GATEWAY Transit Community Transportation Service Plan (CTSP)

January 2010

Prepared for the

Goldsboro-Wayne Transportation Authority (GATEWAY Transit)

and North Carolina Department of Transportation,

Public Transportation Division

MARTIN ALEXIOU BRYSON

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1 Executive Summary

This study reviewed the current performance and direction of the Goldsboro-Wayne County Transportation Authority (GATEWAY Transit) and recommends alternative strategies for all aspects of GATEWAY Transit service, including operations, capital programming, marketing strategies, planning, facility relocation, and staffing that ought to increase mobility options for passengers and improve the efficiency and effectiveness of the organization and transportation services. The goal of the study was to make recommendations for GATEWAY Transit strategic plan that responds to the projected mobility needs of the general public and targeted populations in Wayne County, North Carolina, and that the plan provide direction for continuous improvement to achieve excellence in all aspects of service delivery and management.

1.1 Existing Demographic Characteristics

Wayne County's population in 2008 was 113,671, making it the 23rd most populous county in North Carolina. The population is expected to reach 123,152 by 2030, representing almost an 18 percent increase over 1990 levels. Of the total population, approximately 16 percent are seniors, 21 percent are mobility-impaired, and 13 percent are below-poverty. Roughly 9 percent of Wayne County households have no access to a motor vehicle at all, while 32 percent own only one vehicle.

1.2 Existing Transit Services

GATEWAY Transit is responsible for providing both fixed-route and demand-responsive transportation services within Wayne County. The fixed-route service in Wayne County operates between 5:30 a.m. and 6:30 p.m. on weekdays and between 9:30 a.m. and 6:30 p.m. on Saturdays. Service is available every day of the year except Sundays, Thanksgiving Day and Christmas Day. The four fixed routes within Goldsboro (Wayne Memorial, Berkeley Mall, Southend, and North End route) operate on one-hour headways and depart the system transfer point at half-past every hour. The Mt. Olive/Dudley route is an additional urban paratransit route that serves the area.

The fare structure for the routes within Goldsboro is as follows:

- One-Way Transit Fare – $1.00
- Reduced One-Way Transit Fare – $0.50 (with GATEWAY Transit discount card, which is available to Seniors (60+), Medicare cardholders, and individuals with disabilities)
- Children under 42" – Free (limit one child per adult passenger)
- 22-Ride Tickets – $20.00 for full-fare, $10.00 for reduced fare

- All-Day Tickets - $2.00 for full fare, $1.00 for reduced fare

- Transfers – Free, but are only valid at the Transfer Center and for the next available bus

- The one-way fare for the Dudley/Mt. Olive route is $2.00 and includes a free transfer to one of the fixed-route buses within Goldsboro

- One-way rides may be purchased on-board buses for exact change; no ticket is given for one-way rides. Other tickets and passes may be purchased at the GATEWAY Transit office between 8:00 a.m. and 5:00 p.m.

GATEWAY Transit's demand-responsive service hours are 4:00 AM to 11:00 PM, Monday-Friday, and 4:00 AM to 6:00 PM on Saturdays and Holidays. As with the fixed-route service, there is no service on Sundays, Thanksgiving Day or Christmas Day. Service requires advance reservation by phone. One-way fares are $5.00 within Goldsboro, $4.00 within Wayne County, and $35.00 to medical facilities outside Wayne County.

In terms of ridership, the total GATEWAY Transit system ridership has increased slightly in recent years. From 2005-06 to 2007-08, ridership has increased by about 2.4 percent, with close to 4,000 additional one-way passenger-trips added each year (approximately 1.2 percent annual growth). In 2008, GATEWAY Transit's total systemwide ridership stood at around 342,000. GATEWAY Transit has also generally increased service levels in recent years, both vehicle service hours and miles. Available data from 2004-05 to 2007-08 shows that vehicle service hours increased systemwide by about 13 percent, with 3,300 vehicle service hours added each year (7 percent annual growth). During the same time period, vehicle service miles increased systemwide by about 22 percent, with 44,000 vehicle service miles added each year (approximately 11 percent annual growth).

In terms of cost of providing service, the annual operating costs for GATEWAY Transit services were at the following levels in the Fiscal Year 2008-09:

- $547,000 for urban fixed-route service

- $171,000 for urban demand-responsive service

- $1,365,000 for rural demand-responsive service

The operating cost of urban fixed-route service was mainly funded by the federal funds (43 percent), followed by fares (24 percent), local funds (16 percent), state funds (15 percent), and other transportation revenues (1 percent). The urban demand-responsive service (ADA and evening service) was mainly funded by federal funds as well (39 percent), followed by fares (29 percent), state funds (16 percent) and local funds (16 percent). The rural demand-responsive service was mainly funded by agency contract revenue (76 percent), followed by federal funding (14 percent), state funding (6 percent), local funding (2 percent), fares (2

percent), and a small contribution from other revenue sources (less than 1 percent). In Fiscal Year 2008-09 total systemwide revenue reached approximately $2,083,000 with $718,000 in revenue from the system's urban segment and $1,365,000 in revenue rural segment-wise. The average systemwide cost per passenger trip in Fiscal Year 2008-09 was $5.41 per each trip, with the urban fixed-routes operating cost per trip at $2.51, followed by urban paratransit at $8.30, and rural paratransit at $11.35.

1.3 Service Recommendations

A variety of service alternatives were analyzed, including analysis of ridership impacts and performance reviews. The study recommends the following Five-Year plan elements:

Phase I – Fixed Route Short-term Service Improvements (2010)

- The **Berkeley Mall** route: implement a shorter and simpler route along Elm Street and through downtown
- Introduce the new fifth fixed route, '**East End**'
- The **North End** route: eliminate the extensions in alternate hours to Wal-Mart in Rosewood and to the O'Berry Center
- The **South End** route: make adjustments aimed at improving access to/from some key destinations
- Purchase two additional Fixed-Route buses
- Establish additional transfer points at Wal-Mart (Spence Avenue) and in the courthouse area

Phase I– Paratransit Service Short-term Service Improvements (2010)

- Adjust Mount Olive fixed-route service for better performance
- Increase effectiveness of rural service

Phase II– Fixed Route Service Improvements (2011-2014)

- Revise all schedules and routing as needed for changeover at Union Station Transfer Center

Phase II– Paratransit Service Improvements (2011-2014)

- Provide Sunday service

1.4 Capital Recommendations

- **Union Station Transfer Center**: a key component of the Five-Year Plan will be an attractive and functional multi-model transfer center in revitalized Union Station on the western edge of downtown Goldsboro. It will allow for better coordination of routes, including paratransit ones, and serve as a base for expansion of transit services

- **Operations and Maintenance Center**: as crucial as Union Station, would provide a fixed base and allow GATEWAY Transit to perform maintenance and fueling in-house

- **Passenger Amenities:** establish standards for providing particular amenities and preparing and maintaining a Priority List for stops. Onboard and automated stop announcements

- **Vehicle Fleet:** prepare a Fleet Replacement Plan

- **Advanced Transit System Technologies:** full implementation of GATEWAY's scheduling software

1.5 Institutional Recommendations

- Continue to work with the surrounding counties' Transit agencies as part of the effort to improve regional coordination

- Work with NCDOT to explore the scope for additional scheduled inter-city bus service

- Conduct a focused marketing effort aimed at fostering awareness among Wayne County's residents regarding GATEWAY Transit options

1.6 Financial Recommendations

Fares Strategy

- GATEWAY TRANSIT should strive to introduce electronic fareboxes by March 2010 systemwide

- GATEWAY should revise fare options, taking advantage of the new payment system. A variety of multi-ride pass options should be offered as well. GATEWAY should consider reducing the all-day cash fare to $1

Providing Transit Services through Existing Local, State, and Federal Funding

GATEWAY Transit will need to rely on existing local, state, and federal transit funding sources to fund its ongoing operating costs, including FTA 5307, FTA 5309 and FTA 5311 funds, existing NC DOT State Maintenance Assistance Program (SMAT) state funding, and the required local match. Other federal sources of previously untapped revenue including FTA 5309, FTA 5310, FTA 5311f, FTA 5316, FTA 5317, and the Surface Transportation Program could be used to enhance and expand GATEWAY Transit services. The required local match is projected to peak at $250,000 in the final Fiscal Year of the Five-Year Plan (2013-14). This represents about a 68 percent increase from the current existing local match during the Fiscal Year 2008-9 ($146,000). GATEWAY Transit can secure new sources of local funding such as a slight increase in annual vehicle registration fee instituted in Wayne County

Plan Benefits

If the Five-Year Plan's items alone are successfully implemented, GATEWAY Transit ridership will increase by nine percent over today's levels, while farebox revenues will grow much more substantially – by 22 percent. The Five-Year Plan will provide an entirely new fifth fixed route service (provisionally referred to as 'the East End') that will expand service and add new bus stops in previously underserviced areas of Goldsboro as well as improve connections between downtown Goldsboro, the medical corridor and Wayne County Community College. Sunday paratransit service will be implemented to offer GATEWAY riders an opportunity to use transit on that day. Finally, the capital improvements such as the Union Station Transfer Center and Operations and Maintenance Center will enable GATEWAY to become a truly regional and comprehensive transit agency

1.7 Implementation Plan

Fiscal Year 2009-10

- Implement Phase I - the 2010 Fixed-Route and Paratransit Service short-term improvements
- Introduce electronic fareboxes
- Revise fare options
- Continue migration to 35-foot city buses; purchase two additional city buses
- Follow all recommendations outlined in the NCDOT / ITRE's *Performance Plan and Analysis* (PPA)
- Adjust Mount Olive/Dudley fixed-route service for better performance

- Coordinate with neighboring transportation agencies for out-of-county trips
- Operations and Maintenance Center – feasibility study and site selection
- Operations and Maintenance Center – secure funding (ongoing)
- Union Station Transfer Center – site environmental work, finalize relationship with Greyhound
- Union Station Transfer Center – secure additional funding (ongoing), select architect and begin design
- The City of Goldsboro and Wayne County adopt explicit transit-inclusion policy
- Improve Marketing and Information: website, 'Ride Guide,' unified branding/logo
- Prepare a Priority List for bus stop amenities
- Prepare a Fleet Replacement Plan
- Replace one van (paratransit)

Fiscal Year 2010-11

- Begin implementing Phase II - the 2011-14 Fixed Route and Paratransit Service Improvements
- Finalize schedule for Phase II - the 2011-14 Fixed Route Service Improvements
- Continue migration to 35-foot city buses
- Introduce electronic fareboxes
- Revise fare options
- Provide Sunday Demand-Responsive service to/from retail areas
- Operations and Maintenance Center – site environmental work
- Operations and Maintenance Center – secure funding (ongoing)
- Union Station Transfer Center – final design
- Union Station Transfer Center – secure funding (ongoing)

- Prepare a Rider Involvement Plan to involve riders in service planning
- Service expansion items from Mid-Term Plan as resources allow
- Capital investment items from Mid-Term Plan as resources allow
- Replace seven transit vehicles (two urban service-bound minibuses, five vans paratransit-bound)

Fiscal Year 2011-12

- Continue implementing Phase II - the 2011-14 Fixed Route and Paratransit Service Improvements
- Provide Sunday Demand-Responsive service to/from retail areas
- Operations and Maintenance Center – final design
- Operations and Maintenance Center – secure funding (ongoing)
- Union Station Transfer Center – construction
- Union Station Transfer Center – secure funding (ongoing)
- Satellite Transfer Locations – feasibility study (*construction beyond 2014*)
- Service expansion items from Mid-Term Plan as resources allow
- Capital investment items from Mid-Term Plan as resources allow
- Replace ten transit vehicles (three urban service-bound minibuses, seven vans paratransit-bound)

Fiscal Year 2012-13

- Continue implementing Phase II - the 2011-14 Fixed Route and Paratransit Service Improvements
- Evening/Sunday fixed-route service: feasibility study (*implementation beyond 2014*)
- Provide Sunday Demand-Responsive service to/from retail areas
- Operations and Maintenance Center – construction
- Operations and Maintenance Center – secure funding (ongoing)

- Union Station Transfer Center – construction
- Union Station Transfer Center – secure funding (ongoing)
- Service expansion items from Mid-Term Plan as resources allow
- Capital investment items from Mid-Term Plan as resources allow
- Replace three transit vehicles (three vans paratransit-bound)

Fiscal Year 2013-14

- Continue implementing Phase II - the 2011-14 Fixed Route and Paratransit Service Improvements
- Revise schedules for changeover to Union Station Transfer Center
- Provide Sunday Demand-Responsive service to/from retail areas
- Operations and Maintenance Center – commissioning and opening
- Operations and Maintenance Center – secure funding (ongoing)
- Union Station Transfer Center – commissioning and opening
- Union Station Transfer Center – secure funding (ongoing)
- Service expansion items from Mid-Term Plan as resources allow
- Capital investment items from Mid-Term Plan as resources allow
- Replace seven transit vehicles (seven vans paratransit-bound)

2 Introduction

2.1 Purpose of Study

This study afforded the leaders and transportation providers in the City of Goldsboro and Wayne County, North Carolina an opportunity to take an in-depth look at the public transit options currently in place, identify the optimal manner in which transit can meet the public's needs, and carefully identify where transit resources should be devoted over the plan periods.

The study reviewed the current performance and organizational direction of the Goldsboro-Wayne County Transportation Authority (GATEWAY Transit) and recommends alternative strategies for all aspects of GATEWAY Transit service, including operations, capital programming, marketing strategies, planning, facility relocation, and staffing that will increase mobility options for passengers and improve the efficiency and effectiveness of the organization and transportation services. This plan was developed through a public education and involvement process that included the general public, private and non-profit transportation providers, human service providers and targeted populations that include individuals with disabilities, low incomes, and limited English proficiency.

2.2 Study Vision Statement

Ultimately, the central vision of the study was to ensure that GATEWAY Transit develops a strategic plan that responds to the projected mobility needs of the general public and targeted populations in Wayne County, and that the plan provides direction for continuous improvement to achieve excellence in all aspects of service, delivery, and management.

2.3 Study Goals

The study goals are as follows:

- To promote public transportation options that improves the quality of life of Wayne County citizens
- To provide safe and dependable transportation mobility options to the general public, low income individuals, elderly persons, and/or persons with disabilities
- To create a seamless public transportation network within Wayne County that provides service to all geographies, jurisdictions, and program areas
- To develop a defensible and cost-constrained implementation plan that utilizes results-based metrics to gauge effectiveness
- To support the full integration of federal, state, local, and private programs supporting public and human service transportation

- To improve the efficiency and effectiveness of federal, state, locally, and privately funded public transportation programs

Together, the goals support GATEWAY Transit's focus areas, including providing better service to riders, ensuring long-term stability of the transit system, building capability to expand, build GATEWAY Transit brand/image, and, finally, be a part of the decision-making process when it comes to transportation options.

2.4 Background

Transportation is a key element in the evaluation of quality of life within a community. As such, providing transportation options that allow ease of movement to access social or recreational events, medical or social services, employment opportunities, educational resources, and retail or other activity destinations is a universal concern. Furthermore, transportation also has a direct impact on the economy and environment.

Successful transportation options include both private (personal vehicle, taxi/limousine service, charter bus service, etc) and public (bus service, paratransit service, rail service, etc.) options. Most private options are available in all communities, while public options are specifically tailored to a given community's needs. The public transportation options, often called transit, should be designed in a manner that provides mobility options to all residents, regardless of a particular resident's access to private options or other demographic characteristic (such as age, gender, race, disability).

2.4.1 Local Engagement

GATEWAY Transit operates a public transit network that offers both urban fixed-route service, within Goldsboro City limits, and rural demand-responsive service, within Wayne County limits. A governing board, with members from the City of Goldsboro and Wayne County and a transit advisory board, made up of local stakeholders, oversees GATEWAY Transit. GATEWAY Transit funding is provided by the City of Goldsboro, Wayne County, North Carolina Department of Transportation (NCDOT), and the Federal Transit Administration (FTA).

GATEWAY Transit, along with the City of Goldsboro, Goldsboro Municipal Planning Transit (GMPO), Wayne County, Eastern Carolina Rural Planning Organization (ECRPO), and North Carolina Department of Transportation (NCDOT), acknowledge the importance of providing strong public transportation options.

In order to better serve the existing and future transit needs of Goldsboro and Wayne County citizens, GATEWAY Transit decided to undertake this Community Transportation Service Plan study that included short- (5-years), mid- (10-years), and long-range (20-years) components.

2.4.2 NCDOT Community Transportation Service Plans

The North Carolina Department of Transportation (NCDOT) has recognized the value of Community Transportation Service Plans (CTSPs). In NCDOT's *CTSP and Regional Feasibility Study 2009 Program Packet*, the agency acknowledged that:

> 'CTSPs are crucial to ensuring that North Carolina community transportation systems are making a strategically planned response to the projected mobility needs of the general public and targeted populations in their service area. Plans review the current performance and organizational direction of the transit system and recommend alternative strategies of operating or managing that increase mobility options for passengers and improve the efficiency and effectiveness of the organization and transportation services.
>
> The goals of the planning process are to identify, evaluate, develop, recommend and implement strategies that provide planning elements for meaningful mobility options for the general public and targeted populations by allowing passengers to travel where and when they want and need to go. This community transportation plan must be developed through a public education and involvement process that includes the general public, private and non-profit transportation providers, human service providers and targeted populations that include individuals with low incomes and limited English proficiency (LEP). The result of this planning effort should produce an overall goal that the community can support.'

This CTSP will be the principle road map in accomplishing the following:

- Development and promotion of transit options that provide meaningful alternatives to citizens and connectivity of transportation services throughout the state
- Development and promotion of the full integration of the community transportation system's programs with other federal and state programs supporting public and human service transportation
- Support and promote the coordination of public transportation services across geographies, jurisdictions, and program areas for the development of a seamless transportation network. Improve the efficiency and effectiveness of federal/state funded transportation programs
- Support the provision of dependable mobility transportation options to the general public, low income individuals, elderly persons, and/or persons with disabilities within the guidelines and funding levels provided by NCDOT and FTA
- Support and encourage defensible, results-based budget requests and submissions from systems to NCDOT for funding

2.5 Study Process

The study was directed by a Steering Committee that included representatives from: NCDOT Public Transportation Division, NCDOT Rail Division, Goldsboro Metropolitan Planning Organization, Eastern Carolina Rural Planning Organization, Wayne County, Wayne Action Group for Economic Solvency, City of Goldsboro, Town of Mount Olive, Town of Freemont, GATEWAY Transit Staff, GATEWAY Transit Governing & Advisory Board ,and O'Berry Center. The study was undertaken by a consulting team from Martin/Alexiou/Bryson and Simpson Engineers & Associates, working with the Steering Committee, other transportation providers, and other stakeholders.

3 Background Information

3.1 Study Area

Wayne County, approximately 557 square miles in area, is located in the eastern coastal plain area of North Carolina, as shown on Figure 3.1. Regional vehicle access to Wayne County is provided along Interstate Highway 795 (north/south), US Highway 117 (north/south) and along US Highway 70 (east/west), which intersect outside the Goldsboro. Additional Interstate Highway vehicle access routes, 95 (north/south) and 40 (east/west), are both within 20 miles of Goldsboro.

The County is centrally located between other eastern coastal plain cities, Fayetteville (62 miles southwest), Greenville (41 miles northeast), Rocky Mount(53 miles north), Jacksonville (67 miles southeast), and Wilmington (80 miles southeast). Wayne County is also 70 miles southeast of the Triangle Region (Raleigh, Durham, and Chapel Hill), located in the Piedmont area of North Carolina.

The municipalities located within Wayne County, as shown on Figure 3.1, include:

- City of Goldsboro
- Town of Eureka
- Town of Fremont
- Town of Mount Olive
- Town of Pikeville
- Town of Seven Springs
- Village of Walnut Creek

3.2 Regional Context

Wayne County is located in the Eastern Piedmont area of North Carolina, approximately mid-way between the Triangle Region and Jacksonville, as shown in Figure 3.2. Presently, over 113,000 residents live in Wayne County. Military, agriculture, medical, manufacturing, and government make up the principal economic background of the County. The relatively flat land, historic downtowns, and the freedom from urban hassles provide an attractive quality of life for residents of Wayne County.

Approximately half of the County is contained within the Goldsboro Metropolitan Planning Area with the remainder contained within the Eastern Carolina RPO, as shown on Figure 3.3. The County population grew by approximately 8 percent between 1990 and 2000, but

was almost unchanged between 2000 and 2007. The County population is expected to reach 123,152 by 2030, representing almost an 18 percent increase over 1990 levels. The City of Goldsboro population fell by approximately 4 percent from 1990 to 2000 and again by approximately 4 percent from 2000 to 2007.

Seymour Johnson Air Force Base, with over 6,500 employees, is the largest employer in Wayne County, followed by Wayne Memorial Hospital with 1,700 employees. By industry, manufacturing, education, and public administration account for most of the remaining large employers in Wayne County. Overwhelmingly, the County is self-contained in commuting terms, with 82 percent of residents remaining in the County to work. This is not surprising for a rural County with a central city. Most commuting across the County line is to or from the adjoining Counties, which again is unsurprising. There are also a number of Wayne County residents that commute to Wake County and other parts of the Triangle Region.

Figure 3.1: Study Area

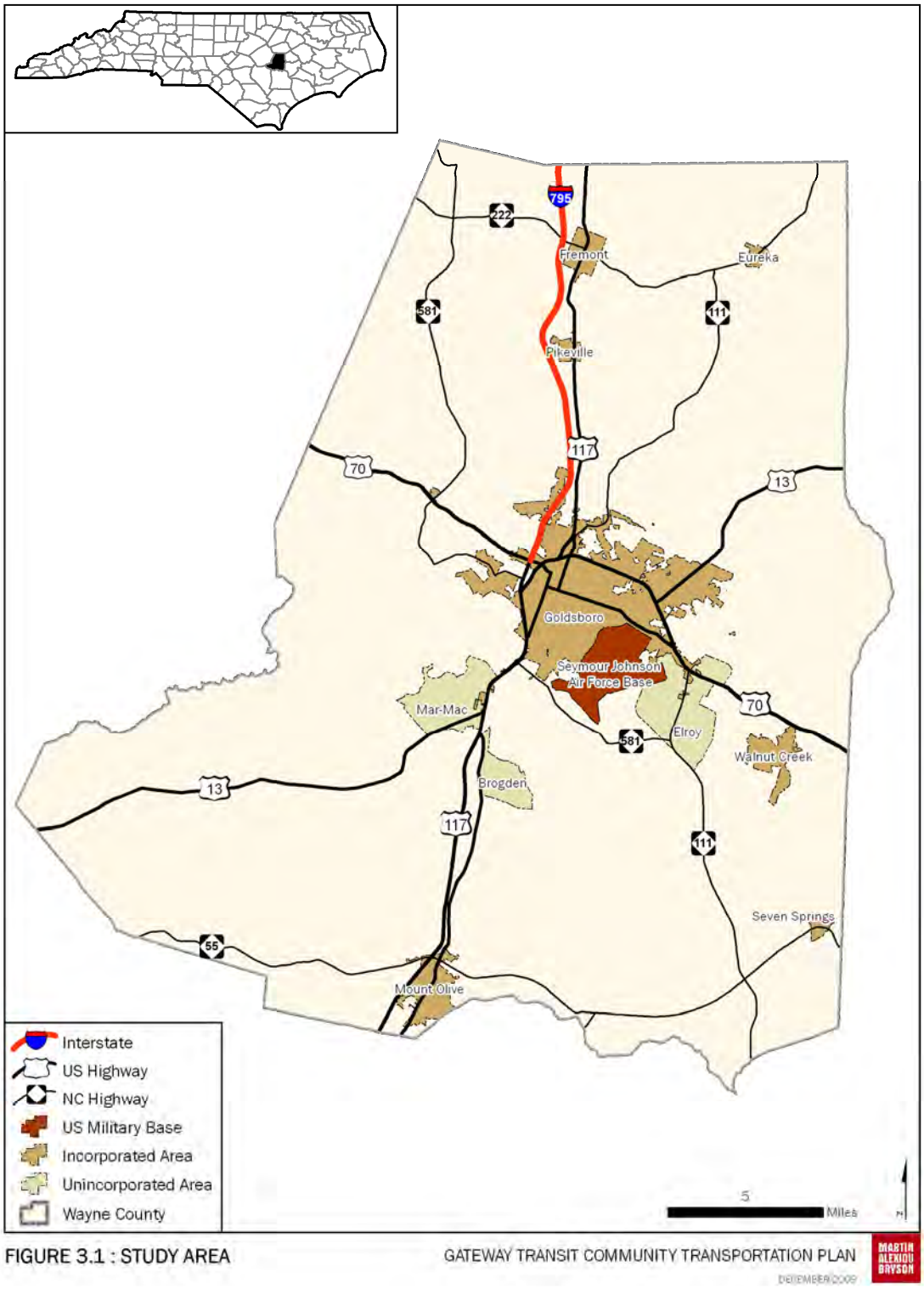


Figure 3.2: Regional Context

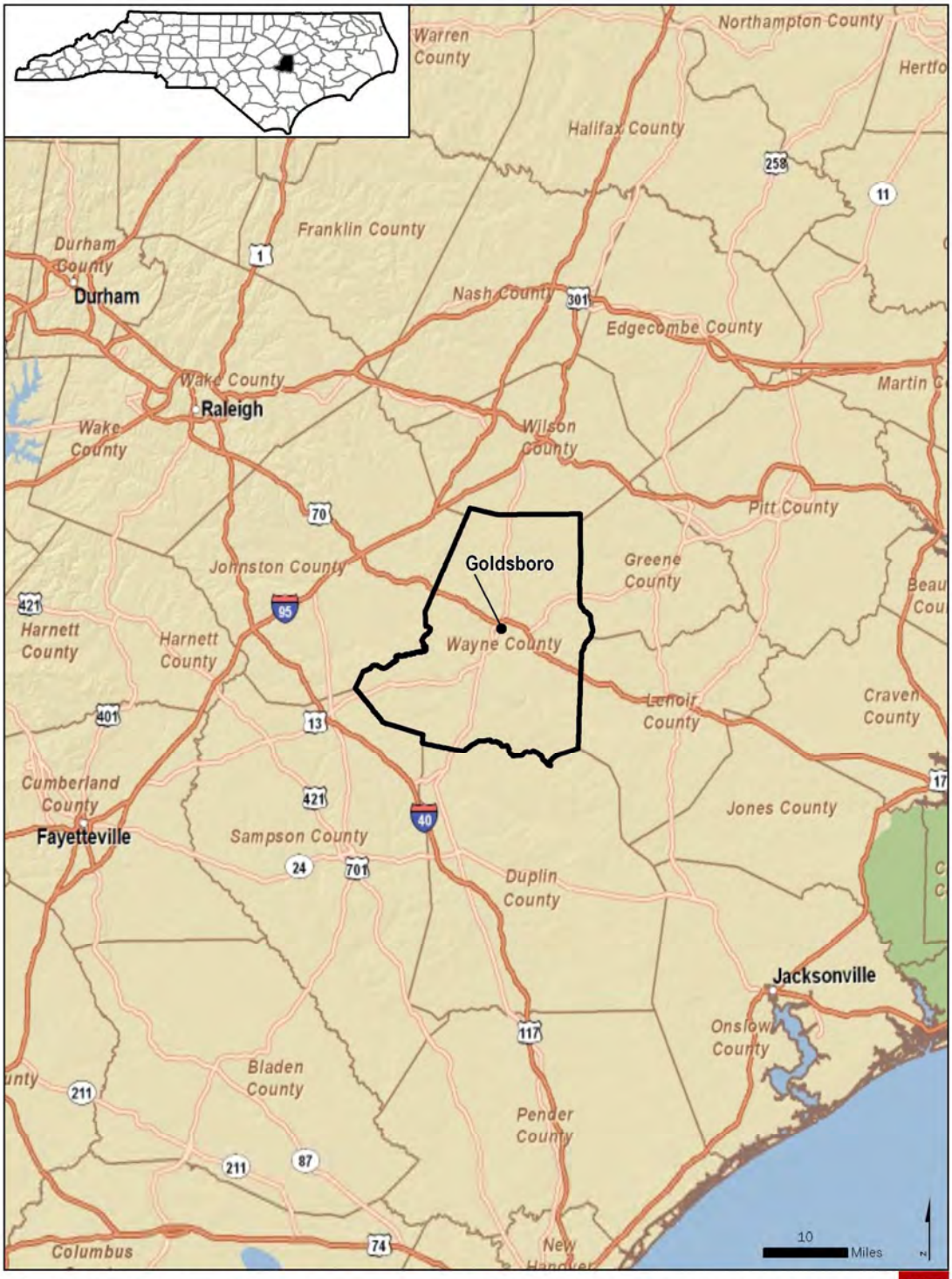
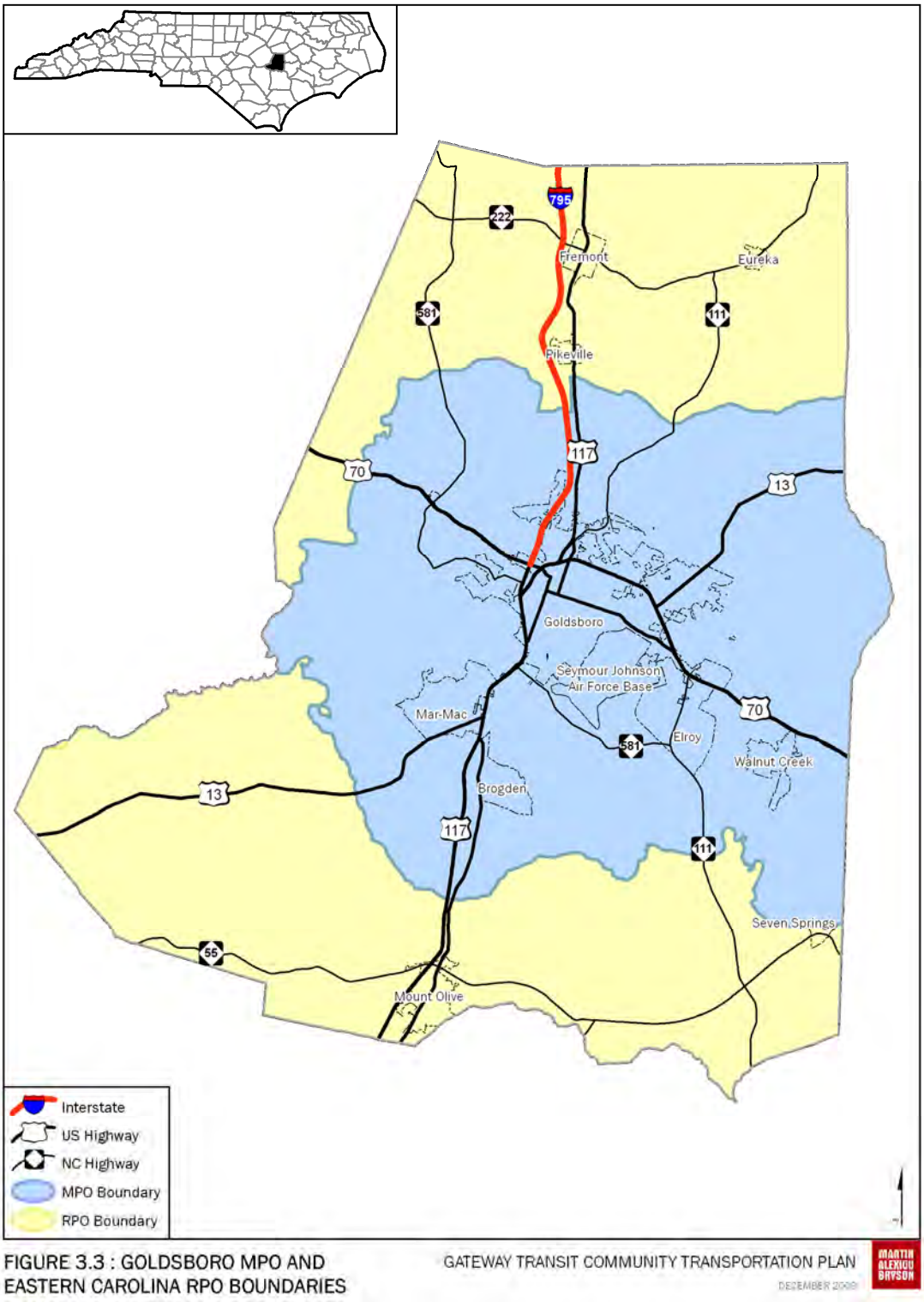


Figure 3.3: Goldsboro MPO and Eastern Carolina Eastern Carolina RPO Boundaries



3.2.1 Historical and Geographical Context

Wayne County

Wayne County is located in the east central part of the state in the coastal plain region. According to the U.S. Census Bureau, the county has a total area of 557 square miles, of which 553 square miles is land and 4 square miles is water. Goldsboro is the County seat and is situated geographically in the center of the County.

Prior to 1730 Native Americans and wild animals were the only known occupants of the territory now know as Wayne County. Settlers trickled into the territory, but there was no general movement of immigration until after 1750. During the Revolutionary War the County of Wayne was carved from Dobbs County and established on November 2, 1779. The County is named for General George Washington's most trusted soldier, General Anthony Wayne who was nicknamed "Mad Anthony Wayne" for his courage and valor[1].

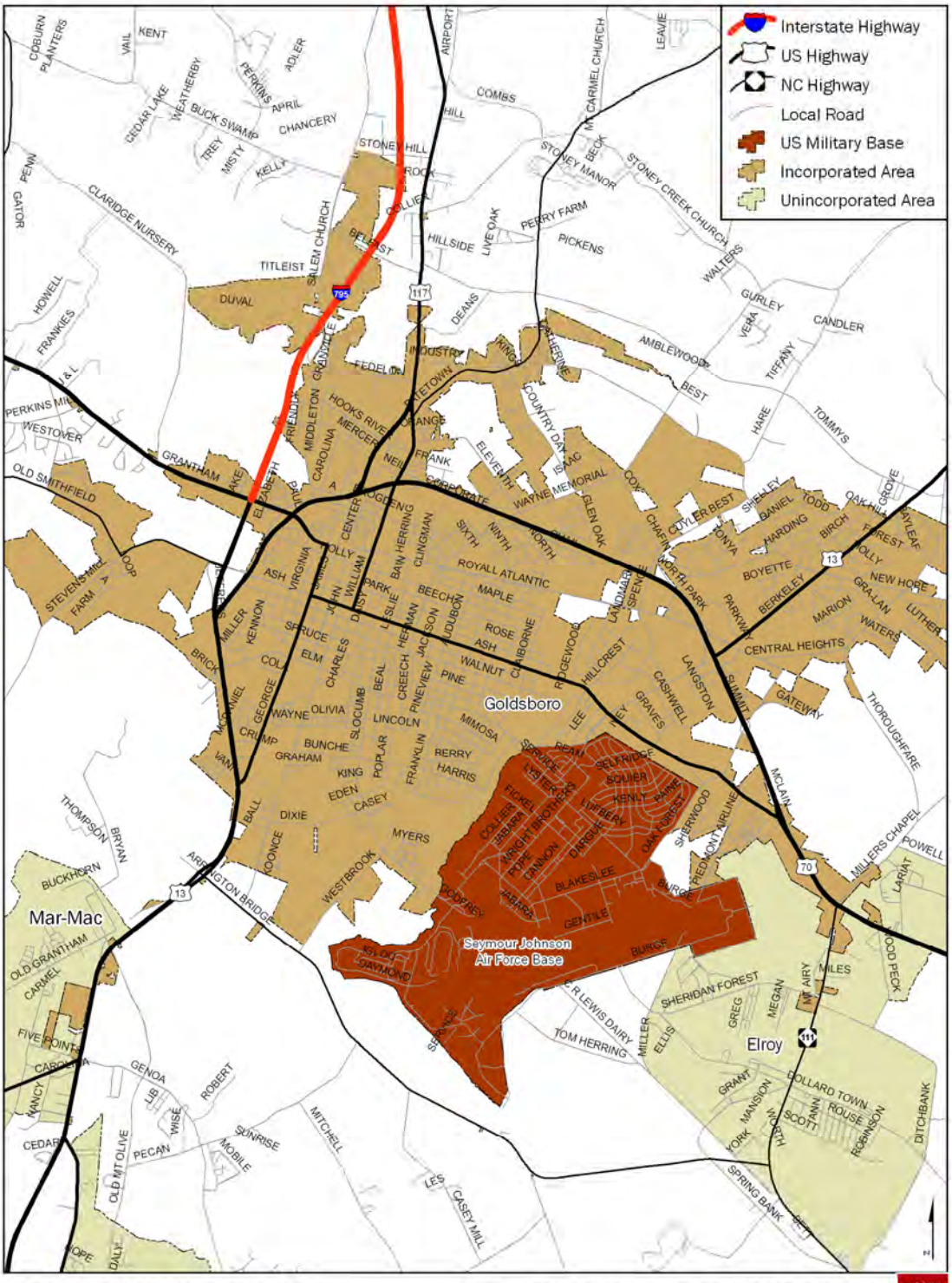
City of Goldsboro

When Wayne County was formed in 1789, the town of Waynesborough developed along the banks of the Neuse River around the county courthouse that was built there. In the late 1830s, the Wilmington and Raleigh (Weldon) Railroad line was built to the east of Waynesborough. At the intersection of the railroad and the New Bern Road, a hotel was built and a community began to establish itself. This community became known as Goldsborough's Junction, after Matthew Goldsborough, an Assistant Chief Engineer with the railroad line. Goldsborough was incorporated in 1847, and the name officially changed to Goldsboro in 1869. The City of Goldsboro became the county seat for Wayne County in 1847 and has expanded to an area encompassing over twenty-five square miles with a transportation center for the area's agriculture industry. The City of Goldsboro (see Figure 3.4) is also the home of Seymour Johnson Air Force Base, home of the 4th Fighter Wing[2].

[1] http://www.waynegov.com/16581098124355810/site/default.asp

[2] http://www.ci.goldsboro.nc.us/city_hall/history.aspx

Figure 3.4: City of Goldsboro



3.3 Population Data

3.3.1 Historic Population

According to the U.S. Census Bureau 2008 population estimates, Wayne County's population in 2008 was 113,671, making it the 23rd most populous county in North Carolina. Table 3.1 and Figure 3.5 show 2008 population data for each jurisdiction in Wayne County, along with their trends since the 1990 and 2000 Census.

Table 3.1: Wayne County Population Data

Jurisdiction	*Population*			*Change in Population*	
	1990[1]	2000[2]	2008[3]	1990-2000	2000-2008
Town of Eureka	282	244	239	-13.5%	-2.1%
Town of Fremont	1,710	1,463	1,430	-14.4%	-2.3%
City of Goldsboro	40,709	39,043	37,597	-4.1%	-3.7%
Town of Mount Olive	4,582	4,567	4,389	-0.3%	-3.9%
Town of Pikeville	598	719	704	20.2%	-2.1%
Town of Seven Springs	163	86	85	-47.2%	-1.2%
Town of Walnut Creek	623	859	855	37.9%	-0.5%
Subtotal – Incorporated Areas	48,667	46,981	45,299	-3.5%	-3.6%
Subtotal – Unincorporated Areas	55,999	66,348	68,372	18.5%	3.1%
Wayne County	**104,666**	**113,329**	**113,671**	**8.3%**	**0.3%**

Sources:
1 - 1990 U.S. Census Data: SF1 Table: P001
2 - 2000 U.S. Census Data: SF1 Table: P1
3 - U.S. Census Data: Population Estimates Program Data 2008 Tables: States, Counties, and Cities & Towns

As shown in the table, the City of Goldsboro has a population ten times higher than the next largest jurisdiction, Mount Olive, in Wayne County. Wayne County population grew by approximately 8 percent between 1990 and 2000, but only 0.3 percent between 2000 and 2008. The Towns of Pikeville and Walnut Creek were the only jurisdictions that gained

population between 1990 and 2000. All of the jurisdictions had slight losses of population between 2000 and 2008, with Mount Olive losing the most at nearly 4 percent. Offsetting the decrease in populations within the incorporated areas of the County, the unincorporated areas gained almost 19 percent population between 1990 and 2000 and 3 percent between 2000 and 2008.

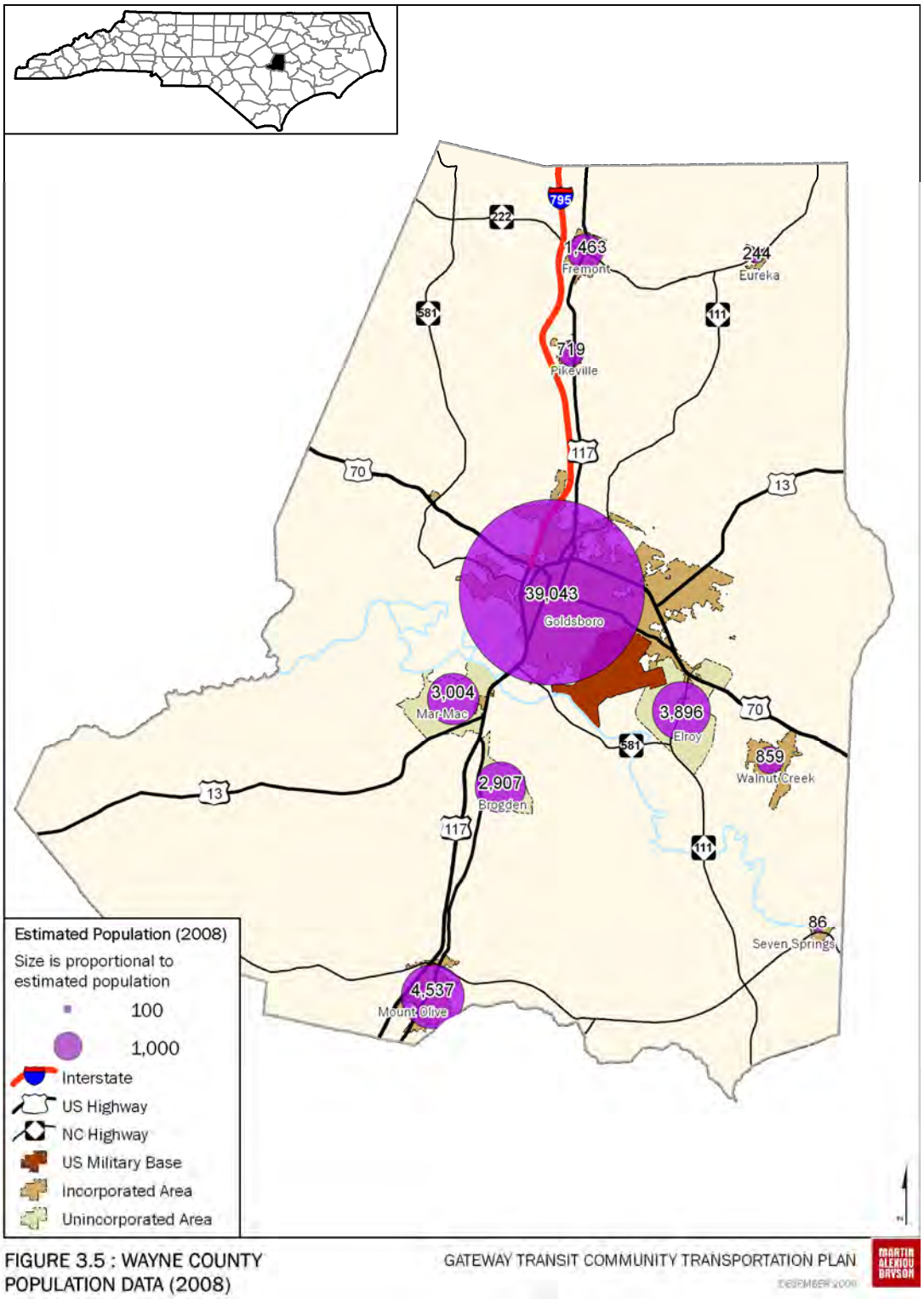
Wayne County population forecasts for 2010, 2020, and 2030 are shown in Table 3.2. The population is expected to reach 123,152 by 2030, representing almost an 18% increase over 1990 levels. While the rate of growth will decline in the future, the estimated Wayne County population would make it the 25th most populous county in North Carolina in 2030.

Table 3.2: Forecast County Population Growth

Year	*Population*	*Growth in Decade*	*% Growth in Decade*	*Growth Since 1990*	*% Growth Since 1990*
1990	104,666				
2000	113,329	8,663	8.3%	8,663	8.3%
2010	116,386	3,057	2.7%	11,720	11.2%
2020	120,056	3,670	3.2%	15,390	14.7%
2030	123,152	3,096	2.6%	18,486	17.7%

Source: North Carolina Office of State Budget and Management, County Projected Annual Populations 2000-2030

Figure 3.5: Wayne County Population Data (2008)



3.3.2 Transit Dependent Populations

Transit system ridership is drawn largely from various groups of persons that make up a population that is often called "transit dependent." This category represents members of a community that have very few or no private transportation options available, due to age (and possible loss of driver's license), disability, economic status, etc. There is often considerable overlap between the groups that make up the transit dependent population, which include youths, seniors, mobility impaired persons, persons with limited English proficiency, persons who live below the poverty line, and persons residing in zero- or single-vehicle households. The figures mapping these populations are grouped together at the conclusion of this section.

Based on data from the 2000 Census (which represents the most recent, detailed data set for the area), information about the number and location of transit dependent persons was evaluated at the census tract block group level. The locations of the tract block groups for Wayne County and the City of Goldsboro are shown in Figure 3.6 and Figure 3.7 respectively.

Total Population

As indicated in Table 3.1 the total population of Wayne County was estimated in 2008 to be 113,671. This translates to a population density of 204 persons per square mile as seen in Figure 3.8. Wayne County population density is just a bit higher than the statewide average (163 persons per square mile). The City of Goldsboro has a population density of 1,121 persons per square mile (see Figure 3.9). In general, the areas with the highest population density in Wayne County are located in and around downtown Goldsboro and along US Highway 70.

Table 3.3 and Figure 3.10 present the average household size by tract block group in Wayne County, which is an alternative means of measuring population density. Figure 3.11 depicts the same data for the city of Goldsboro itself. The average household size in Wayne County is about 2.48, which is essentially identical to the state average. Wayne County's average household size is about 6 percent higher than average household size in Goldsboro. In terms of the average number of households per square mile, Goldsboro has a much higher household density than Wayne County, as seen in Table 3.3.

Table 3.3: Average Household Size in Wayne County

Location	*Average Household Size*	*Total Number of Households*	*Area in Sq. miles*	*Average Households per Sq. mile*
Goldsboro	2.36	15,241	34.8	438.0
Wayne County	2.48	42,612	556.7	76.5
North Carolina	2.48	3,132,013	49,353.3	63.5

Source: 2000 U.S. Census Data

Youth

As indicated in Table 3.4, the total youth population (persons aged 10-15) of Wayne County is 8,485 (7.5 percent of the total population), or a population density of 15.2 persons per square mile (Figure 3.12). This group typically has a strong propensity to use fixed-route public transportation services, as they are old enough to travel independently but too young to drive a private automobile. In general, the areas with the highest density of youths are in the City of Goldsboro, and more precisely the areas immediately due south and east of downtown (see Figure 3.13).

Table 3.4: Youth Population in Wayne County

Location	*Youth (Age 10-14)*	*Total Population*	*Area in Sq. miles*	*Average Youth Density per Sq. mile*	*Youth % of Population*
Goldsboro	2,758	39,020	34.8	79.3	7.1%
Wayne County	8,485	113,329	556.7	15.2	7.5%
North Carolina	551,367	8,049,313	49,353.3	11.2	6.8%

Source: 2000 U.S. Census Data

Seniors

As indicated in Table 3.5, the total senior population (persons age 60 and over) of Wayne County is 17,893 (15.8 percent of the total population), or a population density of 32.1 persons per square mile (Figure 3.14). This group typically has a strong propensity to use both fixed-route and demand-responsive public transportation services, as individuals may have economic, medical, or other issues that limit independent travel by private automobile. In general, the areas with the highest density of seniors are in the City of Goldsboro (see Figure 3.15), particularly the areas immediately east but also south of downtown (*note the correlation with the highest density of seniors in the same area*) as well as in Mt Olive.

