

APPENDIX A

Capital Investment to Support Bus Service

The Wake County Transit Plan commits resources to construct the physical structures needed to support bus operations and make it easier for passengers to find, wait for and ride the bus. These capital items include bus shelters, benches and other structures, vehicles, sidewalks and signage. Wherever possible, the Wake County Transit Plan aligns the capital investment of the bus network with the area’s rail goals and the expected rail capital investments.

The details in this appendix are listed as minimum amounts, or the capital items that the Transit funds could leverage alone. It is expected that the Transit fund capital expenditures will be aligned with other planned municipal and state capital projects, particularly sidewalk and road projects, to exceed the minimums. The capital investment items included in the plan are categorized as follows:

- Bus Stop Improvements: Benches/Shelters /Signage
- Sidewalks
- Regular Bus Purchase and Replacement
- Transit Center Expansion and Construction
- Transfer Point Expansion and Construction
- Park-and-Ride Lots Expansion and Construction
- Urban Transit Corridors
- Commuter Bus Corridors
- Western Bus Maintenance Facility

Stop Improvements: Benches/Shelters/Signage

The Wake County Transit Plan commits resources to constructing benches, shelters and other stop improvements. The current Wake County bus network has approximately 1,800 stop locations, many of which already have benches or shelters. These items are an essential part of the user experience as they directly affect comfort and safety, and can assist in the understanding of system connections and routes. Building on existing bus stop improvement programs, the system will add new benches and shelters based on need and demand. The goal of the bus stop improvement program, along with the overall streamlining of the bus routes, is to have accessible and clearly defined stops at

every location with the type of accommodation (benches, covered structures) increasing with the number of users.

Stop Improvements: Benches/Shelters/Signage		
Stop Improvement	Minimum Annual Construction	Minimum 5-Year Construction
Benches	15	60
Covered Shelters	10	50
System Signage	100	500

Bus Shelters



Sidewalks

The Wake County Transit Plan includes resources to construct sidewalks along transit routes. Sidewalks are an essential part of the user experience because they help passengers safely access the stop locations to board the bus and safely access adjacent neighborhoods and businesses when exiting the bus. The proposed Wake County Bus Network includes about 500 local route miles, and a portion of the routes already include sidewalks. The system will add new sidewalks based on need and demand, leveraging existing sidewalk and road improvement programs where possible. It is important to note sidewalk construction is typically cheaper when done in conjunction with other roadway modifications. The goal of the sidewalk improvement program is to have stops that provide true accessibility to the adjacent and nearby residences and businesses.

Sidewalk Construction		
	Minimum Annual Construction	Minimum 5-Year Construction
Sidewalks	10 Miles	50 Miles

Regular Bus Purchase and Replacement

The Wake County Transit Plan includes the regular purchase and replacement of buses. The proposed Wake County Bus Network will operate approximately 270 buses, a number of which have been recently purchased or are already programmed for replacement. Newer buses have fewer maintenance issues than high-mileage vehicles, and allow the system to keep current with advances in bus user accommodations, such as low floor easy access buses or passenger information systems. Leveraging existing bus replacement programs, the system will purchase and replace buses based on need, mileage and age. The goal of the bus purchase and replacement program is to replace buses every 10 or 12 years.

Bus Purchase and Replacement

	Minimum Annual Bus Purchases	Minimum 5-Year Bus Purchases
Local Buses	18	96
Commuter Buses	6	34
ADA Vehicles/Vans	5	25



Commuter buses are designed to be efficient and comfortable at higher speeds.



Local buses are designed to be efficient and accessible for regular stops.

Transit Center Expansion and Construction

The Wake County Transit Plan provides for the construction and expansion of transit centers, the locations where more than four bus routes will link together and allow riders to transfer. The Wake County Bus Network already operates several transit centers including Moore Square in Raleigh and Cary Station in Cary. A number of these stations have been recently constructed or are already programmed for expansion. Transit centers directly affect passenger comfort and safety, and create highly visible centers of the system's connections and routes. Building on existing Transit Station improvement programs, the system will add new transit centers based on need and demand. Although the Wake County Transit Plan has budgeted to construct the centers in their entirety, actual construction may involve partnerships with local communities and developers to create joint centers that further meet user needs. The goal of the transit center program is to have the listed transit centers in place on or before the date shown.

Transit Center Expansion and Construction

Center Location	Minimum Completion Year
Cary Station (Add Capacity)	2020
Crabtree Valley	2020
Moore Square (Add Capacity)	2020
WakeMed	2020
Apex	2025
Crossroads	2025
NC State	2025
RTP	2025



Moore Square



Community Transit Center (concept)



Transfer Points

Transfer Point Expansion and Construction

The Wake County Transit Plan commits resources to expand and construct transfer points, the locations where more than two bus routes will link together and allow riders to transfer. A significant number of the new transfer centers are located in the smaller communities where new service will be initiated. Transfer points directly affect passenger comfort and safety, and create visible places where the system's routes connect. The Wake County Transit Plan will add new transfer points based on need and demand. Although the Wake County Transit Plan has budgeted to construct the points in their entirety, actual construction may involve partnerships with local communities and developers to create joint facilities that further meet customer needs. The goal of the transfer point program is to have the listed transfer points in place on or before the date shown.

