, automatic vehicle location (AVL) systems, mobile and fixed passenger information systems or electronic signs, automatic passenger counters (APC) and scheduling and dispatch software packages for fixed route, on-demand and paratransit services. Understanding these technologies and their use across the region could reveal opportunities to improve operations, information sharing, performance measurement, fare collection, etc.

#### COMMUTER CORRIDORS STUDY

In 2018, CAMPO released a Request for Proposals for a consultant to conduct a Commuter Corridor Study "to address select, congested commuter corridors to improve mobility in the CAMPO planning area located in Wake County and parts of Franklin, Granville, Harnett and Johnston Counties." These corridors are congested and are forecast to continue to be congested by 2045, even with transportation investments. The study will analyze existing transportation data and recommend investments and policies to relieve expected congestion on commuter corridors. The study is being conducted in FY 19 and should conclude by June 30, 2019.

# RALEIGH DOWNTOWN TRANSPORTATION PLAN<sup>22</sup>

The City of Raleigh, in partnership with CAMPO, GoTriangle, and NCDOT, is leading the development of a Downtown Transportation Plan. The study will build on the Wake Transit Plan by defining a plan for transit, transportation, and mobility in Downtown Raleigh. This plan envisions a multimodal transportation network that serves all transportation needs, including automobile, bicycle, pedestrian, and public transportation users. The plan will recommend improvements for the next 10 years. The city is currently soliciting public feedback on the plan. This study is different from but complementary to the City of Raleigh Downtown Plan summarized above.

# RALEIGH UNION STATION PHASE II - RUS BUS<sup>23</sup>

The first phase of Raleigh Union Station – an Amtrak station in downtown Raleigh – was completed in 2018. The second phase of this project is the construction of an adjacent bus facility, referred to as "RUS BUS". The bus facility will provide access to the regional and local bus network as well as the Amtrak station. The development partners (GoTriangle, City of Raleigh, Wake County, and NCDOT) applied for a BUILD grant in 2018 to implement the bus facility plan.

#### Western Boulevard Corridor Plan

The City of Raleigh initiated the Western Boulevard Corridor Plan. Similar to the Capital Boulevard and New Bern Avenue Corridor Plans, the Western Boulevard Corridor Plan will prepare the corridor for future BRT

<sup>&</sup>lt;sup>21</sup> <u>http://goforwardnc.org/project/technology-integration-study/</u>

<sup>&</sup>lt;sup>22</sup> <u>https://goraleigh.org/downtownplan</u>

<sup>23</sup> http://rusbusnc.com/

service. This plan will analyze intersections, transit operations, and infrastructure needs to address multimodal travel demand in the corridor and is expected to have a strong bike/ped component.

# AVENT FERRY ROAD CORRIDOR STUDY<sup>24</sup>

The City of Raleigh is in the process of conducting the Avent Ferry Road Corridor Study. The overall goal of this study is "to plan for and implement a safe, vibrant corridor for pedestrians, cyclists, transit-users and motorists that helps enhance livability and economic viability." This study will develop a community-driven vision for the transformation of Avent Ferry Road to a multimodal corridor of importance in the future. The study incorporates technical analysis and community feedback to generate recommendations that align with the overall goal of this study. The recommendations for this study fall into three categories: (1) develop a distinct district; (2) adopt "Complete Streets" principles; and (3) foster redevelopment and economic viability.

# MIDTOWN-ST ALBANS AREA PLAN<sup>25</sup>

The Midtown-St. Albans Plan aims to develop a vision to guide future investment and development in midtown Raleigh, an area that has changed rapidly and substantially over the past decade. A key objective of the Midtown-St. Albans Area Plan is to consider the transportation impacts of recent land use changes on existing and proposed transportation infrastructure in the Midtown area. The goal of the planning process is to involve the community in shaping the growth and development of the area so that decisions are made that meet the needs of residents, employees, and visitors.

# CAPITAL BOULEVARD NORTH CORRIDOR STUDY 26

The Capital Boulevard North Corridor Study will create a vision and policies to guide investment and development on Capital Boulevard between I-440 and I-540. The city will select a consulting team in the coming months and the consulting team will lead the study under the direction of city staff. A Vision and Goals Summary has been developed for this study. This vision is based on community input and the goal statements will aid the consulting team in evaluating the alternatives and recommendations in the next phase of this study.