Table 3.5: Senior Population in Wayne County

Location	*Seniors (Age 60+)*	*Total Population*	*Area in Sq. miles*	*Average Senior Density per Sq. mile*	*Senior % of Population*
Goldsboro	6,887	39,020	34.8	197.9	17.6
Wayne County	17,893	113,329	556.7	32.1	15.8
North Carolina	1,292,553	8,049,313	49,353.3	26.2	16.1

Source: 2000 U.S. Census Data

Mobility-Impaired Persons

As indicated in Table 3.6, the total mobility-impaired population of Wayne County (persons having a health condition lasting more than 6 months that makes it difficult to go outside the home alone) is 23,663 (20.9 percent of the total population), or a population density of 42.5 persons per square mile (Figure 3.16). This group typically has a strong propensity to use both fixed-route and demand-responsive public transportation services, though mobility-impaired persons typically favor the use of the demand-responsive service. In general, the areas with the highest density of mobility-impaired persons are in the City of Goldsboro proper, particularly in the areas immediately south and east of downtown (see Figure 3.17), and also in Mt. Olive and Brogden south of Goldsboro.

Table 3.6: Mobility-Impaired Population in Wayne County

Location	*Mobility-Impaired Population*	*Total Population*	*Area in Sq. miles*	*Mobility-Impaired Persons Density per Sq. mile*	*Mobility-Impaired - % of Population*
Goldsboro	8,152	39,020	34.8	234.3	20.9
Wayne County	23,663	113,329	556.7	42.5	20.9
North Carolina	1,540,365	8,049,313	49,353.3	31.2	19.1

Source: 2000 U.S. Census Data

Limited English

As indicated in Table 3.7, Figure 3.18 and Figure 3.19, the total limited-English population of Wayne County (persons who do not primarily speak English at home) is 7,303 (6.4 percent of the total population), or a population density of 6.4 persons per square mile. This group typically has a strong propensity to use both fixed-route and demand-responsive public transportation services, as they may not be able to qualify for a driver's license due to language barriers. Limited English persons typically use the fixed-route service, often because of the increased difficulty of communicating during the scheduling of demand-responsive service. Additionally, foreign-born persons, especially from Central and South America, have typically used public transportation in their home country.

Table 3.7: Limited English Population in Wayne County

Location	*Limited English Population*	*Total Population*	*Area in Sq. miles*	*Limited English Persons Density per Sq. mile*	*Limited English % of Population*
Goldsboro	1,253	39,020	34.8	36.0	3.2
Wayne County	7,303	113,329	556.7	13.1	6.4
North Carolina	587,756	8,049,313	49,353.3	11.9	7.3

Source: 2000 U.S. Census Data

Poverty

As indicated in Table 3.8 and Figure 3.20, the total persons who live below the poverty line population of Wayne County is 15,097 (13.3 percent of the total population), or a population density of 27.1 persons per square mile. This group typically has a strong propensity to use both fixed-route and demand-responsive public transportation services, since many are unable to afford to buy and maintain a private automobile. In general, the areas with the highest density of persons who live below the poverty line are in the City of Goldsboro itself, particularly in the area currently served by the South End route (southeastern Goldsboro), and east and west of downtown (see Figure 3.21).

Table 3.8: Below-Poverty Population in Wayne County

Location	*Below-Poverty Population*	*Total Population*	*Area in Sq. miles*	*Below-Poverty Population Density per Sq. mile*	*Below-Poverty % of Population*
Goldsboro	6,762	39,020	34.8	194.3	17.3
Wayne County	15,097	113,329	556.7	27.1	13.3
North Carolina	958,667	8,049,313	49,353.3	19.4	11.9

Source: 2000 U.S. Census Data

Zero-car Households

As indicated in Table 3.9 and Figure 3.22, the total number of households without access to a personal vehicle in Wayne County is 3,811 (8.9 of the total households), or a density of 11.2 households per square mile. This group typically has a strong propensity to use both fixed-route and demand-responsive public transportation services, since they do not have access to an operable private automobile. In general, the areas with the highest density of households without access to a personal vehicle are in the City of Goldsboro itself (Figure 3.23), particularly areas south and east of downtown and currently served by the South End route and Berkeley Mall route.

Table 3.9: Zero-car Households in Wayne County

Location	*Zero-Car Households*	*Total Households*	*Area in Sq. miles*	*Zero-Car Households Density per Sq. mile*	*Zero-Car Households- % of all Households*
Goldsboro	2,281	15,241	34.8	65.5	15.0
Wayne County	3,811	42,612	556.7	6.8	8.9
North Carolina	235,339	3,132,013	49,353.3	0.1	7.5

Source: 2000 U.S. Census Data

One-car Households

As indicated in Table 3.10 and Figure 3.24, the total households with access to only one personal vehicle of Wayne County is 13,803 (32.4 of the total households), or a density of 24.8 households per square mile. This group typically has a strong propensity to use both fixed-route and demand-responsive public transportation services, since the household private automobile is shared, particularly if a household member uses the sole vehicle during the day to travel to and from work. In general, the areas with the highest density of households with access to only one personal vehicle are in Goldsboro itself, covering most of the downtown area, and areas north, east and south of it (Figure 3.25).

Table 3.10: One-car Households in Wayne County

Location	*One-Car Households*	*Total Households*	*Area in Sq. miles*	*One-Car Households Density per Sq. mile*	*One-Car Households- % of all Households*
Goldsboro	5,548	15,241	34.8	159.4	36.4
Wayne County	13,803	42,612	556.7	24.8	32.4
North Carolina	1,010,563	3,132,013	49,353.3	0.3	32.3