Transfer Points Expansion and Construction

Transfer Points Location	Minimum Completion Year
Avent Ferry and Gorman	2020
Fuquay-Varina	2020
Garner	2020
Holly Springs	2020
New Hope and New Bern	2020
Wake Forest	2020
Wendell	2020
Wilmington Street	2020
Zebulon	2020
Cameron Village	2025
Duke/Raleigh Medical	2025
Morrisville	2025
Rolesville	2025
Sanderford and Rock Quarry	2025

Park-and-Ride Lots Expansion and Construction

Park-and-ride lots—locations where drivers leave their cars to meet commuter buses—are included in the Wake County Transit Plan. The proposed park-and-ride lots are located at important crossroads about 7–10 miles from major employment centers (downtown Raleigh, Research Triangle Park). This makes the commuter bus routes more effective. Park-and-ride lots are an essential to commuters, as they provide a regular and safe place to park and also create a highly visible location on the bus route. Although the Wake County Transit Plan has budgeted to construct the lots in their entirety, actual construction may be partnered with local communities and developers to create joint facilities that further meet user needs. The goal of the park-and-ride lot program is to have the listed transfer lots in place on or before the date shown.

Park-and-Ride Lots Expansion and Construction

Lot Location	Minimum Completion Year
Greenfield Parkway*	2020
Hillsborough and I-40*	2020
Knightdale	2020
Regency Park	2020
Wake Tech Main Campus	2020
Capital and Burlington Mills	2025
NC 540 and NC 55	2025
Wendell Falls	2025

* Location aligned with proposed commuter rail stations.

Wendell Park-and-Ride Lot





Large Park-and-Ride Lot

Urban Transit Corridors

The Wake County Transit Plan commits resources to construct urban transit corridors. Urban transit corridors are roads where a large number of buses will operate and capital projects will be implemented to ensure that bus riders are accommodated and the buses operate effectively. The capital projects implemented along the corridors will ensure that sidewalks are connected and bus benches or shelters are located at all stops. In concert with the commuter bus corridors, buses also may be given priority at signals to reduce the number of times the bus stops. The Wake County Transit Plan has prioritized the corridors listed below based on the number of buses expected and the expected ability to implement the project. It is important to note that construction of stops and sidewalks is typically cheaper when done in conjunction with other roadway modifications. Construction of the urban transit corridors will likely be linked with other roadway projects. The goal of the urban transit corridors program is to have the listed corridors in place on or before the date shown.

Urban Transit Corridors	
Corridor Location	Minimum Completion Year
New Bern Avenue/US 64	2020
Capital Boulevard/US 1	2020
South Saunders Street/US 401	2025
Avent Ferry Road	2025
Falls of Neuse	2025

Commuter Bus Corridors

The Wake County Transit Plan provides for modifications to commuter bus corridors, which are roads where commuter buses operate and capital projects will be implemented to ensure that the buses operate effectively. The capital projects implemented along the corridors will allow Bus on Shoulder

operation (where shoulders exist and are appropriate for use) and provide signal prioritization on corridors with traffic signals. The NC Department of Transportation has led studies examining the challenges and opportunities associated with Bus on Shoulder Systems in our area. The Wake County Transit Plan has prioritized the corridors listed below based on the number of buses expected and the expected ability to implement the project. Construction of the commuter bus corridors will likely be linked with other roadway projects. The goal of the commuter bus corridors program is to have the listed corridors in place on or before the date shown.

Commuter Bus Corridors	
Corridor Location	Minimum Completion Year
I-40 West	2020
I-40 East	2020
US 1 North-Capital	2020
US 401 South	2020
US 64 East	2020
US 1 South	2020

Bus on Shoulder



Western Bus Maintenance and Operations Facility

The Wake County Transit Plan includes construction of a western bus maintenance and operations facility. This facility will be where buses are stored, repaired, cleaned and fueled as well as the location where drivers start and end their bus routes. The Wake County bus network currently operates three facilities—the newly constructed operations center along Poole Road on the east side of Raleigh, a location leased by the Town of Cary and a

location operated by Triangle Transit in western Wake County. The proposed western bus maintenance and operations facility would replace the two existing locations and allow the number of buses in the western area of the county to expand and operate effectively. The proposed western bus maintenance and operations facility is expected to be complete in or before 2020.

Western Bus Maintenance Facility

	Minimum Completion Year	Expected Bus Capacity
Western Bus Maintenance Facility	2020	125 Buses



The existing eastern maintenance facility on Poole Road



Maintenance Facility