# FALLS OF NEUSE AREA PLAN UPDATE<sup>27</sup>

The Falls of Neuse plan was adopted in 2006. It contains policies that cover land use, roadway improvements, and balancing development in an urban watershed area. The plan update seeks to focus on four main topics:

- Development opportunities created by planned expansion of transit service.
- Results of the implementation of the Falls of Neuse Road roadway project, and potential future changes.
- Land use policies for watershed protection.

<sup>&</sup>lt;sup>24</sup> <u>https://www.raleighnc.gov/business/content/PlanDev/Articles/UrbanDesign/AventFerryCorridorStudy.html</u>

<sup>&</sup>lt;sup>25</sup> https://www.raleighnc.gov/business/content/PlanDev/Articles/LongRange/MidtownStAlbans.html

<sup>&</sup>lt;sup>26</sup> https://www.raleighnc.gov/business/content/PlanDev/Articles/LongRange/CapitalBlvdNorth.html

<sup>&</sup>lt;sup>27</sup> https://www.raleighnc.gov/business/content/PlanDev/Articles/LongRange/FallsofNeuse.html

• Identification of future land uses and scale of development on undeveloped parcels that are supported by the market and community.

# DOWNTOWN CARY MULTIMODAL TRANSIT FACILITY<sup>28</sup>

The Town of Cary is studying the feasibility of a new Multi-Modal Transit Facility in downtown Cary. The study will evaluate proposed Bus Rapid Transit (BRT) corridors into downtown Cary and potential site locations for a Multi-Modal Transit Facility. The Multi-Modal Transit Facility will serve a variety of transit modes, such as local and regional bus service, BRT, future commuter rail service and Amtrak intercity passenger rail services, as well as commuter parking options. The study is expected to be completed by fall 2019.

# SOUTHWEST AREA STUDY UPDATE<sup>29</sup>

CAMPO is updating the Southwest Area Study in 2018 in cooperation with Wake County, Harnett County, Apex, Angier, Holly Springs, Fuquay-Varina, and transportation agencies. This study will define a long-term, multi-modal vision for southwestern Wake and northeastern Harnett Counties. The study will examine safety and mobility of existing and planned roads, transit service, and bicycle and pedestrian facilities. Finally, a set of recommendations will be provided to help guide future growth and accommodate future transportation needs. The study should be completed by mid-2019.

# **ADDITIONAL PLANS**

The following plans from CAMPO participating jurisdictions were also reviewed for this study. They are not summarized in this report but are recommended as additional reading on local and regional planning priorities throughout the CAMPO region.

- NCDOT State Transportation Improvement Program (STIP)
- Triangle Regional ITS Strategic Deployment Plan (SDP)
- Wake Transit Plan Adopted FY 19 Work Plan
- Zebulon 2035 Multimodal Transportation Plan
- Wendell Arterial and Collector Street Plan
- Wake Forest Transportation Plan
- Knightdale Comprehensive Plan
- Morrisville Comprehensive Transportation Plan
- Holly Springs Comprehensive Transportation Plan
- Garner Transportation Plan
- Fuquay-Varina Community Transportation Plan
- Cary Community Plan and Comprehensive Transportation Plan
- Creedmoor 2030 Land Use & Comprehensive Master Plan
- Apex Comprehensive Land Use Plan
- Angier Comprehensive Plan
- Rolesville Comprehensive Plan

<sup>&</sup>lt;sup>28</sup> <u>https://townofcary.org/projects-initiatives/project-updates/facilities-projects/downtown-cary-multi-modal-transit-facility</u>

<sup>&</sup>lt;sup>29</sup> <u>https://www.swastudy.com/</u>

# **CANDIDATE CORRIDORS**

The review of regional plans frames regional planning priorities, as outlined in the above sections of this report. The plans and studies highlighted also identify corridors and potential projects where the application of RED lanes may be suitable. This section of the report provides a list of initial candidate corridors for consideration in a RED lanes evaluation/prioritization process.

Candidate corridors were identified from the plans highlighted in this report as well as from NCDOT's State Transportation Improvement Program (STIP) database. In general, the goal was to be inclusive and identify potential candidate corridors even when transit was not emphasized in the planning documents, although many of the corridors listed have been the subject of transit plans. Therefore, if a corridor was mentioned as a part of a plan or study summarized in this report, it has been included among the candidate corridors. In addition, highway projects listed in the STIP within the CAMPO region were identified and included as candidate corridors. STIP projects "under construction" or on limited access highways/tollways have not been included.