Source: 2000 U.S. Census Data

Figure 3.6: Wayne County Census 2000 Block Groups

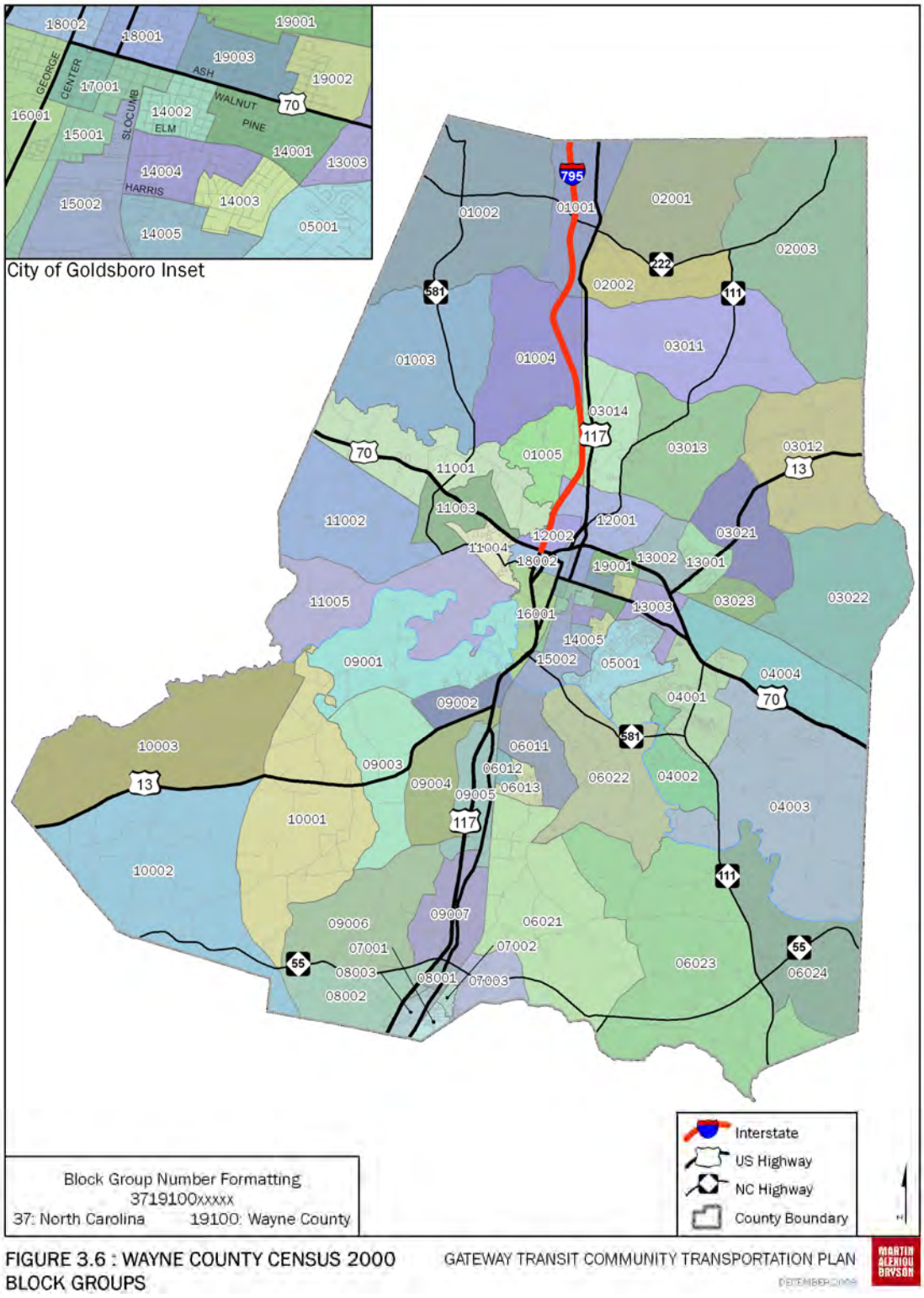


Figure 3.7: Goldsboro Census 2000 Block Groups

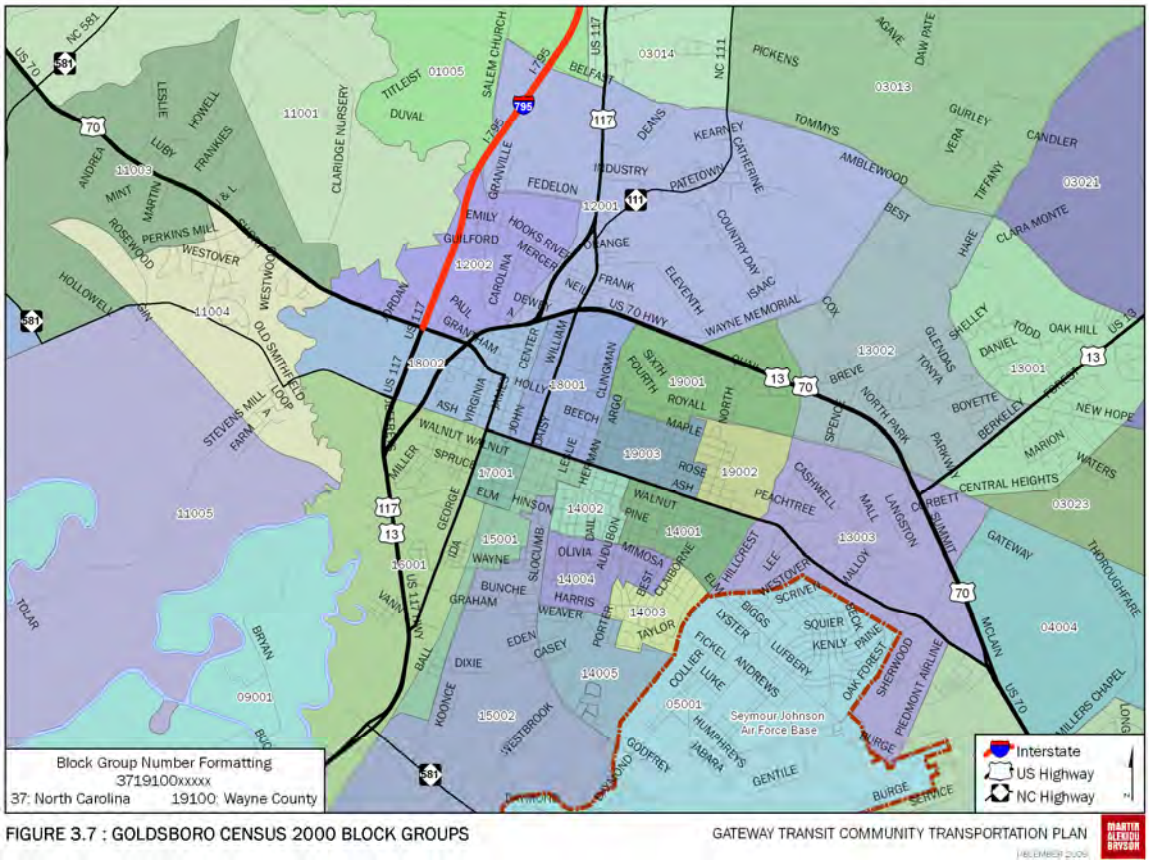


Figure 3.8: Wayne County Population Density

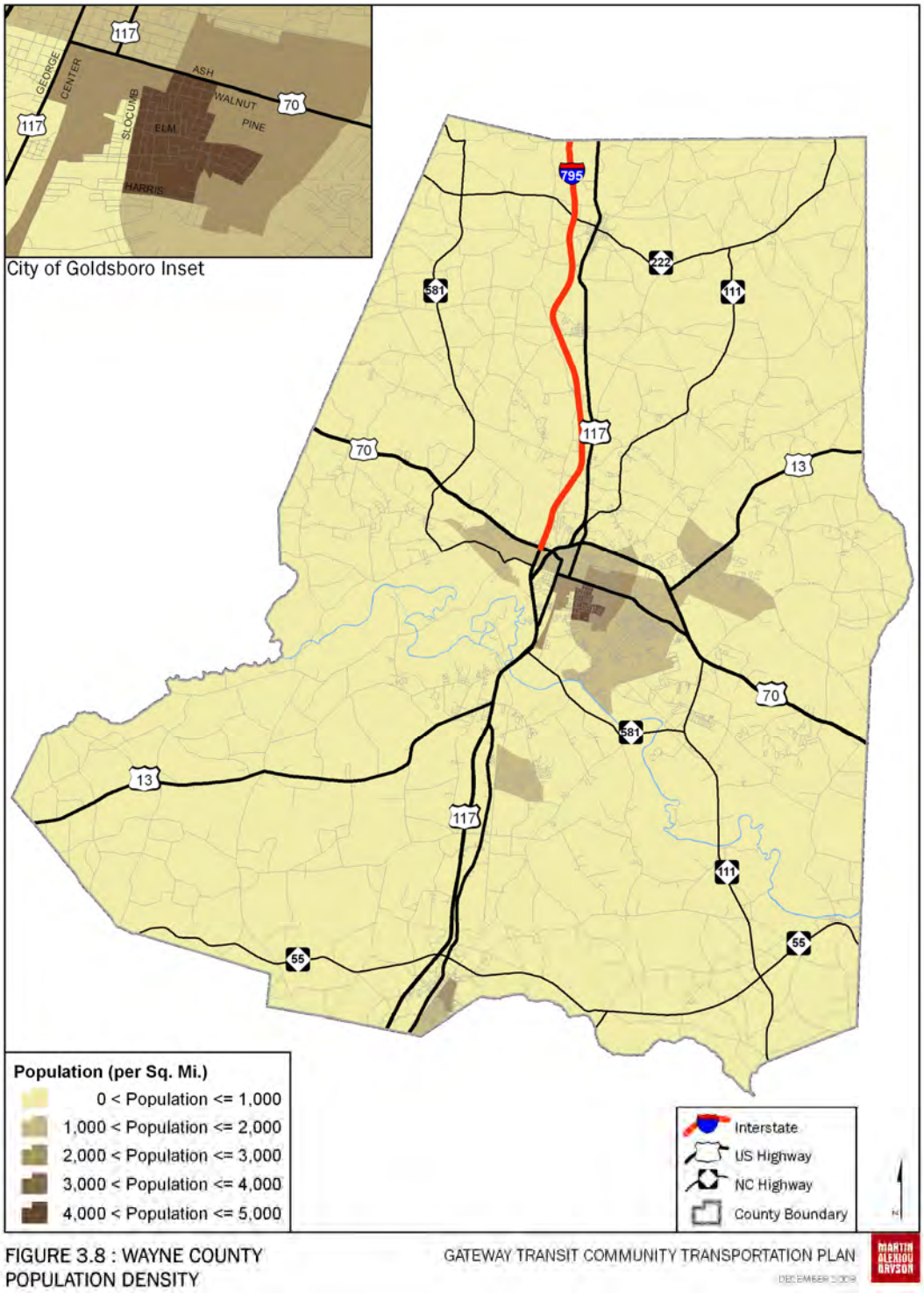


Figure 3.9: Goldsboro Population Density

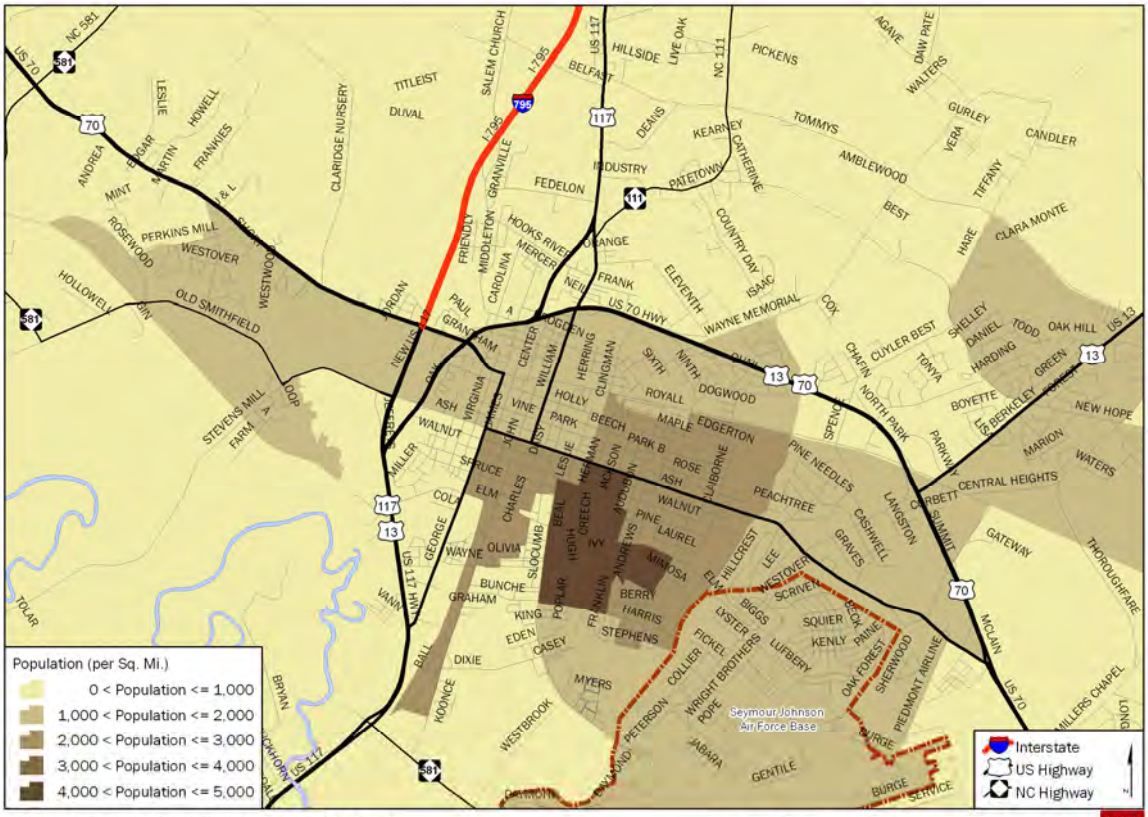


Figure 3.10: Wayne County Average Household Size

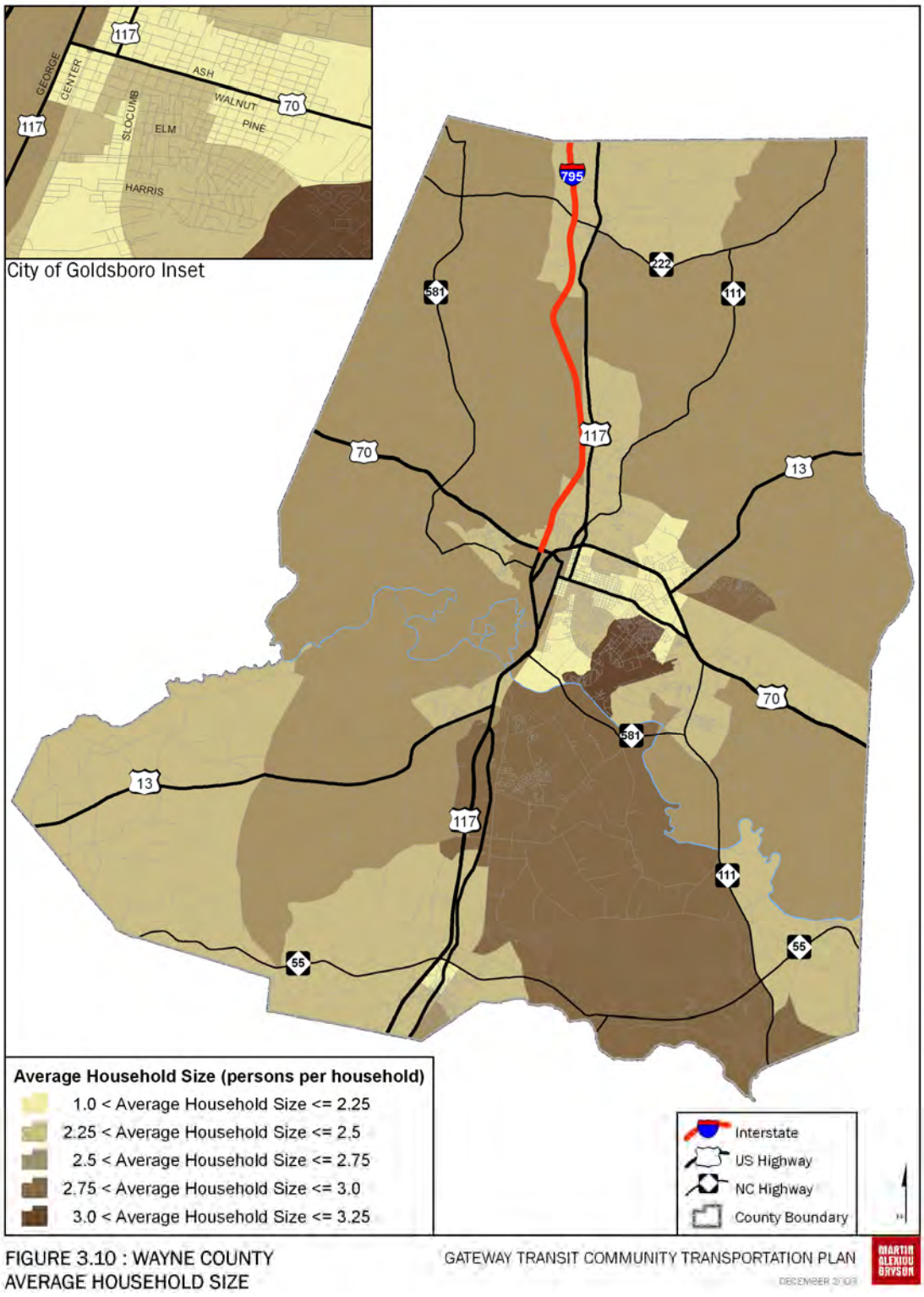


Figure 3.11: Goldsboro Average Household Size

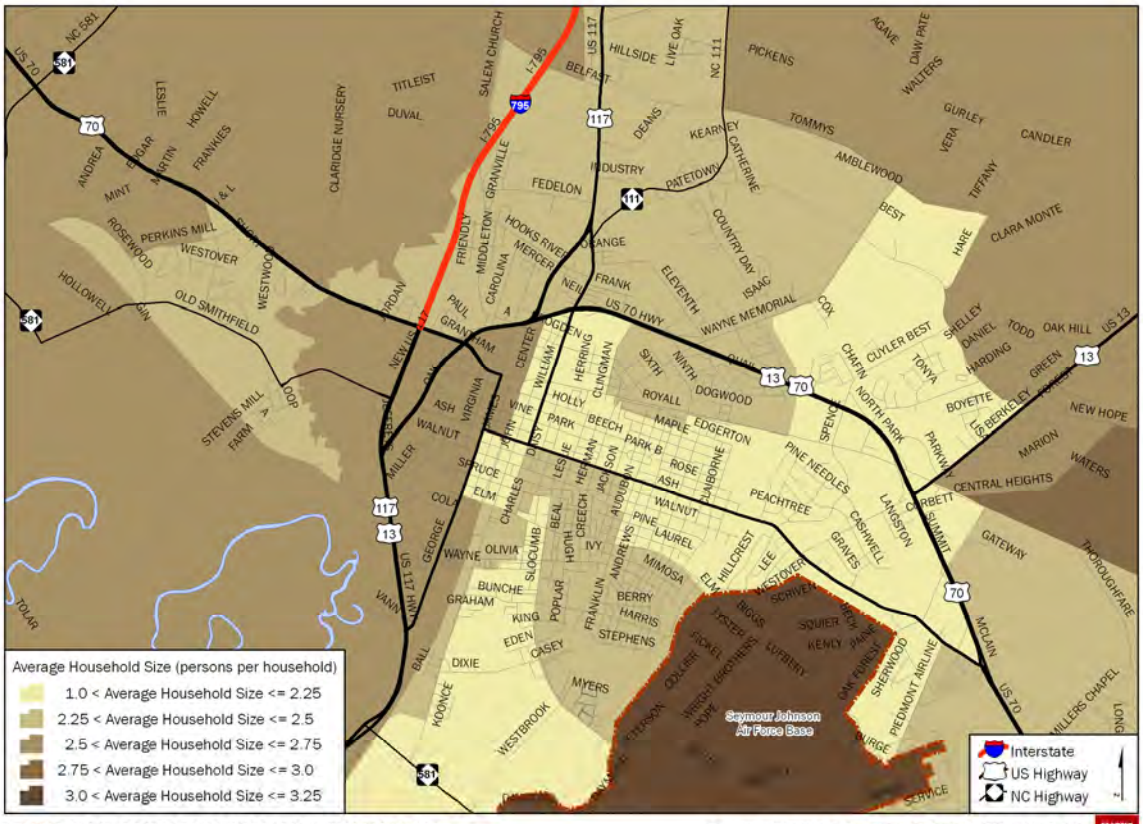


Figure 3.12: Wayne County Youth Population Density

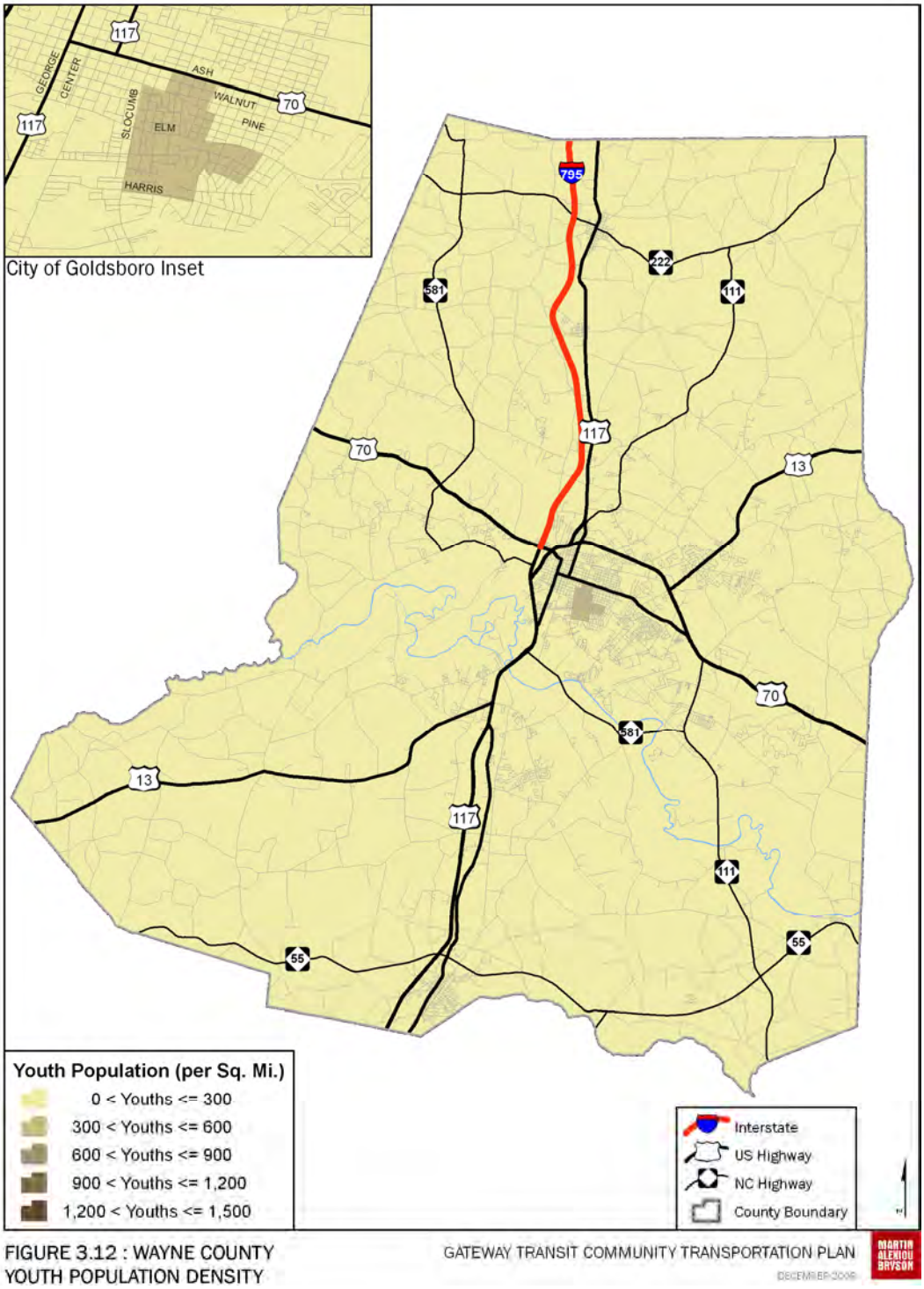


Figure 3.13: Goldsboro Youth Population Density

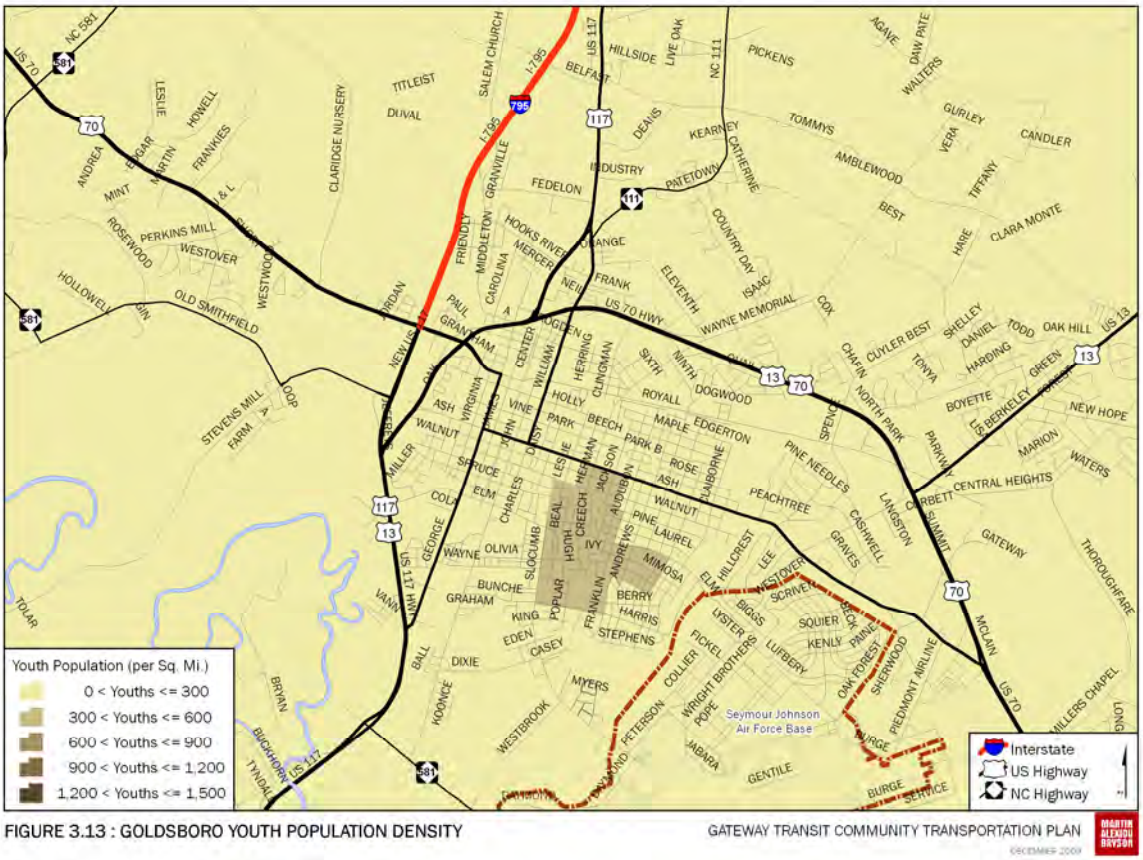


Figure 3.14: Wayne County Seniors Population Density

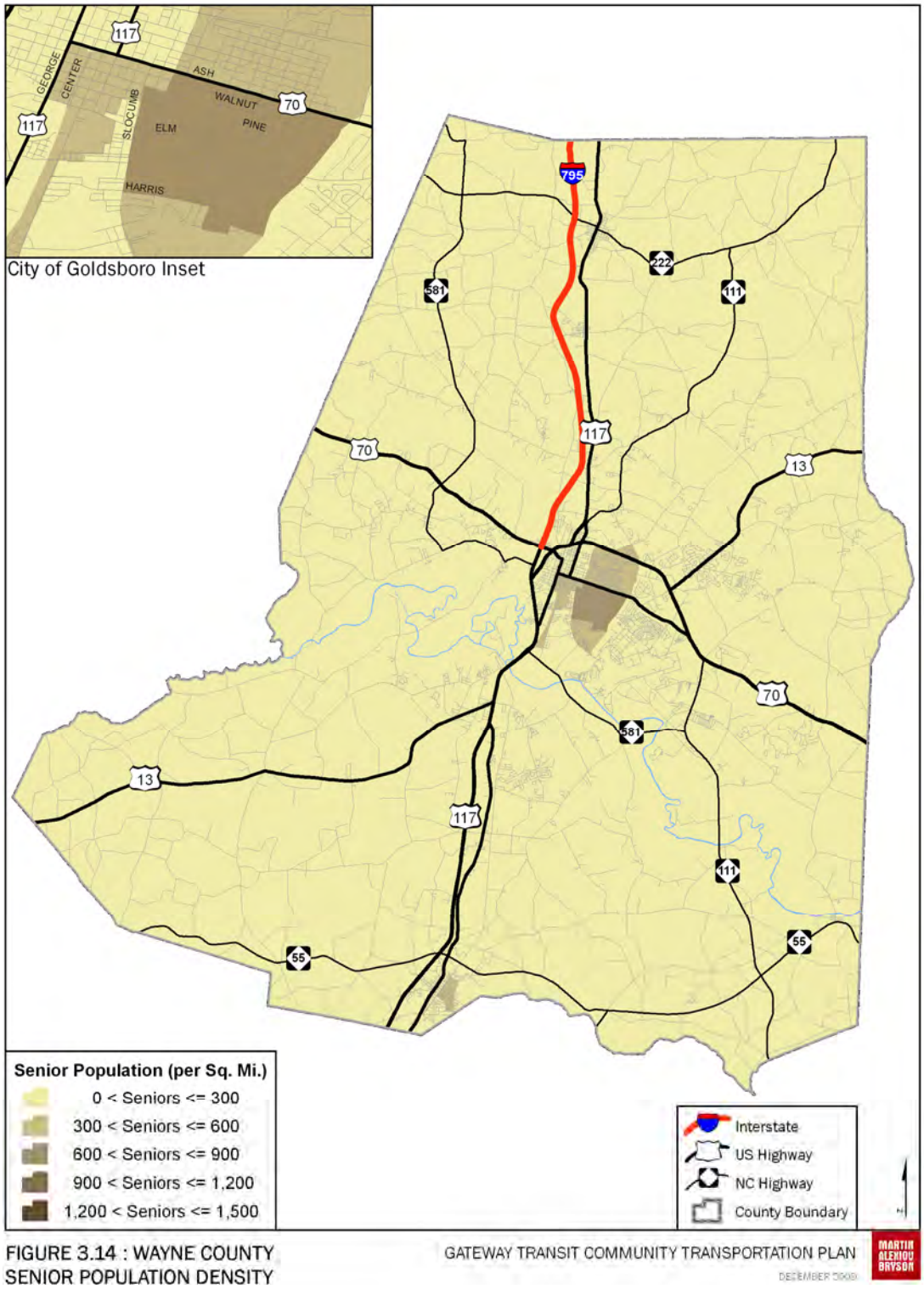


Figure 3.15: Goldsboro Seniors Population Density

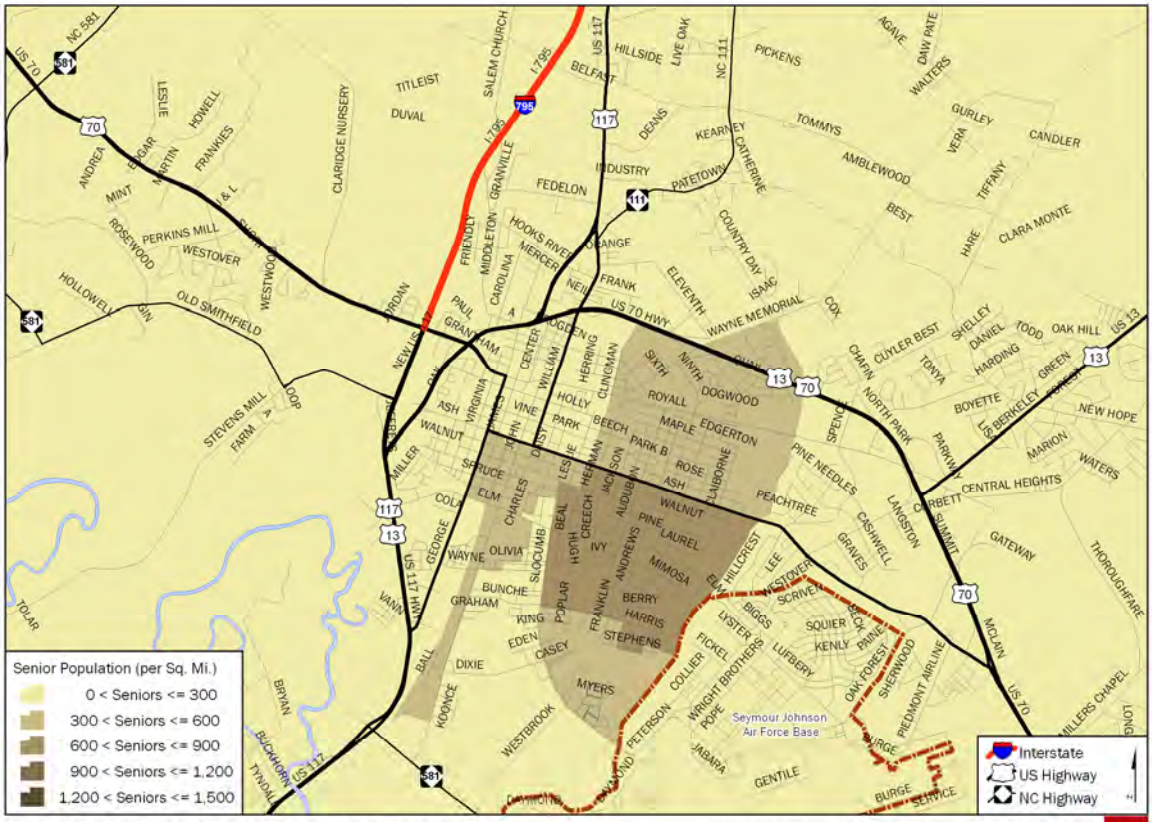


Figure 3.16: Wayne County Mobility-Impaired Population Density

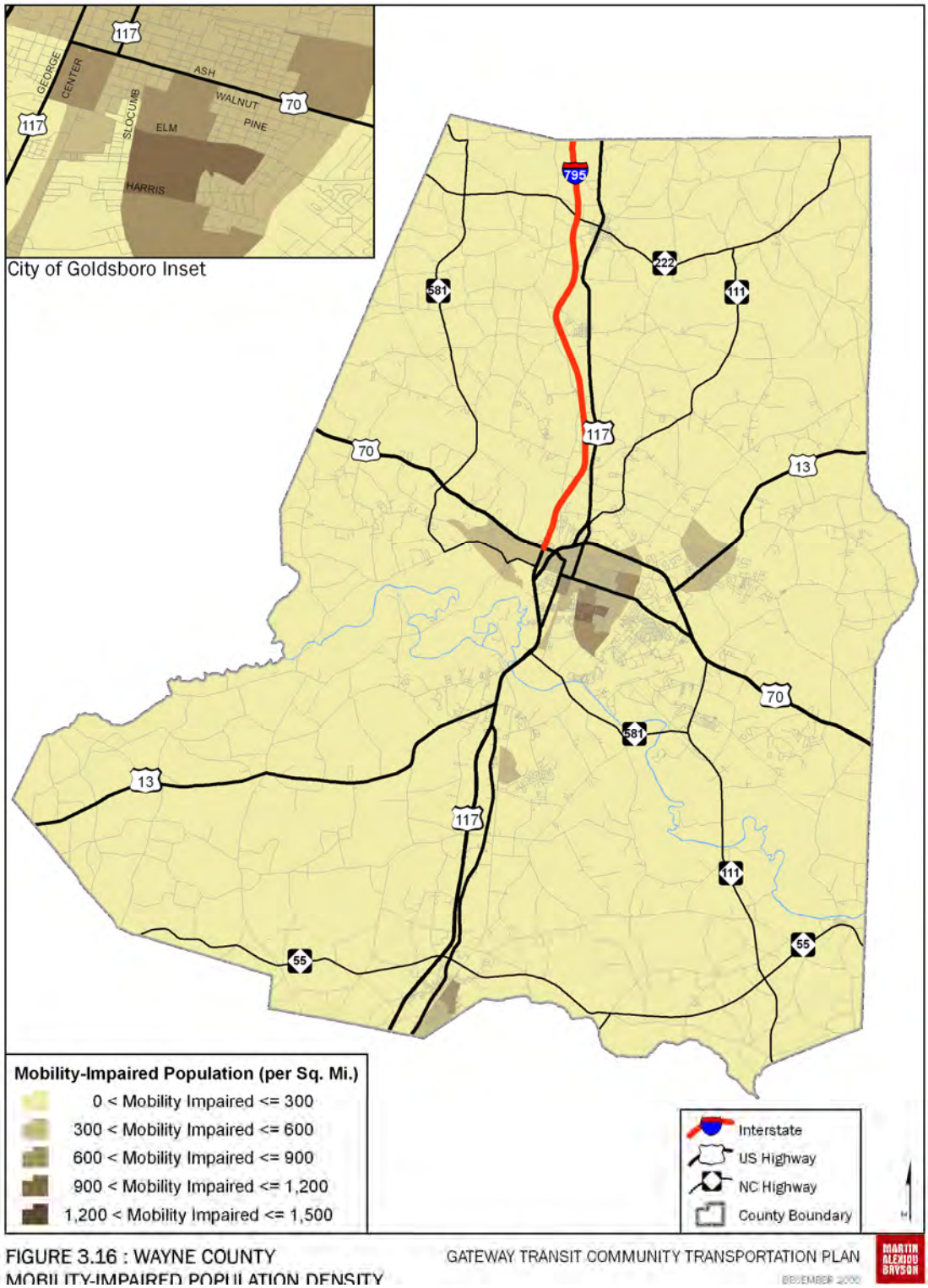


Figure 3.17: Goldsboro Mobility-Impaired Population Density

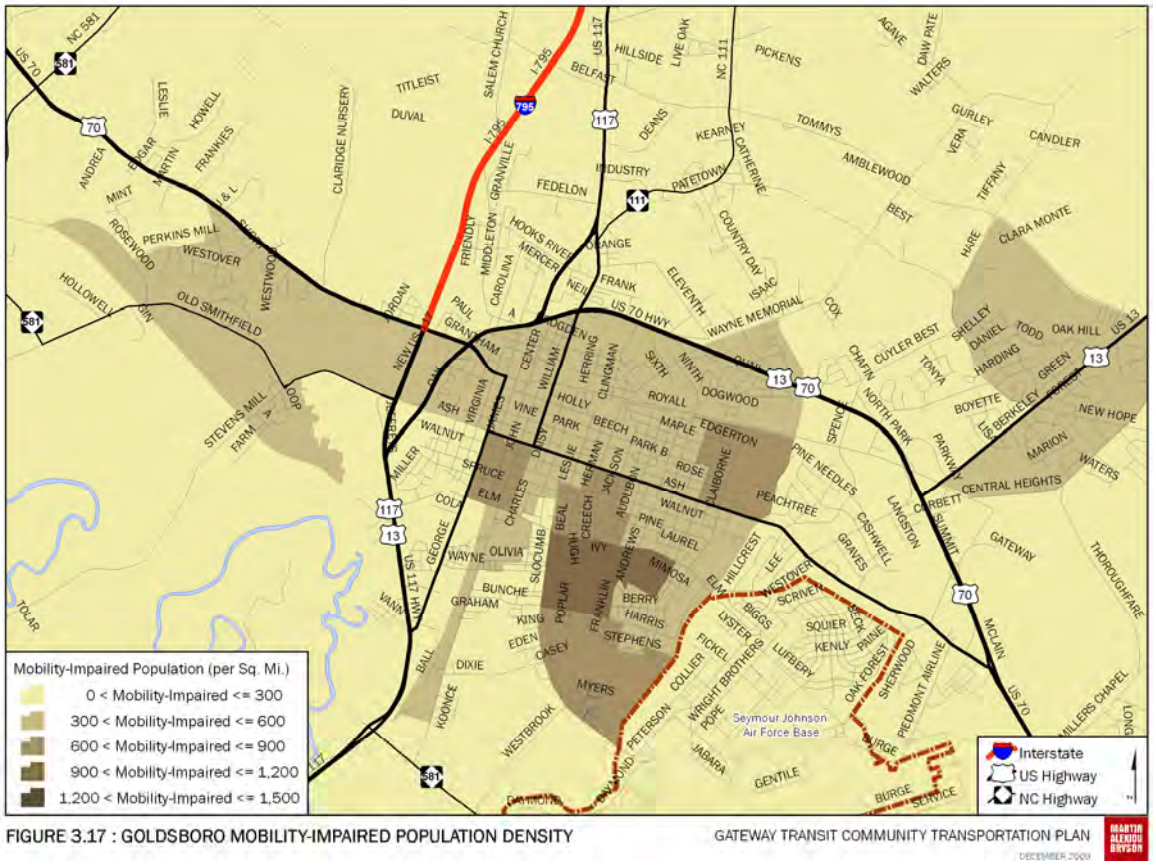


Figure 3.18: Wayne County Limited-English Population Density

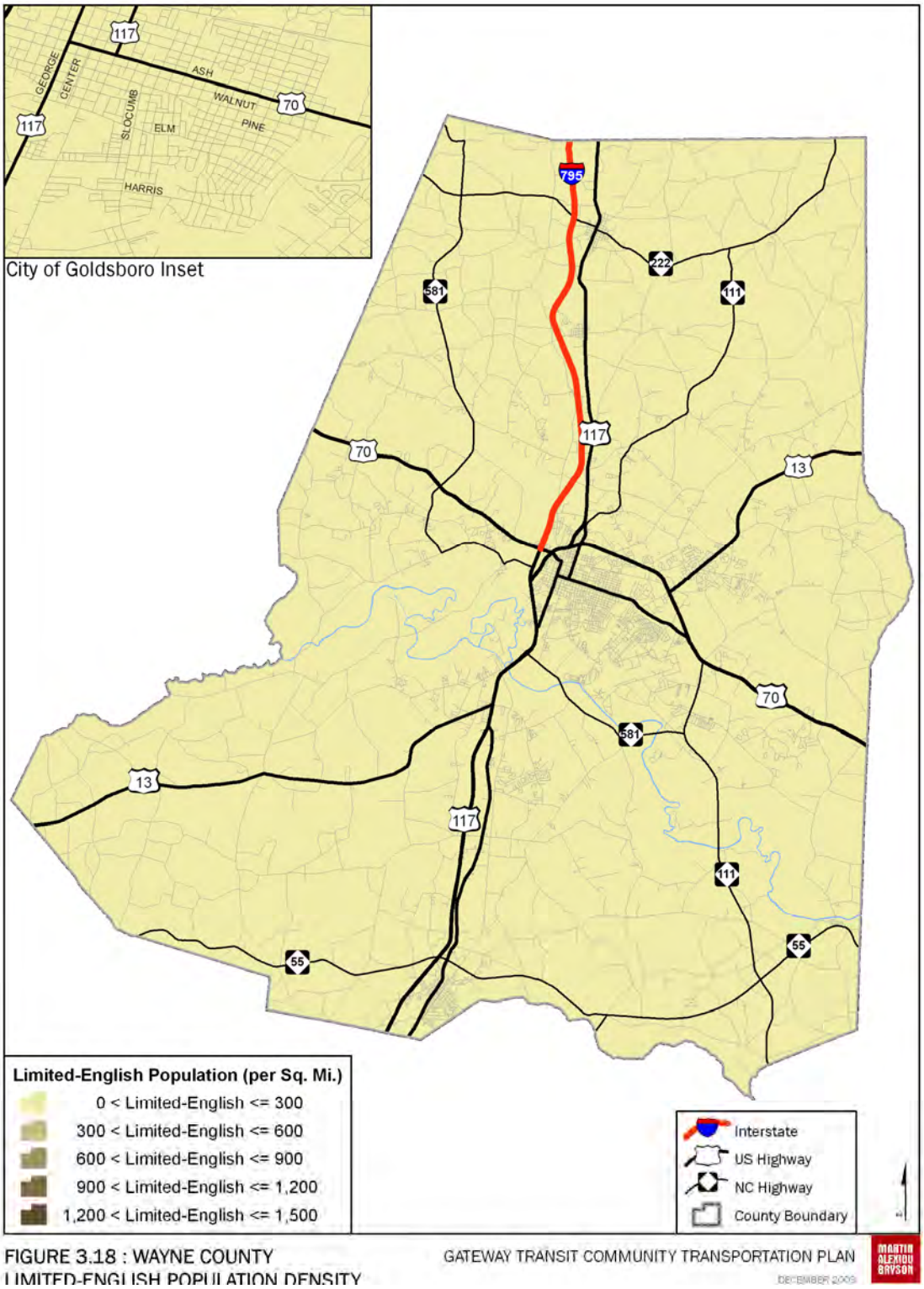


Figure 3.19: Goldsboro Limited-English Population Density

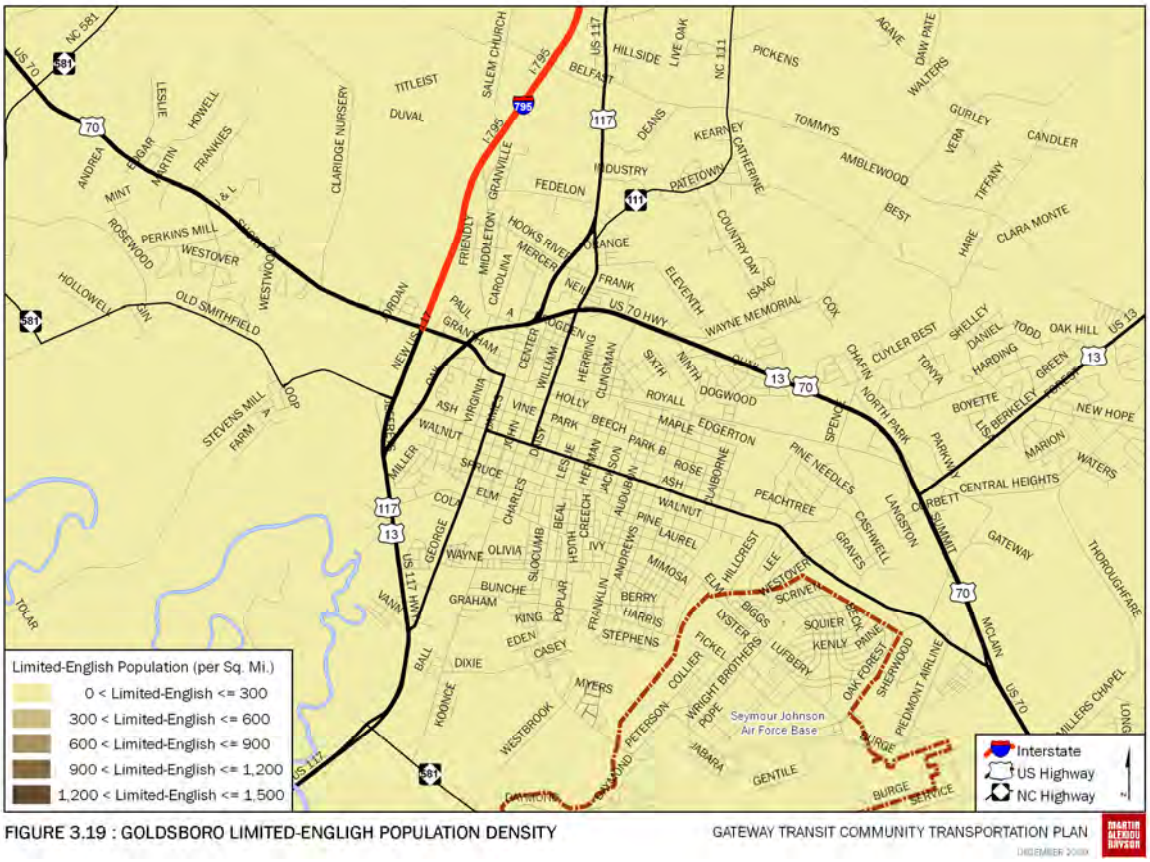


Figure 3.20: Wayne County Below-Poverty Population Density

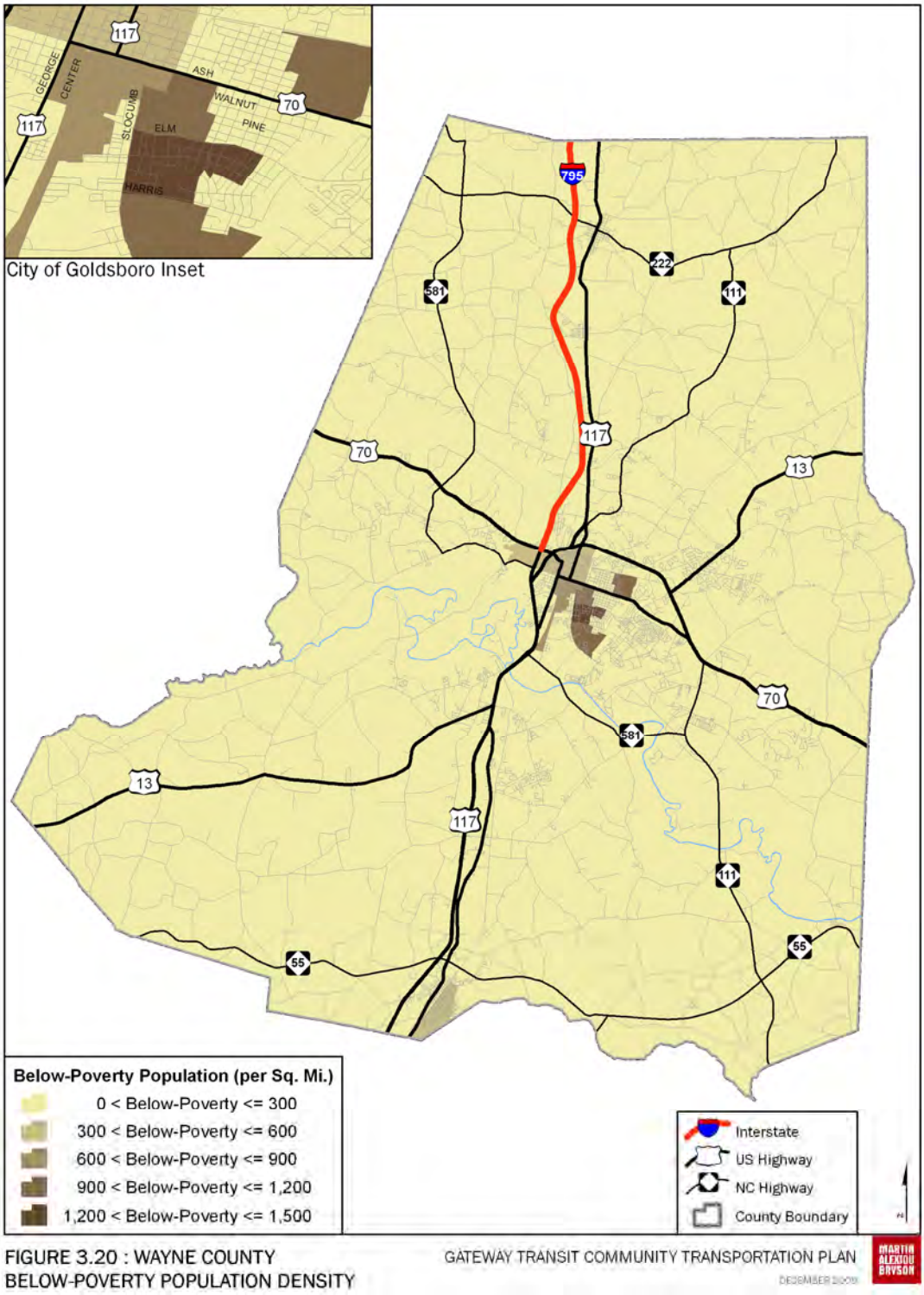


FIGURE 3.20 : WAYNE COUNTY BELOW-POVERTY POPULATION DENSITY

GATEWAY TRANSIT COMMUNITY TRANSPORTATION PLAN

Figure 3.21: Goldsboro Below-Poverty Population Density

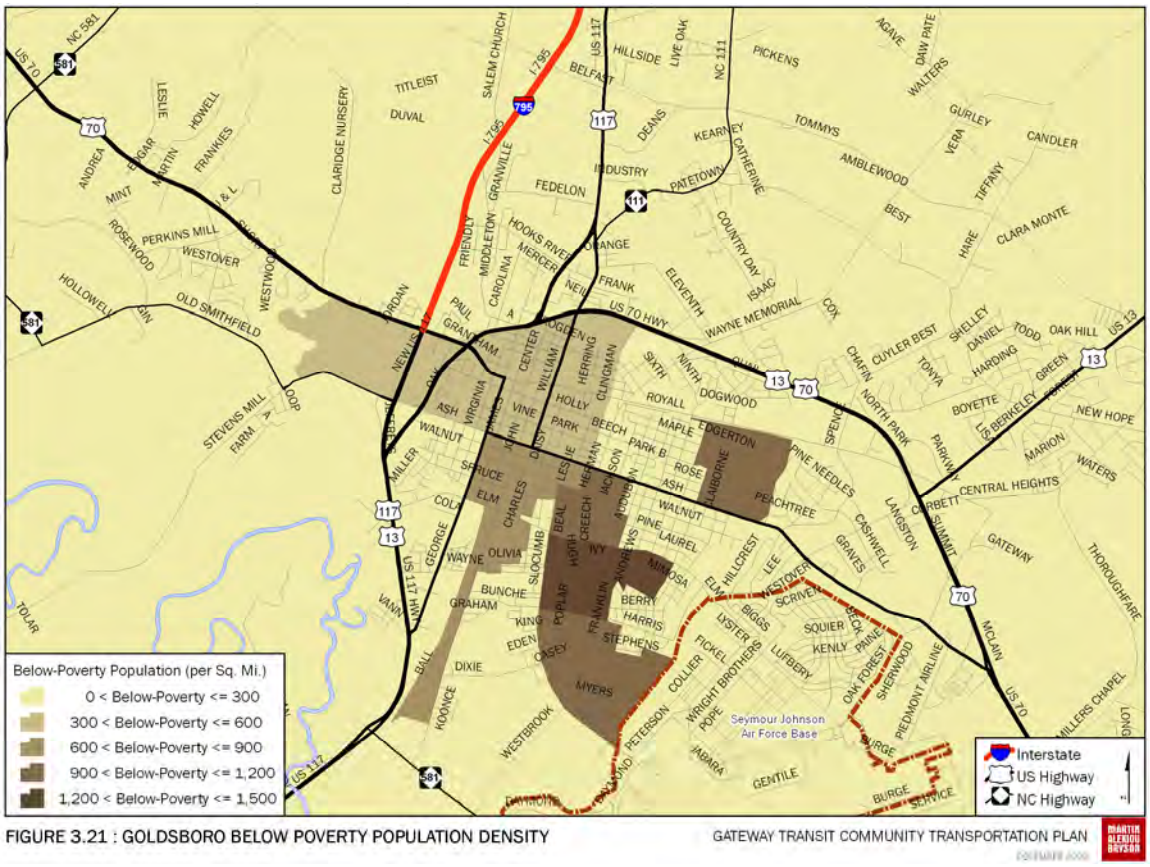


Figure 3.22: Wayne County Zero-Car Household Density

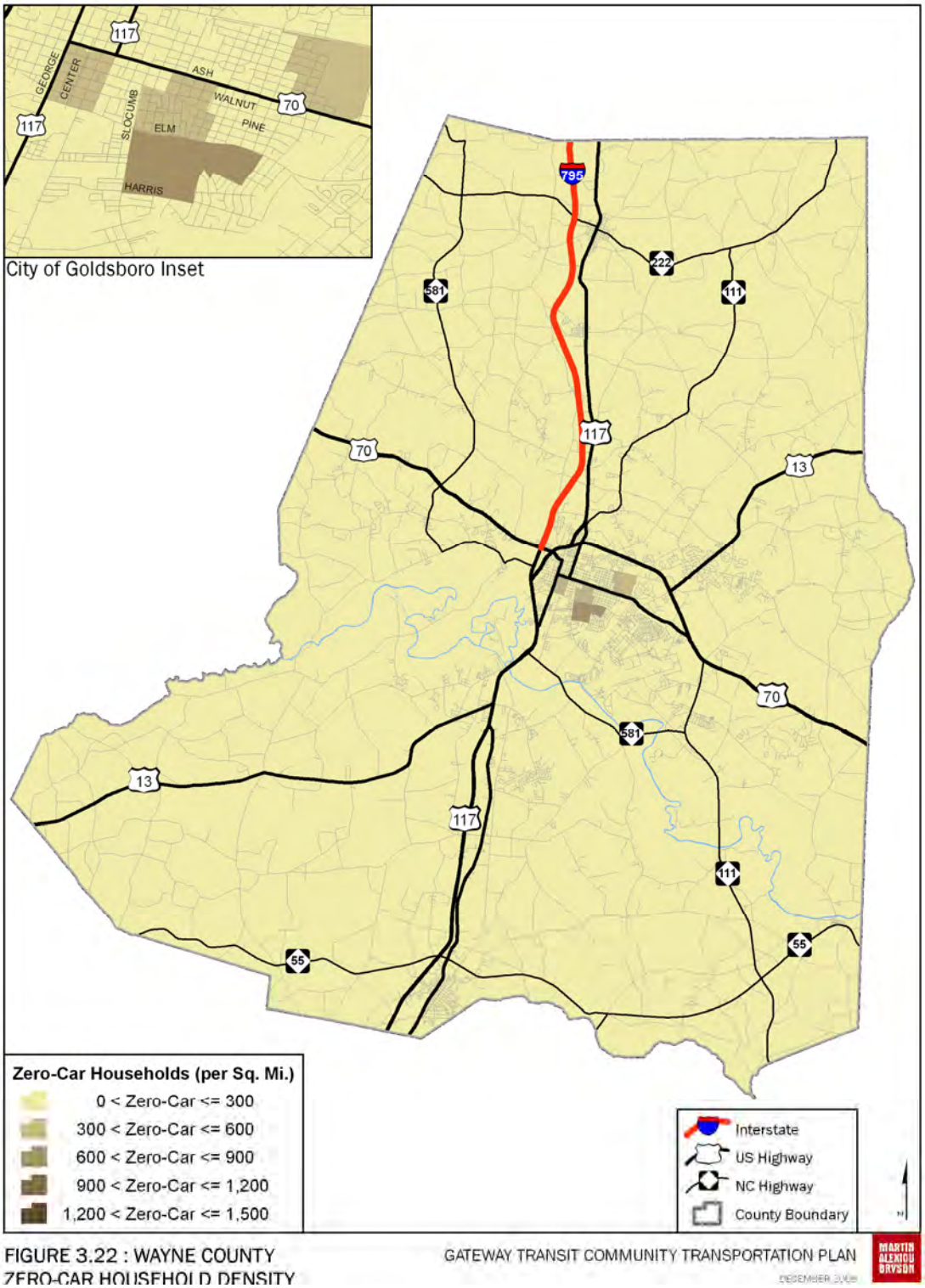


Figure 3.23: Goldsboro Zero-Car Household Density

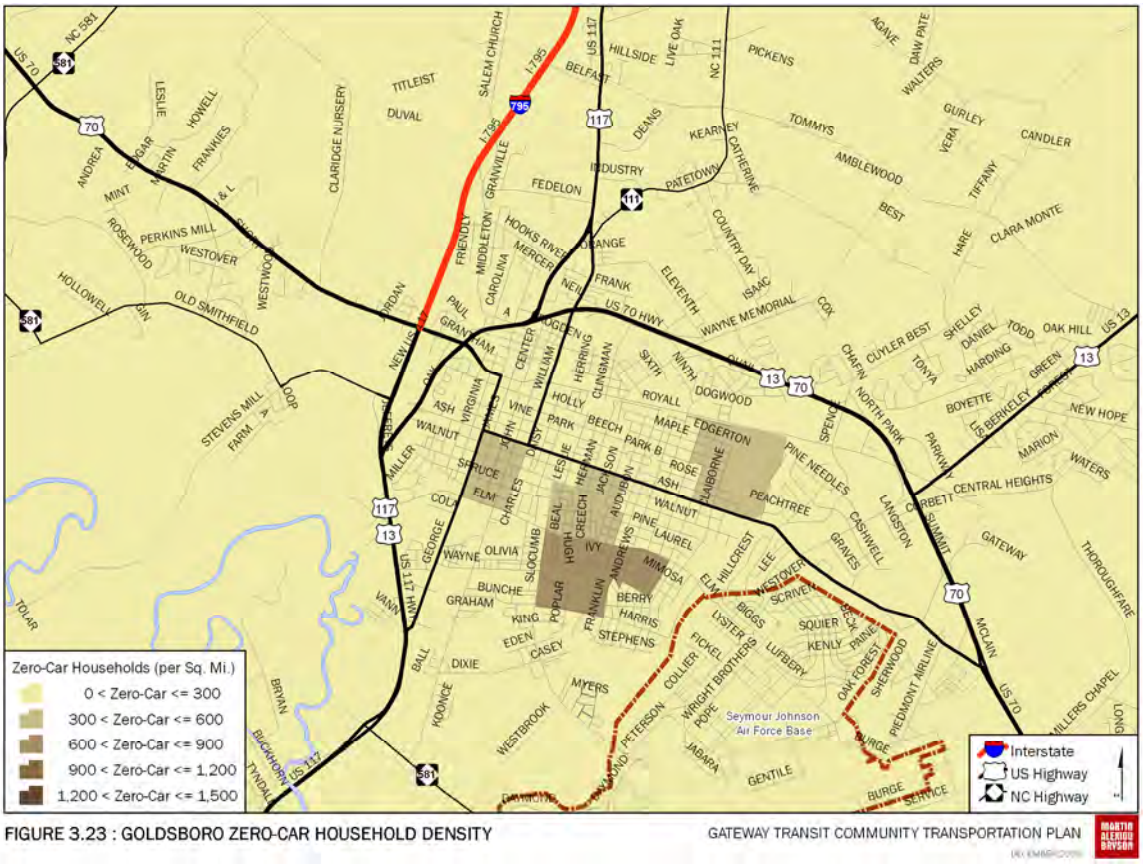


Figure 3.24: Wayne County One-Car Household Density

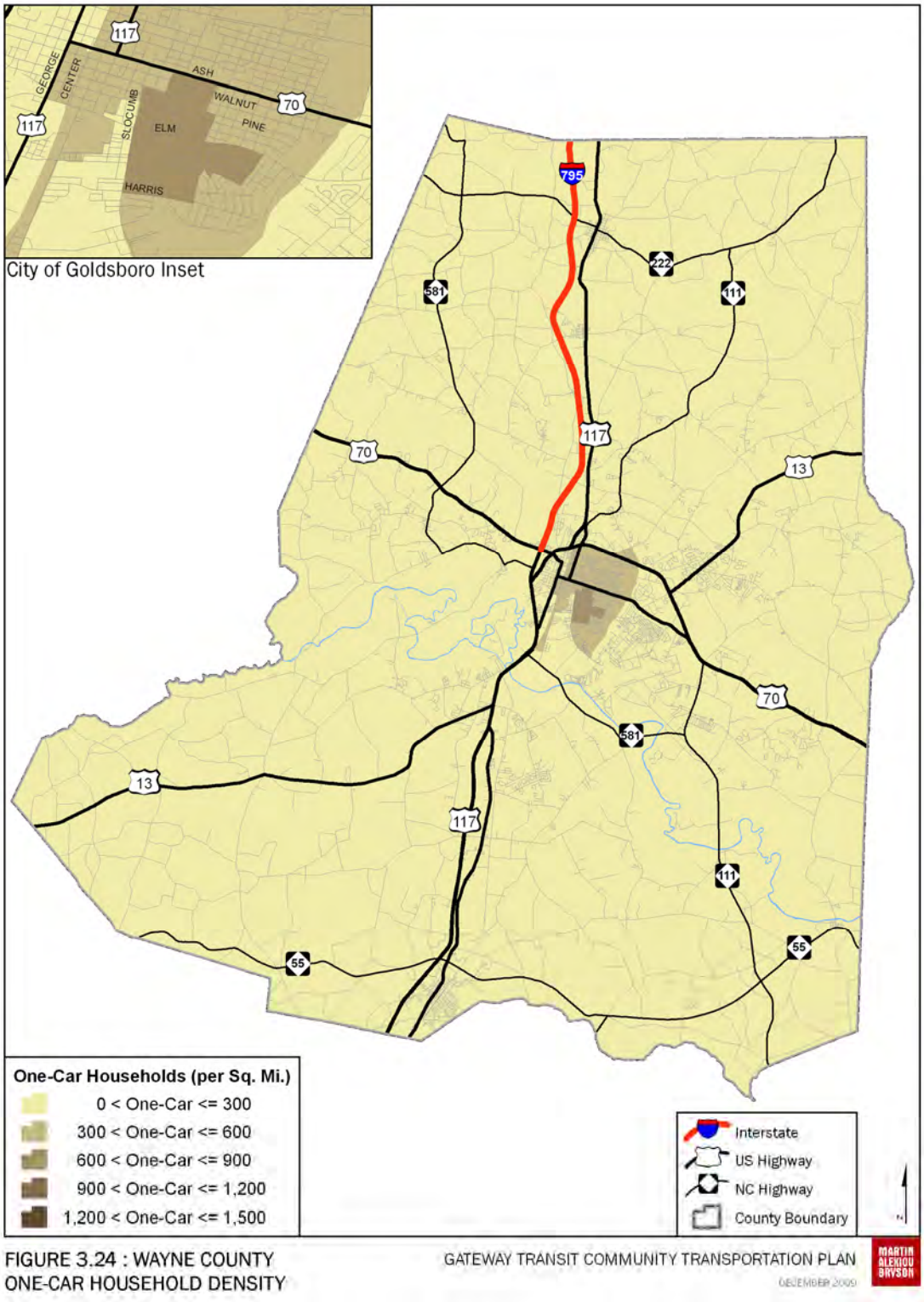
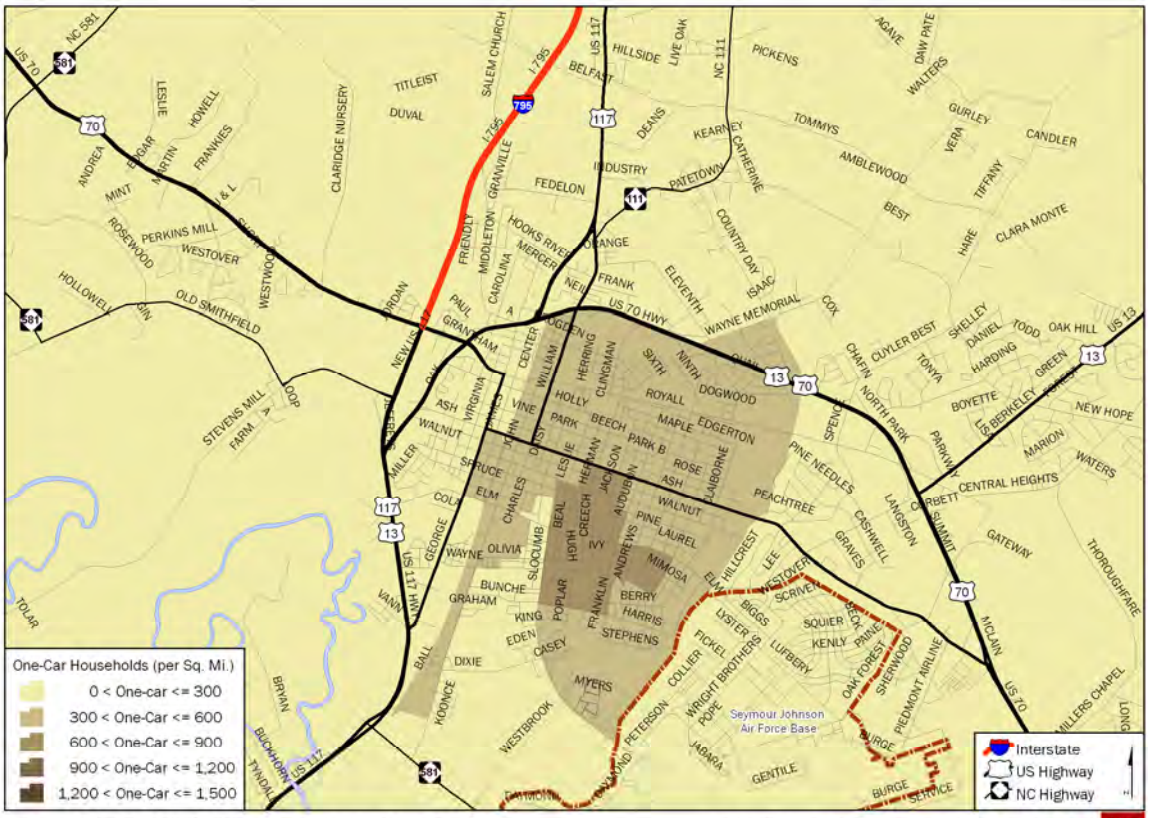


Figure 3.25: Goldsboro One-Car Household Density



3.4 Employment Data

Historically, the economy in Wayne County was based on agriculture. Today, military, health services, and retail services form the economic base. Table 3.11 presents the labor force data for Wayne County and the jurisdictions. As shown, the County unemployment rate in 2000 (3.6 percent) was higher than the statewide unemployment rate (3.4 percent). However, 38.2 percent of County's population aged 16 and over is *not* in the labor force, reflecting in part the high proportion of retired residents. It should be noted that the recent downturn in economy has increased the unemployment rate in Goldsboro to 9.2 percent (as of June 2009), which compares somewhat favorably to the current unemployment rate in North Carolina at 11.1 percent.

Table 3.11: Employment Data - Wayne County

Location	*Population over 16 in Labor Force (%)*	*Population over 16 not in Labor Force (%)*	*Unemployed (%)*
Goldsboro	59.0	41.0	3.9
Wayne County	61.8	38.2	3.6
North Carolina	65.7	34.3	3.4

Source: 2000 U.S. Census Data

Seymour Johnson Air Force Base, with over 6,500 employees, is the largest employer in Wayne County, followed by Wayne Memorial Hospital with 1,700 employees. By industry, educational, health and social services, manufacturing, and retail services account for most of the remaining large employers in Wayne County. Table 3.12 shows the 25 largest employers in Wayne County, based on data collected by the Employment Security Commission of North Carolina in 2006. Figure 3.26 shows employment locations within Wayne County.

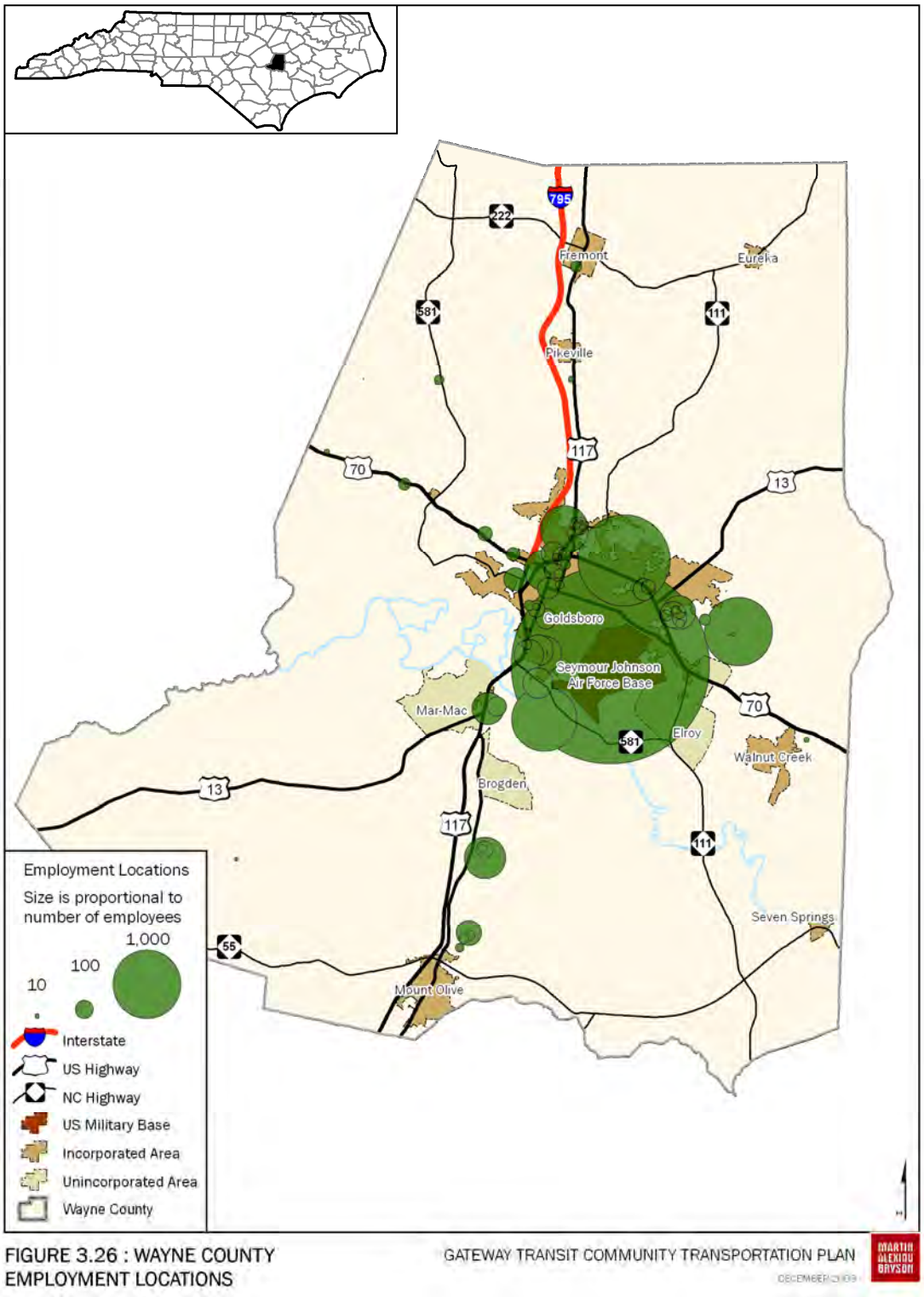
Table 3.12: Major Private Employers in Wayne County

Name	*Employment Range*	*Industry*
Seymour Johnson Air Force Base	1,000+	Military
Wayne Memorial Hospital Inc		Education and Health Services
Wayne County Board Of Education		Education and Health Services
State Of North Carolina		Public Administration
County Of Wayne	500-999	Public Administration
Case Farms Processing Inc		Natural Resources and Mining
Mount Olive Pickle Co Inc		Manufacturing
Seymour Johnson Air Force Base		Public Administration
Georgia-Pacific Corp		Manufacturing
Wal-Mart Associates Inc		Trade, Transportation, and Utilities
Wayne Community College		Education and Health Services
Doubletree Personnel Inc		Professional and Business Services
Franklin Baking Company LLC	250-499	Manufacturing
City Of Goldsboro		Public Administration
Cooper Standard Automotive Inc LLC		Manufacturing
Food Lion LLC		Trade, Transportation, and Utilities
Goldsboro Hog Farms Inc		Natural Resources and Mining
Defense Support Services LLC		Professional and Business Services
A Small Miracle Inc		Education and Health Services

Goerlichs Inc		Manufacturing
Sleepy Creek Farms Inc		Natural Resources and Mining
T A Loving Company (A Corp)		Construction
The Mega Force Staffing Group Inc		Professional and Business Services
Mount Olive College Inc		Education and Health Services
Waukesha Electric Power Systems		Manufacturing

Source: Employment Security Commission of North Carolina: Top 25 Employers by County Based on September 2006 Employment

Figure 3.26: Wayne County Employment Locations



3.5 Major Activity Centers

Quality transportation services should be provided to major activity centers within the County as well as Goldsboro itself. These major activity centers, shown on Figure 3.27 and Figure 3.28, include the following:

- Medical:
    - Wayne Memorial Hospital
    - O'Berry Hospital
    - Cherry Hospital
    - Medical Clinics
    - Doctor/Dental/Vision Offices
    - County Public Health Services
    - Drug & Alcohol Services
    - Pregnancy Support
- Government:
    - City Hall
    - County government offices
    - Post Office
    - Courthouse
    - Recycling Center
- Social Services
- Seymour Johnson Air Force Base
- Recreational/Social:
    - Religious facilities
    - Senior Citizen's Center

- YMCA
- Parks
- Library
- Boys & Girls Clubs

- Educational:
  - Wayne County Community College
  - Mount Olive College
  - Elementary, middle, and high schools

- Retail:
  - Downtown shopping areas
  - Shopping malls
  - Wal-mart
  - Drug Stores
  - Grocery Stores

Figure 3.27: Wayne County Major Activity Centers

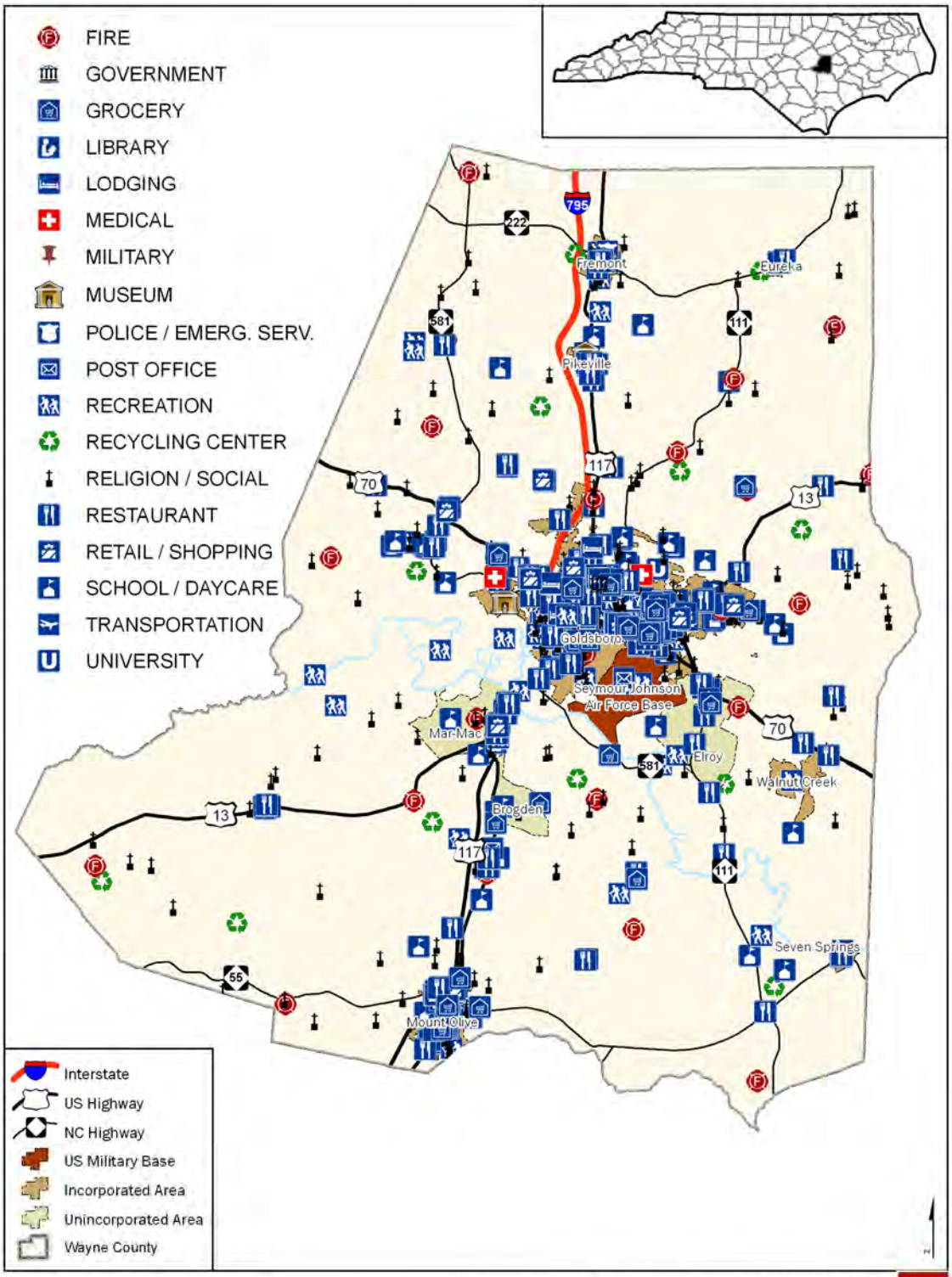
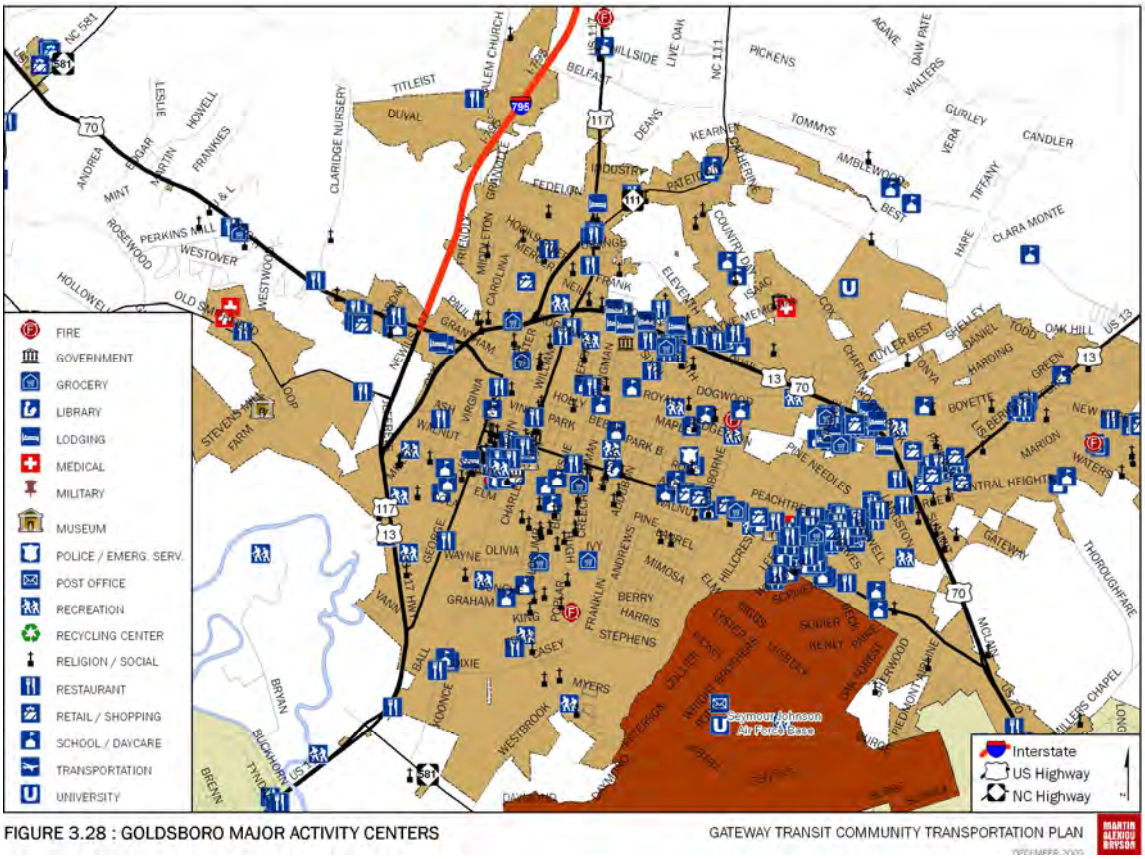


Figure 3.28: Goldsboro Major Activity Centers



3.6 Regional Travel Patterns

Table 3.13 shows the journey-to-work flows between Wayne County residents and other Counties, where the residents work. Table 3.14 shows the journey-to-work flows between Wayne County employees and other counties where the employees live. Figure 3.29 shows the combined Wayne County journey-to-work flows. Overwhelmingly, the County is self-contained in commuting terms, with 82 percent of residents remaining in the County to work. This is not surprising for a rural County with a central city.

Most commuting across the County line is to or from the adjoining Counties, which again is unsurprising. There are also a number of Wayne County residents that commute to Wake County and other parts of the Triangle Region. There is slightly more in-commuting (to work in Wayne County) than out-commuting (to work outside Wayne County), probably reflecting Goldsboro's size and regional importance.

Table 3.13: Wayne County Residents By Workplace County

Workplace	*Employees*	*Percent of Residents*
Wayne County	40,427	82.2%
Johnston County	2,007	4.1%
Wilson County	1,342	2.7%
Lenoir County	1,247	2.5%
Duplin County	1,206	2.5%
Wake County	1,164	2.4%
Pitt County	353	0.7%
Sampson County	309	0.6%
Greene County	251	0.5%
Cumberland County	149	0.3%
Nash County	143	0.3%
Durham County	101	0.2%
All Other NC Counties	503	1.0%
Total	49,202	100.0%

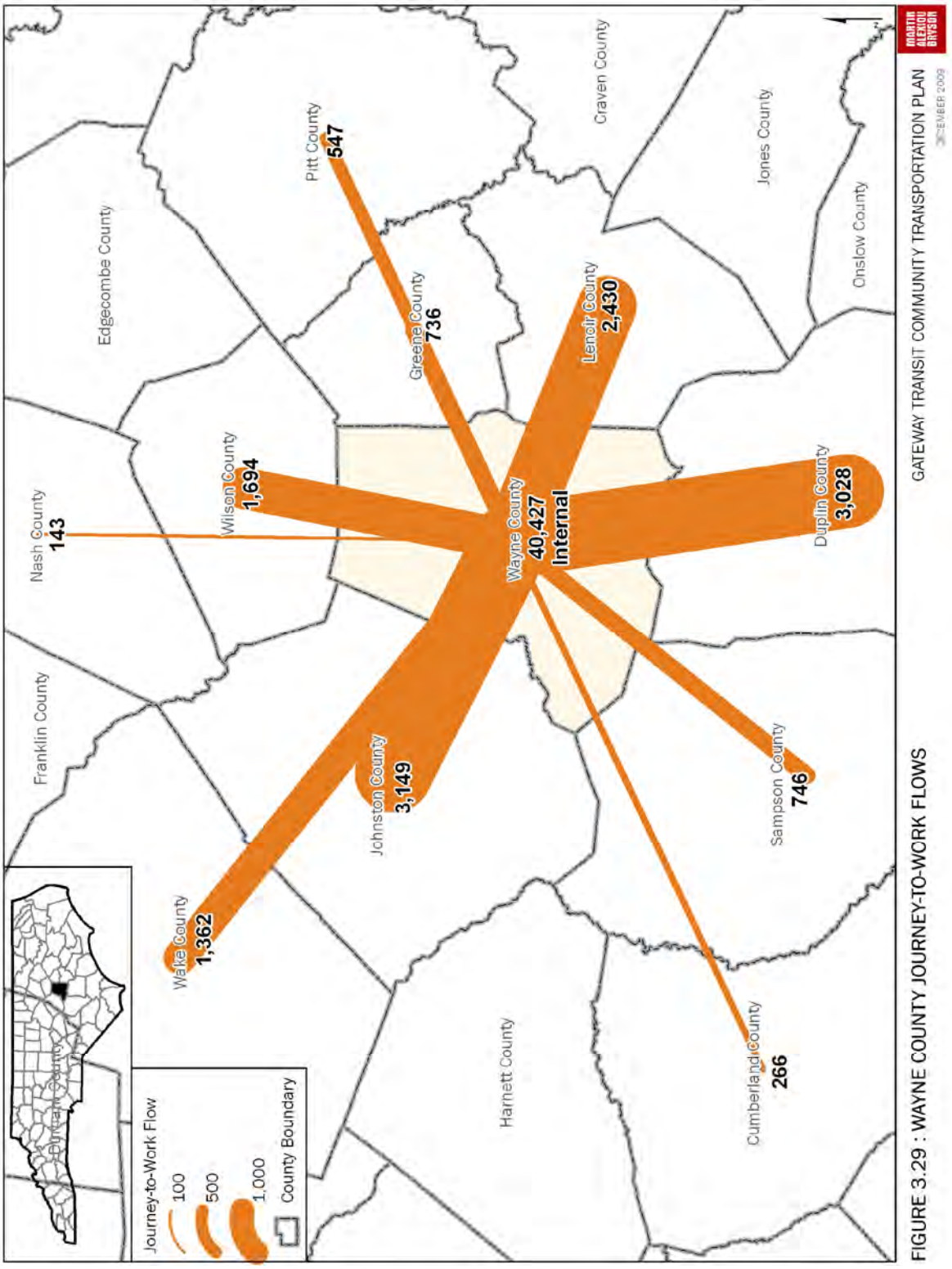
Source: 2000 U.S. Census Data: County-to-County Worker Flow Files

Table 3.14: Wayne County Workers By Residence County

Residence	*Employees*	*Percent of Workers*
Wayne County	40,427	85.6%
Duplin County	1,822	3.9%
Lenoir County	1,183	2.5%
Johnston County	1,142	2.4%
Greene County	485	1.0%
Sampson County	437	0.9%
Wilson County	352	0.7%
Wake County	198	0.4%
Pitt County	194	0.4%
Onslow County	130	0.3%
Cumberland County	117	0.2%
Robeson County	100	0.2%
All Other NC Counties	631	1.3%
Total	47,218	100.0%

Source: 2000 U.S. Census Data: County-to-County Worker Flow Files

Figure 3.29**:** Wayne County Journey-to-Work Flows



3.7 Means of Travel to Work

Table 3.15 presents the means of transportation to work for employed Wayne County residents based on the 2000 US Census. The majority of employed residents (80 percent) drove alone, while 14 percent carpooled. Of the other means of transportation to work, 2 percent walked, 0.4 bicycled, 0.3 percent rode a motorcycle, 0.6 percent reported "other means", 1.9 percent worked at home, and 0.4 percent used public transportation. Wayne County travel to work on public transportation rate (0.4 percent) was much lower than the statewide average (0.9 percent). However, 67 percent of the County's population lives outside of the GATEWAY Transit fixed-route bus service area and the only public transportation option is the GATEWAY Transit demand-responsive van service.

Table 3.15: Wayne County Primary Transportation Mode to Work

Jurisdiction	*Primary Transportation Mode to Work By Percentage*							
	Drove Alone	Motorcycle	Carpooled	Public Transit	Bicycle	Walked	Other Means	Worked At Home
Town of Eureka	89.5%	0.0%	8.4%	0.0%	0.0%	2.1%	0.0%	0.0%
Town of Fremont	72.3%	0.0%	19.3%	0.0%	0.0%	5.0%	1.1%	2.2%
City of Goldsboro	78.1%	0.4%	14.6%	0.6%	0.8%	3.4%	0.8%	1.2%
Town of Mount Olive	79.3%	0.0%	13.7%	0.0%	2.6%	3.3%	0.7%	0.4%
Town of Pikeville	84.6%	0.0%	11.5%	0.0%	0.0%	1.1%	0.8%	2.0%
Town of Seven Springs	100.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Town of Walnut Creek	90.9%	0.0%	5.3%	0.0%	0.0%	0.7%	0.5%	2.6%
Wayne County	80.5%	0.3%	14.0%	0.4%	0.4%	2.0%	0.6%	1.9%
North Carolina	79.4%	0.1%	14.0%	0.9%	0.2%	1.9%	0.8%	2.7%

Source: 2000 U.S. Census Data: SF3 Table: P30

4 Existing and Future Plans, Policies, and Programs

4.1 Introduction

As part of developing the GWTA Community Transportation Service Plan, available and relevant reports, studies, and policies were reviewed to evaluate needs identified to date and identify needs and issues that may need to be reexamined. These studies, as they relate to transit in the Goldsboro area, are reviewed below.

4.2 Goldsboro Urban Area 2035 Long-Range Transportation Plan Update

The *2035 Goldsboro Long Range Transportation Plan (LRTP) Update* (Draft, September 2009) outlines the long-term transportation vision and strategies for the City of Goldsboro and surrounding areas of Wayne County. It is an update to the adopted 2030 LRTP and addresses all modes of transportation, including automobile, bicycle, pedestrian, transit, air, rail and freight. Development of the *2035 LRTP Update* was governed in large part by the Safe, Accountable, Flexible, Efficient Transportation Equity Act: A Legacy for Users (SAFETEA-LU), and was developed with local and regional input.

While a major focus of the LRTP is on roadway improvements, transit improvements are a key component of the plan. Chapter 7 of the plan details existing transit conditions and services, including GATEWAY, Greyhound, regional public transportation, and ridesharing, and recommends improvements to local and regional transit systems and programs.

The transit recommendations cover a variety of topics, such as transit planning, marketing, land use coordination, transit and rail integration, and commuter services. The transit recommendations in the LRTP are to:

- Implement the recommendations of the Transportation Service Plan
- Utilize the Transportation Service Plan to assess service and explore changes in route frequency and duration
- Analyze ridership trends bi-annually or whenever significant changes in service occur
- Consider supplementing the existing radial bus routes with a circulator
- Implement a coordinated marketing plan
- Utilize web-based technology
- Distribute printed materials at more locations
- Identify satellite transfer stations for future expansion

- Make future routes responsive to future land use patterns
- Locate civic land uses within walking distance of public transit
- Maximize the use of Union Station as a multimodal transportation center
- Educate the public about carpool and vanpool services
- Coordinate upgrades to transit stops with improvements to the pedestrian and bicycle network
- Enhance bus stops
- Improve the safety and security of the transit system

4.3 NCDOT 2009-15 State Transportation Improvement Program (STIP)

NCDOT's 2009-15 State Transportation Improvement Program (STIP) contains a list of 2,437 road, public transportation and aviation projects totaling $13 billion that the agency intends to fund over the next six years. Several Wayne County projects are funded, including upgrades to traffic signals in Goldsboro, construction of the U.S. Highway 70 Bypass between Salem Church Road and Wayne Memorial Drive, purchase of replacement buses for GATEWAY Transit and construction of an on-street bicycle pilot project at Berkeley Boulevard and Parkway Drive. GATEWAY Transit also received funding to plan the Union Station Transfer Center, and the City of Goldsboro received funding revitalizing the historic Goldsboro Union Station itself.

Several proposed road expansion projects in Wayne County are listed in the STIP but not funded. Were additional funding available, some of these projects could advance to construction. The projects include construction of three other segments of the U.S. Highway 70 Bypass, widening of roads that will intersect with the bypass and upgrading of U.S. Highway 117 to a freeway between Mount Olive and Goldsboro. Arterial roads in recently-developed portions of Goldsboro are also proposed for widening, including a five-mile segment of New Hope Road between Wayne Memorial Drive and Miller's Chapel Road and a three-mile segment of Berkeley Boulevard between Royall Avenue and Hood Swamp Road.

The Goldsboro Metropolitan Planning Organization (MPO) has proposed additional roadway expansion projects. For one, a widening and realignment of Royall Avenue between Wayne Memorial Drive and U.S. Highway 70 was included in the 2006-12 Metropolitan Transportation Improvement Program but not scheduled for construction. The MPO also listed a half-clover interchange at N.C. Highway 581 and the U.S. Highway 117 Bypass and a widening of U.S. Highway 13 between Hood Swamp Road and the Greene County line among its 2007-13 priority projects.

Each road reconstruction project provides an opportunity to install features that improve transit access and passenger safety. For instance, sidewalks, crosswalks and passenger shelters can be added along the rights-of-way of arterial roads. In instances of road widening, pedestrian refuge islands can be constructed in roadway medians to provide safer crossings. The City of Goldsboro, Wayne County and GATEWAY Transit should ensure that proposed projects are friendly to pedestrians and transit users, particularly in areas of high ridership or where new service might be added.

4.4 GATEWAY Transit Community Transit Performance Plan

GATEWAY Transit and the Institute for Transportation Research and Education (ITRE) completed a performance analysis of GATEWAY Transit's paratransit service in April 2009. The plan identifies several improvements that GATEWAY Transit could implement to its paratransit service to increase ridership and operate more efficiently, including:

- Automation of scheduling for paratransit trips, which would allow GATEWAY Transit to reduce its advance reservation time from 48 to 24 hours, reduce customers' travel times and improve routing efficiency
- Coordination with clients and funding agencies to reduce trip no-shows and cancellations
- Coordination with neighboring transit providers for out-of-county trips
- Improved tracking of service and driver pay hours
- Attendance at ITRE workshops to learn more about community transportation and share experiences for other agencies' benefit

The plan also highlights several effective elements of GATEWAY Transit's operations. GATEWAY Transit carries more passengers per hour and mile than peer agencies, for instance. Billing structures for out-of-county trips also are well-designed in charging more for the first passenger on a trip and less for others. GATEWAY Transit's coordinated urban-rural service structure presents a consistent appearance to the public, while the agency has set strong goals in terms of operating multimodal services and improving coordination with surrounding counties.

4.5 Goldsboro Union Station Multimodal Transportation Center Study

The Goldsboro Union Station Multimodal Transportation Center Study (September 2009) recommends a site layout for the multimodal center at Goldsboro Union Station. This center will include the primary bus transfer point for GATEWAY Transit services and Greyhound intercity bus service, future commuter and intercity passenger rail service, and could be expanded to serve other transportation providers. The historic station building will be restored for interim use. The overall study goal was to agree on a site layout that will form the basis for future detailed design and construction work on the individual components of

the GUS site.The study also examined the feasibility of constructing a new operations and maintenance depot for GATEWAY Transit at a separate site within Goldsboro.

4.6 Wayne County Comprehensive Plan

The Wayne County Comprehensive Plan was adopted in March, 2008. The plan provides vision statements, policies, and actions to guide public decision making related to transportation, economic development, funding of County services, agricultural preservation/growth management, water and sewer services, schools, housing and neighborhoods, public safety, revitalization of downtowns, parks and recreation, community appearance and image, intergovernmental cooperation, and growth strategies over the next 20 years.

Land uses that have the greatest potential for transit demand include medium- and high-density residential, commercial, public facilities, and employment centers. While these land uses tend to generate the greatest demand for transit services, other land uses in the County, such as Wayne Memorial Hospital, Wayne County Community College, and O'Berry Hospital, also have great potential for transit demand.

The following policies and strategies from the Comprehensive Plan are relevant to the CTP:

- The need for a well-run rural transit service that meets transportation needs of senior citizens and others who cannot or choose not to drive a car.
- The desire to provide regular transit service between Goldsboro and the Raleigh area based on population growth and increased economic ties
- To enhance regional transportation connections between Wayne County and other parts of the state, including rail service
- To recognize the mobility needs of all citizens through the provision of transportation alternatives to the automobile by creating pedestrian, bicycle, and transit improvements proportionate to the number of people benefited
- To support County-wide mass transit services through the encouragement of compact, high intensity, transit-sensitive development patterns
- To support a state study evaluating the impact of possible commuter rail service on existing and future freight rail lines in and out of Wayne County
- To link the greater Wayne County economy to surrounding counties and research institutions in other parts of the state and nation
- To use access to major thoroughfares and transit services as one of the factors in determining preferred locations for multi-family developments

- To balance the needs of pedestrians, private vehicles, rail service, and public transit services in a downtown area circulation systems-wise.

4.7 Goldsboro Downtown Master Plan

Adopted in June, 2007, the Goldsboro Downtown Master Plan was prepared by the City of Goldsboro and the Downtown Goldsboro Development Corporation. The goal of the project was to develop a revitalization plan for Goldsboro's downtown and surrounding neighborhoods that would guide future development. The twelve-month process included a physical review of the area, real estate market analysis, public input, and a physical impact analysis.

The plan identified existing architecture, land use, public space, transportation, and parking conditions. This information guided the development of the revitalization concepts, design guidelines, and provided the framework for the master plan and implementation strategy. The final plan included guidance for residential and economic revitalization of the downtown area of Goldsboro. The area surrounding Union Station was specifically addressed in the plan as a key component of downtown revitalization.

4.8 Eastern Carolina Council Transit Coordination Project

The *Eastern Carolina Council Transit Coordination Project* aimed to assess the feasibility of implementing transit management software in a region of eastern North Carolina which includes Wayne County. The goals were to increase efficiency, reduce operating costs, improve customer service, and encourage coordination of out-of-county trips among the transit agencies.

The project flowed from efforts begun in 2002 by the transit agencies to investigate coordination and software issues. The project itself was FTA-funded, beginning in September 2004 and ending in March 2007.

Before the project, each transit agency (or its contractor) had its own scheduling and billing software. None of the software included GIS-based scheduling and dispatching for route optimization, and these earlier systems had limited reporting functionality.

The project involved purchasing Routematch TS software, with vendor-supervised configuration and implementation, and instructor-led training. The software was aimed at providing each transit agency with a comprehensive transit management system that integrates customer, vehicle, scheduling, dispatching, billing, and reporting into a relational database system that provides the agency with greater querying and reporting functionality, leading to better decision making. As of 2009, the software is still in place, funded by the transit agencies and NCDOT through their annual budget processes. However, the usefulness of Routematch TS software has not lived up to its expectations and needs to be upgraded or replaced.

4.9 City of Goldsboro 2008-09 Action Plan

The City of Goldsboro's 2008-09 Action Plan, approved in May 2008, accompanied the City's request for continuing federal funds from the Department of Housing and Urban Development (HUD) to address the housing needs of its very low- through moderate-income residents. The Action Plan is a one-year component of a five-year Consolidated Plan that aims to "extend and strengthen partnerships among the public and private sector to provide decent and affordable housing, establish and maintain a suitable living environment, and expand economic opportunities." The Action Plan details $2 million in federally and locally funded projects that the City expects to complete by mid-2009 to further the Consolidated Plan's goals. Particular efforts include rehabilitating and constructing single-family housing units, providing financing assistance to low- and moderate-income households to purchase homes, constructing a new community recreation center and installing new sidewalks.

Several non-profit organizations in the Goldsboro area provide services to homeless individuals with the goal of aiding the individuals in finding housing and employment. These organizations and members of the public identified improved transit as a priority need, particularly a broadening of service and extension of operating hours.

4.10 Eastern Carolina Rural Planning Organization

Wayne County is a member of the Eastern Carolina Rural Planning Organization (ECRPO), along with Duplin, Greene and Lenoir counties. The ECRPO provides a forum for local jurisdictions, NCDOT representatives, and the public "to work cooperatively to address transportation issues and to develop long-range local and regional multi-modal transportation plans to sustain and improve the quality of life for residents of the region and throughout the State of North Carolina." The City of Goldsboro is not a member of the RPO (the Goldsboro area has its own MPO), but the Wayne County towns of Fremont and Mount Olive are members of the RPO's Transportation Coordinating Committee. ECRPO is housed within the Eastern Carolina Council, a nine-county planning and development coordination organization.

A 2007 *Comprehensive Economic Development Strategy* prepared by the Eastern Carolina Council noted that the region's surface transportation system is inadequate for area manufacturers, major port facilities, and the coastal tourism industry. Participants in the strategy's development identified limited connectivity to the Interstate system as a hindrance to economic development in the region. The ECRPO's State Transportation Improvement Program (STIP) priorities reflect this concern: highway widenings, bypasses and upgrades constitute much of the list, with the U.S. Highway 70 bypass to the north of Goldsboro the top priority for 2011-17. Strategy stakeholders also viewed limited rural public transportation service as a weakness in the area; "various projects" for GATEWAY Transit and other area transit providers are included in the ECRPO's 2007-13 priority list.

Certain recommendations in the *Comprehensive Economic Development Strategy* could improve transit's viability. The strategy recommends improving the region's allure to retirees, for instance, and suggests that more sidewalks and bicycle paths be constructed in the region to provide additional mobility options. Such infrastructure could improve current and potential customers' access to transit in Wayne County's towns. Also, the strategy recommends that future development occur in areas with infrastructure and municipal services in place as a means to lessen impacts on historic and natural resources and maintain good water quality. Infill development and redevelopment could place new residents and businesses within areas of existing transit service, which would also contribute to more cost-effective transit operations.

4.11 U.S. Highway 70 Corridor

The US 70 Corridor Commission formed in 2005 with the goal of upgrading a 134-mile section of U.S. Highway 70 between Interstate 40 and the coast to a freeway. Limited-access treatments and new bypasses along the route would improve mobility and safety for travelers and, the commission hopes, encourage economic development. Wayne, Carteret, Craven, Johnston and Lenoir counties have joined the commission; the City of Goldsboro is also a member. In addition to the Goldsboro bypass, the segment of U.S. 70 in the western portion of Wayne County is proposed to be retrofitted to a rural design standard, with fewer access points and more grade-separated intersections. Member jurisdictions of the US 70 Corridor Commission were encouraged to adopt minimum access management and design criteria, develop and support recommendations in a comprehensive master plan for the corridor and adopt corridor protection overlay districts for proposed alignments of Highway 70. Three segments of the route are programmed for reconstruction under NCDOT's 2009-15 STIP, including the first phase of the Goldsboro bypass.

4.12 Proposed Passenger Rail Services

In recent years, several studies have examined the potential for passenger rail service to or through Goldsboro and other locations in Wayne County. These have addressed inter-city service between Raleigh and Wilmington, including a route via Goldsboro, and commuter service from Goldsboro (and elsewhere) to the Triangle region.

4.12.1 Southeastern North Carolina Rail Feasibility Study (2001)

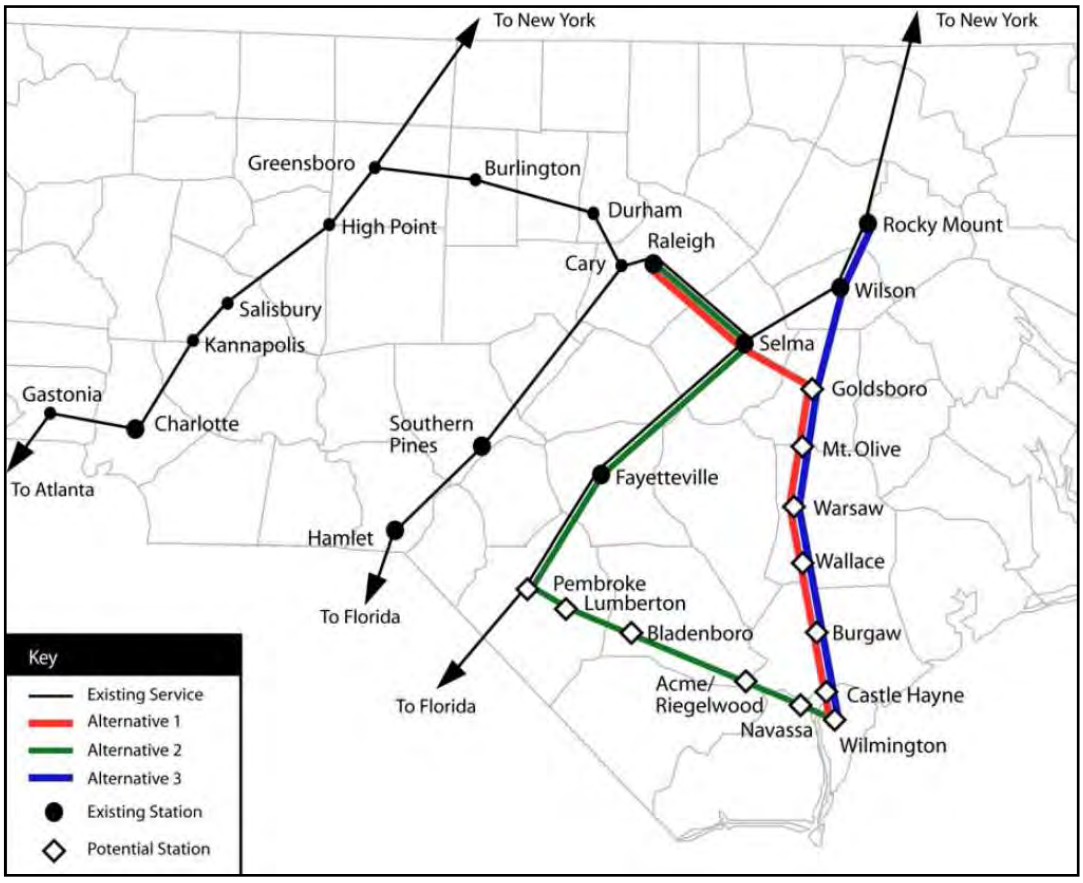
The NCDOT's *Southeastern North Carolina Rail Feasibility Study* (2001) evaluated three possible routes for rail service to Wilmington and southeastern North Carolina, with a stop in Goldsboro. Service to Goldsboro is part of NCDOT's statewide rail plan principally as a result of Goldsboro's location on one of the potential routes from Raleigh to Wilmington. The study endorsed routes between Wilmington and Raleigh via Goldsboro or Fayetteville, with potential connections to northeast cities.

4.12.2 Southeastern North Carolina Passenger Rail Study (2005)

The next step was to define the preferred options in more detail. This was done in the *Southeastern North Carolina Passenger Rail Study*, which was completed in 2005. Figure 4.1 shows the routes evaluated in that study. The study concluded that both of the Raleigh to Wilmington route options (via Goldsboro and Fayetteville) held promise, but the availability of public funding would determine when and what service was implemented. The Wilmington-Rocky Mount route (also via Goldsboro) had the lowest ridership projections and was recommended to be dropped from further analysis.

The current expectation for inter-city rail in Wayne County is that one of the two planned Raleigh-Wilmington corridors would serve the county. Stations would be at Goldsboro Union Station and potentially also in Mount Olive. Most recently, the 2009 Statewide Rail plan has included some additional corridors, including service onwards from Goldsboro to Morehead City. These additional corridors should be seen as long-term aspirations.

Figure 4.1: Routes Evaluated in the 2005 Southeastern NC Passenger Rail Study



Source: Southeastern North Carolina Passenger Rail Study

4.12.3 Commuter Studies: Eastrans Commuter Rail Feasibility Study (2004)

The first study to examine potential commuter service between Wayne County and the Triangle region was the *Eastrans Commuter Rail Feasibility Study* (Wilbur Smith Associates for the Town of Knightdale, April 2004). This study examined corridors from Goldsboro and Wilson to Raleigh. Services would operate on weekdays only, with morning peak period trains into Raleigh and evening peak period trains from Raleigh. The study looked at a low-cost alternative and a high-cost alternative for each corridor.

In the low-cost alternative, the only station in Wayne County would be at Goldsboro (at the NCRR wye at the north end of Center Street). In the high-cost alternative, the Goldsboro station would be at Goldsboro Union Station (GUS) and there would also be a station at Princeton (in Johnston County, but convenient for the western part of Wayne County). This approach to the Goldsboro station location reflected the anticipated costs involved in serving GUS – not just trackwork but also renovation of the building and site (considered more significant than the track issues). The study acknowledged that if service to Wilmington were implemented before the commuter service, that approach could be revisited. Since the Eastrans study, the City of Goldsboro and the NCDOT have committed to renovation of GUS for interim use by the City, as well as ultimately for rail use.

The study concluded that commuter rail service was feasible in both corridors, if substantial capital investment were made. Ridership projections were beyond the scope of that study, but estimates were made of the ridership necessary for the project to become competitive for federal funds. From Goldsboro to Raleigh, 300 daily riders (i.e., 600 daily trips) would be required under the low-cost alternative, representing about a 10% market share on that flow. The high-cost alternative required much higher numbers.

4.12.4 Commuter Studies: North Carolina Railroad Shared Corridor Commuter Rail Capacity Study (2008)

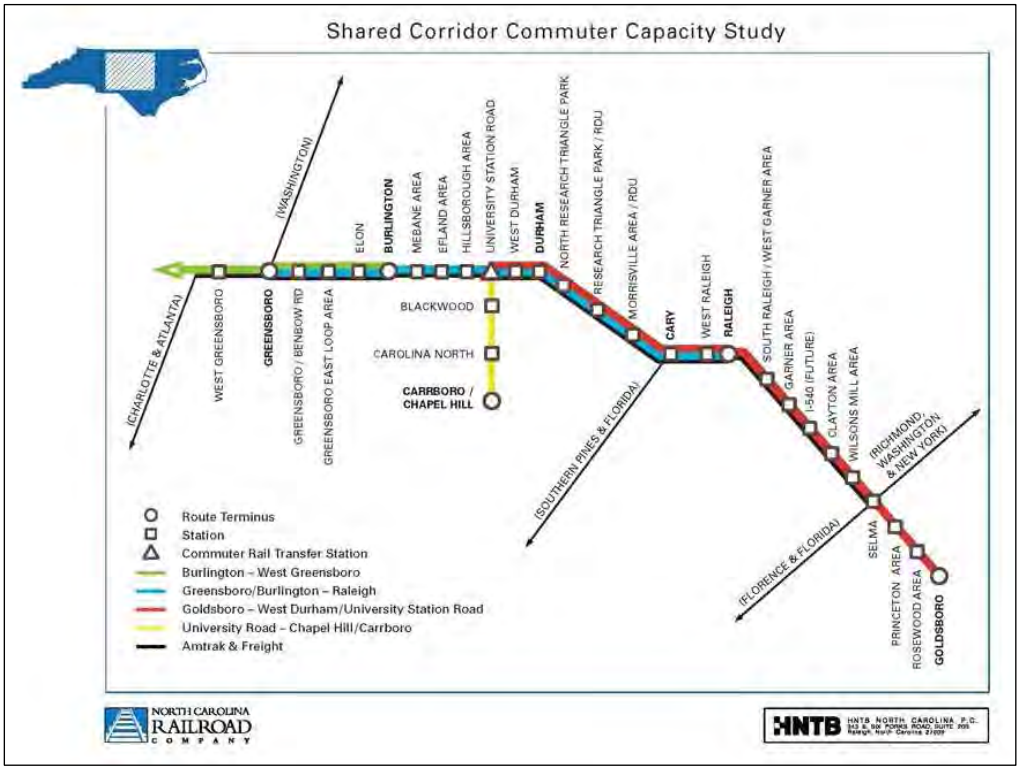
The North Carolina Railroad (NCRR) is the state-owned company that owns the rail corridor from Morehead City through Goldsboro to Raleigh, Greensboro and Charlotte. Freight trains on the corridor are operated by Norfolk Southern (NS) under a long-term lease. The lease makes provisions for existing passenger rail services on the corridor, as well as potential new services if certain conditions are met – principally that the services will not interfere with NS freight operations.

Freight is therefore NCRR's core business. However, in response to public and political interest in possible commuter rail service, NCRR commissioned the *Shared Corridor Commuter Rail Capacity Study* (HNTB for NCRR, October 2008). The study examined the 143-mile Greensboro to Goldsboro section of the corridor, including the branch to Carrboro. The study was focused on understanding the infrastructure improvements that would be necessary to allow these services to be introduced without significantly slowing or delaying freight trains. It was not a ridership study, nor a detailed station location study.

The study assumed four overlapping commuter train routes (Figure 4.2). One of these (the Red Line) would run from Goldsboro to Raleigh and Durham, terminating at University Station Road west of Durham (for connections to/from services on the Carrboro branch). The Red Line service was assumed to consist of four morning trains from Goldsboro, four evening trains back to Goldsboro, and a mid-day round trip. The stations in Wayne County would be in Goldsboro and potentially the Pinewood area, as well as potentially the Princeton area (in Johnston County, but convenient for western parts of Wayne County). Layover facilities (for overnight storage) would be provided in Goldsboro.

The study concluded that commuter services are feasible, but would need substantial capital investments to minimize the impact on freight services. The estimated capital cost for the entire package, including vehicles, was approximately $1 billion in 2010 dollars, which represented $7 million per mile. In March 2009, NCRR announced that it would undertake a ridership study, to assess potential demand for commuter rail service. This represents the next step in the planning process. The current expectation for commuter rail in Wayne County is that commuter service may eventually be provided to the Triangle region. Stations would be at Goldsboro and potentially in the Rosewood area. A potential station in the Princeton area would be in Johnston County but would also be convenient for part of Wayne County.

Figure 4.2: Routes Evaluated in the NCRR Shared Corridor Commuter Capacity Study



Source: Southeastern North Carolina Passenger Rail Study

4.12.5 Implications for GATEWAY Transit

For the GATEWAY Transit CTP, the key implications of these rail proposals and studies are:

- Planning is in progress for passenger rail services to Goldsboro. This includes both inter-city service to Raleigh and Wilmington, and commuter service to Raleigh and Durham
- National-level debate and policy has recently become more favorable to inter-city rail, improving the prospects of these proposals coming to fruition
- Given the timescales involved in developing rail services, there is little prospect of any passenger rail service to Goldsboro within the CTP's five-year horizon
- However, it is realistic to plan for possible service within the 10-year or 20-year horizons
- One of the two planned Raleigh-Wilmington inter-city corridors would serve Wayne County. Stations would be at Goldsboro Union Station and potentially also in Mount Olive
- Commuter service would be provided to the Triangle region. Stations would be at Goldsboro and potentially in the Rosewood area. A potential station in the Princeton area would be in Johnston County but would also be convenient for part of Wayne County. Service between Goldsboro and Morehead City is an additional, but very long-term, aspiration
- The 10-year and 20-year horizons should take into account the need for transit connections to rail service at Goldsboro. This should be easily achieved with the proposed transfer point at GUS. These horizons should also consider what, if any, transit connections to rail service would be needed at other potential stations including Mount Olive and Rosewood

4.13 Goldsboro Unified Development Ordinance

The Goldsboro Unified Development Ordinance (UDO) was prepared by the Goldsboro City Council and became effective on July 9, 2007. The UDO aims to implement the planning policies adopted for the City of Goldsboro and its extraterritorial jurisdiction, as reflected in the land use plan and other supporting planning documents. It includes land use guidelines and restrictions, zoning standards, subdivision design standards, and other standards and regulations to guide development within the city. These standards and regulations would apply to transit development to the extent that transit development may impact various properties and their use and design.

5 Public Transit Services

5.1 Introduction

This section reviews the existing transportation services in Wayne County. While the chapter focuses on GATEWAY Transit services, other public transportation providers that operate in Wayne County are summarized.

5.2 Goldsboro-Wayne Transportation Authority (GATEWAY Transit)

5.2.1 Operational and Management Structure

GATEWAY Transit is responsible for providing both fixed-route and demand-responsive transportation services within Wayne County. Currently, the fixed-route service is limited to the Goldsboro urban area, with the demand-responsive service covering the entire County. GATEWAY Transit operates as an independent agency that is funded by the City of Goldsboro, Wayne County, NCDOT, and FTA. GATEWAY Transit is overseen by two boards: a governing board with representatives from the City of Goldsboro and Wayne County, and a transit advisory board that includes local stakeholders and riders.

The transfer point and GATEWAY Transit offices (Figure 5.1) are located in an old fire station at 1615 Beech Street, 13 blocks east and four blocks north of downtown Goldsboro. There is an outside shelter with seats located in the transfer center parking lot. There is an additional indoor seated waiting area in what used to be the fire truck bays. The restrooms, GATEWAY Transit offices and ticketing window lead directly off this waiting area. All administrative, maintenance, and operational functions are housed at the old fire station.

5.2.2 Fixed-Route Service

The fixed-route service in Wayne County operates between 5:30 a.m. and 6:30 p.m. on weekdays and between 9:30 a.m. and 6:30 p.m. on Saturdays. Service is available every day of the year except Sundays, Thanksgiving Day and Christmas Day. The fixed-route service consists of four hourly routes within Goldsboro, plus an additional semi-fixed route between Goldsboro and Dudley/Mt. Olive.

The four fixed routes within Goldsboro (see Figure 5.2) operate on one-hour headways and depart the system transfer point at half-past every hour. The routes are:

- **Wayne Memorial** – serving the north side of Goldsboro, including Wayne Memorial Hospital and Wayne County Community College

- **Berkeley Mall** – serving the downtown and east side of Goldsboro, including City Hall, the Greyhound station, the YMCA, and many shopping centers

- **Southend** (Also known as Slocumb Street) – serving the downtown and south side of Goldsboro, including Wayne County Courthouse, Seymour Johnson Air Force Base, the Senior Center, and the Public Library

- **North End** – serving the downtown, west, and north side of Goldsboro, including the Social Service Annex, Goldsboro High School, the Herman Park Center, and Wayne County Courthouse. This route alternates between serving Wal-Mart on US-70 in Rosewood (on runs that leave the transfer center in odd hours) and serving Cherry Hospital and the O'Berry Center (even hours)

- **Mt. Olive/Dudley** – an additional urban paratransit route that serves the area. The route between Goldsboro and Dudley/Mt. Olive was introduced in April 2009. It formalized what had been regular runs for the demand-responsive service. The route serves several destinations along US 117 and two destinations within Goldsboro: Wayne County Courthouse in downtown and the Transfer Center (see Figure 5.3)

The fare structure for the routes within Goldsboro is as follows:

- One-Way Transit Fare – $1.00

- Reduced One-Way Transit Fare – $0.50 (with GATEWAY Transit discount card, which is available to Seniors (60+), Medicare cardholders, and individuals with disabilities)

- Children under 42 inches – Free (limit one child per adult passenger)

- 22-Ride Tickets – $20.00 for full-fare, $10.00 for reduced fare

- All-Day Tickets - $2.00 for full fare, $1.00 for reduced fare

- Transfers – Free, but are only valid at that Transfer Center and for the next available bus.

- The one-way fare for the Dudley/Mt. Olive route is $2.00 and includes a free transfer to one of the fixed-route buses within Goldsboro

- One-way rides may be purchased on-board buses for exact change; no ticket is given for one-way rides. Other tickets and passes may be purchased at the GATEWAY Transit office between 8:00 a.m. and 5:00 p.m.

Figure 5.1: Existing GATEWAY Transit Transfer Station

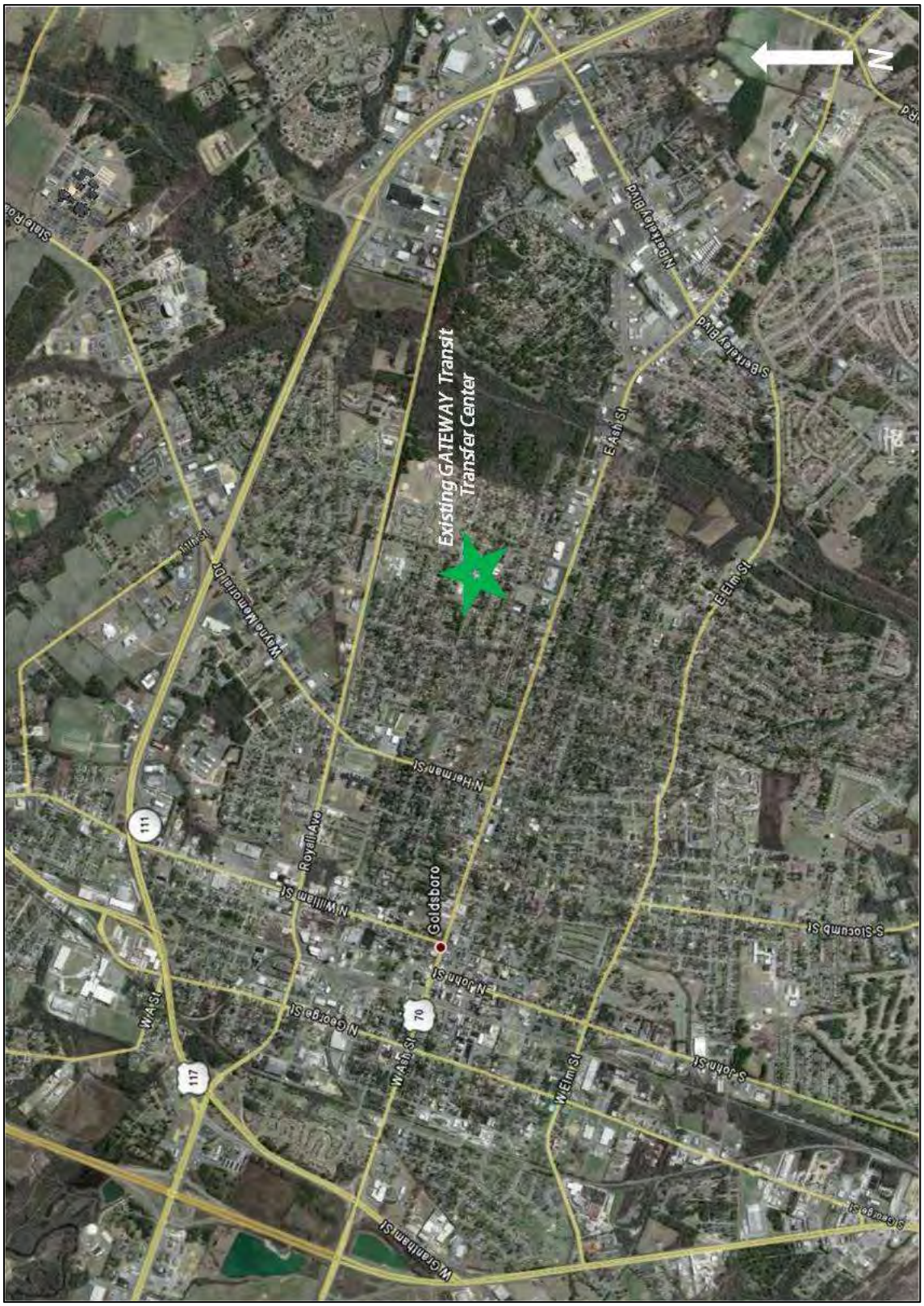


Figure 5.2: Existing GATEWAY Transit Routes in Goldsboro

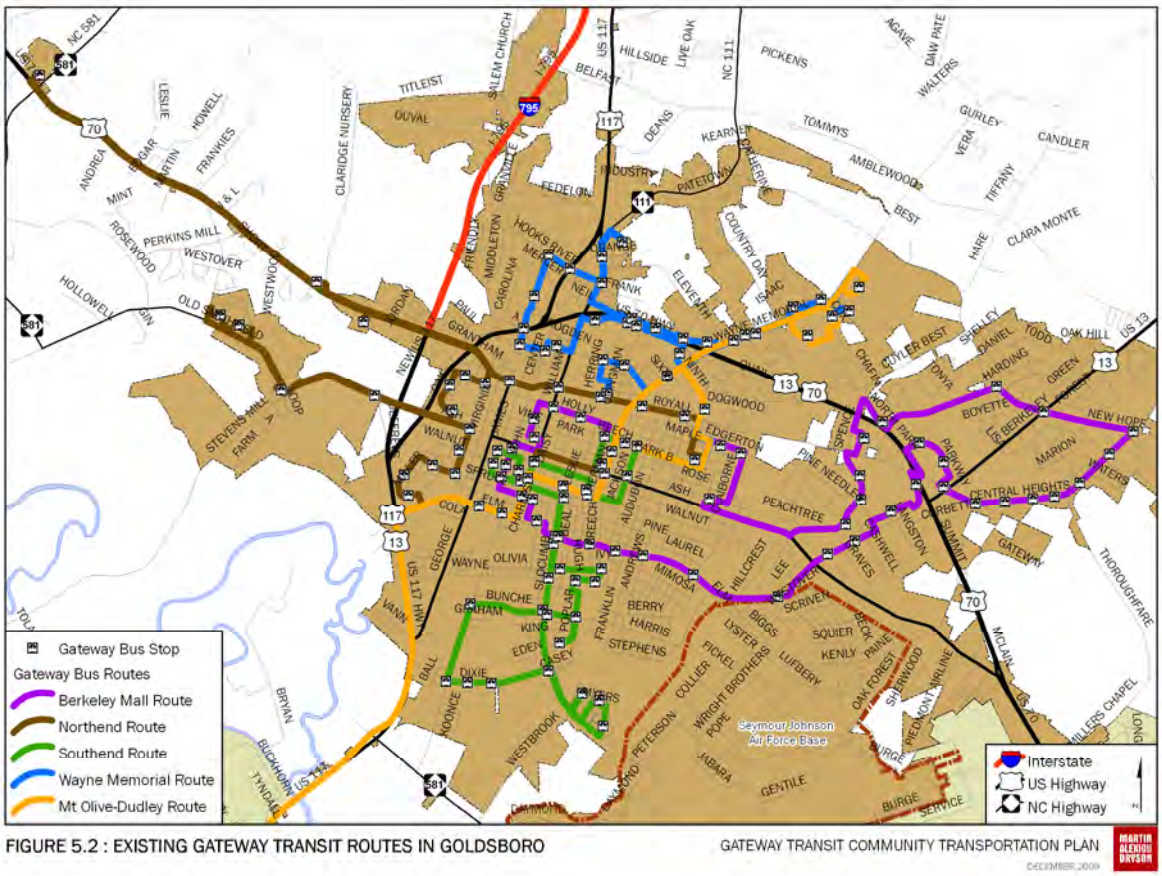


Figure 5.3: Existing GATEWAY Transit Routes in Wayne County

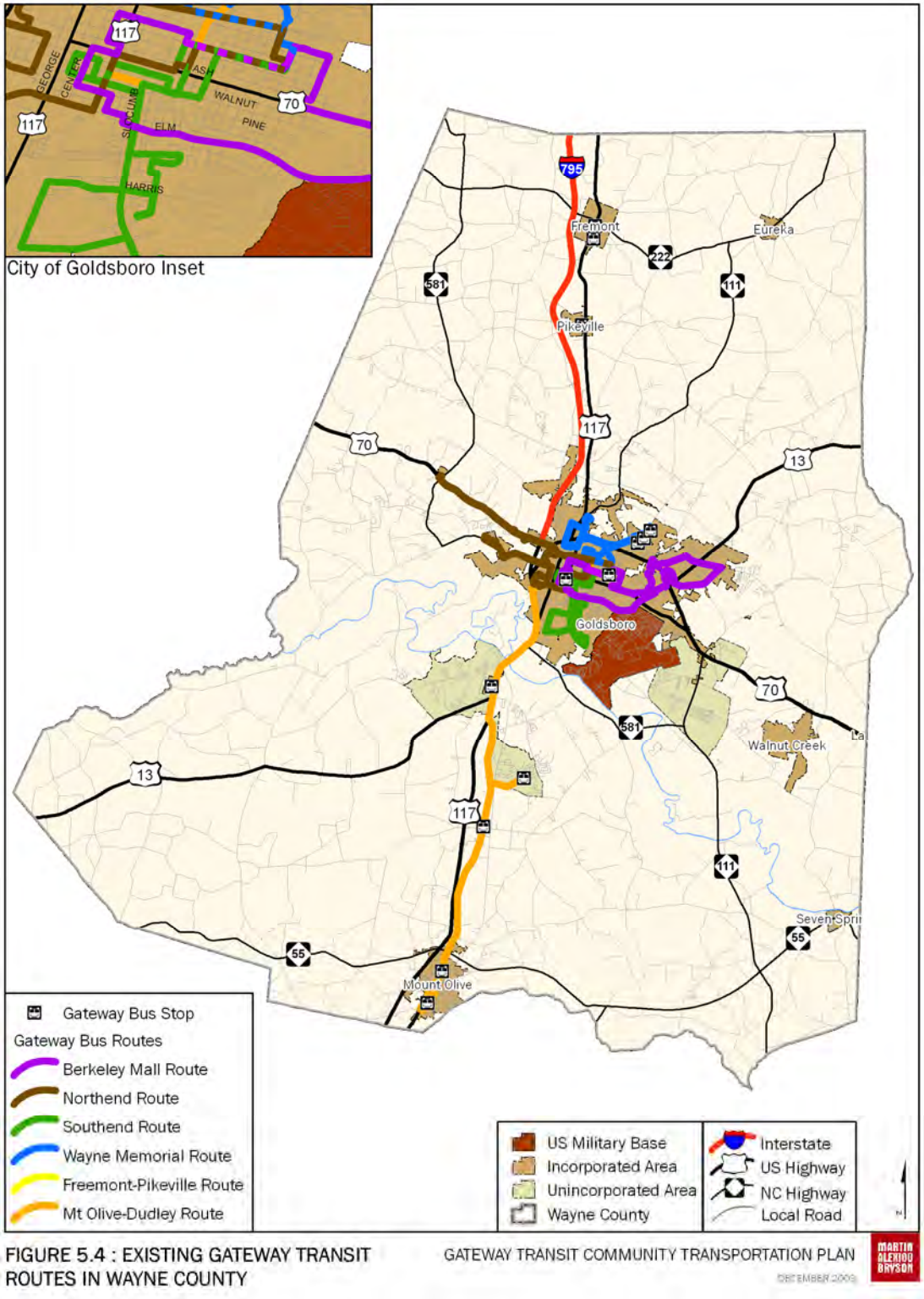


FIGURE 5.4 : EXISTING GATEWAY TRANSIT ROUTES IN WAYNE COUNTY

GATEWAY TRANSIT COMMUNITY TRANSPORTATION PLAN

5.2.3 Demand-Responsive Service

GATEWAY Transit's demand-responsive service provides door-to-door transportation and fulfils several functions:

- ADA-compliant service to complement the fixed-route services (also known as Paratransit service)
- Transportation for agency clients and clients of welfare programs (also known as Dial-A-Ride service)
- Any other trips requested by individual riders (also known as Rural General Public service)

The service hours are 4:00 AM to 11:00 PM, Monday-Friday, and 4:00 AM to 6:00 PM on Saturdays. As with the fixed-route service, there is no service on Sundays, Thanksgiving Day or Christmas Day. Service requires advance reservation by phone. One-way fares are $5.00 within Goldsboro, $4.00 within Wayne County, and $35.00 to medical facilities outside Wayne County.

It should be noted that GATEWAY Transit offers a full Rural General Public (RGP) service. That is, individual riders anywhere in Wayne County can request trips. The service is not restricted (either in theory or in practice) to agency clients, and GATEWAY Transit does not ration the number of RGP trips it provides. Similar Transit agencies do not always have the funds to offer this level of service.

5.2.4 Historic Ridership

As shown in Table 5.1, the total system ridership has increased - albeit only slightly - in recent years. From 2005-06 to 2007-08, ridership increased by about 2.4 percent, with close to 4,000 additional one-way passenger-trips added each year (approximately 1.2 percent annually). In terms of individual segments, total ridership has increased very dramatically on fixed routes of the GATEWAY transit system - by 188.8 percent since 2002-03, with approximately 23,800 additional one-way passenger-trips each year (approximately 31.8 percent annually). On the other hand, rural paratransit increased only by 8.1 percent with approximately 1,208 additional one-way passenger-trips added each year during the same time period. Lastly, the available data from 2005-06 to 2007-08 shows that urban paratransit ridership has increased by about 41.9 percent during that time period, with about 3,700 additional one-way passenger-trips added each year (approximately 20.9 percent annually).

Table 5.1: GATEWAY Transit Historical Ridership

	Fixed Routes		*Paratransit Urban*		*Paratransit Rural*		*Systemwide*	
Fiscal Year	Total Number	Annual Change	Total Number	Annual Change	Total Number	Annual Change	Total Number	Annual Change
2002-03	75,532	N/A			89,232	N/A		
2003-04	97,693	29.34%			74,234	-16.81%		
2004-05	178,041	82.25%			94,192	26.89%		
2005-06	209,358	17.59%	17,718	N/A	107,052	13.65%	334,128	N/A
2006-07	208,835	-0.25%	25,489	43.86%	90,925	-15.06%	325,249	-2.66%
2007-08	215,704	3.29%	25,133	-1.40%	101,269	11.38%	342,106	5.18%
2008-09	218,169	1.14%			96,478	-4.73%		
Total Growth	142,637	188.84 %	7,415	41.85%	7,246	8.12%	7,978	2.39%
Average Annual Growth	23,773	31.47%	3,708	20.93%	1,208	1.35%	3,989	1.19%

Sources:
1. FY 2004/05/06 /07 NTD Transit Statistics: NCDOT Summary of agency stats.
2. US Bureau Census Data

5.2.5 Historic Service Levels

As shown in Table 5.2, GATEWAY Transit has generally increased service levels, both vehicle service hours and miles, over the past six years. In terms of vehicle service hours, available data from 2005-05 to 2007-08 shows that they increased systemwide by about 13.2 percent, with 3,261 vehicle service hours added each year (approximately 6.6 percent annual growth). During the same time period, vehicle service miles increased systemwide by about 22.3 percent, with 44,426 vehicle service miles added each year (approximately 11.1 percent annual growth). In terms of individual segments of the transit system, it should be noted that the fixed portion of the system had experienced a very pronounced growth – from 2002-03 to 2008-09, vehicle service hours on fixed routes increased by about 37.1 percent, with 4,663 total added vehicle service miles, and 661 vehicle service hours added each year (approximately 6.2 percent annual growth). Similarly, from 2002-03 to 2008-09, vehicle service miles on fixed routes increased by about 25.2 percent, with 44,526 total added vehicle service miles, and 6,360 vehicle service hours added each year (approximately 4.2 percent annual growth). The statistics unveil one interesting aspect about GATEWAY's rural

paratransit - on that portion of GATEWAY, rural paratransit vehicle service miles had increased at a much more rapid pace than vehicle service hours. From 2002-03 to 2008-09, vehicle service miles' total growth stood at 41.9 percent which translates to close to 7 percent growth on an annual basis. On the other hand, vehicle service hours' growth was more tamed: it enjoyed an 11.5 percent total growth and 1.9 percent annual growth during the same time period, suggesting better utilization of existing vehicles.

Table 5.2: GATEWAY Transit Historical Service Levels

	Fixed Routes		*Paratransit Urban*		*Paratransit Rural*		*Systemwide*	
Fiscal Year	Total Number	Annual Change	Total Number	Annual Change	Total Number	Annual Change	Total Number	Annual Change
	Vehicle Service Hours							
2002-03	12,480	N/A		N/A	36,160	N/A		N/A
2003-04	12,480	0.00%			22,086	-38.92%		
2004-05	15,301	22.60%			33,133	50.02%		
2005-06	15,983	4.46%	58,205	N/A	37,094	11.95%	74,188	N/A
2006-07	17,002	6.38%	96,585	65.94%	39,399	6.21%	113,587	53.11%
2007-08	17,595	3.49%	66,379	31.27%	41,987	6.57%	83,974	-26.07%
2008-09	17,113	-2.74%			40,320	-3.97%		
Total Growth	**4,633**	**37.12%**	**8,174**	**14.04%**	**4,160**	**11.50%**	**9,786**	**13.19%**
Average Annual Growth	**661**	**6.19%**	**2,724**	**7.02%**	**593**	**1.92%**	**3,261**	**6.60%**
	Vehicle Service Miles							
2002-03	176,900	N/A		N/A	473,936	N/A		N/A
2003-04	182,331	3.07%			371,802	-21.55%		
2004-05	188,764	3.53%			567,501	52.64%		
2005-06	196,466	4.08%	401,539	N/A	598,005	5.38%	598,005	N/A
2006-	196,961	0.25%	465,304	15.88%	662,265	10.75%	662,265	10.75%

07								
2007-08	199,331	1.20%	531,956	14.32%	731,287	10.42%	731,287	10.42%
2008-09	221,426	11.08%			672,506	-8.04%		
Total Growth	**44,526**	**25.17%**	**130,417**	**32.48%**	**198,570**	**41.90%**	**133,282**	**22.29%**
Average Annual Growth	**6,360**	**4.20%**	**43,471**	**16.24%**	**28,366**	**6.98%**	**44,426**	**11.14%**

Sources:
1. FY 2004/05/06 /07 NTD Transit Statistics: NCDOT Summary of agency stats.
2. 2008 and 2009 GWTA OPSTATS

5.2.6 Monthly Ridership

Ridership over the 2008-09 fiscal year was comparatively similar, though the summer season outperformed the winter season, as shown in Table 5.3 and Figure 5.4. This kind of ridership pattern is expected, as outside conditions, specifically inclement weather, directly influences individual ridership decisions, especially when waiting at bus stops without shelter.