The preliminary set of corridors may change over time. Each corridor's relationship to different planning documents and role in the existing and planned transit system for the CAMPO region has been demarcated in the list. Corridors with no role or a limited role in the regional transit network may be dropped from the list, since RED lanes are likely to have limited relevance or applicability in these corridors. Yet, retaining these corridors in the evaluation process may be desirable to understand their long-term potential for RED lanes or other transit enhancements, even if the evaluation results do not rank them highly.

On the other hand, corridors may be added to the list based on an analysis of existing conditions and trends. This analysis will occur in a later phase of the CAMPO RED Lanes Study; it may reveal areas or corridors in the region that are suitable for transit investment, but which have not yet been the subject of transit plans or studies.

A map of the CAMPO region and candidate corridors is provided below, followed by a table listing the preliminary set of candidate corridors for RED lanes evaluation. In the table, each corridor is listed and information about existing transit service, plan documents, and transit-related recommendations are noted by segment. In some cases, small collections of segments are grouped by sub-area or with a larger corridor. For each segment, existing transit services are noted alongside indications of the segment's inclusion in various planning documents, as follows:

- The segment's role in the Wake Transit Plan is noted, either as having been identified for BRT or high-frequency transit service (HF).
- The segment's inclusion in the Wake Bus Plan is also noted with the year of implementation (2024 or 2027) and differentiating between planned high frequency service (HF) or other fixed route service (bus)
- If transit service is denoted in the long-range Metropolitan Transportation Plan (MTP), the type of service is noted BRT, high frequency (HF), or other fixed route service (bus).
- If the segment has been identified as a premium transit corridor or commuter transit corridor in a prior regional transit/transportation plan, such as the Wake County Comprehensive Plan or 2012 GoTriangle SRTP, this is noted.
- If the segment has been the focus of a corridor or small area study, the relevant study is noted.
- If there is a STIP project on the segment, the project ID number if provided.



# **RED LANES | PRELIMINARY CANDIDATE CORRIDORS**

- Corridors in other transit plans (prior to WTP)
- ••• Other studies/projects

CORRIDOR/SUB	BAREA								
Segment	From	То	Existing Transit Service (HF = High Frequency)	Wake Transit Plan (BRT, HF)	Wake Bus Plan (HF, Bus = fixed route transit)	MTP 2045 Long Range Plan (BRT, HF, Bus)	Other transit plan (pre-WTP)	Corridor/ Sub-Area Study	NCDOT STIP
ATLANTIC AVE									
Atlantic Ave	Automotive Way	New Hope Church Rd	Yes	HF	HF (2024)	Bus			
Atlantic Ave	New Hope Church Rd	Six Forks Rd	Yes		Bus (2027)	HF			
BLOUNT ST/PE	RSON ST								
Hammond Rd	I-40	Hoke St	Yes		Bus (2024)	Bus		Blount St-	
Blount St	Hoke St	MLK Jr Blvd	Yes		Bus (2024)	Bus		Person St	
Blount St	MLK Jr Blvd	Davie St	Yes		HF (2024)	Bus		Corridor	
Blount St	Davie St	New Bern Ave	Yes (HF)		HF (2024)	HF		Study	
Person St	Hoke St	MLK Jr Blvd	Yes		Bus (2024)	Bus			
Person St	MLK Jr Blvd	New Bern Ave	Yes		HF (2024)	Bus			
Person St	New Bern Ave	Peace St			HF (2027)	HF			
Person St	Peace St	Delway St	Yes (HF)		HF (2024)	Bus			
<b>BLUE RIDGE RD</b>									
Blue Ridge Rd	Western Blvd	Hillsborough St		HF	HF (2024)	HF		Blue Ridge	
Blue Ridge Rd	Hillsborough St	Wade Ave	Yes	HF	HF (2027)	HF		Road District	
Blue Ridge Rd	Wade Ave	Lake Boone Tr		HF	HF (2027)	HF		Study	
Blue Ridge Rd	Lake Boon Tr	Glenwood Ave	Yes	HF	HF (2027)	HF			
Crabtree Valley Ave	Blue Ridge Rd	Creedmoor Rd	Yes		HF (2024)	HF			
Trinity Rd	Edwards Mill Rd	Blue Ridge Rd	Yes		Bus (2024)	HF			
CAMERON VILLAGE									
Peace St/Clark Ave	Oberlin Rd	Glenwood Ave	Yes			Bus	Yes	Cameron Village -	
Peace St	Glenwood Ave	Person St	Yes (HF)		Bus (2024)	HF	Yes	Hillsborough	