Figure 5.4: GATEWAY Transit Fixed-Route Monthly Ridership (FY 2008-09)

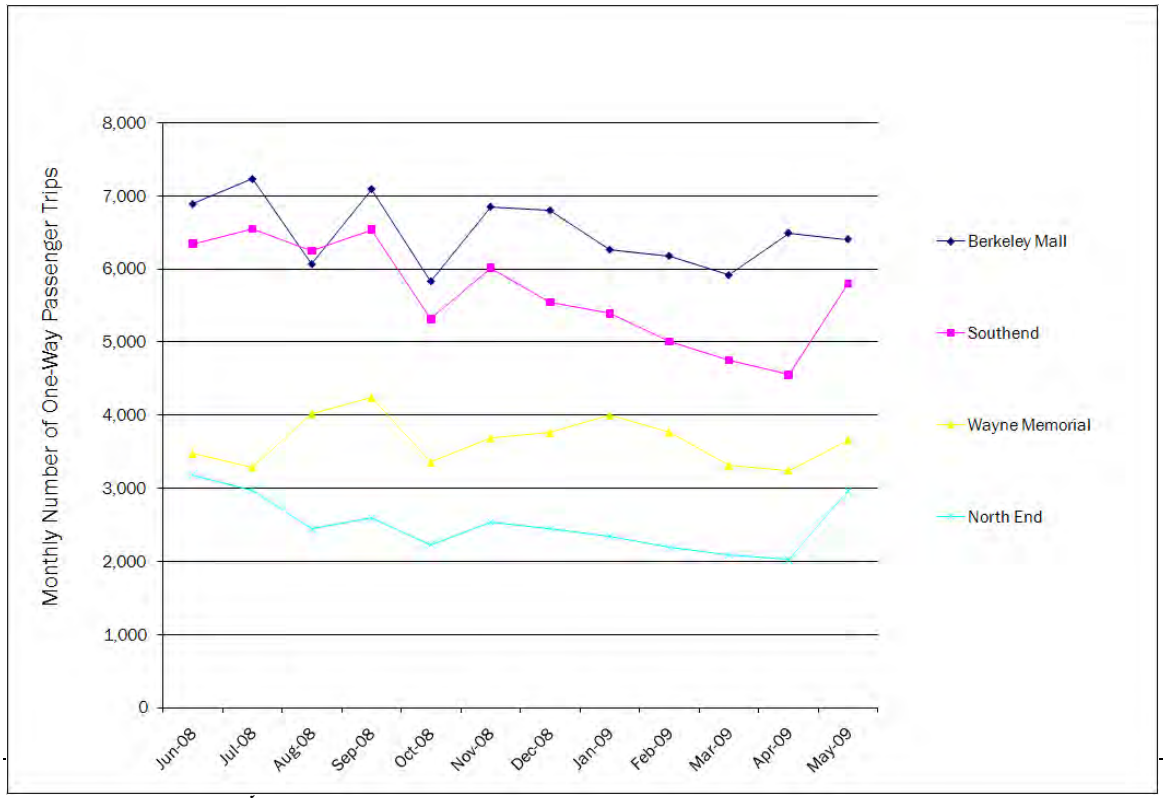


Table 5.3: GATEWAY Transit Historical Service Levels

Month	*Fixed Routes*								*Paratransit Rural*	
	Berkeley Mall	% Monthly Average	South-end	% Monthly Average	Wayne Memorial	% Monthly Average	North End	% Monthly Average	Total Number	% Monthly Average
Jul-08	6,884	105.9	6,343	111.9	3,472	95.1	3,186	127.4	57,419	102.7
Aug-08	7,229	111.2	6,545	115.4	3,289	90.1	2,977	119.0	55,718	99.7
Sep-08	6,061	93.3	6,248	110.2	4,018	110.1	2,444	97.7	58,077	103.9
Oct-08	7,091	109.1	6,536	115.3	4,238	116.1	2,591	103.6	61,571	110.2
Nov-08	5,828	89.7	5,313	93.7	3,353	91.9	2,227	89.0	47,343	84.7
Dec-08	6,848	105.4	6,015	106.1	3,686	101.0	2,539	101.5	49,794	89.1
Jan-09	6,796	104.6	5,543	97.8	3,757	103.0	2,447	97.8	49,376	88.4
Feb-09	6,261	96.4	5,390	95.1	3,996	109.5	2,340	93.5	56,161	100.5
Mar-09	6,175	95.0	5,008	88.3	3,764	103.1	2,190	87.5	61,917	110.8
Apr-09	5,911	91.0	4,751	83.8	3,312	90.8	2,086	83.4	59,783	107.0
May-09	6,490	99.9	4,553	80.3	3,246	89.0	2,025	80.9	56,110	100.4
Jun-08	6,403	98.5	5,800	102.3	3,658	100.2	2,967	118.6	57,350	102.6
Subtotal	77,977		68,045		43,789		30,019		670,619	
Monthly Average	**6,498**		**5,670**		**3,649**		**2,502**		**55,885**	
% of Subsystem Total		**35.5**		**31.0**		**19.9**		**13.7**		

Sources:
1. Goldsboro Long Range Transportation Plan 2035 Update.
2. 2008 and 2009 GWTA OPSTATS

5.3 Financial Characteristics

5.3.1 Cost Allocation Model

GATEWAY Transit's urban system operating expenses for Fiscal Year 2008-09 are shown in Table 5.4. Expenses for the fiscal year totaled $738,167. The specific operating cost line items was allocated to a quantity of service (vehicle service hour, vehicle service mile, vehicle or fixed cost) for the purposes of constructing a cost allocation model. Employee services, for example, were allocated to fixed costs, while vehicle fuel costs were allocated to vehicle service miles. When this information is combined with unit quantities of service, the following cost allocation model can be developed:

Urban Operating Cost = $34.37 x Annual Vehicle Service Hours + $0.52 x Annual Vehicle Service Miles + $3,648 x Number of Revenue Vehicles + $17,670 in Annual Fixed Costs.

The fully-allocated hourly cost is calculated by dividing the total operating cost by the annual vehicle service hours operated, which is $43.13. The cost equation and fully-allocated hourly cost, factored up to account for inflation, can be used to estimate costs associated with service changes, such as the addition of a new route or changes in the hours of service.

Similar information was collected and reviewed for the rural system, as shown in Table 5.5.

Table 5.4: GATEWAY Transit Urban Transit Cost Model FY 2008-09

Line Item	*Expense*	*Cost Allocation*			
		Fixed Costs	Vehicle Service Hours	Vehicle Service Miles	Revenue Vehicle
Employee Services	$2,660	$2,660			
Office Expense	$7,054	$7,054			
Advertising	$4,013	$4,013			
Insurance	$17,149				$17,149
Utilities	$3,943	$3,943			
Communications	$1,089				$1,089
Operating Supplies	$5,500		$5,500		
Vehicle and Equipment Operating	$114,133			$114,133	
Contract Services	$12,385		$12,385		
Professional Development	$0				
Department Service Allocation and Administrative	$570,241		$570,241		
Total	**$738,167**	**$17,670**	**$588,126**	**$114,133**	**$18,238**
Unit Quantities		N/A	17,113	221,426	5
Cost Per Unit		$17,670	$34.37	$0.52	$3,648
Fully Allocated Cost		***$43.13***			

Source:
2009 GWTA OPSTATS

Table 5.5: GATEWAY Transit Rural Transit Cost Model FY 2008-09

Line Item	*Expense*	*Cost Allocation*			
		Fixed Costs	Vehicle Service Hours	Vehicle Service Miles	Revenue Vehicle
Employee Services	$5,244	$5,244			
Office Expense	$8,323	$8,323			
Advertising	$6,427	$6,427			
Insurance	$39,471				$39,471
Utilities	$5,393	$5,393			
Communications	$491				$491
Operating Supplies	$3,391		$3,391		
Vehicle and Equipment Operating	$201,372			$201,372	
Contract Services	$0		$0		
Professional Development	$13,565	$13,565			
Department Service Allocation & Administrative	$1,118,208		$1,118,208		
Total	**$1,401,885**	**$38,952**	**$1,121,599**	**$201,372**	**$39,962**
	Unit Quantities	N/A	40,320	672,506	23
	Cost Per Unit	$38,952	$27.82	$0.30	$1,737
	Fully Allocated Cost	***$34.77***			

Source:
2009 GWTA OPSTATS

5.3.2 Revenue Sources

In Fiscal Year 2008-09, GATEWAY Transit received revenues from four sources, as shown in Table 5.6. The operating cost of urban fixed-route service was mainly funded by the federal funds (43 percent), followed by fares (24 percent), local funds (16 percent), state funds (15 percent), and other transportation revenues (1 percent). The urban demand-responsive service (ADA and evening service) was mainly funded by federal funds as well (39 percent), followed by fares (29 percent), state funds (16 percent) and local funds (16 percent). The rural demand-responsive service was mainly funded by agency contract

revenue (76 percent), followed by federal funding (14 percent), state funding (6 percent), local funding (2 percent), fares (2 percent), and a small contribution from other revenue sources (less than 1 percent). In Fiscal Year 2008-09 total systemwide revenue reached approximately $1,890,000 with $718,000 in revenue from the system's urban segment and $1,172,000 in revenue rural segment-wise.

Table 5.6: GATEWAY Transit Revenue Sources FY 2008-09

Source	*Urban Revenue*		*Rural Revenue*
	Fixed-Routes	*Paratransit*	
Federal Assistance	$236,140	$67,411	$192,490*
State assistance	$84,064	$27,477	$79,567
Local assistance	$89,701	$27,479	$28,766
Farebox	$130,220	$48,888	$26,779
Contracts	$0	$0	$1,031,681
Other	$6,762	$0	$5,204
Total	**$546,887**	**$171,255**	**$1,171,997**

*CTP 5311 Administrative
Source:
2009 GWTA OPSTATS

5.3.3 Performance Analysis

An analysis of ridership and operating data on a service category basis was conducted in order to gain further insight into the efficiency and effectiveness of GATEWAY Transit services. The Fiscal Year 2008-09 data was reviewed to identify passenger activity levels, marginal costs, allocated costs, allocated subsidy, farebox recovery ratio, and average fares. The results of this performance analysis are shown in Table 5.7.

Service effectiveness is perhaps best measured by 'productivity,' which is defined as the number of one-way passenger trips provided per each service hour. As seen in Table 5.7, systemwide GATEWAY productivity was at 5.8 one-way passenger trips per vehicle service hour in Fiscal Year 2008-09. Individually, the fixed routes' portion of GATEWAY had a productivity of 12.7, while the rural paratransit achieved a productivity of 2.4.

Another measure of transit's effectiveness is the number of one-way passenger trips provided per vehicle service mile. As seen in Table 5.7, systemwide, GATEWAY stood at 0.38 one-way passenger trips per vehicle service mile in Fiscal Year 2008-09. Individually, the fixed routes' portion of GATEWAY had this measure of productivity calculated at 0.99, while the rural paratransit section stood at 0.14. It should be noted that the urban side of GATEWAY's paratransit service has operated as a deviated 'fixed route' and therefore no vehicle service hours data, or vehicle service miles for that matter, has been available.

The financial efficiency of a given transit system can be measured by the operating cost per one-way passenger trip. Systemwide, GATEWAY's operating cost per one-way passenger trip in Fiscal Year 2008-09 was $5.41, with fixed routes' segment performing the best at $2.51 operating cost per passenger trip, followed by paratransit urban at $8.30, and paratransit rural at $11.35. As expected, GATEWAY has subsidized each passenger trip – subtracting farebox revenue from the total cost and dividing it by the number of one-way passenger trips yields the subsidy required per one-way passenger trip. The operating subsidy per passenger is an important measure of a transit system performance particularly because it directly compares the most significant public input (public subsidy funding) with the most significant output (one-way passenger trips). Systemside, GATEWAY transit required a subsidy of $4.73 per one-way passenger trip in Fiscal Year 2008-09. Again, the fixed routes segment of the system fared the best – it required a subsidy of $1.91 per one-way passenger trip, as compared to $4.93 urban paratransit-wise, and $11.07 in terms of rural paratransit service.

Lastly, one known measure of transit system's cost-effectiveness is the farebox recovery ratio. The measure is particularly useful in finding out whether the mandated minimums required for obtaining funding were met. The federally-mandated farebox recovery ratio is currently set at 10 percent for rural areas and at 20 percent for urban areas such as Goldsboro and GATEWAY Transit has met these requirements. The systemwide GATEWAY Transit farebox recovery ratio was at 12.5 percent, but the urban paratransit segment achieved the best farebox recovery ratio of 40.6 percent, followed by fixed route segment at 23.9 percent and GATEWAY's rural paratransit segment at 2.5 percent. The actual fare per passenger trip that GATEWAY received favored its urban paratransit segment at $3.37 per passenger, followed by its fixed routes at $0.60 and rural paratransit at $0.20. Systemside, GATEWAY transit's fare per passenger trip stood at $0.68 in the 2008-09 Fiscal Year.

Table 5.7: GATEWAY Transit Performance Analysis FY 2008-09

Line Item	*Fixed Routes*	*Paratransit Urban*	*Paratransit Rural*	*Systemwide*
One-way Passenger Trips	218,169	20,624	96,478	335,271
Operating Expenses	$546,887	$171,256	$1,094,999	$1,813,142
Passenger Fares	$130,220	$69,564	$26,779	$226,563
Vehicle Service Hours	17,113	*	40,320	57,433
Vehicle Service Miles	221,426	*	672,506	893,932
Passenger Trips / Vehicle Service Hours	12.7	n/a	2.4	5.8
Passenger Trips / Vehicle Service Miles	0.99	n/a	0.14	0.38
Operating Cost per Passenger - Trip	$2.51	$8.30	$11.35	$5.41
Operating Subsidy per Passenger - Trip	$1.91	$4.93	$11.07	$4.73
Farebox Recovery Ratio	23.81%	40.62%	2.45%	12.50%
Fare per passenger trip	**$0.60**	**$3.37**	**$0.28**	**$0.68**

*Had been operated as deviated fixed-route, hence no DR miles or hours

Source:
2009 GWTA OPSTATS

5.3.4 GATEWAY Transit Vehicle Fleet

GATEWAY has a fleet 29 vehicles - five urban vans/minibuses and 23 paratransit vans, as well as one maintenance vehicle (data as of June 2009). All of the vehicles are ADA-accessible. Table 5.8 presents more details about GATEWAY's vehicle fleet along with projected replacement schedule based on industry standards. The table also list surplus vehicles that were sold in the Fiscal Year 2008-09.

The fixed routes segment of GATEWAY transit utilizes four of the five available minibuses in order to provide consistent hourly services throughout the service day, both on weekdays and on Saturdays. The paratransit segment typically uses up to 20 of the available 23 vans.

Table 5.8: GATEWAY Transit Vehicle Fleet FY 2008-09

Service Type	*Year*	*Mileage as of June 2009*	*Service Status*	*Year of Planned Replacement*
Urban	2006	82,722	In Service	2011
	2006	91,163	In Service	2011
	2007	33,944	In Service	2012
	2007	30,612	In Service	2012
	2007	38,412	In Service	2012
	1994	110,891	Surplus - sold	N/A
Rural	2009	5,388	In Service	2014
	2009	4,788	In Service	2014
	2009	6,844	In Service	2014
	2009	6,632	In Service	2014
	2008	43,069	In Service	2013
	2008	45,078	In Service	2013
	2006	149,510	In Service	2011
	2006	137,079	In Service	2011
	2006	111,448	In Service	2011
	2006	121,741	In Service	2011
	2009	3,991	In Service	2014
	2009	2,780	In Service	2014
	2007	109,811	In Service	2012
	2007	94,829	In Service	2012
	2007	76,170	In Service	2012
	2007	86,084	In Service	2012
	2007	74,081	In Service	2012

Rural cont.	2007	81,475	In Service	2012
	2007	78,250	In Service	2012
	2008	40,085	In Service	2013
	2009	3,663	In Service	2014
	2006	107,467	In Service	2011
	2004	109,453	In Service	2009
	2003	150,265	Surplus - sold	N/A
	2003	133,124	Surplus - sold	N/A
	2003	178,163	Surplus - sold	N/A
	2003	146,665	Surplus - sold	N/A
	2003	144,924	Surplus - sold	N/A
	2003	143,120	Surplus - sold	N/A
Maintenance	2002	16,144	In Service	N/A

Source:
2009 GWTA OPSTATS

5.4 Other Transit Options in Wayne County

5.4.1 WayneNET

WayneNet, operated by Wayne County Emergency Services, provides non-emergency medical transportation between private homes and medical facilities. This service is limited to persons that require special mobility assistance and/or health monitoring during transit. WayneNet does not have standard rates; rather the variable fare is billed to the rider or to the rider's medical insurance company.

5.4.2 Taxi Companies

There are a limited number of taxicab companies that operate within the Goldsboro city limits, including City Cab Company and Webb Town Taxi. These companies provide demand responsive service with standard fees based on mileage, waiting time, and number of stop locations. Taxi businesses and taxi drivers are regulated by the Goldsboro City Ordinance.

5.4.3 Greyhound Bus Service

Greyhound Lines, Inc. is the only provider of scheduled inter-city bus service within Wayne County. The only Greyhound stop in the County is in Goldsboro, at 410 North John St, where the depot is operated by a private agent. At the time of preparation of this report, Greyhound had eight daily departures from Goldsboro:

- 5:25 AM: Wilmington, NC, Schedule 0361
- 6:30 AM: Myrtle Beach, SC, Schedule 0381
- 9:35 AM: Raleigh, NC, Schedule 0364
- 11:50 AM: Raleigh, NC, Schedule 0382
- 4:20 PM: Camp Lejeune, NC, Schedule 0385
- 3:55 PM: Wilmington, NC, Schedule 0519
- 8:35 PM: Richmond, Virginia, Schedule 0568
- 8:40 PM: Raleigh, NC, Schedule 0384

In addition to the locations directly reached from Goldsboro, a wide range of other destinations (such as Charlotte and Atlanta) can be reached by making transfers, particularly in Raleigh and Richmond.

5.4.4 Passenger Rail Service

There is currently no passenger rail service within Wayne County. However, several different rail services are proposed (described in more detail in Section 4.12). The nearest passenger rail service is at Selma-Smithfield in Johnson County and Wilson in Wilson County, east and north of Wayne County, respectively. These stations are currently served by four Amtrak trains each day:

- The Palmetto (train 89 southbound and 90 northbound), between New York, NY and Savannah, Georgia.
- The Carolinian (train 79 southbound and 80 northbound), between New York, NY and Charlotte. This is a state-supported service and provides links to North Carolina destinations including Raleigh, Durham and Greensboro.

Additional trains between New York, NY and Miami, Florida are available at Rocky Mount in Nash County, Fayetteville in Cumberland County, and Raleigh in Wake County. These are trains which currently omit Selma-Smithfield and Wilson (see Figure 5.5. for a map showing existing AMTRAL stops in North Carolina). The scheduled times are inevitably based

around the demands of the main long-distance markets the trains serve. Currently, all calls at Selma-Smithfield or Wilson are at lunchtime or in the afternoon, thus offering daytime service to many destinations.

Figure 5.5: Existing North Carolina AMTRAK Routes and Stations

Source: AMTRAK website

5.4.5 Air Travel

The municipal airports at Goldsboro and Mount Olive provide general aviation facilities, but there are no scheduled commercial air services to/from Wayne County. The main airport serving Wayne County is Raleigh-Durham International Airport. This provides direct flights to destinations across the continental US and abroad. In nearby counties, Fayetteville Regional Airport currently offers service to Charlotte on US Airways Express and to Atlanta on Delta. Pitt Greenville Airport currently offers service to Charlotte on US Airways Express. Kinston Regional Jetport no longer has scheduled service.

6 Current GATEWAY Transit Service Review

6.1 Fixed Route On-Time Performance

6.1.1 Methodology

Running-time data were collected on each of GATEWAY Transit's four local fixed routes on Wednesday, March 25 and Thursday, March 26, 2009. These represented normal operating weekdays, with local schools in session, no inclement weather and no holidays. Staff recorded travel times on the trips that departed the transfer center hourly between 7:30am and 10:30am and between 12:30pm and 3:30pm. This means that a total of 16 runs (eight per day) were recorded on each route.

6.1.2 Results

High schedule reliability is important given GATEWAY Transit's hourly service. If buses run early, passengers may be saddled with long waits for the following trips, while consistently late buses may require passengers to plan their travels to occur an hour earlier in order to get to work on time. GATEWAY Transit's pulse-based scheduling facilitates easy transfers for passengers if each route is running on time, but if buses are held to wait for a late-arriving trip on another route, delays on all routes can increase throughout the day.

Figure 6.1 shows the results on each route. The lines indicate scheduled travel time (blue) and actual travel time (red) from the transfer center. The gray area indicates the range of travel times observed to reach each of the selected stops. Zero represents xx:30, the scheduled departure time from the transfer center, and 60 represents the next xx:30.

The gray area should not extend below the scheduled travel time, as this indicates early running. Nor should it extend above the 60-minute line, as this indicates that a bus arrived at the transfer center after its next trip was scheduled to begin (i.e. the next trip will inevitably start late).

Scheduled and observed travel times were shortest along the Slocumb Street/Southend Route; the scheduled round-trip travel time for this route is approximately 50 minutes and nearly all trips were completed within this timeframe. Schedule pressures were most evident along the Berkeley Mall Route, where round-trip travel times were as high as 58 minutes. Passenger boarding and alighting and operator reliefs at the transfer center can lead to late starts on subsequent trips, which can cause the cascading delays described earlier.

Table 6.1 summarizes the results and observations for each route. The overall conclusions are that:

1. The scheduled running times are appropriate, as they reflect the actual running times well.

2. Late departures from the transfer point lead to late-running and potentially a knock-on effect on the following hour's trip, resulting in rushed/late departures.

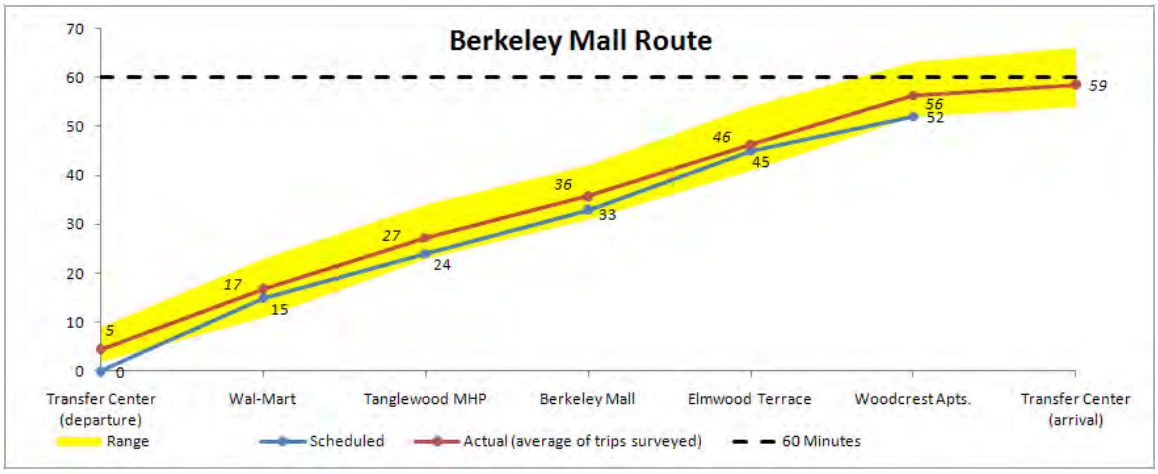
3. The Southend route could absorb some additional running time, particularly if the late departures from the Transfer Point can be addressed.

4. The Berkeley Mall route has poor timekeeping, because of a combination of tight timing, variable run times, and the knock-on effect of late departures from the Transfer Point.

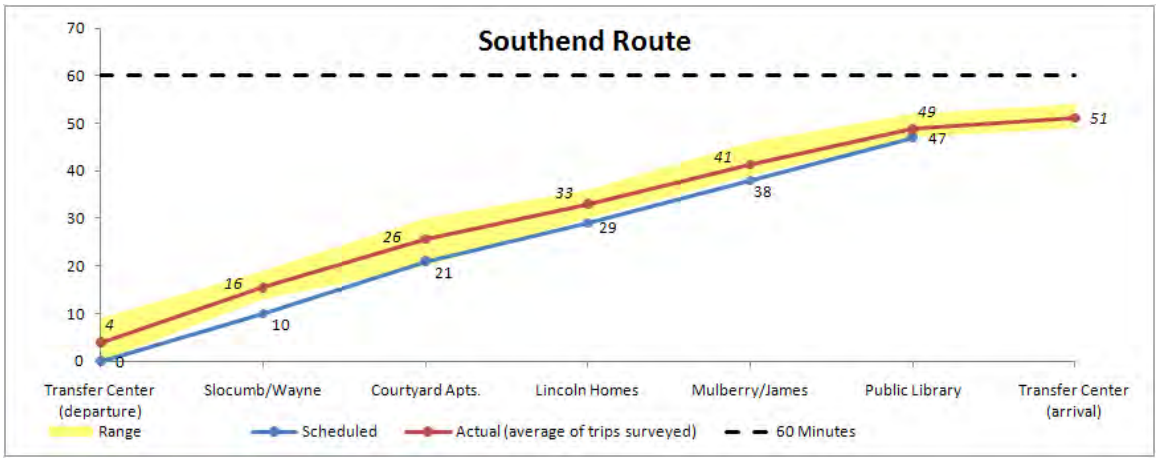
5. The Wayne Memorial and Northend routes have good timekeeping, although the Wayne Memorial route has less capacity to readily absorb late departures from the Transfer Point. Neither of these routes can absorb additional run time.

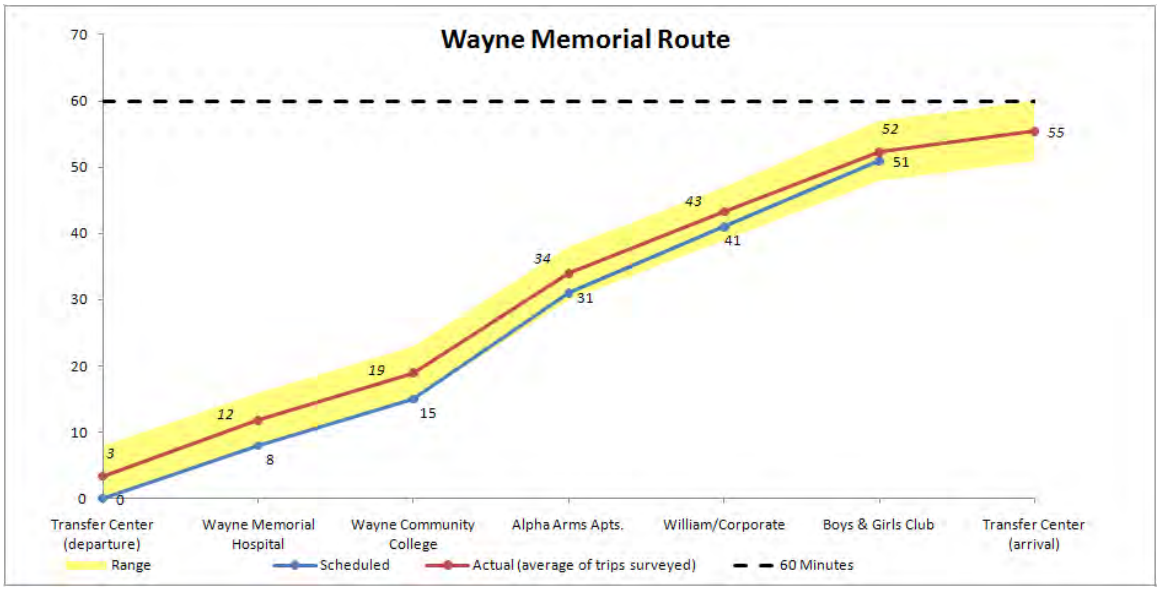
6. The Southend route has good timekeeping and can absorb a limited amount of additional run time, particularly if departures from the Transfer Point can be consistently on time.

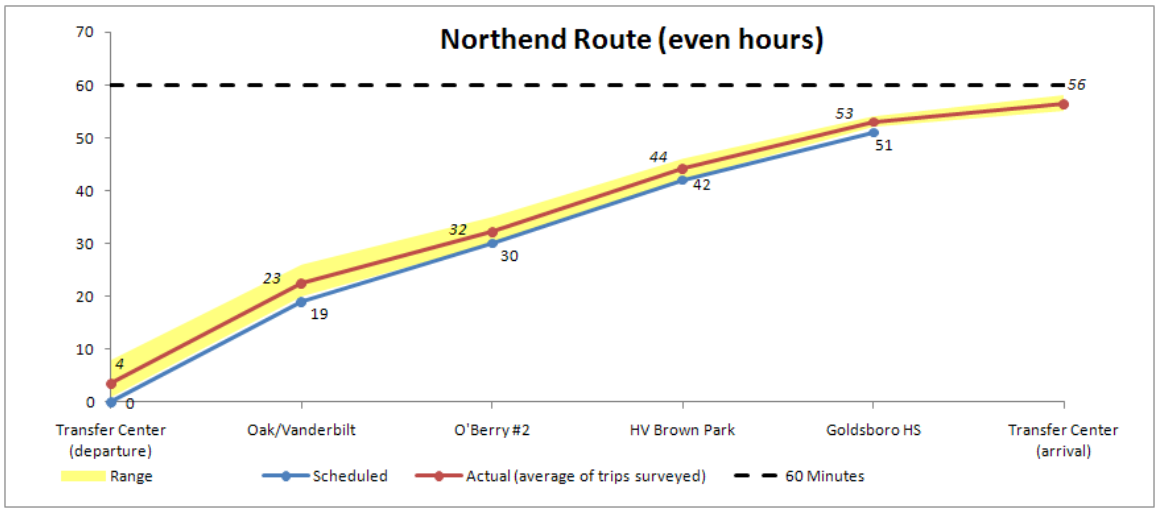
Figure 6.1: GATEWAY Transit Fixed Route On-Time Performance, by Route



Note: times at Wal-Mart may be arrival times; these should not be taken as indicating early departure.


Southend Route
70
60
50
40
30
20
10
0
4
16
26
33
41
49
51
0
10
21
29
38
47
Transfer Center (departure)
Slocumb/Wayne
Courtyard Apts.
Lincoln Homes
Mulberry/James
Public Library
Transfer Center (arrival)
Range
Scheduled
Actual (average of trips surveyed)
60 Minutes


Wayne Memorial Route
70
60
50
40
30
20
10
0
3
12
19
34
43
52
55
0
8
15
31
41
51
Transfer Center (departure)
Wayne Memorial Hospital
Wayne Community College
Alpha Arms Apts.
William/Corporate
Boys & Girls Club
Transfer Center (arrival)
Range
Scheduled
Actual (average of trips surveyed)
60 Minutes


Northend Route (even hours)
70
60
50
40
30
20
10
0
4
23
32
44
53
56
0
19
30
42
51
Transfer Center (departure)
Oak/Vanderbilt
O'Berry #2
HV Brown Park
Goldsboro HS
Transfer Center (arrival)
Range
Scheduled
Actual (average of trips surveyed)
60 Minutes

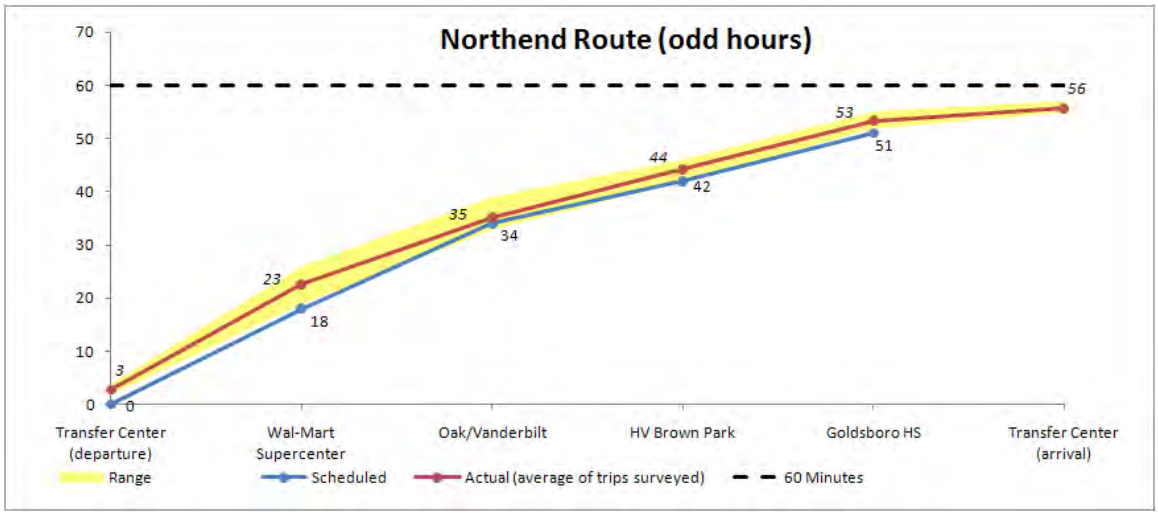


Table 6.1: GATEWAY Transit Fixed Route Summary of Run-Time Survey Results

Route	*Max/min run time*	*Average run time*	*Actual versus scheduled run times*	*Conclusion*
Berkeley	52-58 minutes	54 mins	Very close match	Late departures mean a nearly 50-50 chance of this route starting the next trip late. Even if trip starts on time, the route is tightly timed with little margin for delay.
Southend	46-50 minutes	47 mins	Close match; schedule is conservative	Current timings work very well. There is some scope for a small amount of additional mileage, especially if late departures from the transfer point can be eliminated.
Wayne Memorial	47-56 minutes	52 minutes	Close match; schedule is conservative	Late departures mean the bus arrives at the transfer center with little or no time before the next run. If late departures from the transfer point can be eliminated, this route should run well.
Northend (even hours)	49-55 minutes	52 minutes	Close match	Current timings work well, albeit tightly timed with little margin for delay.
Northend (odd hours)	53-53 minutes	53 minutes	Reasonable match	Current timings work well, albeit tightly timed with little margin for delay.

6.2 Boarding and Alighting by Stop

Boarding and alighting data were collected on each of GATEWAY Transit's four local fixed routes on Wednesday, March 25 and Thursday, March 26, 2009. These represented normal operating weekdays, with local schools in session, no inclement weather and no holidays.

The data collection was combined with distribution of the on-board survey, as a cost-effective way of gathering these key datasets. Staff performed manual ridership counts and recorded travel times on the trips that departed the transfer center hourly between 7:30am and 10:30am and between 12:30pm and 3:30pm. This means that eight of the 13 trips on each route were recorded each day, for a total of 64 trips. An average of 563 boardings was recorded each day over the trips recorded; GATEWAY Transit's average fixed-route weekday ridership is estimated to be approximately 750.[3]

6.2.1 Boarding and Alighting by Stop

Figure 6.2 shows the boardings and alightings recorded at each stop. The figures on the map are the daily average for the two survey days. Because the surveys did not include all the runs each day, the actual daily ridership will be higher than the figures shown. It may be assumed that the weekday daily ridership at each stop is on average about one-third higher than the figures shown here[4].

Because some important areas are served by more than one stop, it is important to look at the overall distribution of boardings and alightings as well as the figures for individual stops.

The system's busiest stop by far is the Transfer Center, with more than 400 boardings or alightings per day. Given the pulse-based nature of the GATEWAY Transit system, whereby all routes meet for timed transfers each hour, most of this activity represents passengers transferring between buses.

The second-busiest stop is Wayne Community College, on the Wayne Memorial route (at least 60 boardings and alightings, representing more than 30 round-trips), and this is closely followed by Wal-Mart on Spence Avenue (at least 47 boardings and alightings, representing more than 23 round trips).

Other important destination areas are:

- Berkeley Boulevard / Spence Avenue retail areas (including the Wal-Mart stop),
- Downtown area,

[3] Based on 215,704 boardings in fiscal year 2008, 52 weeks per year and ridership on Saturdays half that of weekdays.

[4] Recorded daily average boardings of 563 compared to estimated daily average weekday boardings of 750.

- Hospital and surrounding medical offices, and
- Locations around Lionel Street and Herman Street (particularly Piggly Wiggly and the Health Department).

The most important residential origin areas include:

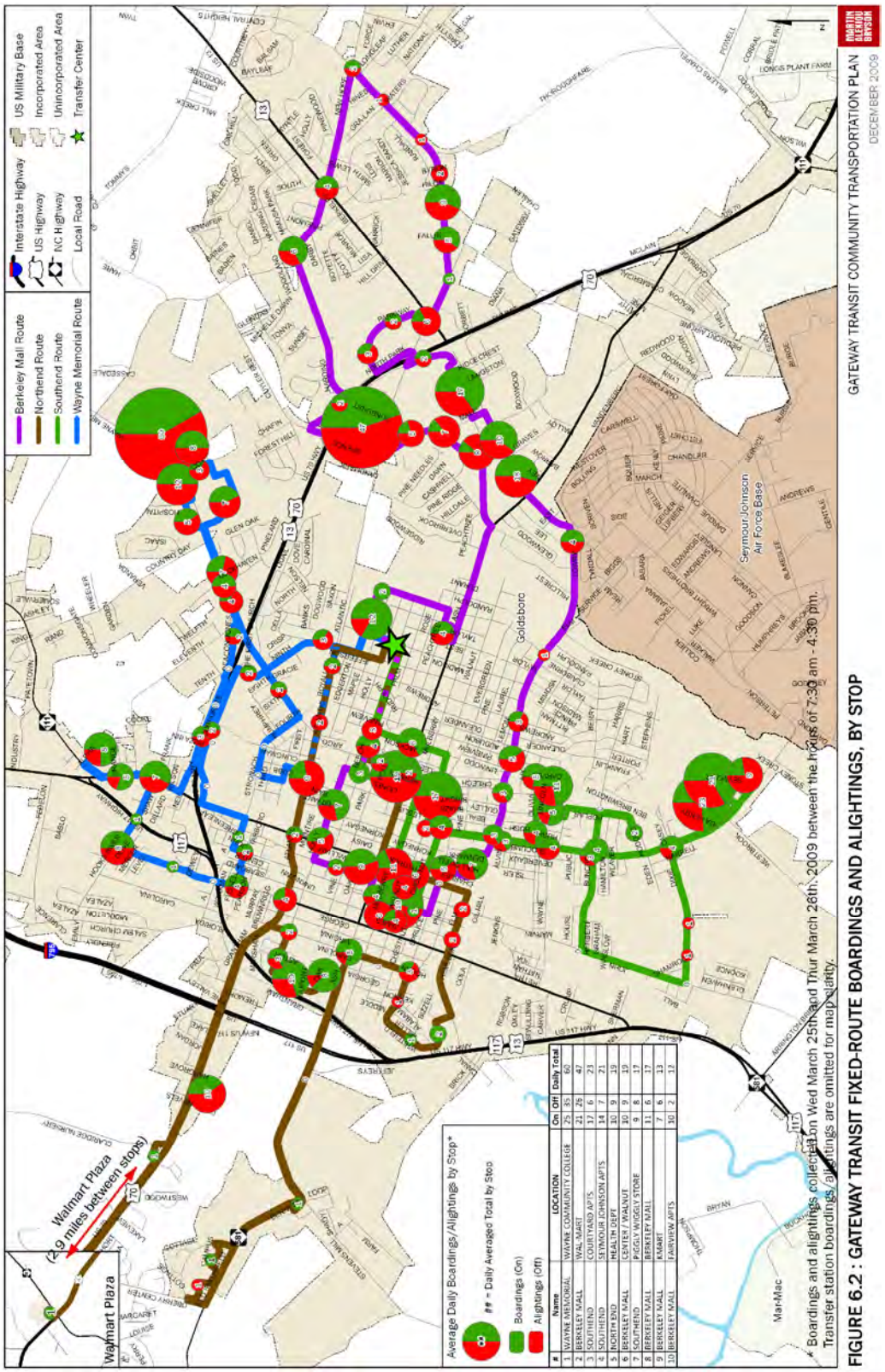
- Edgerton Avenue housing,
- Oak Street area,
- Apartments at the south end of Slocumb Street, Lincoln Avenue, and the Spruce / William estate.

At the opposite end of the spectrum, **Table 6.2** lists the stops with no riders during the survey period.

Table 6.2: GATEWAY Transit Fixed Route Stops With No Observed Ridership During the Survey

ROUTE	*STOPS*
Northend	APV, Carolina/Walnut
Southend	Bunche/John, Dixie Trail/John, Harris/Poplar
Berkeley Mall	Spruce/William
Wayne Memorial	Country Inn Suites, Best Western, George/A Street, William/Corporate, Econo Lodge, 4th/Clingman, Stronach/Herring

Figure 6.2: GATEWAY Transit Fixed Route Boardings and Alightings, by Stop



#	Name	LOCATION	On	Off	Daily Total
1	WAYNE MEMORIAL	WAYNE COMMUNITY COLLEGE	25	35	60
2	BERKELEY MALL	WAL-MART	21	25	47
3	SOUTHEND	COURTYARD APTS	17	6	23
4	SOUTHEND	SEYMOUR JOHNSON APTS	14	7	21
5	NORTH END	HEALTH DEPT	30	9	39
6	BERKELEY MALL	CENTER / WALNUT	30	9	39
7	SOUTHEND	PIGGLY WIGGLY STORE	9	8	17
8	BERKELEY MALL	BERKELEY MALL	11	6	17
9	BERKELEY MALL	K-MART	7	6	13
10	BERKELEY MALL	FAIRVIEW APTS	10	2	12

6.2.2 Ridership by Route

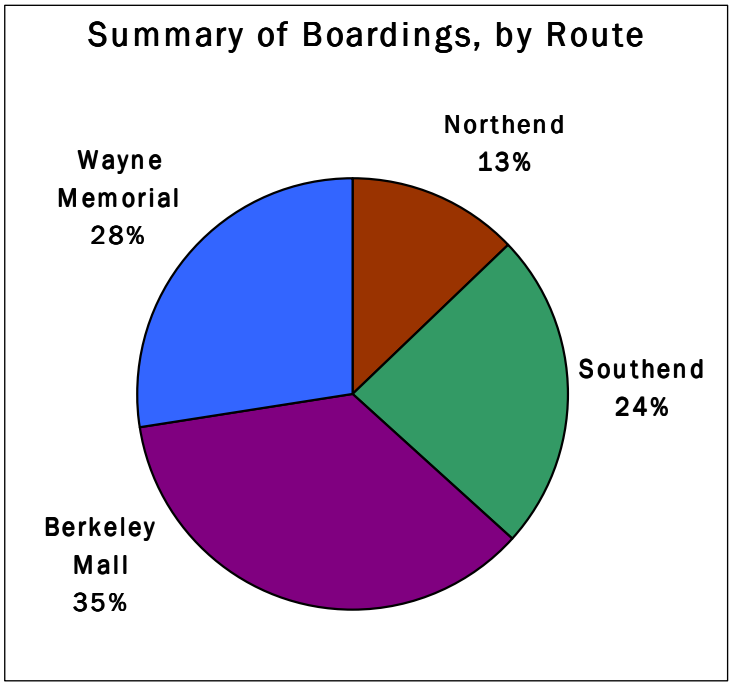
The first level of ridership analysis is to understand which routes are busiest. Table 6.3 and Figure 6.3 summarize the overall ridership on each route, according to the on-board survey. Ridership is highest on the Berkeley Mall Route, which serves the busy Spence Avenue and one-third of all boardings. The Wayne Memorial and Southend routes are approximately equal, at about 19 and 17 riders per hour respectively. Although the single busiest stop, the Community College, is on the Wayne Memorial route, it is outweighed by the group of stops on Spence Avenue and Berkeley Boulevard on the Berkeley Mall route. Ridership is lowest on the Northend Route, at approximately nine riders per hour. This is a very low productivity – little more than half that of the Southend route.

Table 6.3: GATEWAY Transit Fixed Route Boardings and Boardings Per Hour, by Route

Route	Counted Boardings		Boardings per hour
Berkeley Mall	202	36%	24.9
Wayne Memorial	155	28%	18.9
Southend	134	24%	16.7
Northend	72	13%	8.9
Total	563	100%	69.4
Average			17.3

Source: On-Board Survey, March 25-26, 2009. The on-board survey data are not a full daily average, but are a reasonable indication of overall performance.

Figure 6.3: GATEWAY Transit Fixed-Route Summary of Boardings, by Route



Source: On-Board Survey, March 25-26, 2009.

6.2.3 Transfers and Use of the Transfer Point

Riders who pass through the Transfer Point will make two boardings and two alightings on a single trip. (Even if they remain on the same bus going through the Transfer Point, they must alight and re-board.) Ridership statistics normally count these as two separate trips.

Of the total 563 boardings, 221 were made at the Transfer Point and 342 were made elsewhere. This means that approximately 65 percent of riders' trips pass through the Transfer Point. For this analysis, it can be assumed that everyone who boards at the transfer point is transferring from another bus (probably around three out of every four) or is re-boarding the bus on which they arrived. (probably around one out of every four). Overall, this means that:

- around 50 percent of riders make a transfer at the Transfer Point,
- around 15 percent re-board the same bus at the Transfer Point, and
- around 35 percent only need one bus for their trip, and do not use the Transfer Point.

The proportion making transfers is relatively high; in comparable cities the proportion is often around one in three.

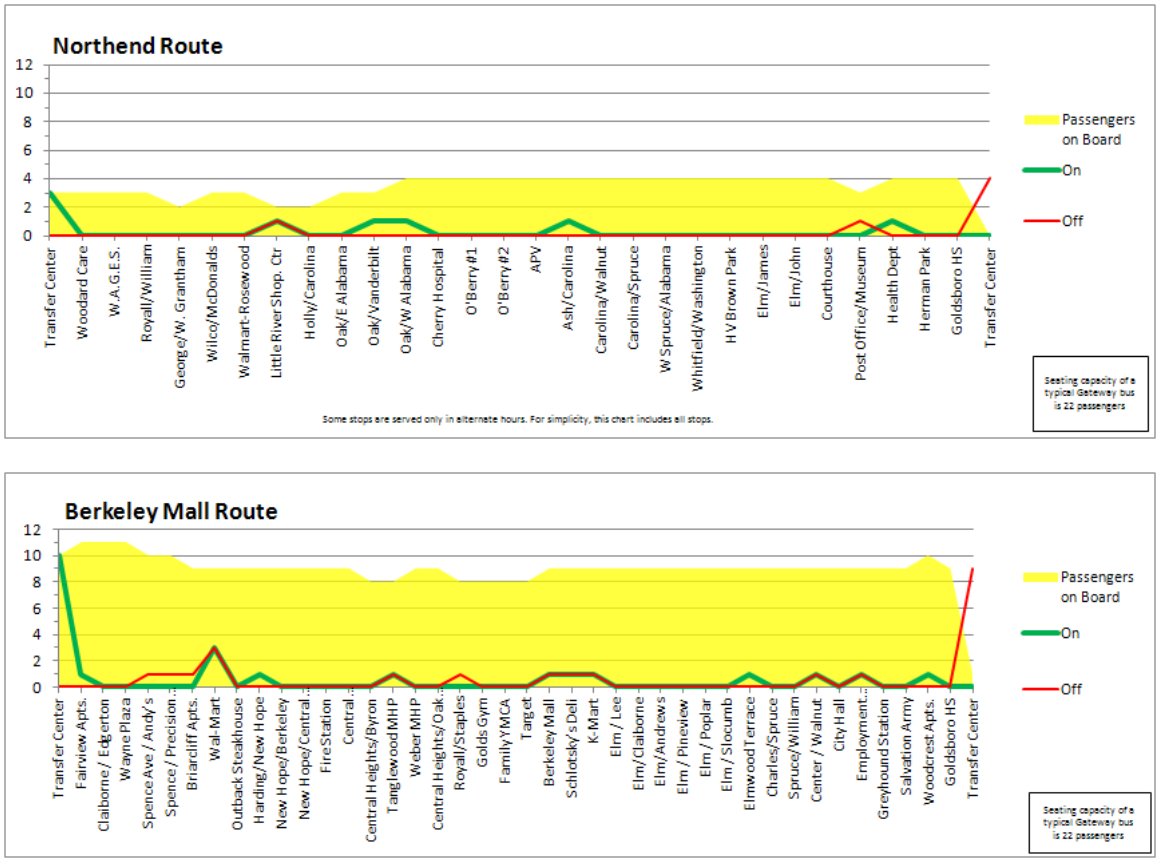
6.2.4 Ridership by Route and Location

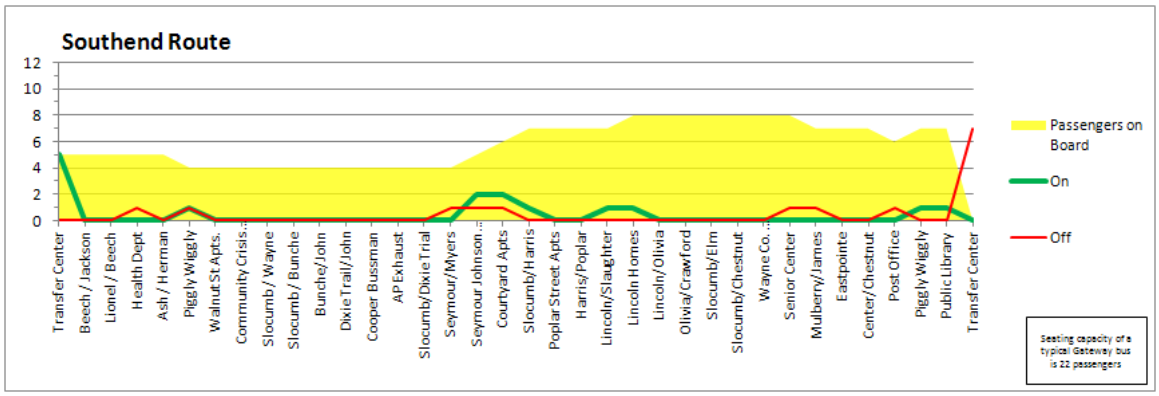
The next level of analysis is to understand which parts of each route are the busiest. Figure 6.4 shows the boardings (heavy green line), alightings (thin red line) and loadings (blue background) on each route, in terms of the average number on any trip.

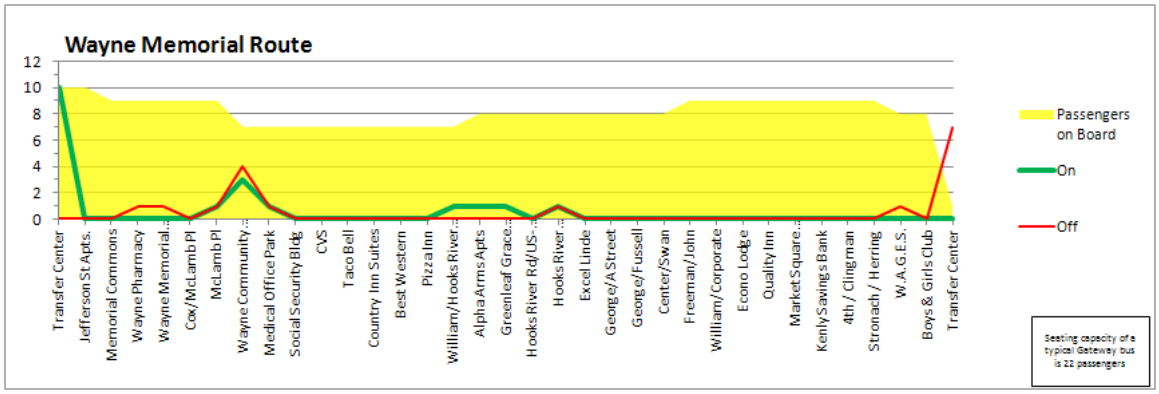
The observed loadings are relatively even throughout the trip on each route., except on the Southend route. This is unsurprising, because the routes are all one-way loops and many people's trips will involve one part of the loop on their way out and the remainder of the loop on their return.

On the Southend route, the observed loadings are noticeably higher on the second half of the route. This appears to reflect a number of stops in residential areas near Slocumb Street where average boardings exceed average alightings. The ridership pattern in these areas includes a number of afternoon trips from home whose return trips will have been after the survey finished for the day. The actual loadings are therefore likely to be relatively even throughout the trip, in line with the other routes.

Figure 6.4: GATEWAY Transit Fixed-Route Passenger Load and Activity over an Average Trip, by Route





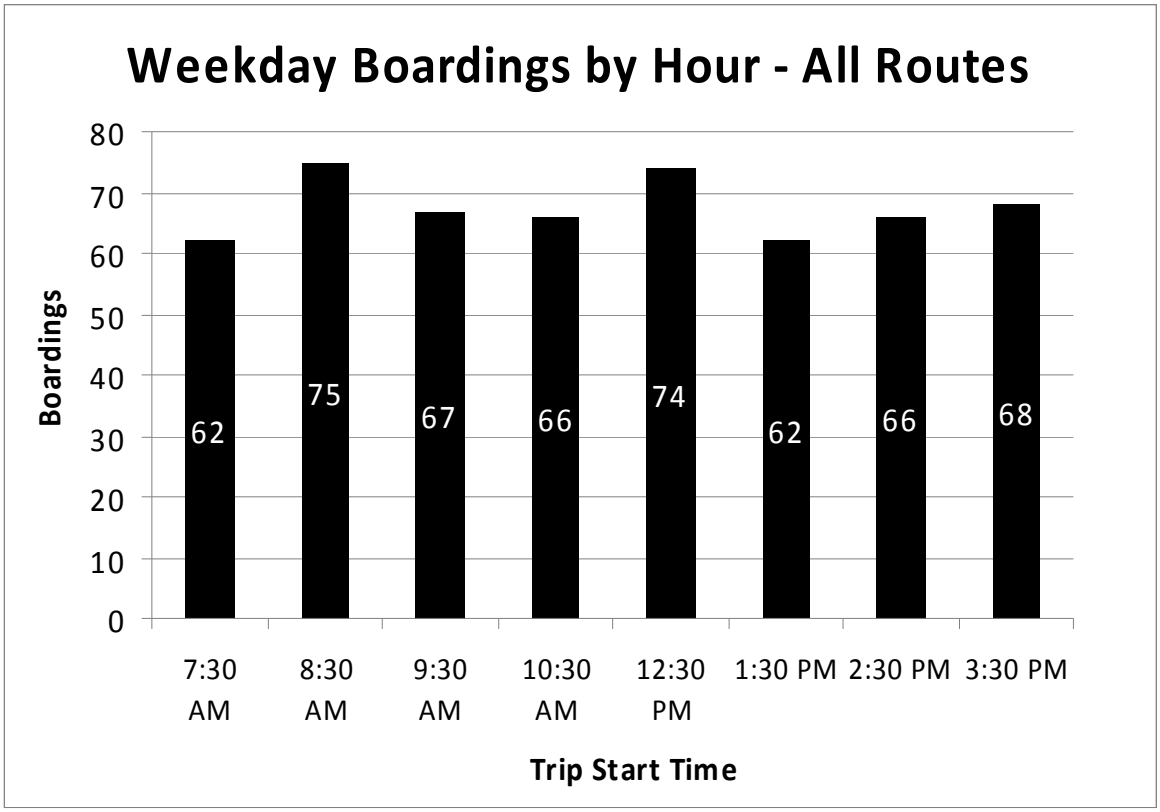


Source: On-Board Survey, March 25-26, 2009. The on-board survey data are not a full daily average, but are a reasonable indication of overall performance.

6.2.5 Ridership by Time-of-Day

The next level of analysis is to understand how the ridership varies during the course of the day. Figure 6.5 depicts boardings by hour for the survey period. The boardings are relatively consistent throughout the period. The busiest hours were 8:30-9:30am and 12:30-1:30pm. The earliest and latest runs of the day, which were not surveyed, are considered to have lower ridership than the rest of the day, an assumption which has been confirmed by drivers.

Figure 6.5: GATEWAY Transit Fixed-Route Weekday Boardings by Hour (All Routes)

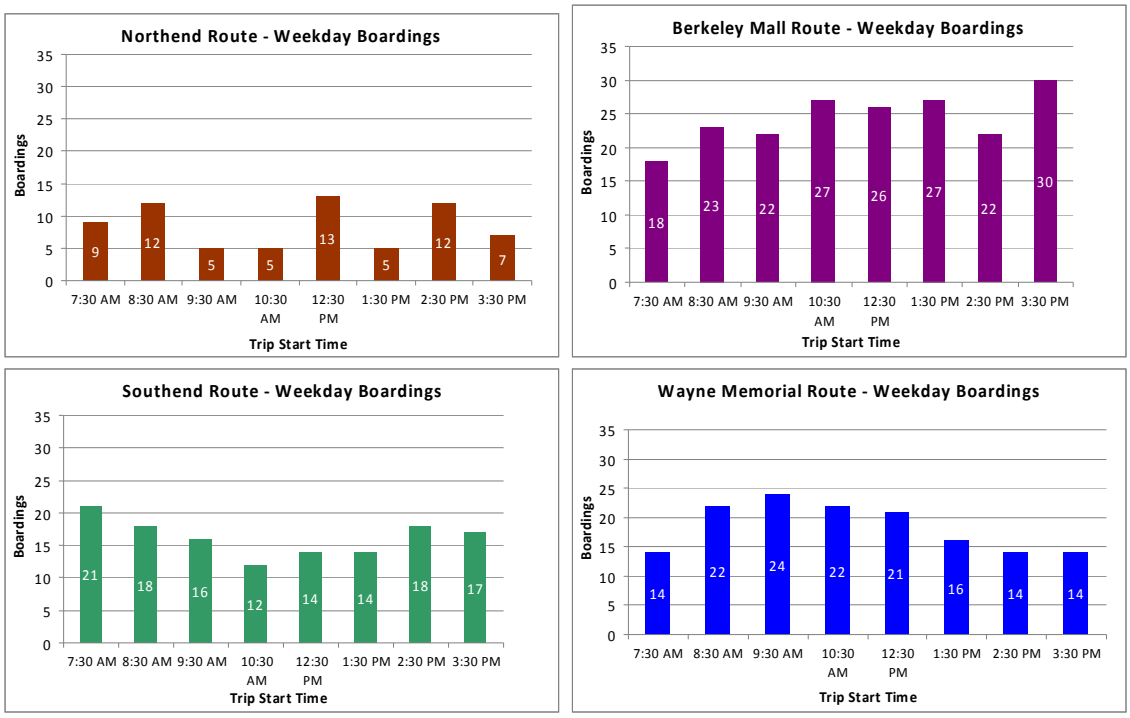


Source: On-Board Survey, March 25-26, 2009. Figures are averaged across the two survey days. Hours not surveyed are omitted from chart. Hourly figures are rounded; the sum of the hourly figures therefore may not exactly match the daily totals.

6.2.6 Ridership by Time-of-Day and Route

Figure 6.6 shows the same data for each route. Although the overall total is broadly even throughout the day, there are differences between routes. The Wayne Memorial route is busiest in mid-morning, probably reflecting a combination of Community College classes and medical appointments. The Southend route is busiest early and late in the day, probably reflecting the employment patterns of people living on this route (some people made two round trips per day).

Figure 6.6: GATEWAY Transit Fixed-Route Weekday Boardings by Hour (Individual Routes)



Source: On-Board Survey, March 25-26, 2009. Figures are averaged across the two survey days. Hours not surveyed are omitted from chart. Hourly figures are rounded; the sum of the hourly figures therefore may not exactly match the daily totals.

6.2.7 Loading and Overcrowding

The final level of analysis is to understand the loadings at each point on each trip. This is to establish whether there are any times and locations where the buses are particularly busy and riders may have to stand. Figure 6.7 lots the load for each trip on each route. Table 6.4 summarizes the highest load observed on each route during the survey.

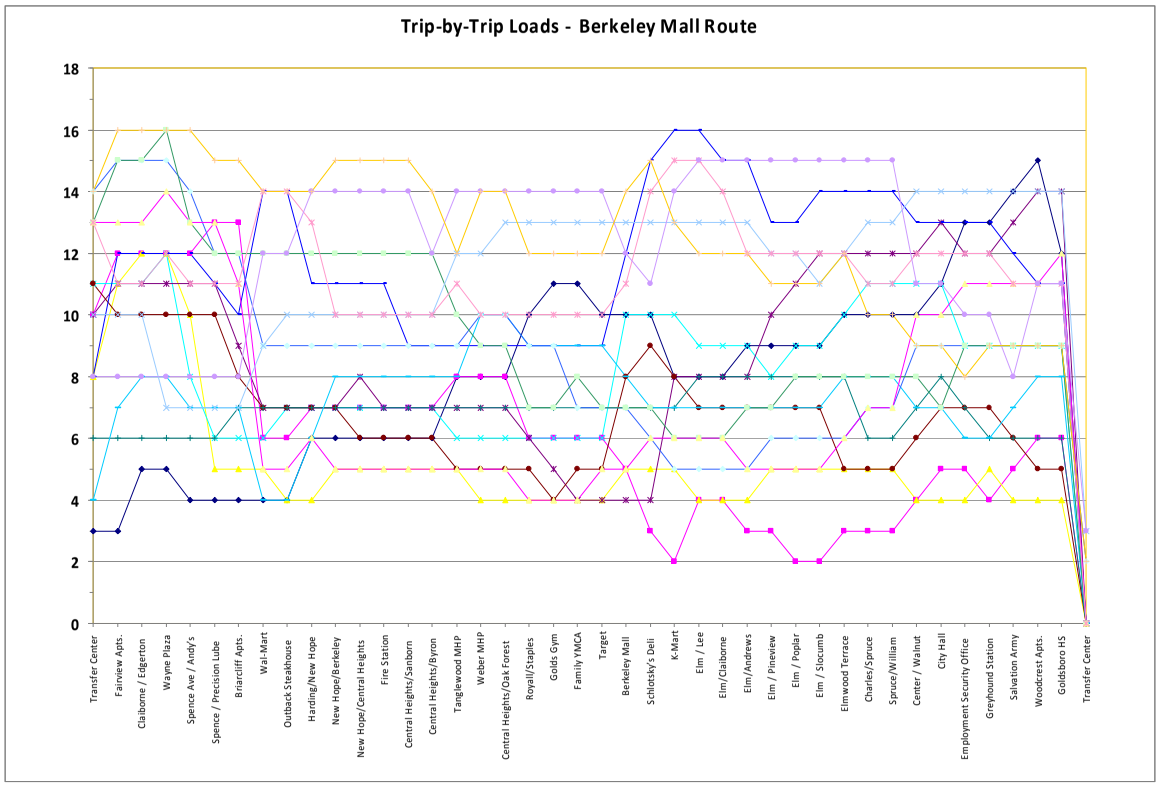
Table 6.4: Maximum Observed Load, by Route

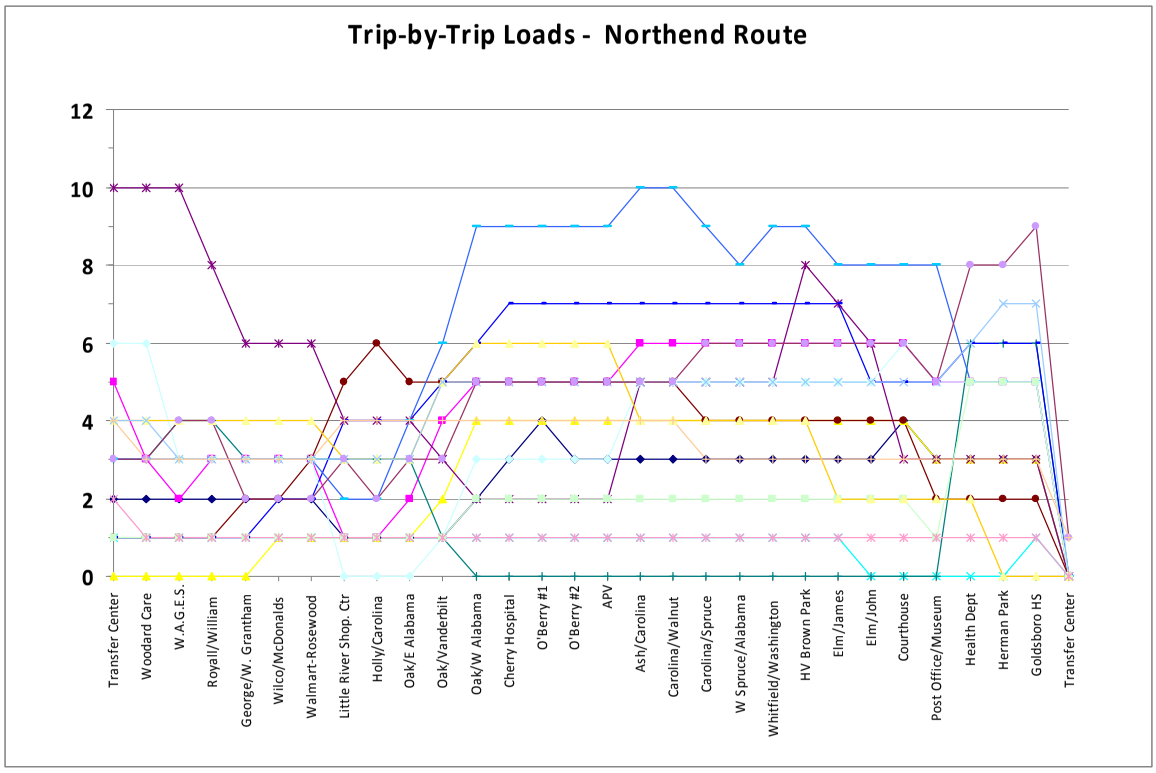
ROUTE	MAXIMUM OBSERVED LOAD
Berkeley Mall	16
Northend	10
Southend	17
Wayne Memorial	19

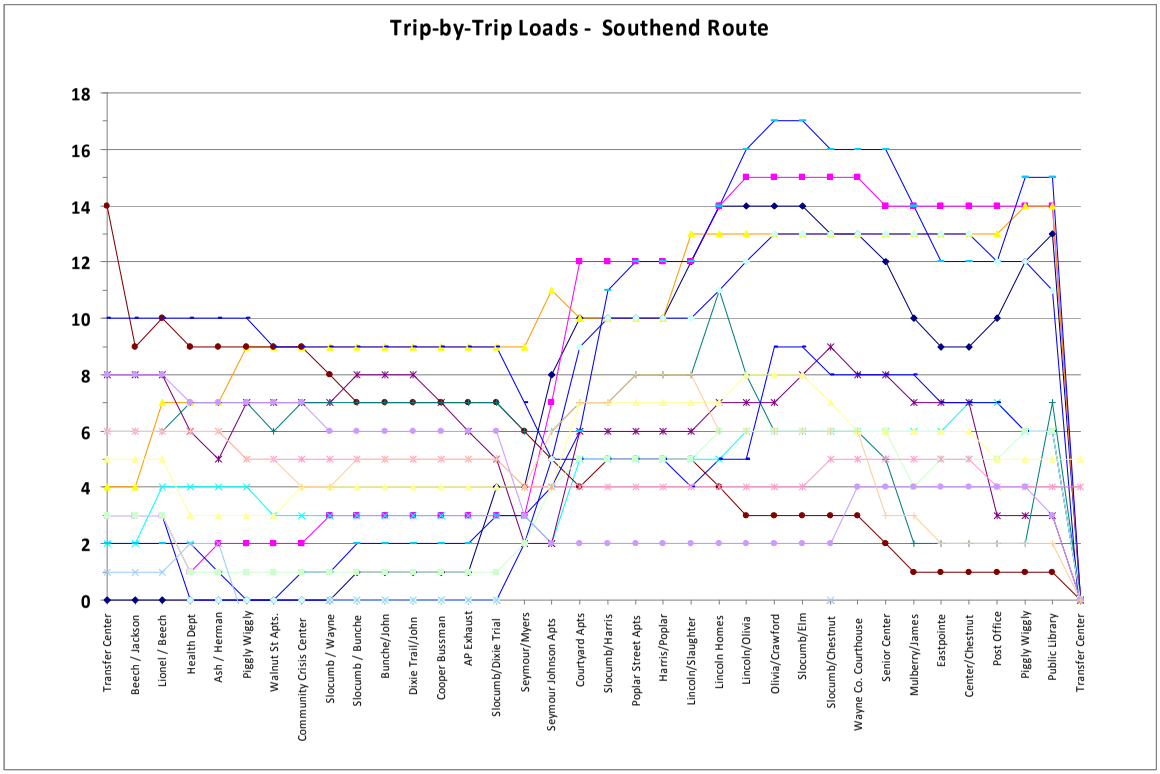
Source: On-Board Survey, March 25-26, 2009

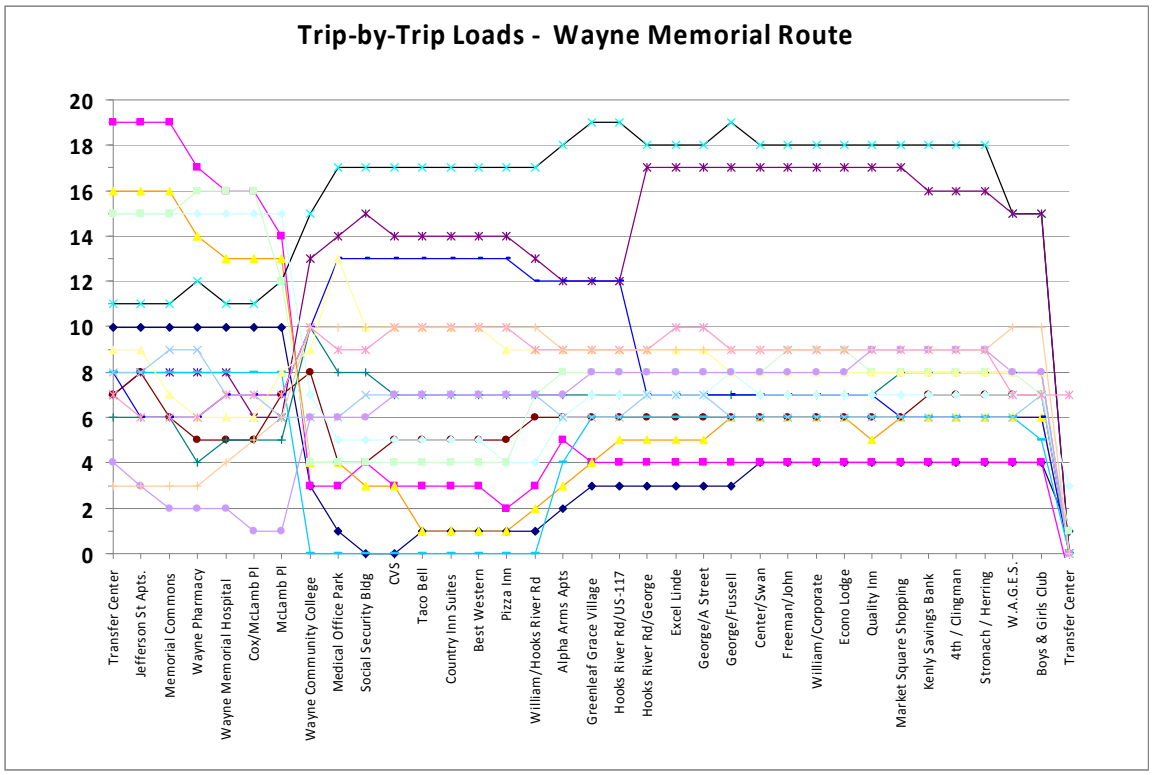
At no point on the survey days were any riders required to stand. However, the Wayne Memorial route is considered to be problematic. Riders consider it to be crowded at busy times, and there is little margin to accommodate fluctuations in demand – although the maximum load observed in the survey was 19, there are likely to be times when the load is higher than this.

Figure 6.7: GATEWAY Transit Fixed-Route Loads by Route and Trip




Trip-by-Trip Loads - Northend Route
12
10
8
6
4
2
0
Transfer Center
Woodard Care
W.A.G.E.S.
Royall/William
George/W. Grantham
Wilco/McDonalds
Walmart-Rosewood
Little River Shop. Ctr
Holly/Carolina
Oak/E Alabama
Oak/Vanderbilt
Oak/W Alabama
Cherry Hospital
O'Berry #1
O'Berry #2
APV
Ash/Carolina
Carolina/Walnut
Carolina/Spruce
W Spruce/Alabama
Whitfield/Washington
HV Brown Park
Elm/James
Elm/John
Courthouse
Post Office/Museum
Health Dept
Herman Park
Goldsboro HS
Transfer Center


Trip-by-Trip Loads - Southend Route
18
16
14
12
10
8
6
4
2
0
Transfer Center
Beech / Jackson
Lionel / Beech
Health Dept
Ash / Herman
Piggly Wiggly
Walnut St Apts.
Community Crisis Center
Slocumb / Wayne
Slocumb / Bunche
Bunche/John
Dixie Trail/John
Cooper Bussman
AP Exhaust
Slocumb/Dixie Trial
Seymour/Myers
Seymour Johnson Apts
Courtyard Apts
Slocumb/Harris
Poplar Street Apts
Harris/Poplar
Lincoln/Slaughter
Lincoln Homes
Lincoln/Olivia
Olivia/Crawford
Slocumb/Elm
Slocumb/Chestnut
Wayne Co. Courthouse
Senior Center
Mulberry/James
Eastpointe
Center/Chestnut
Post Office
Piggly Wiggly
Public Library
Transfer Center



Source: On-Board Survey, March 25-26, 2009

6.2.8 Conclusions and Route-By-Route Highlights

The following section summarizes the key conclusions from the boarding and alighting data. It also includes some comments on how these should be considered in planning the future route structure.

General

The top two destinations are Wal-Mart on Spence Avenue and the Community College. Future service provision should aim to optimize the service to/from these locations.

Other important destination areas are the Berkeley Boulevard retail areas, the Downtown area, and the cluster of locations around Lionel Street and Henman Street (such as Piggly Wiggly and the Health Department).

There are several significant residential origin areas in different parts of the city. These include the Edgerton Avenue housing, the Oak estate, the apartments at the south end of Slocumb Avenue, Lincoln Avenue, and the Spruce / William estate. There may be opportunities to improve the level of service to some of these areas by changing the route structure and/or schedules.

The Northend route has a very low productivity in comparison to the other three routes. The outer parts of the route (Wal-Mart, Cherry Hospital and O'Leary Center) require a lot of time for limited ridership. This route should be reexamined.

The Berkeley Mall and Wayne Memorial routes have healthy loadings throughout the day, and the Southend route has healthy loadings in the afternoon. The Berkeley Mall and Southend routes are 'about right' with the current cutaway vans, but the Northend Route has excess capacity. The Wayne Memorial route would benefit from use of a larger vehicle to meet current needs as well as allow for growth. The Northend Route has capacity available to accommodate substantial growth in its ridership.

Northend Route

The main ridership on this route is generated by the apartment complexes along Oak Street, where an average of 16 passengers boarded on the trips sampled each day. This important market is currently poorly-served by the schedule, with different times in alternating hours. Its location close to downtown is 'wasted' by being on a circuitous route. It may be possible to improve the level of service by changing the route structure and/or schedules. The route has capacity available to accommodate substantial growth in its ridership.

The Little River Shopping Center is a significant destination for this route. However, like the Oak Street area, it has an irregular schedule and suffers from the circuitous routing.

Ridership was low on the west Wal-Mart and O'Berry route branches, with two boardings each. Trips alternate between these branches, which creates an unattractive two-hour service frequency on each branch. This will be an important issue to address, as these destinations take up much of the route's time and mileage. GATEWAY Transit could consider either improving or eliminating the service to these branches.

South End Route

The highest ridership is from the Seymour Johnson and Courtyard apartment complexes, which are located adjacent to each other at the southern end of the route. The Lincoln Street housing also provides significant ridership.

The route also has several well-used stops in downtown and in the areas just east of Downtown (Health Department, Piggly Wiggly, etc.)

No passengers boarded the route and only two alighted along the Blanche Drive-John Street-Dixie Trail segment of the route, which is only served on southbound trips. As development in this area is industrial in nature, ridership may have occurred on trips that were not surveyed (i.e., earlier in the morning).

Berkeley Mall Route

Considerable passenger activity occurs along the four stops on the Spence Avenue segment of this route, including east Wal-Mart (a stop which actually serves a large retail complex).

The three stops (including Berkeley Mall) on the Berkeley Boulevard segment, are also busy.

Wayne Memorial Route

The Wayne Memorial Hospital and Wayne Community College segment is easily the busiest along this route. Passengers that board along this segment must ride for approximately 45 minutes to return to the transfer center; a more direct return routing would be useful.

The US-70 frontage road segments of the route register little passenger activity.

Although not quite as busy as the Berkeley Mall route in terms of total ridership, this is the route with the heaviest peak demands – associated with Wayne Community College class schedules. It has little or no capacity available for future growth.

6.3 System-Wide Review

This section summarizes the issues with the existing fixed-route service in Goldsboro, based on the analyses presented earlier and on input from stakeholders. This diagnosis forms a key input into the proposals for the future route structure.

Overall, the fixed-route system provides a basic level of access to most parts of Goldsboro, including all the major destinations. Most residential areas are within a half-mile of fixed-route service (see Figure 6.8). The main areas of public housing are served directly, and the majority of traditional grid-pattern neighborhoods are within a quarter-mile of a Transit stop. Most commercial and institutional areas also served. The key destinations, such as the downtown public offices, Berkeley Mall, and two Wal-Mart stores, are served directly.

The ease and directness of trips is inevitably limited by the level of available resources, the dispersed nature of the key destinations, and the isolated position of the current transfer point in a residential area. Despite these limitations, the current route network offers many direct trips. In particular, three of the four routes offer residents a direct trip to or from (but not to *and* from) downtown. All four of the routes serve at least one retail area, meaning that residents have a direct trip to or from (but not to *and* from) a pharmacy and a grocery store.

Figure 6.9 reproduces the survey data on boardings and alightings, with some annotations on particular locations.

The opportunities for improvement generally fall into three categories:

1. Providing the basic level of fixed-route service to the remaining parts of Goldsboro that do not currently have it. This includes (a) peripheral residential areas, such as Carver Street or Salem Church Road; (b) additional employment areas, such as the Butterball factory on Oak Forest Road; and (c) nearby areas that are beyond the city limits but are part of Goldsboro's area of influence, such as Buck Swamp Road or the US-70 corridor toward Rosewood.

2. Increasing the service span for fixed-route service, to include evenings and Sundays. Currently, evening trips are only available through demand-responsive service, Monday-Saturday, and there is no Sunday service at all.

3. Improving the quality (including directness and frequency) where there is already service – particularly for the most important destinations such as Wayne Community College and the Spence Avenue / Berkeley Mall area, where additional capacity is also required at peak times.

Balancing any new resources between these three groups of opportunities will inevitably be an important policy decision.

Figure 6.8: GATEWAY Transit Fixed-Route Service Area Diagnosis

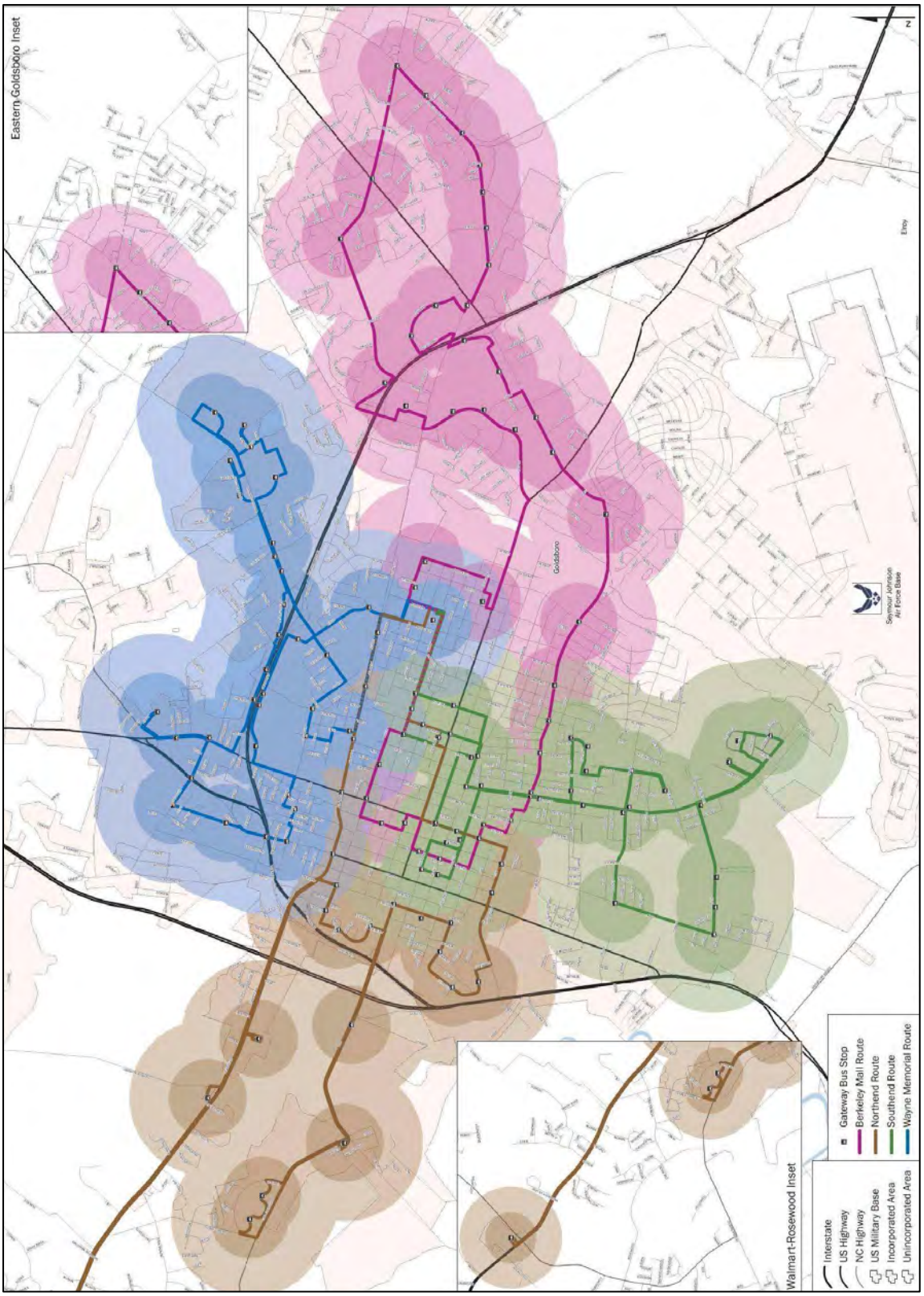
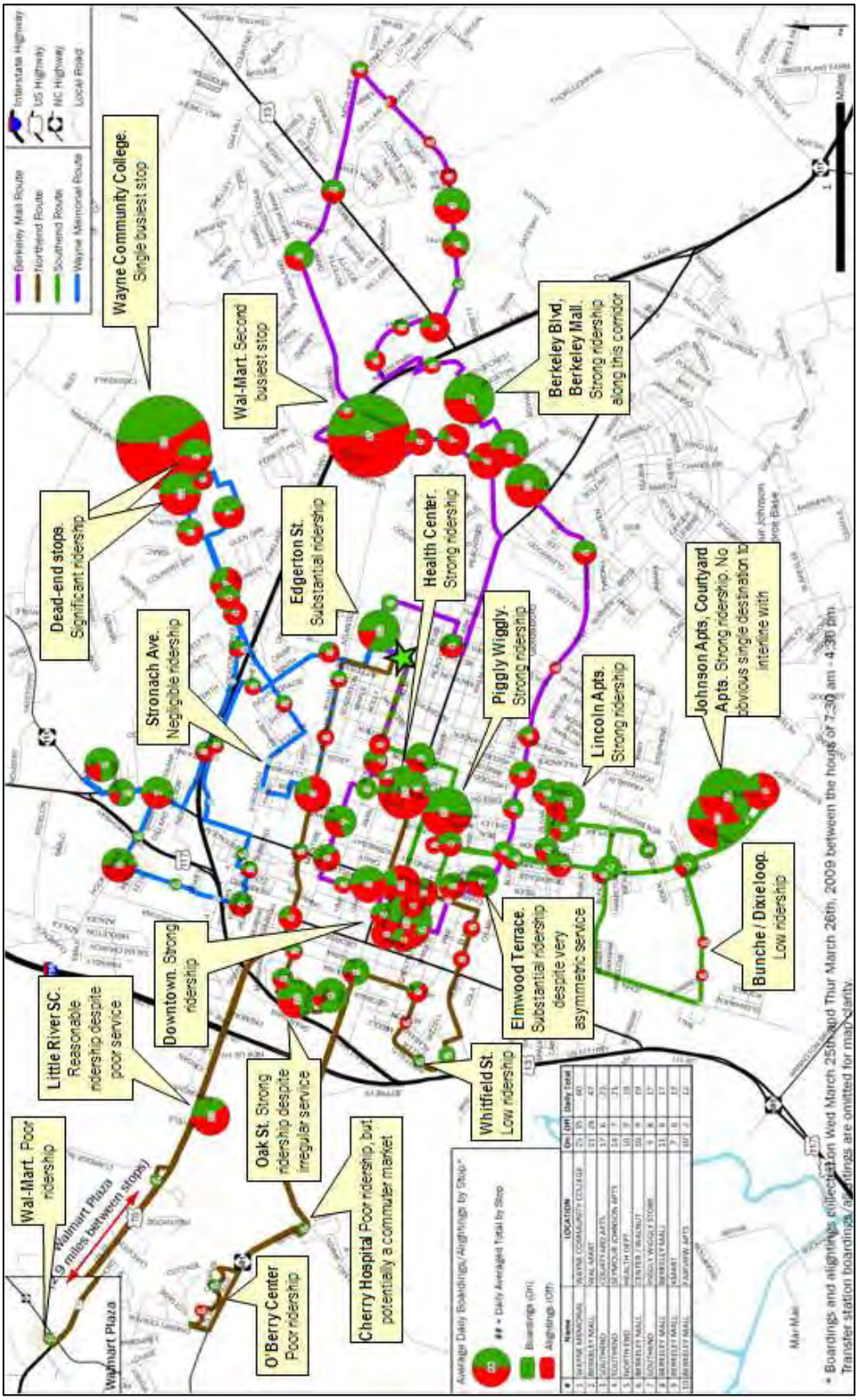


Figure 6.9: GATEWAY Transit Fixed-Route Boarding and Alighting Data Diagnosis



6.3.1 Wayne Memorial Route

Good points

- Productive route serving two important destinations: Wayne Community College (WCC) and Wayne Memorial Hospital
- Wayne Memorial Boulevard is a good Transit corridor to connect WCC and the hospital with the rest of Goldsboro
- Timekeeping is good

Issues to address

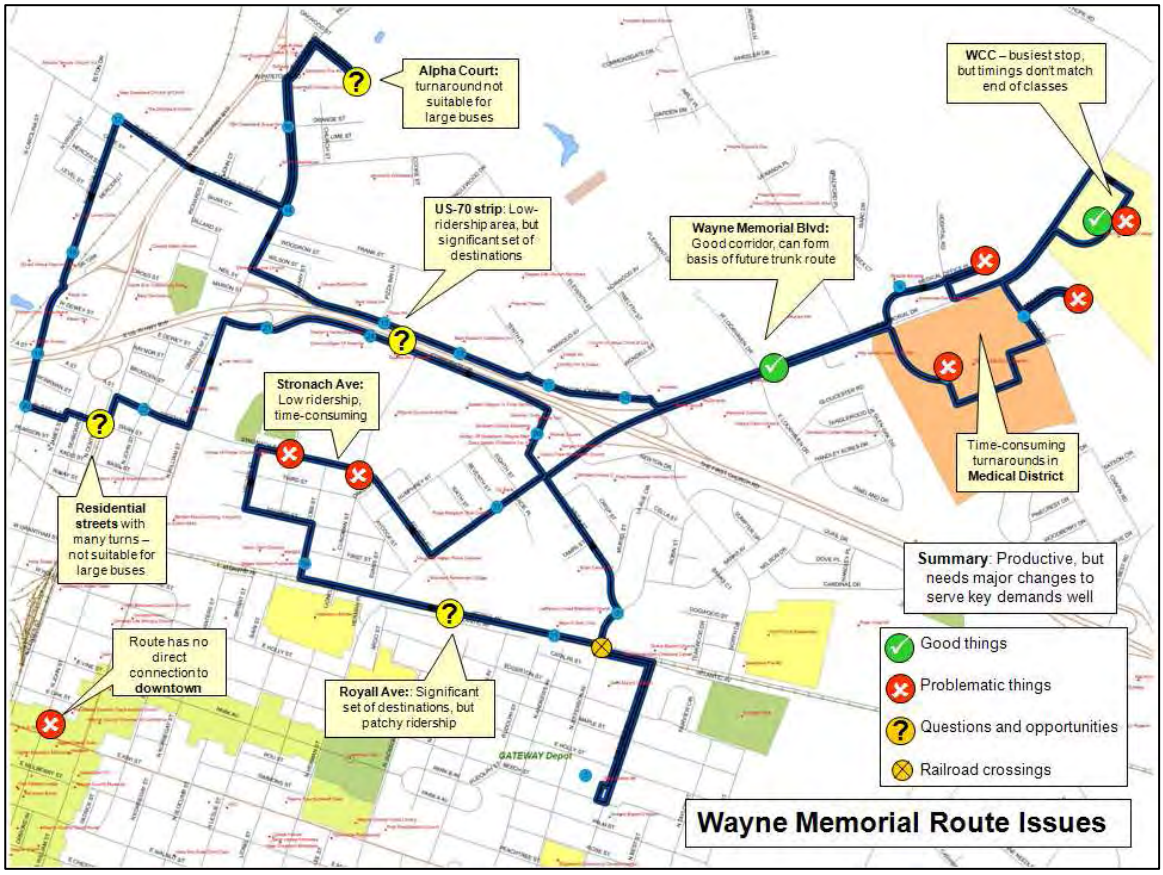
- The current schedule works poorly for the largest group of riders, which is college students attending classes. Classes start at xx:00 and finish at xx:50. The bus serves WCC at xx:45 - good for getting to class but unfortunate for leaving class (students have to leave early or wait for 45 minutes)
- Due to the high level of demand to/from WCC, this route will likely use a full-size bus in the future. However, this will be incompatible with the turnarounds on dead-end streets, which would need to be eliminated
- Buses use the service road at the rear of the hospital, to allow direct service to the medical offices on Cox Boulevard. However, this is a time-consuming detour and involves a series of speed bumps, which are undesirable for buses
- The residential part of the route has relatively low demand and uses neighborhood grid streets; this makes it more suitable for the existing cutaways than for a full-size bus
- The 4th Street / Stronach Avenue neighborhood has very low ridership. However, the trip through this neighborhood also serves W.A.G.E.S., which is a significant destination. The Wayne Memorial route provides the inbound trip from W.A.G.E.S. to the transfer center
- The route offers no direct connection to or from downtown

Figure 6.10 shows the issues that relate to specific locations.

Summary

This route would benefit from changes aimed at better serving its diverse markets, particularly college classes. The planned fifth route represents a good opportunity to do this.

Figure 6.10: Wayne Memorial Route Diagnosis



6.3.2 Berkeley Mall Route

Good points

- Strong ridership, with all sections of the route making a contribution
- Good range of residential areas and commercial destinations, including downtown, Wal-Mart (the second busiest stop on the system) and the Berkeley Mall area

Issues to address

- Poor timekeeping. If use of the wheelchair lift is required, or if the bus must wait for a train at a grade crossing, there is little or no time available to recover before the next trip. In addition, if a trip leaves the transfer center late, it is likely to return late, thus perpetuating the late running. Essentially the route takes too long for reliable service. However, opportunities for faster routing exist at locations such as in the Berkeley Mall area, Staples/Target area east of Berkeley Mall, around downtown, and on Edgerton Avenue. Vine Street could be omitted from the route if Greyhound Bus

moves to Union Station. Lastly, a new traffic signal installed at North Berkeley Boulevard and Hill Drive Circle would allow detour via Fellin Boulevard to save time at Staples, avoid grade crossing (see Figure 6.11)

- As the busiest route, this will likely be the first route to gain a full-size bus. The route uses some neighborhood streets and retail forecourts, and although these are geometrically feasible for full-size buses, they are not ideal

- On the plus side, the full-size low-floor bus will reduce the time it takes riders to board and alight. Although this may only gain a few seconds at each stop, the savings accumulate over an entire run

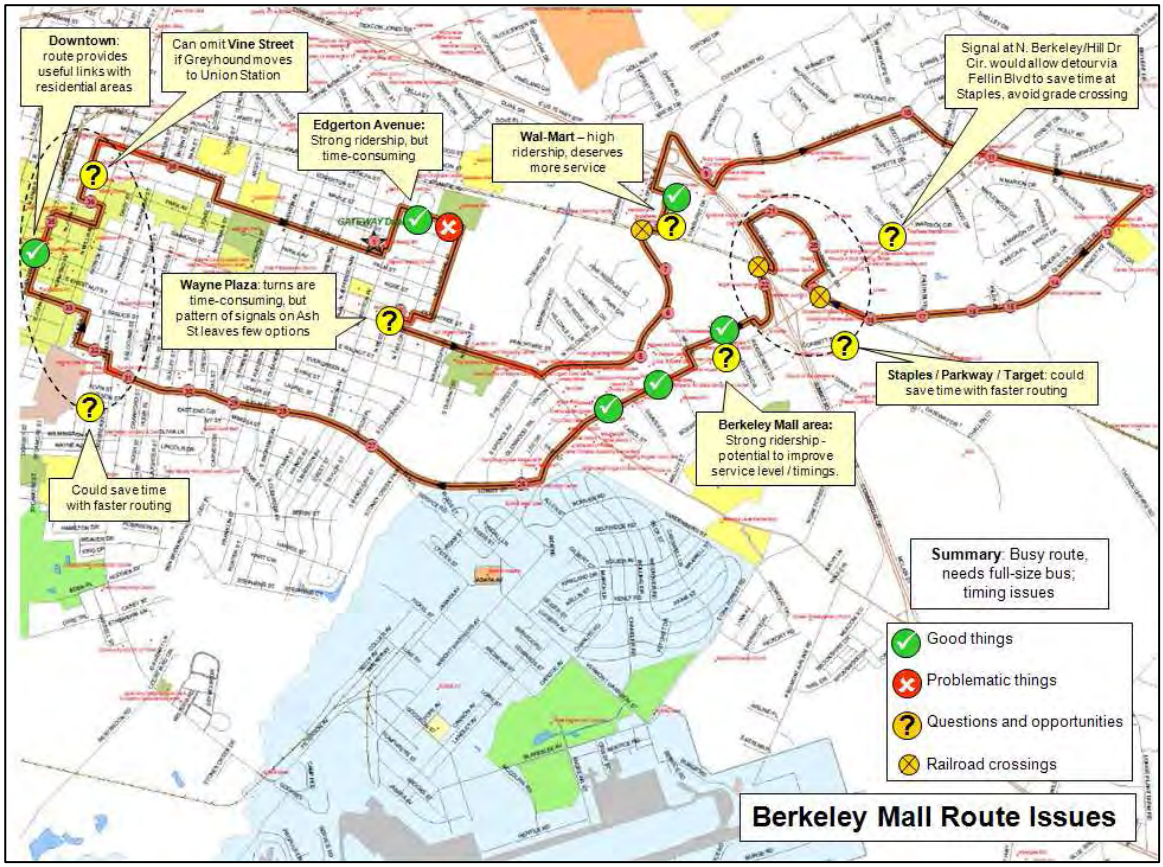
- The circular route means that inbound trips *from* Wal-Mart and the Berkeley Mall area *to* the transfer center take much longer than the outbound trips. If additional resources were available, a service with a short inbound trip would be very useful for these key markets and would also relieve some pressure on the existing route

Figure 6.11 6.11 shows the issues that relate to specific locations.