CORRIDOR/SU	BAREA								
Segment	From	То	Existing Transit Service (HF = High Frequency)	Wake Transit Plan (BRT, HF)	Wake Bus Plan (HF, Bus = fixed route transit)	MTP 2045 Long Range Plan (BRT, HF, Bus)	Other transit plan (pre-WTP)	Corridor/ Sub-Area Study	NCDOT STIP
Oberlin Rd	Hillsborough St	Clark Ave		HF	HF (2024)	HF		Street Small Area Plan	
Oberlin Rd	Clark Ave	Glenwood Ave	Yes	HF	HF (2024)	HF	Yes		
St Marys St	Hillsborough St	Wade Ave	Yes						
St Marys St	Glenwood Ave	Scotland St	Yes	HF	HF (2024)	HF			
CAPITAL BLVD/	US 1 NORTH								
Capital Blvd	Lane	Peace St	Yes		HF (2024)	BRT			
Capital Blvd	Peace St	Wake Forest Rd	Yes	BRT	HF (2024)	BRT	Yes	Capital Blvd Cor. Study	
Capital Blvd	Wake Forest	I-440	Yes (HF)	HF	HF (2024)	BRT	Yes		
Capital Blvd	1-440	Louisburg Rd	Yes (HF)	HF	HF (2024)	BRT	Yes	Capital Blvd N. Cor. Study	
Capital Blvd	Louisburg Rd	Sumner Blvd	Yes (HF)	HF	HF (2024)	BRT	Yes	US 1 Ph I	
Capital Blvd	Sumner Blvd	Durant Rd	Yes		Bus (Yes)	Bus	Yes	US 1 Ph I	U-5307
Capital Blvd	Durant Rd	NC 98	Yes		Bus (Yes)	Bus	Yes	US 1 Ph I	A/B/C/D
Capital Blvd	NC 98	Durham Rd						US 1 Ph I	
US 1	Durham Rd	Harris Rd						US 1 Ph I	
US 1	Harris Rd	Vance County Line						US 1 Ph II	
US 1 Alt   Main St	Capital Blvd	Elm Ave	Yes		Bus (2024)	Bus	Yes		
CHATHAM ST/E	AST CARY BR	T CORRIDOR							
Chatham St	Academy St	Ne Maynard Rd	Yes	BRT	HF (2027)	BRT	Yes		
Hillsborough St	Ne Maynard Rd	Jones Franklin Rd	Yes	BRT	HF (2027)	BRT	Yes		
DOWNTOWN RA		· 				· 			
Cabarrus St	West St	Salisbury St	Yes (HF)			HF			
Davie St	Harrington St	Person St	Yes (HF)		HF (2024)	Bus			
Davie St	Person St	Rock Quarry Rd			Bus (2024)	HF			
Dawson St	MLK Jr Blvd	Morgan	Yes (HF)		HF (2024)	BRT	Yes		

CORRIDOR/SU	BAREA								
Segment	From	То	Existing Transit Service (HF = High Frequency)	Wake Transit Plan (BRT, HF)	Wake Bus Plan (HF, Bus = fixed route transit)	MTP 2045 Long Range Plan (BRT, HF, Bus)	Other transit plan (pre-WTP)	Corridor/ Sub-Area Study	NCDOT STIP
Dawson St	Morgan	Lane St	Yes		HF (2024)	BRT			
Hargett St	West St	Person St	Yes (HF)		HF (2024)	HF			
Harrington St	Davie St	Edenton St	Yes (HF)						
Lenoir St	Boylan Ave	Wilmington St	Yes		HF (2027)	Bus			
Lenoir St	Wilmington St	Rock Quarry Rd	Yes	HF	HF (2024)				
McDowell St	MLK Jr Blvd	Morgan	Yes (HF)		HF (2024)	BRT	Yes		
McDowell St	Morgan	Lane St	Yes		HF (2024)	BRT			
Martin St	West St	McDowell St			HF (2024)	BRT			
Martin St	McDowell St	Person St	Yes (HF)		HF (2024)	HF			
Morgan St	Glenwood Ave	Dawson St	Yes (HF)			HF			
Morgan St	Dawson St	Wilmington St	Yes			BRT			
Morgan St	Wilmington St	Person St	Yes (HF)		Bus (2024)	BRT			
Salisbury St	Peace St	Edenton St	Yes		Bus (2024)	Bus			
Salisbury St	Edenton St	Hargett St	Yes (HF)		Bus (2024)	HF			
Salisbury St	Hargett St	MLK Jr Blvd	Yes (HF)		Bus (2024)	Bus			
South St	Florence St	Wilmington St	Yes		HF (2027)	Bus			
FALLS OF NEUS	ERD								
Falls of Neuse Rd	Old Wake Forest Rd	Strickland Rd	Yes		Bus (2024)	Bus	Yes		
Falls of Neuse Rd	Strickland Rd	I-540	Yes		Bus (2027)	Bus	Yes		
Falls of Neuse Rd	I-540	Durant Rd	Yes		Bus (2027)	Bus	Yes		U-5826
Falls of Neuse Rd	Durant Rd	Neuse River	Yes		Bus (2027)	Bus		Falls of Neuse Area Plan Update	
<b>GLASCOCK ST</b>									
Boundary St	Person St	Watauga St		HF	HF (2027)	HF			
Brookside Dr	Watauga St	Glascock St		HF	HF (2027)	HF			
Glascock St	Wake Forest Rd	Brookside Dr	Yes		Bus (2024)				
Glascock St	Brookside Dr	Chatham Lane	Yes	HF	HF (2027)	HF			

CORRIDOR/SU	BAREA								
Segment	From	Το	Existing Transit Service (HF = High Frequency)	Wake Transit Plan (BRT, HF)	Wake Bus Plan (HF, Bus = fixed route transit)	MTP 2045 Long Range Plan (BRT, HF, Bus)	Other transit plan (pre-WTP)	Corridor/ Sub-Area Study	NCDOT STIP
Milburnie Rd	Chatham Ln	New Bern Ave		HF	HF (2027)	HF			
GLENWOOD AVE	E/US 70 WEST								
Glenwood Ave	Morgan	Peace St	Yes (HF)	HF		HF			
Glenwood Ave	Peace St	Wade Ave	Yes	HF		HF			
Glenwood Ave	Wade Ave	Whitaker Mill Rd	Yes	HF	HF (2024)	HF	Yes		
Glenwood Ave	Whitaker Mill Rd	Blue Ridge Rd	Yes	HF	HF (2024)	HF	Yes		
Glenwood Ave	Blue Ridge Rd	Creedmoor Rd	Yes		HF (2024)	HF	Yes		
Glenwood Ave	Creedmoor Rd	Hillburn Dr	Yes		Bus (2024)	Bus	Yes		
Glenwood Ave	Hillburn Dr	I-540	Yes		Bus (2024)	Bus			U-2823
GORMAN AVE/A	VENT FERRY	RD							
Avent Ferry Rd	Tryon Rd	Athens Dr						Avent Ferry	
Avent Ferry Rd	Athens Dr	Gorman Ave	Yes		Bus (2027)	Bus		Rd Corridor	
Avent Ferry Rd	Gorman Ave	Western Blvd	Yes		HF (2027)	HF	Yes	Study	
Gorman Ave	Tryon Rd	Thistledown Dr					Yes		
Gorman Ave	Thistledown Dr	Avent Ferry Rd	Yes		HF (2027)	Bus	Yes		
Gorman Ave	Avent Ferry Rd	Marcom St	Yes		Bus (2024)	Bus			
Gorman Ave	Marcom St	Western Blvd	Yes		Bus (2024)	HF			
Gorman Ave	Western Blvd	Sullivan Dr	Yes		Bus (2024)	HF			
Gorman Ave	Sullivan Dr	Hillsborough St	Yes		Bus (2024)	Bus			
Crossroads Blvd	Caitboo Ave	Jones Franklin Rd	Yes				Yes		
Dillard Dr	Walnut St	Tryon Rd				Bus	Yes		
Lineberry Dr	Trailwood Hills Dr	Trailwood Dr	Yes		HF (2027)	Bus			
Trailwood Dr	Thistledown Dr	Tryon Rd	Yes		HF (2027)	Bus			