Summary

This route is essentially sound but the timekeeping must be addressed, most likely with a range of adjustments to save time. The busy commercial areas would benefit from additional resources, if available, to provide shorter trips and to relieve pressure on the existing route.

Figure 6.11: Berkeley Mall Route Diagnosis



6.3.3 South End Route

Good points

- Good ridership, particularly from the apartment complexes and public housing areas
- Offers residents direct service both to and from Piggly Wiggly, and direct service to (but not from) downtown
- Provides the most convenient stops for some key public destinations, including the Health Center, Library, and Senior Center
- Cutaway vehicle is appropriate for the level of ridership and for the streets served
- Timekeeping is good. The route could easily absorb another couple of minutes' running-time if required

Issues to address

- Low ridership on the Bunche/John/Dixie loop, but this loop represents the only service to these areas. The status quo or elimination are the only real options here (adding a new route on the John Street corridor out of downtown is unlikely to be affordable in the near future)

- Does not serve Downtown on outbound trip from Transfer Center. This would be good to have, as: (a) residents on this route would have direct trips from downtown as well as to downtown, and (b) origins on the Wayne Memorial route and on some parts of the North End route would have improved access to downtown via the Transfer Center

- There are two dead-end turnarounds, which take time: Courtyard Apartments (which also has speed bumps, but is an important residential stop) and Poplar Street Apartments (which has no speed bumps, but low ridership). Other innovative traffic calming techniques, ranging from less costly bright LED lights and stop signs and optical speed bars should be considered at these locations

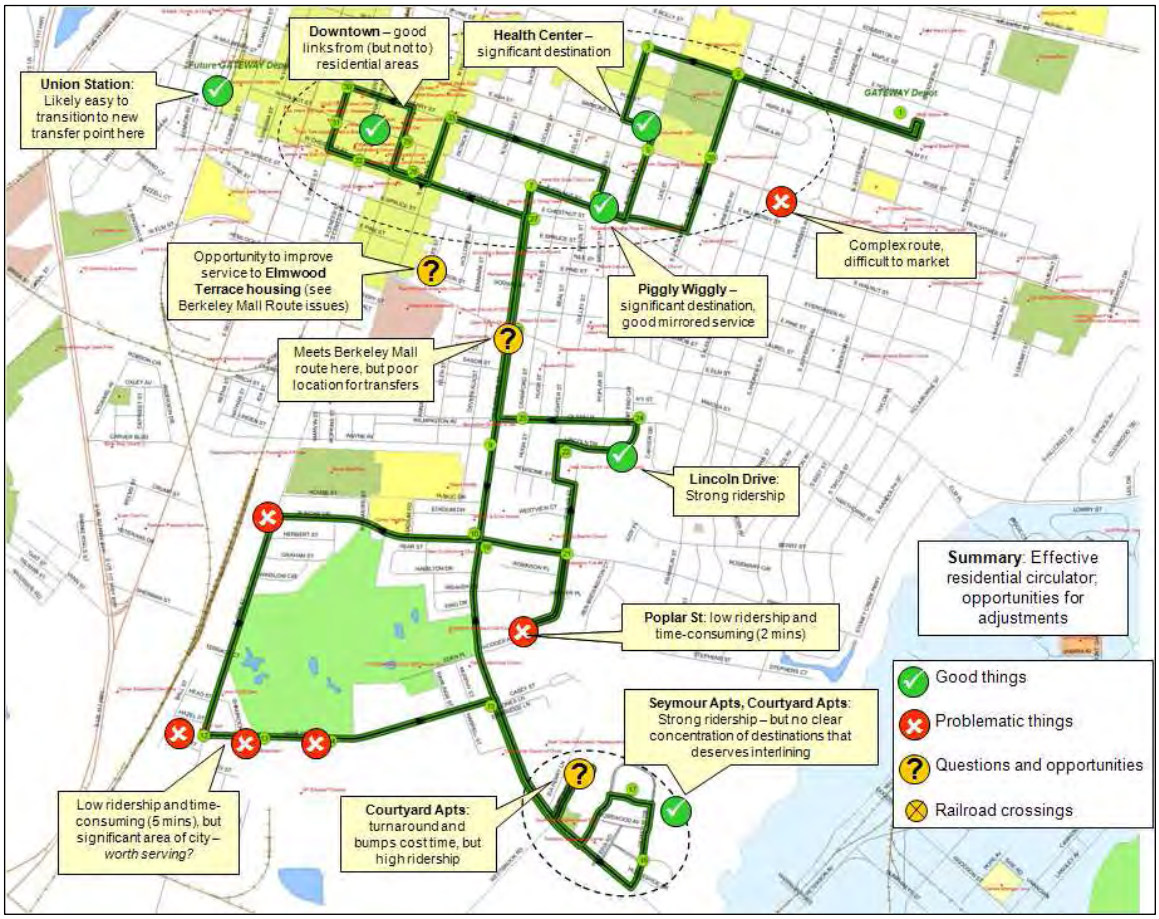
- The routing around downtown and east of downtown is complex. There are opportunities to rationalize this, to make the route easier to understand and use

Figure 6.12 shows the issues that relate to specific locations.

Summary:

This route is essentially sound. The routing around downtown and east of downtown could usefully be rationalized. The spare time could be used to absorb stops from other routes if required, or to serve downtown on the outbound trip.

Figure 6.12: South End Route Diagnosis



6.3.4 North End Route

Good points

- Good ridership from the Oak Street residential area, despite the irregular service there
- Reasonable ridership at Little River Shopping Center, despite the irregular service there. This is the commercial center (Food Lion etc.) for residents on this route
- Connects residential areas directly to (not from) downtown and the Health Department
- Provides service to several significant destinations on Royall Avenue (W.A.G.E.S., Woodard Care, Boys' and Girls' Club), although their ridership is not necessarily high

- Timekeeping is good

Issues to address

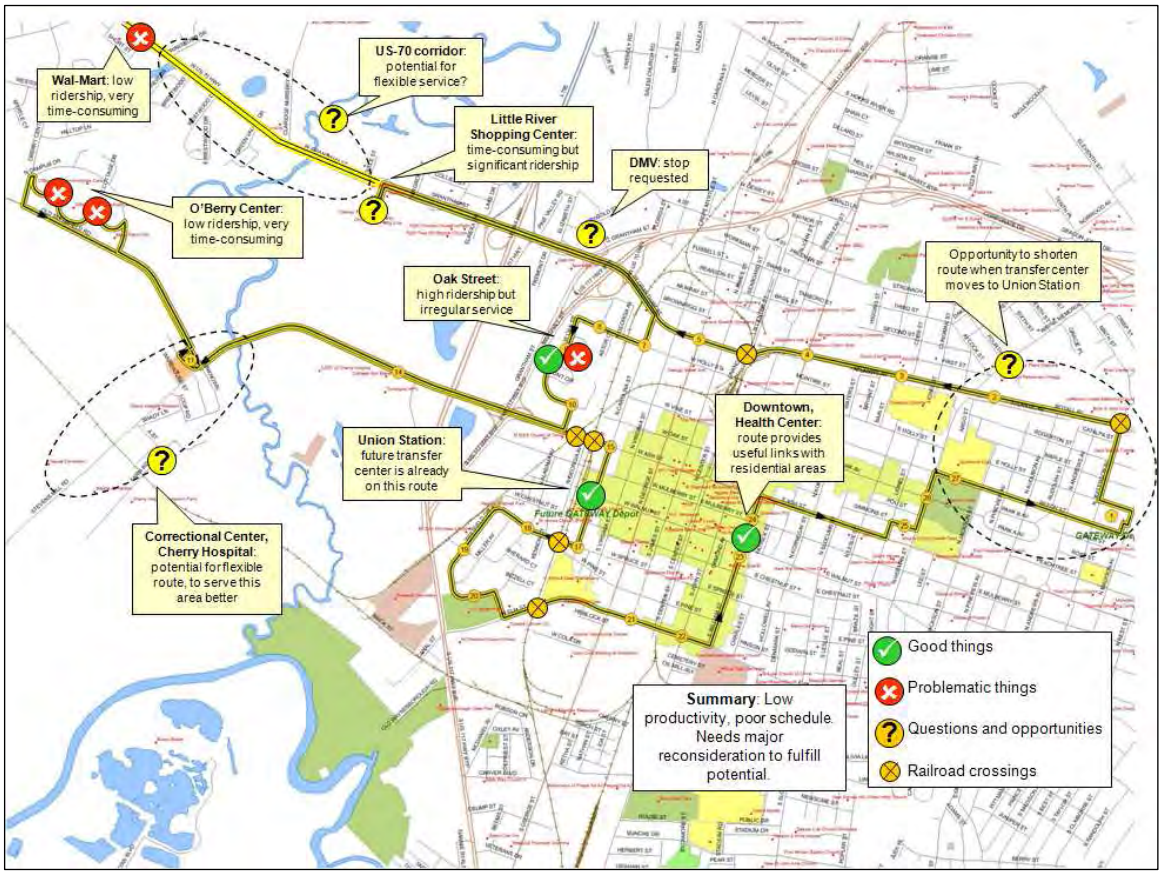
- Overall productivity is low on this route
- The Oak Street area and Little River Shopping Center both have irregular service due to the alternating extensions. This is not rider-friendly and can lead to confusion
- The Whitfield Drive area has low ridership and is time-consuming, but is a significant residential area. Ridership might increase if there were direct links to or from additional commercial and employment areas
- The service to Wal-Mart in Rosewood, every two hours, has very low ridership and is very time-consuming. The two-hourly frequency is unattractive
- In the same way, the service to Cherry Hospital and the O'Berry Center has very low ridership and is very time-consuming. The two-hourly frequency is unattractive. For each of those two extensions, there is a need to decide whether to:
    - Persevere with the current service
    - Try to improve the frequency to hourly
    - Eliminate fixed-route service altogether, or
    - Operate fixed-route service with limited hours, tailored to each location's particular needs

Figure 6.13 shows the issues that relate to specific locations.

Summary

This route needs substantial changes to make best use of the resources and best serve its core markets. It will be important to make a policy decision about service to Wal-Mart in Rosewood, Cherry Hospital and the O'Berry Center. If it is decided that these destinations do not justify fixed-route service, the time could be reallocated to other parts of Goldsboro with stronger ridership potential, or could be used to provide relief for the busiest existing routes.

Figure 6.13: North End Route Diagnosis



6.4 Demand Responsive Service

6.4.1 Synopsis of Existing Rural Situation

Overall, GATEWAY Transit's rural services are currently in a good position. GATEWAY Transit offers a full Rural General Public service within Wayne County, and has several cost-effective agency contracts. The financial position is relatively stable.

GATEWAY Transit's demand-responsive services have recently been the subject of a 'Performance Plan and Analysis' (PPA), conducted by ITRE in April of 2009. PPA is part of a structured process coordinated by ITRE and NCDOT aimed at helping transit agencies to achieve higher performance measures and improve business practices. It should be noted that the CTSP process does not duplicate the Performance Plan process. However, the Performance Plan is an important input to the CTSP, and its findings regarding the rural side of GATEWAY are described here in more details.

The recent PPA has identified GATEWAY's recent transition from the contractor-based business model to an internally-operated model as one of its strengths. The report noted that

the GATEWAY system appeared to be in better position due to that change. The PPA also identified several opportunities for scheduling and information-management improvements that would improve efficiency; in some cases these improvements could allow GATEWAY to do slightly more with the same amount of money.

One particular recommendation regarded the need to fully implement GATEWAY's scheduling software – without a doubt, the demand responsive service would benefit greatly if scheduling software available to them was fully implemented - efficient routing and reductions in scheduling time would be one of the results of that move. Some of the issues with software stemmed from information management issues – namely, how GATEWAY has recorded some of the scheduling information, particularly service miles/hours.

For instance, the PPA noted that GATEWAY has had noticeably more deadhead hours than miles – this discrepancy is due to GATEWAY including cleaning time and administrative runs for fueling and parking vehicles in its service hours. In addition, out of county trips included breaks (administrative runs) that were not taken out of the service and revenue hour statistics. Thus, one of the recommendations was GATEWAY should only record actual driving service hours and miles on the manifests and in their scheduling software and nothing else (no fueling, maintenance, or administrative runs).

The report noted that although the overall deadhead mile percent is low, certain routes have very high deadhead percents, so GATEWAY should view daily run-level performance reports to improve the efficiency of individual runs. Other scheduling software recommendations for GATEWAY were to use:

- Automated scheduling engine to automatically place trips on the most efficient routes and to print estimated pickup and drop off times on driver manifests,
- Online training sessions to train staff on the scheduling engine, and
- Maintenance software in real-time instead of post-processing the information

The PPA looked favorable at GATEWAY's efforts aimed at decreasing the no-show rate. The no-show rate has been higher than at similarly sized transit peers, but it has made policy efforts to reduce the number of no-shows – GATEWAY's goal is to work with clients and funding agencies to solve this problem. The PPA mentioned that the no-show rate is particularly high on Tuesday and suggested that GATEWAY should try to find out exactly why that has been the case. In addition, it was recommended that GATEWAY clearly defines what a 'late cancellation' is and then develop a system to track late cancellations.

It should be noted that the PPA analysis largely depended on mileage statistics to analyze GATEWAY's demand responsive service. This is due to the fact that service and revenue hour information recorded by GATEWAY was incorrect (as previously noted, due to information management discrepancies).

Overall, the PPA noted that GATEWAY adequately meets the needs of its customers and is poised to improve the quality of its service and efficiency in the future.

7 Public Outreach

7.1 Public Workshops

M/A/B facilitated two meetings with the general public during the study in order to solicit general information, comments, and ideas about existing and future Transit service and user needs.

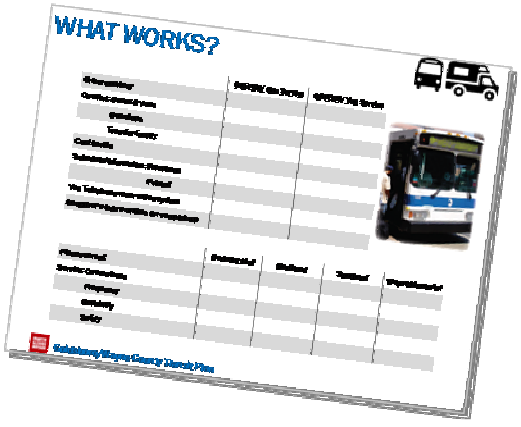
The first public workshop was held on April 1, 2009, from 4:00 to 7:00 PM at the Goldsboro City Hall Annex. Approximately 25 members of the public were in attendance. The workshop was publicized in local media and at the Transit center. The aim of this workshop was to seek public input on the issues that the CTP process should address. In particular, attendees were asked to comment on:

- What works?
- What needs improvement?
- What new transit services are needed?

The workshop was designed so that attendees could 'drop in' at any time. A series of boards was displayed, explaining the study and the input sought, and inviting attendees to 'write-in' their responses to specific questions using colored dots and handwritten comments. Staff representing the consulting team and the steering committee were on hand for one-to-one discussion. This format was chosen to allow attendees a choice of face-to-face and written input, as they preferred, as well as to allow attendees to react to earlier comments.

The sections below summarize responses and comments from the workshop activities.

7.1.1 What Works?



The following comments summarize responses to this question at the workshop:

- Driver courtesy and comfort of the buses and vans are noted
- Rides for special events on GATEWAY transit should be better publicized
- There should be more than a one hour window of time for van pick-up

7.1.2 What Needs Improvement?

According to workshop participants, these things need improvement:

- Driver courtesy
- More comfortable buses and vans
- More bus shelters
- Bike racks on buses
- Better destination signs on buses
- Schedule and information online
- Better van reservation system online

7.1.3 What Destinations Need Service?

Workshop participants were asked to identify which general types of destinations need service. The most popular responses were, in order:

- Educational
- Employment
- Recreational/social
- Entertainment and retail

7.1.4 What Should Transit Goals Be?

The following goals were identified for future transit services:

- Provide better access to information about services
- Improve comfort and convenience for transit users
- Promote universal accessibility
- Enhance efficiency and reach of transit routes

7.2 Survey Results

7.2.1 Survey Methodology

M/A/B conducted an on-board survey of fixed route and demand responsive Transit riders to determine rider characteristics, trip purposes, trip origins and destinations, riding habits of the passengers, perceptions of service and potential improvements. The surveys were conducted on all fixed routes and four demand responsive routes over two typical service days and were available in English and Spanish. Surveyors were also on hand to verbally administer the surveys to disabled or limited English proficiency persons. The survey results were used to identify existing benefits and deficiencies and help quantify Transit demand.

The on-board survey was offered to the riders of the GATEWAY Transit Bus and Van service in April 2009. The bus riders completed a total of 274 bus surveys and van riders completed an additional 26 surveys. There were slight differences between bus and van survey design. It should be noted, that the results of van surveys should be treated as less relative to the larger number of bus riders who participated in the survey. Full survey results are presented in the Appendix A.

7.2.2 Summary Results

The survey suggested that the following GATEWAY Transit service improvements would result in significant increase in ridership levels:

- Expanding service hours, particularly during weekday evening hours
- Offering Sunday service
- Serving more destinations, particularly within the City of Goldsboro
- Offering a weekly/monthly discount pass
- Improving actual bus stops and enhancing bus vehicles
- Improving available scheduling information

It should be noted that overall, the perception of both GATEWAY Transit fixed route and paratransit service was 'good' among the surveyed riders. Some of the aspects of the service were perceived to be first-rate, particularly the cost of service, safety and driver courtesy. The results suggest that the two qualities in need of improvement are the hours or service and frequency of service. The majority of GATEWAY Transit bus riders (62 percent) are captive riders who fully depend on transit due to disability, limited mobility, lack of alternatives and lack of funds to pursue them. Many of these captive riders (about 10 percent) would not have made their trips at all if GATEWAY service was not available, while others would rely on other forms of transportation.

The survey also revealed the importance of pedestrian-to-transit accessibility in Wayne County: the majority of riders walked to their bus stops (86 percent). In addition, when asked what alternative form of transportation the riders would choose if GATEWAY Transit was not available to them, nearly 30 percent of them specified walking.

In general, the results of the survey were similar for both GATEWAY Bus and Van riders – some of the differences were noted above. One of the main takeaways from the surveyed van riders is the opportunity to shift van riders to fixed-routes, particularly those who reside near where GATEWAY Transit's fixed routes operate – close to 10 percent of the van riders signaled that they would use the GATEWAY Transit Bus service if demand-responsive service was not available. Van surveys also suggest that longer weekday evening hours, shorter pick-up time window, increased safety and reliability, and improved printed and telephone schedule/information are some of the main qualities that, if improved, could result in increased ridership levels.

7.2.3 Service Expansion Areas

The surveyed riders were asked what areas need expanded GATEWAY service. A variety of responses were given, but the two areas the riders noted as needing the GATEWAY Transit Bus service the most were Dudley and Mt. Olive. It is worth noting that although GATEWAY Transit Bus service has actually started to Dudley and Mt. Olive since the survey was administered, it should be reevaluated and expanded as necessary. Other areas requested included Royall Avenue (including The Assisted Living Center), the Butterball factory, and the school area on New Hope Road. Most of the locations requested by the van riders were either in Mt. Olive or along Cashwell. Some of the destinations that were mentioned by the GATEWAY Transit Van riders are already served by GATEWAY Transit Bus service (such as Mt. Olive) – again this presents an opportunity to shift demand-responsive riders to fixed-routes.

8 Transit Demand Analysis

8.1 Introduction

One of the key steps in developing and evaluating public transportation plans is an analysis of the mobility needs of population segments and their potential transit usage. Transit demand analysis refers to demand for public transportation in a project area. Not all factors affecting transit demand can be forecast, but several methods have been developed to help estimate it.

Transit demand in Wayne County and the City of Goldsboro (analyzed both together and separately for the purpose of this estimation) is analyzed in order to help identify and evaluate transit service alternatives. The following methods are used to estimate the potential transit trip demand in Wayne County:

1. Total Urban Demand: estimate of the total demand for transit trips in by all residents of Wayne County and the City of Goldsboro. This estimate is based on analyzing total Transit modal split and motor vehicle availability.

2. Total Demand By Ridership Segment: estimate of Transit demand segmented into the following categories:

    a. Employee Demand

    b. Demand by seniors and mobility-impaired persons

    c. General public non-work demand

    d. Commuter demand.

It should be noted that the methods described above yield estimates of potential transit demand for an idealized transit service in an area with a very high level of transit service. In reality, no transit agency would be able to meet 100 percent of the estimated potential demand. Additionally, the data used for the demand analysis is taken from Census 2000 results. While this data may be considered old compared to the current analysis year, it is the most reliable source of information available at the block group level.

8.2 Total Urban Demand

8.2.1 Total Demand by Modal Split

The analysis of total demand by modal split relies on the national percentage of all trips (not just employee work trips) made via transit. Nationwide, between 0.5 (for new service) and 1.2 percent of all trips are made on transit where it is available, and each person makes 3.5 one-way trips per day on average. Once the demographic characteristics of Wayne County and the City of Goldsboro are taken into consideration, the optimal modal split for the

county is estimated to be around 1.0 percent. The 2000 Wayne County U.S. Census population data for Wayne County is shown in Table 8.1 The data is organized by census tracts and census block groups, and includes a separate transit demand estimates for the City of Goldsboro (including Seymour Johnson Airforce Base), Wayne County excluding Goldsboro, and Wayne County overall.

The 2000 general population demand by modal split for the urban area defined as the City of Goldsboro can be estimated at 348,254 annual trips, as shown:

- 39,020 × 255 days/year × 3.5 trips per day = 34,825,350 person-trips per year.
- 34,825,350 × 1.0% = 348,254 annual one-way transit trips per year.

The estimated 2000 population demand by modal split in Wayne County is estimated at around one million annual trips, yet this number is suspect because the methodology used to derive the transit demand is designed for use in urban areas; thus, the City of Goldsboro's general population by modal split Transit demand estimate is a more viable and accurate prediction.

Table 8.1: Annual Transit Trip Demand Estimation By Modal Split in Wayne County

Census		***Description***	***2000 Population***	***One-Way Transit Trip Demand***	
Tract	Block Group			Number	Percent
37191000302	23	Goldsboro	2,341	20,894	2.1%
37191000500	1	SJ AFB	5,860	52,301	5.2%
37191001200	1	Goldsboro	2,467	22,018	2.2%
37191001200	2	Goldsboro	786	7,016	0.7%
37191001300	1	Goldsboro	3,625	32,354	3.2%
37191001300	2	Goldsboro	1,751	15,628	1.5%
37191001300	3	Goldsboro	3,141	28,034	2.8%
37191001400	1	Goldsboro	1,114	9,943	1.0%
37191001400	2	Goldsboro	1,346	12,014	1.2%
37191001400	3	Goldsboro	1,001	8,934	0.9%
37191001400	4	Goldsboro	2,166	19,332	1.9%

37191001400	5	Goldsboro	1,247	11,130	1.1%
37191001500	1	Goldsboro	1,179	10,523	1.0%
37191001500	2	Goldsboro	1,722	15,369	1.5%
37191001600	1	Goldsboro	1,146	10,229	1.0%
37191001700	1	Goldsboro	560	4,998	0.5%
37191001800	1	Goldsboro	1,375	12,272	1.2%
37191001800	2	Goldsboro	1,701	15,182	1.5%
37191001900	1	Goldsboro	2,141	19,109	1.9%
37191001900	2	Goldsboro	1,126	10,050	1.0%
37191001900	3	Goldsboro	1,225	10,934	1.1%
		Total City of Goldsboro	***39,020***	***348,254***	***34.4%***
37191000100	1	Great Swamp	791	7,060	0.7%
37191000100	2	Great Swamp	1,435	12,808	1.3%
37191000100	3	Buck Swamp	2,094	18,689	1.8%
37191000100	4	Pikeville	2,684	23,955	2.4%
37191000100	5	Great Swamp	2,449	21,858	2.2%
37191000200	1	Nahunta	788	7,033	0.7%
37191000200	2	Nahunta	1,057	9,434	0.9%
37191000200	3	Nahunta	1,434	12,799	1.3%
37191000301	11	Pikeville	2,207	19,698	1.9%
37191000301	12	Saulston	2,845	25,392	2.5%
37191000301	13	Stoney Creek	2,436	21,742	2.1%
37191000301	14	Stoney Creek	1,629	14,539	1.4%
37191000302	21	Stoney Creek	1,844	16,458	1.6%
37191000302	22	Saulston	1,920	17,136	1.7%

37191000400	1	New Hope	3,898	34,790	3.4%
37191000400	2	New Hope	748	6,676	0.7%
37191000400	3	New Hope	2,754	24,580	2.4%
37191000400	4	New Hope	921	8,220	0.8%
37191000601	11	Brogden	2,646	23,616	2.3%
37191000601	12	Brogden	769	6,864	0.7%
37191000601	13	Brogden	1,832	16,351	1.6%
37191000602	21	Indian Springs	1,987	17,734	1.8%
37191000602	22	Indian Springs	1,263	11,273	1.1%
37191000602	23	Indian Springs	3,089	27,570	2.7%
37191000602	24	Indian Springs	657	5,864	0.6%
37191000700	1	Brogden	1,177	10,505	1.0%
37191000700	2	Brogden	918	8,194	0.8%
37191000700	3	Brogden	639	5,704	0.6%
37191000800	1	Brogden	654	5,837	0.6%
37191000800	2	Brogden	713	6,364	0.6%
37191000800	3	Brogden	1,088	9,711	1.0%
37191000900	1	Brogden	2,096	18,707	1.8%
37191000900	2	Brogden	1,318	11,764	1.2%
37191000900	3	Brogden	798	7,123	0.7%
37191000900	4	Brogden	1,622	14,477	1.4%
37191000900	5	Brogden	1,658	14,798	1.5%
37191000900	6	Brogden	516	4,606	0.5%
37191000900	7	Brogden	1,199	10,702	1.1%
37191001000	1	Grantham	1,248	11,139	1.1%

37191001000	2	Grantham	1,396	12,460	1.2%
37191001000	3	Grantham	1,287	11,487	1.1%
37191001100	1	Fork	1,637	14,611	1.4%
37191001100	2	Fork	2,979	26,588	2.6%
37191001100	3	Fork	1,876	16,744	1.7%
37191001100	4	Fork	2,222	19,832	2.0%
37191001100	5	Fork	1,091	9,738	1.0%
Wayne County excl. Goldsboro			***74,309***	***663,208***	***65.6%***
Wayne County Total			**113,329**	**1,011,462**	**100%**

Source: US Census 2000

8.2.2 Total Demand by Vehicle Availability

Another methodology aimed at estimating transit demand is presented in Transportation Research Record # 730, *Demand Estimating Model for Transit Route and System Planning in Small Urban Areas* (1979). The methodology relies on the single most statistically significant indicator of Transit need, the availability of a motor vehicle, in estimating transit demand. Those residents of households with no access to vehicle at all have a transit demand rate of 0.40 trips per day, while that rate drops to 0.10 for residents of households with one vehicle.

Using those transit demand rates, as shown in Table 8.2, the total potential urban transit in the City of Goldsboro can be estimated as:

- (0.4 × Residents of Zero Vehicle Households + 0.1 × Residents of One Vehicle Households) × 255 days/year = 921,417

A more reasonable single estimate for the total urban area can be derived by averaging the two estimates. That average for the City of Goldsboro would be 634,822.

Table 8.2 shows total demand by vehicle availability for Goldsboro, Wayne County excluding Goldsboro, and Wayne County total. As in the case of total demand by modal split discussed above, this method of estimating transit demand is designed for use in urban areas; thus, the City of Goldsboro's transit demand estimate is a more viable and accurate prediction that should be given more weight.

Table 8.2: Annual Transit Trip Demand Estimation By Vehicle Availability in Wayne County

Census		***Description***	***Residents***		***One-Way Transit Trip Demand***	
Tract	Block Group		Zero Car Household	One Car Household	Number	Percent
37191000302	23	Goldsboro	204	371	30,288	1.6%
37191000500	1	Seymour Johnson AFB	84	1,928	57,765	3.0%
37191001200	1	Goldsboro	258	961	50,829	2.7%
37191001200	2	Goldsboro	51	256	11,682	0.6%
37191001300	1	Goldsboro	102	985	35,487	1.9%
37191001300	2	Goldsboro	77	479	20,102	1.1%
37191001300	3	Goldsboro	343	1,306	68,282	3.6%
37191001400	1	Goldsboro	55	403	15,945	0.8%
37191001400	2	Goldsboro	270	597	42,794	2.2%
37191001400	3	Goldsboro	65	282	13,814	0.7%
37191001400	4	Goldsboro	805	729	100,731	5.3%
37191001400	5	Goldsboro	430	481	56,077	2.9%
37191001500	1	Goldsboro	337	586	49,304	2.6%
37191001500	2	Goldsboro	276	707	46,143	2.4%
37191001600	1	Goldsboro	169	476	29,429	1.5%
37191001700	1	Goldsboro	364	196	42,093	2.2%
37191001800	1	Goldsboro	335	617	49,866	2.6%
37191001800	2	Goldsboro	618	815	83,856	4.4%
37191001900	1	Goldsboro	154	898	38,650	2.0%
37191001900	2	Goldsboro	446	378	55,161	2.9%
37191001900	3	Goldsboro	90	546	23,101	1.2%
Total City of Goldsboro			***5,534***	***13,998***	***921,389***	***48.1%***

37191000100	1	Great Swamp	0	420	10,714	0.6%
37191000100	2	Great Swamp	18	435	12,947	0.7%
37191000100	3	Buck Swamp	26	746	21,678	1.1%
37191000100	4	Pikeville	45	361	13,783	0.7%
37191000100	5	Great Swamp	83	300	16,069	0.8%
37191000200	1	Nahunta	51	282	12,352	0.6%
37191000200	2	Nahunta	193	422	30,497	1.6%
37191000200	3	Nahunta	111	349	20,203	1.1%
37191000301	11	Pikeville	126	669	29,956	1.6%
37191000301	12	Saulston	78	792	28,179	1.5%
37191000301	13	Stoney Creek	36	779	23,549	1.2%
37191000301	14	Stoney Creek	44	429	15,453	0.8%
37191000302	21	Stoney Creek	36	410	14,140	0.7%
37191000302	22	Saulston	81	711	26,411	1.4%
37191000400	1	New Hope	338	1,237	66,011	3.4%
37191000400	2	New Hope	23	288	9,700	0.5%
37191000400	3	New Hope	47	534	18,404	1.0%
37191000400	4	New Hope	54	264	12,200	0.6%
37191000601	11	Brogden	219	1,217	53,316	2.8%
37191000601	12	Brogden	38	208	9,171	0.5%
37191000601	13	Brogden	167	489	29,482	1.5%
37191000602	21	Indian Springs	113	405	21,870	1.1%
37191000602	22	Indian Springs	53	492	18,005	0.9%
37191000602	23	Indian Springs	176	1,184	48,192	2.5%
37191000602	24	Indian Springs	39	194	8,973	0.5%

37191000700	1	Brogden	344	595	50,311	2.6%
37191000700	2	Brogden	187	257	25,650	1.3%
37191000700	3	Brogden	34	238	9,542	0.5%
37191000800	1	Brogden	65	206	11,925	0.6%
37191000800	2	Brogden	17	275	8,745	0.5%
37191000800	3	Brogden	99	391	20,055	1.0%
37191000900	1	Brogden	44	664	21,460	1.1%
37191000900	2	Brogden	17	332	10,221	0.5%
37191000900	3	Brogden	25	176	6,993	0.4%
37191000900	4	Brogden	176	516	31,135	1.6%
37191000900	5	Brogden	92	717	27,620	1.4%
37191000900	6	Brogden	0	234	5,965	0.3%
37191000900	7	Brogden	159	439	27,410	1.4%
37191001000	1	Grantham	36	252	10,050	0.5%
37191001000	2	Grantham	118	313	20,064	1.0%
37191001000	3	Grantham	62	407	16,661	0.9%
37191001100	1	Fork	54	468	17,454	0.9%
37191001100	2	Fork	176	802	38,390	2.0%
37191001100	3	Fork	54	589	20,559	1.1%
37191001100	4	Fork	142	446	25,834	1.3%
37191001100	5	Fork	53	394	15,480	0.8%
Wayne County excl. Goldsboro			***4,151***	***22,327***	***992,759***	***51.9%***
Wayne County Total			**9,685**	**36,324**	**1,914,148**	**100%**

Source: US Census 2000

8.3 Total Demand By Ridership Segment

8.3.1 Employee Transit Demand

Nationwide, 1.8 to 2.5 percent of employees use transit if it is available. When considering the fact there is a mismatch between jobs and places of residence and that places of employment are generally dispersed across Wayne County and the City of Goldsboro, the expected work Transit mode split in Goldsboro and Wayne County is 2.0 percent. Typically, each worker makes two transit trips 250 times per year. As shown in Table 8.3, based on 40,427 Wayne County's residents employed outside the home, the employee transit demand is calculated as:

- 40,427 × 2 × 250 = 20,213,500 total annual one-way person trips
- 20,213,500 × 2.0% = 404,270 annual one-way transit trips

The number of Goldsboro's residents employed in Wayne County outside their home is 13,983. The employee Transit demand for the residents of Goldsboro is therefore estimated to be 139,830 annual one-way transit trips.

Table 8.3: Annual Transit Trip Demand Estimation By Employee Transit Demand in Wayne County

Census		***Description***	***Residents employed***		***Annual One-Way Transit Trip Demand***	
Tract	Block Group		Outside the home	Outside the home in Wayne County	Total	Transit
37191000302	23	Goldsboro	16	949	474,500	9,490
37191000500	1	Goldsboro SJ AFB	8	2,570	1,285,000	25,700
37191001200	1	Goldsboro	0	1,010	505,000	10,100
37191001200	2	Goldsboro	0	375	187,500	3,750
37191001300	1	Goldsboro	22	1,762	881,000	17,620
37191001300	2	Goldsboro	0	784	392,000	7,840
37191001300	3	Goldsboro	0	1,541	770,500	15,410
37191001400	1	Goldsboro	0	454	227,000	4,540
37191001400	2	Goldsboro	0	530	265,000	5,300
37191001400	3	Goldsboro	6	414	207,000	4,140

37191001400	4	Goldsboro	11	643	321,500	6,430
37191001400	5	Goldsboro	28	304	152,000	3,040
37191001500	1	Goldsboro	5	407	203,500	4,070
37191001500	2	Goldsboro	10	641	320,500	6,410
37191001600	1	Goldsboro	15	363	181,500	3,630
37191001700	1	Goldsboro	6	159	79,500	1,590
37191001800	1	Goldsboro	0	524	262,000	5,240
37191001800	2	Goldsboro	0	478	239,000	4,780
37191001900	1	Goldsboro	0	814	407,000	8,140
37191001900	2	Goldsboro	0	295	147,500	2,950
37191001900	3	Goldsboro	0	596	298,000	5,960
		Total City of Goldsboro	***127***	***15,613***	***7,806,500***	***156,130***
37191000100	1	Great Swamp	316	362	181,000	3,620
37191000100	2	Great Swamp	616	738	369,000	7,380
37191000100	3	Buck Swamp	955	1,105	552,500	11,050
37191000100	4	Pikeville	1,138	1,385	692,500	13,850
37191000100	5	Great Swamp	1,135	1,233	616,500	12,330
37191000200	1	Nahunta	274	317	158,500	3,170
37191000200	2	Nahunta	288	350	175,000	3,500
37191000200	3	Nahunta	540	664	332,000	6,640
37191000301	1	Pikeville	890	975	487,500	9,750
37191000301	12	Saulston	1,190	1,318	659,000	13,180
37191000301	13	Stoney Creek	1,112	1,277	638,500	12,770
37191000301	14	Stoney Creek	723	874	437,000	8,740
37191000302	21	Stoney Creek	822	969	484,500	9,690

37191000302	22	Saulston	633	880	440,000	8,800
37191000400	1	New Hope	1,557	1,782	891,000	17,820
37191000400	2	New Hope	380	402	201,000	4,020
37191000400	3	New Hope	1,128	1,261	630,500	12,610
37191000400	4	New Hope	275	330	165,000	3,300
37191000601	11	Brogden	888	1,129	564,500	11,290
37191000601	12	Brogden	207	248	124,000	2,480
37191000601	13	Brogden	798	889	444,500	8,890
37191000602	21	Indian Springs	659	772	386,000	7,720
37191000602	22	Indian Springs	454	520	260,000	5,200
37191000602	23	Indian Springs	1,304	1,476	738,000	14,760
37191000602	24	Indian Springs	345	368	184,000	3,680
37191000700	1	Brogden	361	400	200,000	4,000
37191000700	2	Brogden	307	337	168,500	3,370
37191000700	3	Brogden	290	337	168,500	3,370
37191000800	1	Brogden	190	214	107,000	2,140
37191000800	2	Brogden	179	229	114,500	2,290
37191000800	3	Brogden	396	442	221,000	4,420
37191000900	1	Brogden	825	904	452,000	9,040
37191000900	2	Brogden	624	698	349,000	6,980
37191000900	3	Brogden	320	387	193,500	3,870
37191000900	4	Brogden	722	755	377,500	7,550
37191000900	5	Brogden	541	636	318,000	6,360
37191000900	6	Brogden	224	255	127,500	2,550
37191000900	7	Brogden	407	531	265,500	5,310

37191001000	1	Grantham	588	676	338,000	6,760
37191001000	2	Grantham	571	630	315,000	6,300
37191001000	3	Grantham	510	551	275,500	5,510
37191001100	1	Fork	529	674	337,000	6,740
37191001100	2	Fork	1,330	1,527	763,500	15,270
37191001100	3	Fork	836	949	474,500	9,490
37191001100	4	Fork	239	493	246,500	4,930
37191001100	5	Fork	297	340	170,000	3,400
Wayne County excl. Goldsboro			***28,913***	***33,589***	***16,794,500***	***335,890***
Wayne County Total			**29,040**	**49,202**	**24,601,000**	**492,020**

Source: US Census 2000

8.3.2 Seniors and Mobility-Impaired Persons Transit Demand

Peat, Marwick, Mitchell & Company developed the most thorough analysis of transit demand among the elderly and mobility-impaired persons in *Description of the Transportation Handicapped Population* (1975). Their methodology derives the elderly and mobility-impaired Transit demand as:

Seniors & Mobility-Impaired Trips per year =

Seniors & Mobility-Impaired Population ×

((25 percent Mobility-Limited × 5.2 trips per week) +

(5 percent Homebound × 1.4 trips per week)) ×

25 percent by Transit mode × 51 weeks per year

Applying the U.S Census Bureau's 2000 total population estimates of 6,887 seniors and 3,975 mobility-impaired persons residing within the City of Goldsboro, the formula yields a total transit demand of 189,732 one-way trips per year made together by that segment of Goldsboro's population. Transit demand rises to 534,737 in Wayne County overall. The employee transit demand in Goldsboro, Wayne County excluding Goldsboro, and Wayne County as a whole is shown in Table 8.4.

Table 8.4: Annual Transit Trip Demand Estimation For Elderly and Mobility-Impaired in Wayne County

Census		***Description***	***Residents***			***One-Way Transit Trip Demand***
Tract	Block Group		Seniors (60+ over)	Mobility-Impaired	Total Persons	
37191000302	23	Goldsboro	239	193	432	7,552
37191000500	1	Seymour Johnson AFB	37	192	229	3,997
37191001200	1	Goldsboro	628	410	1,038	18,132
37191001200	2	Goldsboro	219	100	319	5,572
37191001300	1	Goldsboro	580	474	1,054	18,410
37191001300	2	Goldsboro	371	102	473	8,265
37191001300	3	Goldsboro	768	376	1,144	19,978
37191001400	1	Goldsboro	358	52	410	7,159
37191001400	2	Goldsboro	256	115	371	6,485
37191001400	3	Goldsboro	244	51	295	5,153
37191001400	4	Goldsboro	384	295	679	11,858
37191001400	5	Goldsboro	219	221	440	7,679
37191001500	1	Goldsboro	200	155	355	6,210
37191001500	2	Goldsboro	455	206	661	11,554
37191001600	1	Goldsboro	205	125	330	5,764
37191001700	1	Goldsboro	89	69	158	2,760
37191001800	1	Goldsboro	235	176	411	7,172
37191001800	2	Goldsboro	269	187	456	7,957
37191001900	1	Goldsboro	608	229	837	14,618
37191001900	2	Goldsboro	247	69	316	5,528
37191001900	3	Goldsboro	276	178	454	7,929
Total City of Goldsboro			***6,887***	***3,975***	***10,862***	***189,732***

37191000100	1	Great Swamp	195	236	431	7,536
37191000100	2	Great Swamp	204	117	321	5,614
37191000100	3	Buck Swamp	256	268	524	9,153
37191000100	4	Pikeville	374	151	525	9,169
37191000100	5	Great Swamp	259	96	355	6,204
37191000200	1	Nahunta	162	104	266	4,646
37191000200	2	Nahunta	226	104	330	5,765
37191000200	3	Nahunta	267	171	438	7,644
37191000301	11	Pikeville	312	323	635	11,099
37191000301	12	Saulston	328	295	623	10,882
37191000301	13	Stoney Creek	298	305	603	10,540
37191000301	14	Stoney Creek	338	169	507	8,855
37191000302	21	Stoney Creek	300	314	614	10,731
37191000302	22	Saulston	239	201	440	7,679
37191000400	1	New Hope	554	637	1,191	20,798
37191000400	2	New Hope	116	54	170	2,978
37191000400	3	New Hope	462	177	639	11,164
37191000400	4	New Hope	161	72	233	4,066
37191000601	11	Brogden	192	364	556	9,718
37191000601	12	Brogden	117	108	225	3,929
37191000601	13	Brogden	195	160	355	6,200
37191000602	21	Indian Springs	252	288	540	9,439
37191000602	22	Indian Springs	133	149	282	4,924
37191000602	23	Indian Springs	333	386	719	12,568
37191000602	24	Indian Springs	113	127	240	4,201

37191000700	1	Brogden	209	206	415	7,251
37191000700	2	Brogden	223	136	359	6,278
37191000700	3	Brogden	143	76	219	3,831
37191000800	1	Brogden	121	109	230	4,024
37191000800	2	Brogden	320	131	451	7,882
37191000800	3	Brogden	229	173	402	7,027
37191000900	1	Brogden	307	259	566	9,888
37191000900	2	Brogden	269	247	516	9,008
37191000900	3	Brogden	76	78	154	2,683
37191000900	4	Brogden	218	106	324	5,665
37191000900	5	Brogden	222	217	439	7,674
37191000900	6	Brogden	111	53	164	2,859
37191000900	7	Brogden	211	144	355	6,194
37191001000	1	Grantham	155	133	288	5,036
37191001000	2	Grantham	256	222	478	8,352
37191001000	3	Grantham	220	114	334	5,826
37191001100	1	Fork	215	168	383	6,692
37191001100	2	Fork	358	281	639	11,154
37191001100	3	Fork	284	122	406	7,095
37191001100	4	Fork	398	327	725	12,672
37191001100	5	Fork	75	63	138	2,412
Wayne County excl. Goldsboro			***11,006***	***8,744***	***19,750***	***345,005***
Wayne County Total			**17,893**	**12,718**	**30,611**	**534,737**

Source: US Census 2000

8.3.3 General Public Non-Work Transit Demand

General public non-work demand is the last segment of non-customer transit demand. It is comprised of those non-seniors and individuals without any mobility impairments who utilize transit for activities other than work. These activities could include shopping and recreation. Subtracting the employee and seniors/mobility-impaired person transit demand from the average total non-commuter transit demand, results in an estimated general public non-work transit demand of 305,270 annual one-way transit trips in Goldsboro. This demand rises to 523,829 for Wayne County. The general public non-work transit demand in Goldsboro, Wayne County excluding Goldsboro, and Wayne County is shown in Table 8.6.

8.3.4 Commuter Transit Demand

The last element of the total transit demand in Wayne County is commuter services. In Goldsboro, major commuting arteries include I-795, US 13/70, and US 117/NC 581. The data based on which employee transit demand can be estimated is provided by the U.S. Census Bureau: place of work for workers 16 years and older. According to this data from 2000, the total number of residents working outside the City of Goldsboro was 3,585. The relatively low density of Wayne County and Goldsboro and dispersed employment has an impact on the feasibility of transit services the region. If there are a lot of commuters who travel long distance to and from downtown Goldsboro (and other cities in the area) or to places of employment located along major arteries in Wayne County, the potential for commuter transit services that best serve longer trips is increased. The strong concentration of employment options downtown increases viability and effectiveness of a transit system, while also reducing costs. If employment centers are scattered around a large area due to dominant land use patterns, the commuter market might be best served by a private automobile. Due to these concerns, and considering observed transit commuter mode split in similar areas, a maximum feasible mode of 3.0 percent of all commuters seems to be most appropriate for Wayne County. Each commuter makes about two trips per day, approximately 250 days per year. Therefore, 3,585 commuters in Goldsboro would have made a total of about 1,792,500 commuter trips annually in the year 2000. Applying the average 3.0 percent mode split results in an approximately 53,775 one-way commuter transit trips per year, as shown below:

$53{,}775 \times 2 \times 250 = 1{,}792{,}500$ total annual one-way person trips

$1{,}792{,}500 \times 3.0\%$ - 53,775 annual one-way trips

In terms of commuter transit demand for residents living outside of Goldsboro in Wayne County, the U.S. Census Bureau lacked data regarding the place of work for workers 16 years and older for a few of the census tracts. The data was approximated by finding an average of the sum of the data available data from all census tracts and census blocks – deducing a common multiplier that was applied to the missing census tracts and block groups. The commuter transit demand in Goldsboro, Wayne County excluding Goldsboro, and Wayne County as a whole is shown in Table 8.5.

Table 8.5: Annual Transit Trip Demand Estimation For Commuters in Wayne County

Census		***Description***	***City of Goldsboro Residents Employed Outside Goldsboro***	***Annual One-Way Transit Trip Demand***	
Tract	Block Group			Total	Transit
37191000302	23	Goldsboro	171	85,500	2,565
37191000500	1	SJ AFB	77	38,500	1,155
37191001200	1	Goldsboro	101	50,500	1,515
37191001200	2	Goldsboro	62	31,000	930
37191001300	1	Goldsboro	167	83,500	2,505
37191001300	2	Goldsboro	144	72,000	2,160
37191001300	3	Goldsboro	127	63,500	1,905
37191001400	1	Goldsboro	110	55,000	1,650
37191001400	2	Goldsboro	49	24,500	735
37191001400	3	Goldsboro	39	19,500	585
37191001400	4	Goldsboro	79	39,500	1,185
37191001400	5	Goldsboro	15	7,500	225
37191001500	1	Goldsboro	40	20,000	600
37191001500	2	Goldsboro	93	46,500	1,395
37191001600	1	Goldsboro	49	24,500	735
37191001700	1	Goldsboro	21	10,500	315
37191001800	1	Goldsboro	67	33,500	1,005
37191001800	2	Goldsboro	24	12,000	360
37191001900	1	Goldsboro	73	36,500	1,095
37191001900	2	Goldsboro	52	26,000	780
37191001900	3	Goldsboro	70	35,000	1,050
		Total Goldsboro	***1,630***	***815,000***	***24,450***
Cont.					