CORRIDOR/SUB	BAREA								
Segment	From	То	Existing Transit Service (HF = High Frequency)	Wake Transit Plan (BRT, HF)	Wake Bus Plan (HF, Bus = fixed route transit)	MTP 2045 Long Range Plan (BRT, HF, Bus)	Other transit plan (pre-WTP)	Corridor/ Sub-Area Study	NCDOT STIP
Trailwood Hills Dr	Tryon Rd	Lineberry Dr	Yes		HF (2027)				
Tryon Rd	Trailwood Dr	Trailwood Hills Dr	Yes		HF (2027)				
Tryon Rd	Dillard Dr	Gorman Ave					Yes		
HARRISON AVE	/NORTH CARY	BRT CORRIDO	2						
Harrison Ave	I-40	Ne Maynard Rd	Yes		Bus (2024)	BRT			
Harrison Ave	Ne Maynard Rd	Chatham St	Yes		Bus (2024)	BRT			
Harrison Ave	Chatham St	Dry Ave				BRT			
HILLSBOROUGH	IST								
Hillsborough St	Jones Franklin Rd	Blue Ridge Rd			HF (2024)	HF	Yes		
Hillsborough St	Blue Ridge Rd	Shepherd St	Yes	HF	HF (2024)	HF	Yes		
Hillsborough St	Shepherd St	Glenwood Ave	Yes	HF	HF (2024)	HF	Yes		
Hillsborough St	Glenwood Ave	Salisbury St	Yes	HF	Bus (2024)	HF	Yes		
KILDAIRE FARM	I/SOUTH CAR	<b>( BRT CORRIDO</b>	R						
Kildaire Farm Rd	Dowell Dr	SW Cary Pkwy	Yes		Bus (2024)	BRT			
Kildaire Farm Rd	SW Cary Pkwy	Tryon Rd	Yes		Bus (2024)	BRT			
Tryon Rd	Kildaire Farm Rd	Regency Pkwy	Yes		Bus (2024)	BRT			
Regency Pkwy	Ederlee Dr	Tryon Rd				BRT			
LAKE WHEELER	RD								
Lake Wheeler Rd	I-40	Tryon Rd	Yes		Bus (2024)			Lake Wheeler Rd Cor. Study	
MLK JR BLVD/P	OOLE RD								
Martin Luther King Jr. Blvd	McDowell St	Poole Rd	Yes (HF)	HF	HF (2024)	HF			

CORRIDOR/SUBAREA											
Segment	From	То	Existing Transit Service (HF = High Frequency)	Wake Transit Plan (BRT, HF)	Wake Bus Plan (HF, Bus = fixed route transit)	MTP 2045 Long Range Plan (BRT, HF, Bus)	Other transit plan (pre-WTP)	Corridor/ Sub-Area Study	NCDOT STIP		
Poole Rd	Martin Luther King Jr. Blvd	Sunnybrook Rd	Yes	HF	HF (2024)	HF					
NC 42											
N42	Glen Laurel Rd	Buffaloe Rd							R-3825B		
NC 50											
NC 50	Glenwood Ave	I-540	Yes		Bus (2024)	Bus	Yes				
NC 50	1-540	NC 56						NC 50 Cor. Study			
NC 55											
NC 55	US 401	Triangle Expressway				Bus	Yes				
NC 55	Triangle Expressway	US 64			Bus (Yes)	Bus	Yes		U2901B		
NC 55	US 64	Durham County Line	Yes		Bus (2024)	Bus	Yes				
NC 56											
NC 56	33rd St	Darden Dr						NC 56 Cor. Study			
NC 98											
NC 98	Franklin St	US 401						NC 98			
NC 98	Old Falls of Neuse Rd	Franklin St	Yes		Bus (2024)	Bus		Corridor Study			
NC 98	US 1 Alt   Main St	Durham County Line					Yes				
NCSU AREA		·					· 	· 			
Centennial Parkway	Avent Ferry Rd	Oval Dr				HF					

CORRIDOR/SUBAREA											
Segment	From	То	Existing Transit Service (HF = High Frequency)	Wake Transit Plan (BRT, HF)	Wake Bus Plan (HF, Bus = fixed route transit)	MTP 2045 Long Range Plan (BRT, HF, Bus)	Other transit plan (pre-WTP)	Corridor/ Sub-Area Study	NCDOT STIP		
Dan Allen Dr/Fraternity Ct	Varsity Dr	Hillsborough St				HF					
Jackson St/Wolf Village Way	Method Rd	Varsity Dr				HF					
Ligon St/Sullivan Dr	Method Rd	Dan Allen Dr				HF					
Oval Rd/Bilyeu St/Pullen Rd	NCSU	Western Blvd		HF	HF (2024)	HF					
Pullen Rd	Hillsborough St	Western Blvd	Yes	HF	HF (2024)	HF					
Varsity Dr	Sullivan Dr	Partners Way				HF					
NEW BERN AVE											
New Bern Ave	Person St	Poole Rd	Yes (HF)		HF (2027)	BRT	Yes	New Bern			
New Bern Ave	Poole Rd	Sunnybrook Rd	Yes (HF)	BRT	HF (2027)	BRT	Yes	Ave Cor.			
New Bern Ave	Sunnybrook Rd	New Hope Rd	Yes (HF)	HF	HF (2027)	BRT	Yes	Study			
New Bern Ave	New Hope Rd	I-540	Yes		Bus (2024)	Bus					
Edenton St	Poole Rd	Salisbury St	Yes (HF)		HF (2027)	BRT	Yes				
Edenton St	Salisbury St	Hillsborough St	Yes		Bus (2024)	HF					
Corporation Pkwy	New Bern Ave	New Hope Rd	Yes (HF)		HF (2027)	Bus					
New Hope Rd	Corporation Pkwy	New Bern Ave	Yes (HF)		HF (2027)	Bus					
NORTH HILLS/N	MIDTOWN								<u>.</u>		
Dartmouth Rd	Six Forks Rd	Converse Dr				BRT					
Hardimont Rd	Converse Dr	Wake Forest Rd	Yes (HF)		Bus (2024)	HF					
Lassiter Mill Rd	Scotland St	Six Forks Rd	Yes	HF	HF (2024)	HF					
North Brook Dr	North Hills Dr	Six Forks Rd		HF	HF (2027)	HF					
North Hills Dr	Lead Mine Rd	North Brook Dr		HF	HF (2027)	HF					

CORRIDOR/SUBAREA										
Segment	From	Το	Existing Transit Service (HF = High Frequency)	Wake Transit Plan (BRT, HF)	Wake Bus Plan (HF, Bus = fixed route transit)	MTP 2045 Long Range Plan (BRT, HF, Bus)	Other transit plan (pre-WTP)	Corridor/ Sub-Area Study	NCDOT STIP	
St Albans Dr	Dartmouth Rd	Hardimont Rd	Yes	HF	HF (2027)	BRT				
St Albans Dr	Hardimont Rd	Wake Forest Rd		HF	HF (2027)	BRT				
NORTHEAST CO	NNECTIONS -	MIDTOWN TO N	EW BERN AV	/E						
Brentwood Rd	New Hope Church Rd	Noblin Rd		HF						
Bush St	Wolfpack Lane	St Albans Dr			HF (2027)					
Highwoods Blvd	Atlantic Ave	Capital Blvd			HF (2027)	HF				
Lake Woodard Dr	Brentwood Rd	Trawick Rd	Yes (HF)		HF (2027)					
New Hope Church Rd	Wake Forest Rd	Brentwood Rd	Yes (HF)	HF	Bus (2024)	HF				
Raleigh Blvd	Brentwood Rd	Yonkers Rd	Yes	HF	Bus (2027)	HF				
St Albans Dr	Wake Forest Rd	New Hope Church Rd		HF	HF (2027)	HF				
Westinghouse Blvd	Capital Blvd	Raleigh Blvd			HF (2027)	HF				
Wolfpack Lane	Bush St	Atlantic Ave			HF (2027)					
Yonkers Rd	Raleigh Blvd	New Bern Ave		HF		HF				
RDU/MORRISVI	LLE									
NC 54	Harrison Ave	McCrimmon Pkwy			Bus (2024)	BRT				
NC 54	McCrimmon Pkwy	Durham County Line			Bus (Partial)	BRT			U-5750	
Aviation Pkwy	NC 54	1-40							U-5811	
Davis Dr	US 64	Durham County Line					Yes			
	· 	· 	·	SAUNDER	S ST	· 			·	
Saunders St	Lenoir St	Prospect Ave	Yes		Bus (2024)	Bus				

CORRIDOR/SU	BAREA								
Segment	From	То	Existing Transit Service (HF = High Frequency)	Wake Transit Plan (BRT, HF)	Wake Bus Plan (HF, Bus = fixed route transit)	MTP 2045 Long Range Plan (BRT, HF, Bus)	Other transit plan (pre-WTP)	Corridor/ Sub-Area Study	NCDOT STIP
Saunders St	Prospect Ave	Pecan Rd	Yes (HF)		HF (2024)	Bus	Yes	Southern Gateway Study	
McDowell St	Prospect Ave	MLK Jr Blvd	Yes (HF)		HF (2024)	Bus	Yes		
SIX FORKS RD									
Six Forks Rd (New Location)	Capital Blvd	Atlantic Ave				HF			
Six Forks Rd	Atlantic Ave	Wake Forest Rd		HF	HF (2024)	HF			
Six Forks Rd	Wake Forest Rd	Lassiter Mill Rd	Yes	HF	HF (2024)	HF	Yes		
Six Forks Rd	Lassiter Mill Rd	North Brook Dr	Yes	HF	HF (2027)	HF	Yes	Six Forks Rd Cor. Study	
Six Forks Rd	Northbrook Rd	Shelley Rd	Yes		Bus (2024)	HF	Yes		
Six Forks Rd	Shelley Rd	Lynn Rd	Yes		Bus (2024)	Bus	Yes		
Six Forks Rd	Lynn Rd	Strickland Rd	Yes		Bus (2024)	Bus	Yes		
SOUTH RALEIG	4								
Rock quarry	Lenoir St	Battle Bridge Rd			Bus (2027)	Bus	Yes		
Sanderford Rd	Seabrook Rd	Rock Quarry Rd	Yes	HF	HF (2024)	HF			
State St	Lenoir St	Hadley Rd	Yes	HF	HF (2024)	HF			
US 64 WEST									
US 64	Salem St	US 1	Yes			Bus			U-5301
US 70 EAST/GA	RNER								
US 70	US 401	Lombard St				BRT			
US 401 NORTH									
US 401	NC 56	Flat Rock Church Rd							R-2814C

CORRIDOR/SUI	BAREA								
Segment	From	То	Existing Transit Service (HF = High Frequency)	Wake Transit Plan (BRT, HF)	Wake Bus Plan (HF, Bus = fixed route transit)	MTP 2045 Long Range Plan (BRT, HF, Bus)	Other transit plan (pre-WTP)	Corridor/ Sub-Area Study	NCDOT STIP
WAKE FOREST	RD								
Wake Forest Rd	Delway St	Automotive Way	Yes (HF)		HF (2024)	Bus		Blount St- Person St Corridor Study	
Wake Forest Rd	Capital Blvd	Whitaker Mill Rd				BRT	Yes		
Wake Forest Rd	Whitaker Mill	McNeil St	Yes			BRT	Yes		
Wake Forest Rd	McNeil St	St Albans Dr	Yes		Bus (2024)	BRT	Yes		
Wake Forest Rd	St Albans	Hardimont Rd	Yes		Bus (2024)	HF	Yes		
Wake Forest Rd	Hardimont Rd	Old Wake Forest Rd	Yes		Bus (2024)	Bus	Yes		
WAKEMED ARE	A								
Sunnybrook Rd	New Bern Ave	Poole Rd	Yes	HF	HF (2024)	HF			
Calumet Dr	Sunnybrook Rd	Holston Ln	Yes		HF (2024)	HF			
WESTERN BLVD	)								
Western Blvd	Jones Franklin Rd	Blue Ridge Rd	Yes	BRT	HF (2024)	BRT			
Western Blvd	Blue Ridge Rd	Pullen Rd	Yes	BRT	HF (2027)	BRT			
Western Blvd	Pullen Rd	Mc Dowell St	Yes	BRT	HF (2027)	BRT			
WILMINGTON S	T/US 401 SOU	TH							
Wilmington St	Peace St	Morgan	Yes (HF)	BRT	HF (2024)	HF			
Wilmington St	Morgan	MLK Jr Blvd	Yes (HF)	BRT	HF (2027)	HF			
Wilmington St	MLK Jr Blvd	Pecan Rd		BRT	HF (2027)	BRT		Southern	
Wilmington St	Pecan Rd	Tryon Rd	Yes (HF)	BRT	HF (2024)	BRT	Yes	Gateway Study	
US 401	Tryon Rd	Ten Ten Rd	Yes		Bus (Yes)	Bus	Yes		U-5980
US 401	Ten Ten Rd	Judd Pkwy	Yes		Bus (Yes)	Bus	Yes		