Other Wayne Co. residents employed outside place of residence					
37191000100	1	Great Swamp	146	73,000	2,190
37191000100	2	Great Swamp	692	346,236	10,387
37191000100	3	Buck Swamp	644	322,080	9,662
37191000100	4	Pikeville	249	124,500	3,735
37191000100	5	Great Swamp	249	124,500	3,735
37191000200	1	Nahunta	76	38,000	1,140
37191000200	2	Nahunta	215	107,500	3,225
37191000200	3	Nahunta	77	38,500	1,155
37191000301	1	Pikeville	72	36,000	1,080
37191000301	12	Saulston	562	280,813	8,424
37191000301	13	Stoney Creek	564	281,820	8,455
37191000301	14	Stoney Creek	346	173,118	5,194
37191000302	21	Stoney Creek	20	10,000	300
37191000302	22	Saulston	286	142,923	4,288
37191000400	1	New Hope	1,522	761,000	22,830
37191000400	2	New Hope	258	129,000	3,870
37191000400	3	New Hope	404	202,000	6,060
37191000400	4	New Hope	12	6,000	180
37191000601	11	Brogden	497	248,605	7,458
37191000601	12	Brogden	222	111,000	3,330
37191000601	13	Brogden	898	449,000	13,470
37191000602	21	Indian Springs	185	92,598	2,778
37191000602	22	Indian Springs	236	117,761	3,533
37191000602	23	Indian Springs	898	448,898	13,467

37191000602	24	Indian Springs	17	8,500	255
37191000700	1	Brogden	245	122,500	3,675
37191000700	2	Brogden	224	112,000	3,360
37191000700	3	Brogden	173	86,500	2,595
37191000800	1	Brogden	138	69,000	2,070
37191000800	2	Brogden	26	13,000	390
37191000800	3	Brogden	259	129,500	3,885
37191000900	1	Brogden	417	208,500	6,255
37191000900	2	Brogden	673	336,500	10,095
37191000900	3	Brogden	141	70,455	2,114
37191000900	4	Brogden	303	151,500	4,545
37191000900	5	Brogden	147	73,500	2,205
37191000900	6	Brogden	48	24,156	725
37191000900	7	Brogden	19	9,500	285
37191001000	1	Grantham	145	72,468	2,174
37191001000	2	Grantham	340	170,099	5,103
37191001000	3	Grantham	354	177,144	5,314
37191001100	1	Fork	308	153,995	4,620
37191001100	2	Fork	652	326,106	9,783
37191001100	3	Fork	397	198,280	5,948
37191001100	4	Fork	155	77,500	2,325
37191001100	5	Fork	203	101,657	3,050
Wayne County excl. Goldsboro			***14,714***	***7,357,212***	***220,716***
Wayne County Total			**16,344**	**8,172,212**	**245,166**

Source: US Census 2000

8.4 Summary

Transit demand analysis in Wayne County and the City of Goldsboro results in estimates of the total potential transit demand by market segment: employee demand, seniors and mobility-impaired persons demand, general public non-work demand, and commuter demand. The total annual potential demand for one-way transit passenger trips is estimated to be 688,607 in Goldsboro proper. The general public non-work demand accounts for the largest percent of that total, or 44 percent. This suggests that a large numebr of residents of Goldsboro might be willing to take transit for recreational purposes and to go shopping if it was made available. Nearly one-third of transit demand in Goldsboro is derived from seniors and mobility-impaired persons; this suggests that there is an acute need to properly serve those residents. Employee transit demand comprises one-fifth of the total transit demand in the city – this statistic, along with the final 8 percent of the commuter transit demand, suggests that private automobile is still the most preferred and dominant form of getting to work for Goldsboro residents.

The total annual potential demand for one-way transit passenger trips is calculated to be at 1,737,387 in Wayne County as a whole. In terms of Wayne County overall, the aggregate results show that seniors and mobility-residents are actually the market segment responsible for creating the largest percentage of transit demand, or nearly one-third. Employees and commuters are two of the more dominant forces in creating transit demand in Wayne County overall when compared to the City of Goldsboro alone. Finally, transit demand in Wayne County excluding Goldsboro is fairly similar in terms of percentages of the four market segments responsible for that demand; notably, general public non-work demand shrinks considerably in this studied area when compared to both the Goldsboro proper and Wayne County as whole scenarios.

Again, it should be noted that the calculated demand represents a maximum potential under optimal conditions suitable for transit. In reality, the level of transit service in Wayne County cannot reach these levels – the need for transit is based on the time and cost of using transit as compared to other modes. Table 8.6 and Figure 8.1 show potential transit demand in Goldsboro, Wayne County excluding Goldsboro, and Wayne County total. Table 8.6 summarizes the entire transit demand in Wayne County.

Table 8.6: Annual Transit Trip Demand Estimation Summary in Wayne County

Census		*Description*	*Total Non-Commuter Demand*			*Average Non-Customer Demand by Segment*			*Commuter*	*Total*
Tract	Block Group		Mode Split	Vehicle Availability	Aver-age	Employee	Seniors and Mobility-Impaired	General Public Non-work		
37191000302	23	Goldsboro	20,894	30,288	25,591	9,490	7,552	8,549	2,565	28,156
37191000500	1	Goldsboro / SJ AFB	52,301	57,765	55,033	25,700	3,997	25,336	1,155	56,188
37191001200	1	Goldsboro	22,018	50,829	36,424	10,100	18,132	8,192	1,515	37,939
37191001200	2	Goldsboro	7,016	11,682	9,349	3,750	5,572	27	930	10,279
37191001300	1	Goldsboro	32,354	35,487	33,921	17,620	18,410	-2,110	2,505	36,426
37191001300	2	Goldsboro	15,628	20,102	17,865	7,840	8,265	1,760	2,160	20,025
37191001300	3	Goldsboro	28,034	68,282	48,158	15,410	19,978	12,770	1,905	50,063
37191001400	1	Goldsboro	9,943	15,945	12,944	4,540	7,159	1,245	1,650	14,594
37191001400	2	Goldsboro	12,014	42,794	27,404	5,300	6,485	15,619	735	28,139
37191001400	3	Goldsboro	8,934	13,814	11,374	4,140	5,153	2,081	585	11,959
37191001400	4	Goldsboro	19,332	100,731	60,032	6,430	11,858	41,744	1,185	61,217
37191001400	5	Goldsboro	11,130	56,077	33,604	3,040	7,679	22,885	225	33,829
37191001500	1	Goldsboro	10,523	49,304	29,914	4,070	6,210	19,634	600	30,514
37191001500	2	Goldsboro	15,369	46,143	30,756	6,410	11,554	12,792	1,395	32,151

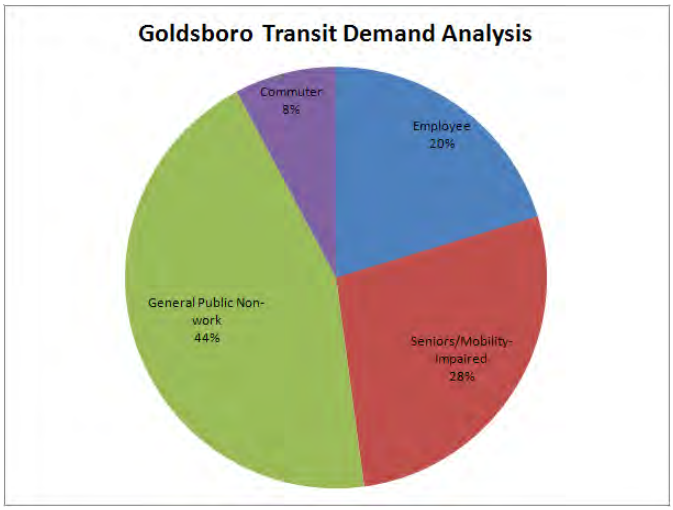
37191001600	1	Goldsboro	10,229	29,429	19,829	3,630	5,764	10,435	735	20,564
37191001700	1	Goldsboro	4,998	42,093	23,546	1,590	2,760	19,196	315	23,861
37191001800	1	Goldsboro	12,272	49,866	31,069	5,240	7,172	18,657	1,005	32,074
37191001800	2	Goldsboro	15,182	83,856	49,519	4,780	7,957	36,782	360	49,879
37191001900	1	Goldsboro	19,109	38,650	28,880	8,140	14,618	6,122	1,095	29,975
37191001900	2	Goldsboro	10,050	55,161	32,606	2,950	5,528	24,128	780	33,386
37191001900	3	Goldsboro	10,934	23,101	17,018	5,960	7,929	3,129	1,050	18,068
		Total Goldsboro	***348,254***	***921,389***	***634,822***	***156,130***	***189,732***	***288,970***	***24,450***	***659,282***
37191000100	1	Great Swamp	7,060	10,714	8,887	3,620	7,536	-2,269	2,190	11,077
37191000100	2	Great Swamp	12,808	12,947	12,878	7,380	5,614	-117	10,387	23,265
37191000100	3	Buck Swamp	18,689	21,678	20,184	11,050	9,153	-20	9,662	29,846
37191000100	4	Pikeville	23,955	13,783	18,869	13,850	9,169	-4150	3,735	22,604
37191000100	5	Great Swamp	21,858	16,069	18,964	12,330	6,204	430	3,735	22,699
37191000200	1	Nahunta	7,033	12,352	9,693	3,170	4,646	1877	1,140	10,833
37191000200	2	Nahunta	9,434	30,497	19,966	3,500	5,765	10701	3,225	23,191
37191000200	3	Nahunta	12,799	20,203	16,501	6,640	7,644	2217	1,155	17,656
37191000301	1	Pikeville	19,698	29,956	24,827	9,750	11,099	3978	1,080	25,907
37191000301	12	Saulston	25,392	28,179	26,786	13,180	10,882	2724	8,424	35,210
37191000301	13	Stoney Creek	21,742	23,549	22,646	12,770	10,540	-665	8,455	31,100

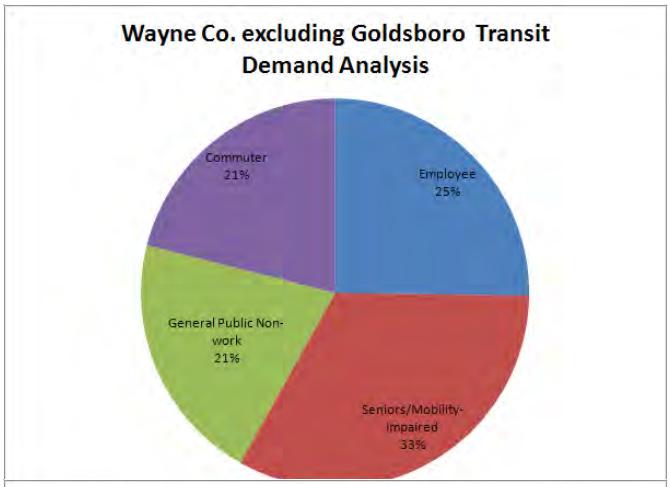
37191000301	14	Stoney Creek	14,539	15,453	14,996	8,740	8,855	-2599	5,194	20,190
37191000302	21	Stoney Creek	16,458	14,140	15,299	9,690	10,731	-5122	300	15,599
37191000302	22	Saulston	17,136	26,411	21,774	8,800	7,679	5295	4,288	26,061
37191000400	1	New Hope	34,790	66,011	50,401	17,820	20,798	11783	22,830	73,231
37191000400	2	New Hope	6,676	9,700	8,188	4,020	2,978	1190	3,870	12,058
37191000400	3	New Hope	24,580	18,404	21,492	12,610	11,164	-2282	6,060	27,552
37191000400	4	New Hope	8,220	12,200	10,210	3,300	4,066	2844	180	10,390
37191000601	11	Brogden	23,616	53,316	38,466	11,290	9,718	17458	7,458	45,924
37191000601	12	Brogden	6,864	9,171	8,018	2,480	3,929	1609	3,330	11,348
37191000601	13	Brogden	16,351	29,482	22,917	8,890	6,200	7827	13,470	36,387
37191000602	21	Indian Springs	17,734	21,870	19,802	7,720	9,439	2643	2,778	22,580
37191000602	22	Indian Springs	11,273	18,005	14,639	5,200	4,924	4515	3,533	18,172
37191000602	23	Indian Springs	27,570	48,192	37,881	14,760	12,568	10553	13,467	51,348
37191000602	24	Indian Springs	5,864	8,973	7,419	3,680	4,201	-463	255	7,674
37191000700	1	Brogden	10,505	50,311	30,408	4,000	7,251	19157	3,675	34,083
37191000700	2	Brogden	8,194	25,650	16,922	3,370	6,278	7274	3,360	20,282
37191000700	3	Brogden	5,704	9,542	7,623	3,370	3,831	422	2,595	10,218
37191000800	1	Brogden	5,837	11,925	8,881	2,140	4,024	2717	2,070	10,951
37191000800	2	Brogden	6,364	8,745	7,555	2,290	7,882	-2618	390	7,945

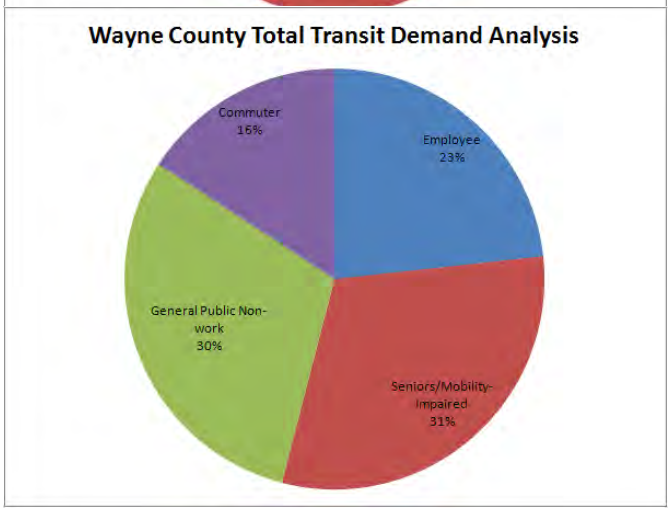
37191000800	3	Brogden	9,711	20,055	14,883	4,420	7,027	3436	3,885	18,768
37191000900	1	Brogden	18,707	21,460	20,084	9,040	9,888	1155.5	6,255	26,339
37191000900	2	Brogden	11,764	10,221	10,993	6,980	9,008	-4996	10,095	21,088
37191000900	3	Brogden	7,123	6,993	7,058	3,870	2,683	505	2,114	9,172
37191000900	4	Brogden	14,477	31,135	22,806	7,550	5,665	9591	4,545	27,351
37191000900	5	Brogden	14,798	27,620	21,209	6,360	7,674	7175	2,205	23,414
37191000900	6	Brogden	4,606	5,965	5,286	2,550	2,859	-124	725	6,010
37191000900	7	Brogden	10,702	27,410	19,056	5,310	6,194	7552	285	19,341
37191001000	1	Grantham	11,139	10,050	10,595	6,760	5,036	-1202	2,174	12,769
37191001000	2	Grantham	12,460	20,064	16,262	6,300	8,352	1610	5,103	21,365
37191001000	3	Grantham	11,487	16,661	14,074	5,510	5,826	2738	5,314	19,388
37191001100	1	Fork	14,611	17,454	16,033	6,740	6,692	2601	4,620	20,652
37191001100	2	Fork	26,588	38,390	32,489	15,270	11,154	6065	9,783	42,272
37191001100	3	Fork	16,744	20,559	18,652	9,490	7,095	2067	5,948	24,600
37191001100	4	Fork	19,832	25,834	22,833	4,930	12,672	5231	2,325	25,158
37191001100	5	Fork	9,738	15,480	12,609	3,400	2,412	6797	3,050	15,659
		Wayne County excl. Goldsboro	***663,208***	***992,759***	***827,984***	***335,890***	***345,005***	***147,110***	***220,716***	***1,048,721***
		Wayne County Total	**1,011,462**	**1,914,148**	**1,462,805**	**492,020**	**534,737**	**436,079**	**245,166**	**1,708,002**

Source: US Census 2000

Figure 8.1: Wayne County: Annual Transit Trip Demand Estimation Summary







Source: US Census 2000

9 Transit Service Alternatives

9.1 Introduction

This section describes the potential service expansion options that could realistically be implemented within the five-year planning horizon. The options are focused mainly on addressing riders' requests for more frequent service and service at additional times, as well as taking advantage of potential funding for services targeted at certain markets. It is acknowledged that priorities will need to be set, as funding is unlikely to be available for all options. However, it is also important to retain unfunded options in the plan, in case windfalls become available at short notice.

9.2 Goldsboro Urban Services

Table 9.1 summarizes the main opportunities for expanding the Goldsboro urban system, along with an order-of-magnitude cost estimate and potential funding sources. Any chosen options would need more detailed cost estimates to be prepared as part of the budgeting and/or grant-application processes.

Each of these options would be expected to produce increased ridership, either through allowing trips that cannot be made today, or through making the service more attractive and convenient. However, ridership typically increases less than the increase in the amount of service.

Evening Fixed-Route Service. This option would address riders' concerns about returning from jobs in the evening after the fixed-route service has finished. Although demand-responsive service is currently available in the evenings for this type of trip, it is rarely used for that purpose. The reasons might be a combination of limited marketing, the higher fare compared to fixed-route service, and the inconvenience of having to schedule the trip. The fixed-route service could be extended into the evening, using existing vehicles. Additional driver hours would be required and might trigger the conversion of the afternoon shifts from part-time to full-time status (with an impact on employee benefit costs). There would be a proportional increase in other operating costs. The existing evening demand-responsive service within Goldsboro would switch to providing only complementary ADA service.

Sunday Fixed-Route Service. This option would provide Sunday service that currently does not exist at all. It would particularly address riders' concerns about having to use a taxi to and from Sunday shifts at employment locations, which can use up most or all of that day's earnings. The existing Saturday service could be repeated on Sundays, using existing vehicles. Additional driver hours would be required and there would be a proportional increase in other operating costs, including complementary ADA service.

Sunday Demand-Responsive Service to/from Retail Areas. This option is a more targeted, and potentially more cost-effective, way to address Sunday employment travel needs. A demand-responsive service would operate for trips to and from the eastern

Goldsboro retail areas. It could use the existing Berkeley Mall route stops at the employment end, with curbside pick-up and drop-off at riders' residences. This service would meet its own ADA needs. Although open to all riders for all trip purposes, this option is specifically targeted at reverse-commute trips and is therefore potentially eligible for the Job Access and Reverse Commute funds (JARC).

Half-Hourly Fixed-Route Service. This option would address riders' concerns about the infrequency of buses. The existing Monday-through-Saturday fixed-route service would essentially be doubled. As well as a large increase in operating costs, additional vehicles would be required. This is therefore a very expensive option. Given the expense, and the expectation that the December 2009 schedule changes will improve the service timings to/from some key locations, it is recommended that a half-hourly service should be seen as a relatively low priority.

Sixth Fixed-Route Bus. This option represents an incremental expansion of the fixed-route network. It would be used wherever most needed, but a reversed (counter-clockwise) Berkeley Mall route would be a strong contender. Effectively the December 2009 service would be expanded by 20%, with one additional vehicle (probably a full-size bus).

US-70 West Corridor Reverse-Commute Service. This option would be targeted at reverse-commute trips to employment locations on US-70 west to Rosewood (including Wal-Mart), and would be a potential candidate for JARC funding. However, it would be open to all riders for all trip purposes. It might also eliminate the need for the North End route to serve Little River Shopping Center, allowing that route to serve additional locations within the hourly cycle. One expansion vehicle would be required. Complementary ADA service would be provided by route-deviation or through the existing rural demand-responsive service.

Cherry Corridor Reverse-Commute Service. This option would be targeted at reverse-commute trips to employment locations west along Ash Street to Rosewood (including Wal-Mart), and would be a potential candidate for JARC funding. However, it would be open to all riders for all trip purposes. Although the proposed December 2009 schedule includes a service along this corridor using an existing van, JARC funds could be used to expand or enhance the service. Complementary ADA service would be provided by route-deviation or through the existing rural demand-responsive service.

Table 9.1: Service Expansion Options - Goldsboro Urban Network

	Assumptions			***Operating Cost Calculations***					***Costs †***		***Potential funding sources***	
Description	Operating	ADA service	Capital	Vehicles	Hours	Days per year	Hours per year	Rate	Annual Operating	Capital	Operating *	Capital
Evening Fixed-Route Service Monday through Saturday.	Fixed-route service extended from 6:30PM to 10:30PM.	Existing evening Demand-Responsive service effectively becomes ADA-only within Goldsboro	Existing vehicles, negligible capital costs	5	4	315	6,300	$40	$252,000	Negligible	-Increased local funding -Increased SMAP allocation due to additional hours -Potential saving from reduced need for evening demand-responsive service	N/A
Sunday Fixed-Route Service, with same hours as Saturday service	Ten pay hours per route per day, representing nine revenue hours per route per day.	Assume one van is needed.	Existing vehicles, negligible capital costs	6	10	52	3,120	$40	$124,800	Negligible	-Increased local funding -Increased SMAP allocation due to additional hours	N/A
Sunday Demand-Responsive Service to/from Retail Areas	Assume three vehicles required. Assume same service span as Saturday service	Vans provide ADA service	Existing vehicles, negligible capital costs	3	10	52	1,560	$40	$62,400	Negligible	Up to 50% JARC, 50% local	Up to 80% JARC, 20% local

Half-hourly service Monday through Saturday during existing hours	14 pay hours per route per day, representing 13 revenue hours per route per day.	Existing ADA service	Six expansion vehicles (VOMS 5 plus 20% spare ratio) - 3 buses and 3 cutaways	5	14	315	22,050	$40	$882,000	$1,500,000	-Increased local funding -Increased SMAP allocation due to additional hours	S.5309 with 10% local match
Sixth City Route Monday through Saturday	14 pay hours per day, representing 13 revenue hours per day.	Existing ADA service	One expansion vehicle	1	14	315	4,410	$40	$176,400	$400,000	-Increased local funding -Increased SMAP allocation due to additional hours	S.5309 with 10% local match
US-70 West Corridor Reverse-Commute service	Fixed-route or route-deviation service for same service span as today's fixed-route network.	Route-deviation by this vehicle, or else existing ADA service	One expansion vehicle	1	14	315	4,410	$40	$176,400	$100,000	Up to 50% JARC, 50% local	up to 80% JARC, 20% local
Cherry Reverse-Commute service	Fixed-route or route-deviation service for same service span as today's fixed-route network.	Route-deviation by this vehicle, or else existing ADA service	One expansion vehicle	1	14	315	4,410	$40	$176,400	$100,000	Up to 50% JARC, 50% local	up to 80% JARC, 20% local

* Increased farebox revenue will also represent a partial funding source for each option

† Order-of-magnitude costs, for planning and prioritization purposes only.

9.3 Wayne County Rural Service

Table 9.2 summarizes the main opportunities for expanding the rural services, along with an order-of-magnitude cost estimate and potential funding sources. Any chosen options would need more detailed cost estimates to be prepared as part of the budgeting and/or grant-application processes.

Each of these options would be expected to produce increased ridership, either through allowing trips that cannot be made today, or through making the service more attractive and convenient. However, ridership rates typically increase at a lesser rate than the service increase.

Provide Sunday Service. This option would provide Sunday service that currently does not exist at all. It would particularly address riders' concerns about having to use a taxi to and from Sunday shifts at employment locations, which can use up most or all of that day's earnings. Existing vehicles would be used. Additional driver hours would be required and there would be a proportional increase in other operating costs. For planning purposes, it is assumed that the Sunday operating hours and level of demand would be similar to Saturdays. The net cost would be approximately $50,000 annually.

Provide additional fixed-route services to and from Goldsboro. Since April 2009, GATEWAY Transit has been offering two fixed-route services on an experimental basis. These two services developed from the most common demand-responsive trips from Mount Olive, Fremont and Pikeville to the main locations in Goldsboro. At the time of writing, the service to Fremont and Pikeville has not performed well, and is expected to be eliminated. The service to Mount Olive is expected to continue. GATEWAY Transit could:

- Expand the Mount Olive-Goldsboro service with additional runs
- Introduce a new service from Mar-Mac and/or Dudley to Goldsboro, allowing the existing Mount Olive route to concentrate on trips to/from Mount Olive (potentially also improving the service frequency on the common segment)
- Reinstate the Fremont/Pikeville service, with any changes or additional marketing required to improve ridership

Currently, the fixed routes are standalone services, and demand-responsive trips are still available to riders who prefer them. Many Transit agencies require riders on demand-responsive trips to use fixed-route service if available for part of the trip. For example, a rider from the Mount Olive area traveling to the hospital, at a time when fixed-route service is available, would be given a demand-responsive ride to the fixed-route stop in Mount Olive and be required to catch the fixed-route service. This is a common cost-saving practice in Transit agencies. However, it is less convenient for the rider.

Each new fixed-route service might cost approximately $80,000 per year for a service level similar to that on the existing fixed routes. Farebox revenue and potential savings in RGP trip costs would likely cover a proportion of the costs.

Provide area or deviated fixed-route services with fixed-route segments to/from Goldsboro. This option would aim to provide the 'best of both worlds': fixed-route service between Goldsboro and the main towns, along with demand-responsive service beyond the fixed-route segment. It could also provide demand-responsive service along the fixed-route corridors themselves. A similar service is recommended for the Rosewood area (described in Section 10). The potential areas and corridors include:

- Fremont, Pikeville and Belfast (US-117 corridor, replacing the experimental fixed-route service)
- Mount Olive and Dudley (US-117 corridor, replacing the experimental fixed-route service)
- Dudley (Potts Road area, replacing the experimental fixed-route service, and also improving the service frequency on the US-117 corridor in Mar-Mac).
- Mar-Mac (including US-13 corridor, also improving the service frequency on the US-117 corridor in Mar-Mac)
- Rosewood via Cherry Hospital and via US-70 (see Section 9.2 for the urban version)
- Buck Swamp Road area (via Belfast)

Each new fixed-route service is estimated to cost approximately $80,000 per year for a service level similar to that on the existing fixed routes, or approximately $125,000 for an all-day service. Farebox revenue and potential savings in RGP trip costs would likely cover a portion of the costs.

Provide local 'circulator' service in towns. This option would provide local connectivity within towns, allowing riders to make local errands, shopping trips or work trips without the need to schedule a ride, and at a fixed-route fare that is more appropriate to the short distances involved. Each circulator would connect residential areas with the main local destinations. Where a fixed-route service also operates between the town and Goldsboro, a designated transfer point and coordinated schedules would allow for transfers. Initially, each circulator would use one vehicle, probably a cutaway, with service ideally every 30 minutes if this can be accommodated within the desired length of route. Mount Olive, Mar-Mac and Dudley are the most obvious possibilities, but other towns are also possible.

Each circulator service might cost approximately $125,000 for an all-day service. Farebox revenue and potential savings in RGP trip costs would likely cover a proportion of the costs.

However, most agencies require should require a local funding commitment from the town concerned, and this should be the case for GATEWAY Transit too.

Table 9.2: Service Expansion Options – Wayne County Rural Network

	Assumptions			***Operating Cost Calculations***					***Costs †***		***Potential funding sources***	
Description	Operating	ADA service	Capital	Vehicles	Hours	Days per year	Hours per year	Rate	Annual Operating	Capital	Operating *	Capital
Sunday service	Same hours as Saturday. 32 service hours per day (per ITRE analysis)	Same vehicles	Existing vehicles, negligible capital costs		32	52	1,664	$40	$66,560	Negligible	-Fares and billing (Saturday billing is $25k annually) -Increased local funding	N/A
Each additional fixed-route service	Monday-Friday, assume eight hours per day (split shift)	Same vehicles	Existing vehicles, negligible capital costs	1	8	260	2,080	$40	$83,200	Negligible	-Increased local funding -Some additional farebox revenue -Some savings in demand-responsive service	S.5311
Each circulator service	Monday-Friday, assume 12 hours per day	Same vehicles	Existing vehicles, negligible capital costs	1	12	260	3,120	$40	$124,800	Negligible	-Increased local funding (especially from municipalities) -Some additional farebox revenue -Some savings in demand-responsive service	S.5311

10 Capital Alternatives

10.1 Introduction

This section describes the planned and proposed infrastructure projects to support GATEWAY Transit services and its riders. It includes GATEWAY Transit's two existing major projects (the Maintenance Center and Union Station), as well as other projects related to bus stop amenities and accessibility. Figure 10.3 summarizes the main locations involved.

10.2 Maintenance Center

GATEWAY Transit's proposed Maintenance Center was described in Section 4.5. Along with Union Station, this is an existing GATEWAY Transit project that is carried forward in this CTSP. It is an important and urgently-needed project. GATEWAY Transit currently has no fueling or maintenance facilities of its own, and must rely on commercial suppliers. It has no secure location for vehicle storage, relying instead on the land around the transfer center. The proposed Maintenance Center would provide a secure, fixed base and allow GATEWAY Transit to perform routine maintenance and fueling in-house.

10.3 Union Station

The Goldsboro Union Station (GUS) project, which includes a new Transfer Center for GATEWAY Transit, was described in Section 4.5. Along with the Maintenance Center, this is an existing GATEWAY Transit project that is carried forward in this CTSP. In addition to the overall importance of GUS to the City of Goldsboro, the Transfer Center is another important project for GATEWAY Transit. The current transfer center is operationally unsatisfactory and provides a very poor quality of service to riders. The proposed Transfer Center will be fit-for purpose, will accommodate future growth, will provide high-quality facilities for riders, and will offer improved links with Greyhound and future rail service.

10.4 System-Wide Bus Stop Amenities and Accessibility

GATEWAY Transit's bus stops currently vary in their level of amenities and accessibility. For amenities, almost all have a posted sign (also known as a 'flag'). Some have a shelter and/or a bench, which in many cases have been provided relatively recently under a GATEWAY Transit program. GATEWAY Transit does not routinely post schedule information at stops. Federal stimulus funds have been approved for new signs (which will include route information) and additional shelters, and GATEWAY Transit can benefit from that source of funding.

As with most Transit agencies, the accessibility of stops (both in terms of ADA compliance, and in terms of overall ease of access) is quite variable. Some – particularly on streets that have recently been reconstructed or have had sidewalks added – have the required level, hard

surfaces and have good pedestrian connections to nearby residences and businesses. Others may be accessible in themselves but do not have good pedestrian connections to or from the stop. Finally, there are many stops – in both traditional neighborhoods and recently-developed areas – that are no more than a grassy area without an accessible boarding location or pedestrian facilities.

GATEWAY Transit should continue to improve the amenities and accessibility of stops, both as its own resources allow and by leveraging other sources of improvements. This can include:

- Establishing standards for providing particular amenities (for example, GATEWAY Transit could aim to provide a shelter at all stops that meet a threshold number of daily riders). This should also include a standard for posting schedule information at stops

- Maintaining the current program of providing additional amenities, as resources allow

- Continuing to work with landowners at stops that are located on private land, to ensure that they are aware of the benefits of Transit service and amenities. GATEWAY Transit needs landowners' cooperation at these stops in order to provide amenities

- Establishing a sponsorship program for amenities

- Undertaking a full bus stop access/safety/lighting audit, to help understand current deficiencies and short-term opportunities for improvements. This could be undertaken in collaboration with a local disability organization

- Establishing a Transit and Pedestrian Access Program (see below) that would prioritize improvements in the most important locations and would leverage non-GATEWAY Transit funding

- Working with the City of Goldsboro and NCDOT to ensure that access to bus stops, and accessibility at bus stops, forms part of their ongoing maintenance and improvement programs

- Working with the City of Goldsboro and NCDOT to ensure that proposed highway schemes include full provision for pedestrian access. From GATEWAY Transit's point of view, this includes access to/from bus stops, but it also includes other pedestrian trips, and even in locations with no bus service today, these facilities will make any future bus service more convenient and accessible

- Working with the City of Goldsboro to improve the Transit-friendliness of its land development standards

10.5 Transit and Pedestrian Access Program

The proposed Transit and Pedestrian Access Program would prioritize investment in several key locations. The program would provide synergy between meeting overall pedestrian needs (through improving sidewalks, pedestrian signals, etc.) and improving Transit access (because the improvements would include routes to and from bus stops).

These schemes would be particularly valuable in the neighborhoods adjoining key retail areas, such as the neighborhoods east of Berkeley Boulevard or west of Spence Avenue, which are currently cut off from both the retail areas and the Transit service due to the limited pedestrian facilities. Table 10.1 shows the recommended priority areas for this program. This is an initial list and could be amended following the system-wide access audit or in response to future route-planning decisions.

Establishing a specific program is important because it:

- Provides a focus on key areas and offers achievable 'bite-size' goals

- Can be entered into locally-adopted plans, including the Long Range Transportation Plan, and can be the subject of specific funding requests; and

- Can be regarded as not just a Transit scheme (using Transit funds) but also a highway scheme (using surface transportation funds, which although nominally available to Transit are usually regarded as highway funds in practice). This will improve the chances of funding

In the longer-term, completion of the US 70 bypass will provide the opportunity to re-examine the character of the existing US 70 between Rosewood and US 117. This stretch of highway is currently optimized for a heavy through-traffic role, with few pedestrian or Transit facilities. The bypass will reduce the amount of through-traffic on the existing road, which will likely remain as a commercial strip with a need for Transit access. This would be a good opportunity to provide better Transit and pedestrian facilities.

10.6 Medical District Stop Location and Access

GATEWAY Transit is recommended to work with Wayne Memorial Hospital, the City of Goldsboro and NCDOT to examine future stop locations in the medical district. This includes the medical offices on either side of Wayne Memorial Drive, as well as the hospital itself. The issues that need to be addressed are:

- The balance between providing convenient access to riders' destinations and avoiding time-consuming detours

- The existing speed bumps in the hospital rear service road, which are uncomfortable for drivers and riders and slow the service

- The planned introduction of the East End route. As described in the Appendix C, this route should ideally serve the medical district on its way inbound from Wayne Community College to downtown and further to the Transfer Center. However, this may require new stops opposite some existing ones, and it would not be able to serve the existing turnarounds when using a 35-foot bus (this would require backing at the turnaround, which is strongly discouraged for safety reasons and would be time-consuming). It is therefore a good time to reconsider the stop locations in this area

- The potential for the Wayne Memorial route to switch to a 35-foot bus in the future, which would mean the existing turnarounds could not be served by that route either

- The opportunities to create new bus stops directly on Wayne Memorial Drive, particularly on the inbound side, along with pedestrian connections into the medical office areas and to the Social Security office. If feasible, this would save both time and mileage

- The possibility of moving the hospital stop from the patient and emergency entrance to the visitor entrance. This would eliminate the tight turnaround at the existing stop, allow one stop to serve buses in both directions, and provide improved flexibility in routing (the visitor entrance is served with a signal and therefore can easily accommodate turns in all directions)

The East End route could be introduced using the route shown in the Appendix C, with nothing more than new signs where required, or it could omit the medical district altogether in the short-term. However, a permanent strategy for the stops in this area will still be desirable.

10.7 Satellite Transfer Points

Two satellite transfer points are proposed, at Spence Avenue (near Wal-Mart) and in the Berkeley Mall area. It is recommended that these be developed in the future as 'superstops'. Figure 10.1 shows the proposed locations.

Concept: These transfer points would be unstaffed but high-quality stops (sometimes known as 'superstops'), where riders can transfer in safety and buses can wait time if required. They would include shelters, lighting and posted information. They can be directly

on-street (with buses using a turnout) or alongside the street (with buses using a dedicated bus-only aisle.) Figure 10.2 shows an example of the latter.

Spence Avenue: The proposed route structure would allow transfers at the current Wal-Mart stop, which would be served by three routes from December 2009. This stop is physically compatible with all three routes, so it can continue to be used in the short-term. It is also convenient for Wal-Mart and the adjoining retail stores. However, it has several disadvantages:

- It involves a time-consuming detour through the parking lot (with speed bumps). This will be particularly true for any future route southbound on Spence Avenue, which would require at least two left turns to serve the stop
- There are no pedestrian connections to other parts of this retail area, and
- The stop is on private land and therefore outside GATEWAY Transit's control. Riders have requested the provision of basic amenities at this stop, but it has not yet been possible to obtain the landowner's agreement

It is recommended that the Wal-Mart stop be replaced with a 'superstop' transfer point on or near Spence Avenue. This would most likely use existing public right-of-way. The exact location and layout would need to be studied further, and would depend on right-of-way availability, but should aim to serve potential future routes to/from any direction. It would include pedestrian crossing facilities and sidewalks to connect to other parts of the retail area, ideally linking to existing or potential facilities on the adjoining private land.

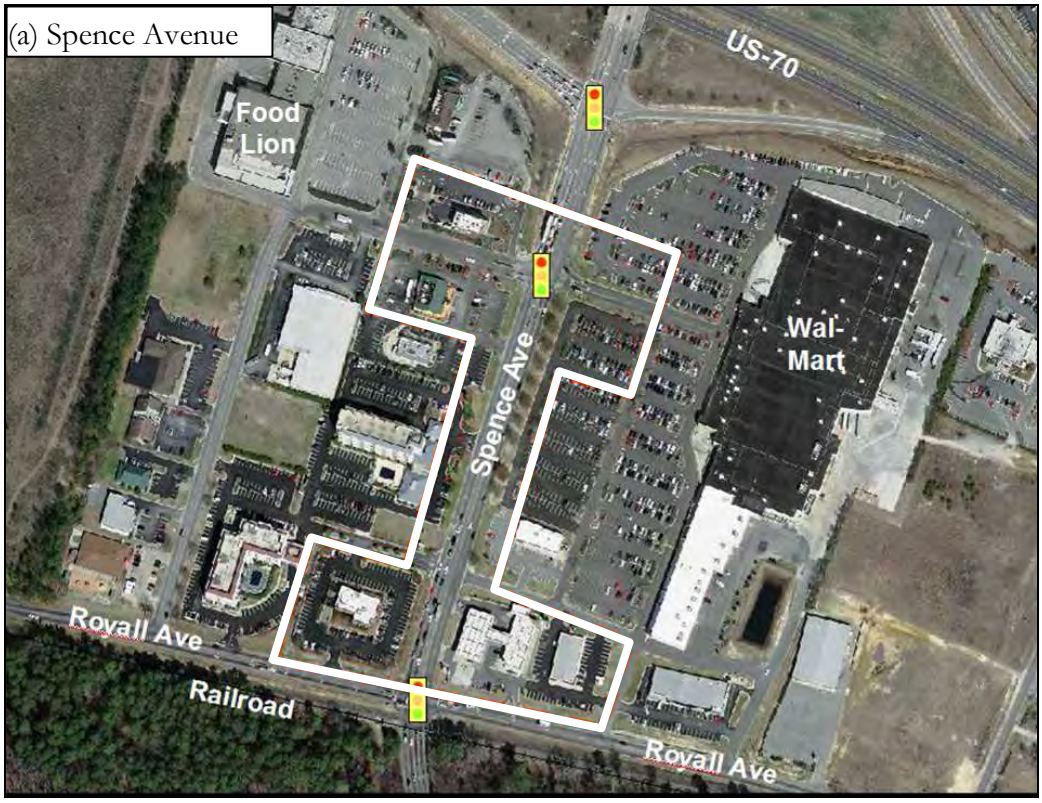
Berkeley Mall area: Transfers are also expected to be available at Berkeley Mall in the future, and this role could expand if additional routes serving the eastern part of Goldsboro are introduced. (The street layout and topography of this part of Goldsboro mean that a single transfer point cannot suffice and both locations will likely be useful.) The existing stop is convenient for the mall but is not ideal as a transfer location.

A 'superstop' is therefore also proposed for this area. This could be constructed at a later date, when the number of routes and transfers makes it appropriate. The ideal location is in the area near the existing mall and Cashwell Drive, as shown in **Figure 10.1** (b). This is convenient for buses on both the Berkeley Boulevard Corridor and the Spence Avenue corridor. It also allows the superstop to be conveniently-located as a 'flagship' location at the heart of the commercial area. It may be possible to create a basic transfer point on existing city right-of-way in this area, but more extensive facilities are possible in conjunction with future commercial redevelopment.

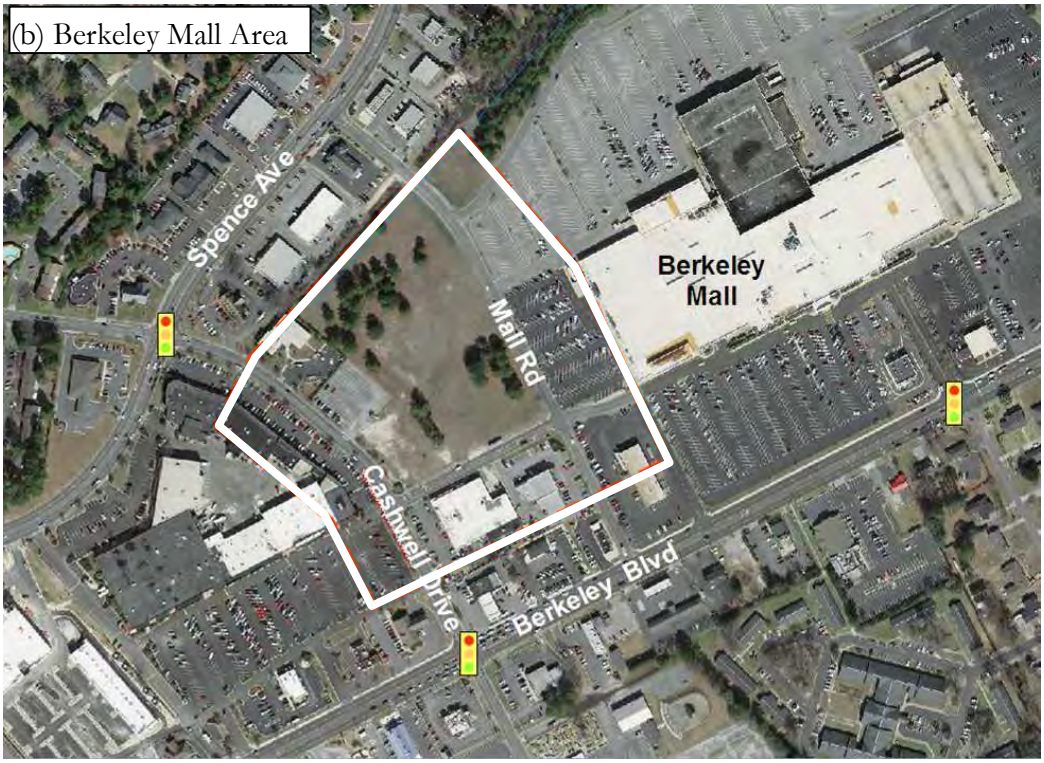
Other transfer locations: As described in the Appendix C, transfers may also be available in the short-term downtown on William Street. These are not expected to be long-term transfer

locations, and infrastructure improvements beyond those of typical bus stops are not proposed.

Figure 10.1: Proposed Satellite Transfer Point Locations



White outlines show possible 'search areas' for transfer points.



White outlines show possible 'search areas' for transfer points.

Figure 10.2: Example of a Satellite Transfer Point

Reno, Nevada. Mall entrance is behind camera.

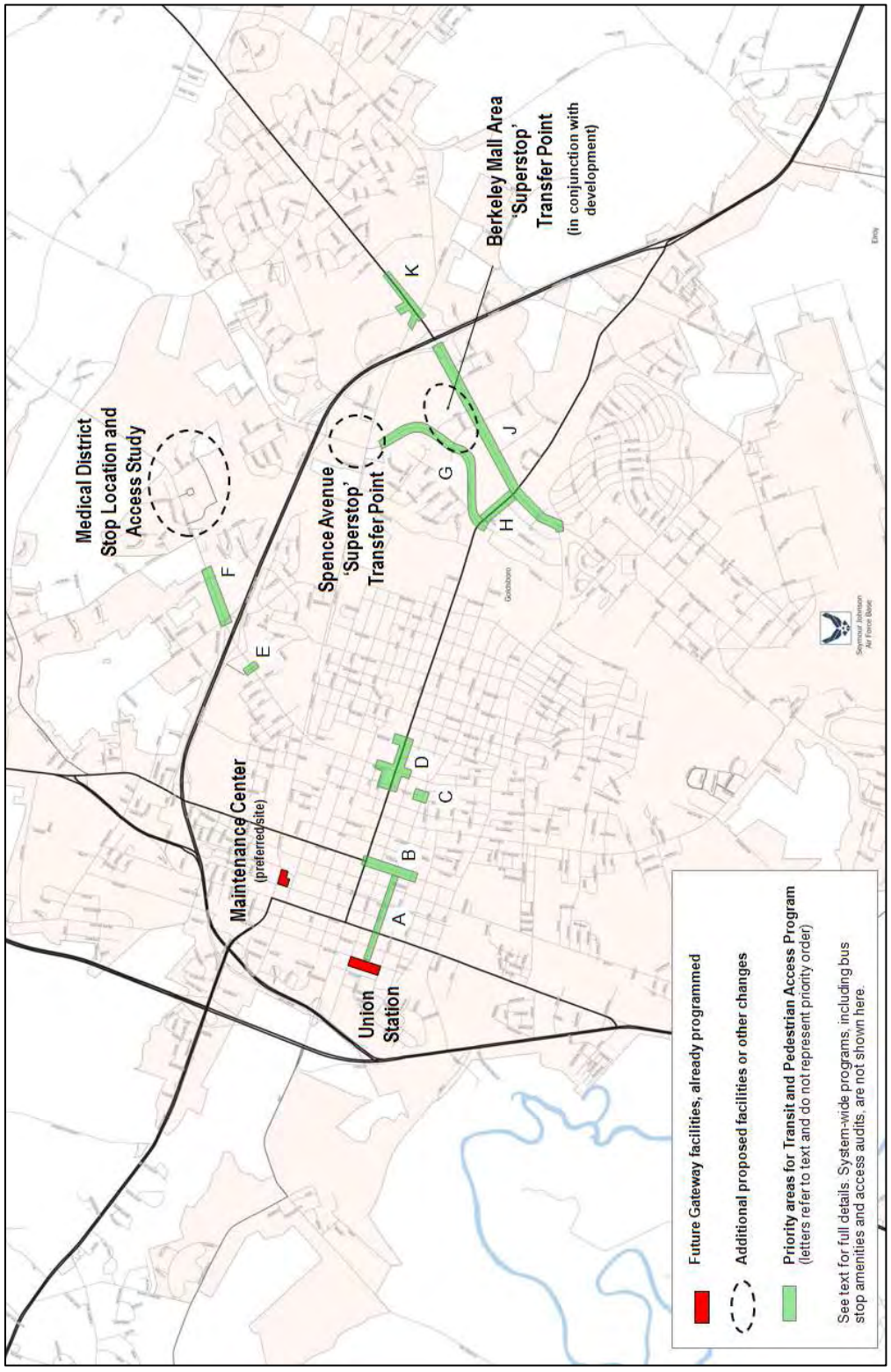
Table 10.1: Recommended Priority Areas for Transit and Pedestrian Access Program

Map ref.	*Location*	*Reasons*	*Additional Notes*	*Priority*
A	Walnut Street, between Union Station and William Street	Provide good access between Union Station and key downtown destinations Leverage investment in Union Station Consistent with Downtown Master Plan	Potential to leverage downtown funding sources Coordinate with anticipated downtown bus stop locations	Medium (value comes after transfer point moves to Union Station)
B	William Street, between Chestnut Street and Ash Street	Improve riders' access to key downtown bus stops William Street stops will become more important under the recommended schedule changes Busy area with substantial on-street parking demand makes it important to positively manage accessibility and dwell times	Might include build-outs to allow maximum number of on-street parking spaces as well as to reduce dwell times Potential to leverage downtown funding sources	Medium-High (will benefit existing routes and riders)
C	Lionel Street at Walnut Street (Piggly Wiggly area)	Relatively important destination Adjustments proposed under recommended schedule changes	Some existing pedestrian facilities. Minor upgrades may be needed.	Medium-High (will benefit existing route and riders)
D	Ash Street / Herman Street area	Important area with a mixture of key public facilities (Health Department, Park, Library) and retail stores	Some existing pedestrian facilities. Program can address 'missing links' and extensions.	Medium-High (will benefit existing route and riders)
E	Wayne Memorial Drive at Ninth Street / Market Square Shopping	Improves riders' access to commercial areas. Pedestrian facilities currently very limited.		Medium (will benefit existing route and riders, but lower ridership than some other locations)
F	Wayne Memorial Drive, between Eleventh Street and Wayne Pharmacy	Improves riders' access to commercial areas. Pedestrian facilities currently very limited.		Medium-High (will benefit existing route and riders)
G	Spence Avenue, between Ash Street and Briarcliff Apartments	Improves riders' access to commercial areas. Improves access to Transit for neighborhoods west of Spence Avenue, including apartment complexes		High (will benefit existing route and riders, as well as potential new riders)
H	Ash Street, between Spence Avenue and Berkeley Boulevard	Improves riders' access to commercial areas. Leverages the investments on Spence Avenue and Berkeley Boulevard to create a larger walkable district		Medium (best to follow on from the Spence Avenue and Berkeley Boulevard areas)

J	Berkeley Boulevard, between Elm Street and Ridgecrest Drive	Improves riders' access to retail areas Increases the value of the proposed East End route Improves access to Transit for neighborhoods east of Berkeley Boulevard, including apartment complexes Improves access to retail areas for neighborhoods east of Berkeley Boulevard, including apartment complexes	Sidewalks currently exist on west side of street but not east side. Pedestrian facilities at signals are very limited.	High (will benefit existing route and riders, as well as proposed new route and potential new riders. Will address existing requests.)
K	Berkeley Boulevard, between Royall Avenue and Berkeley Commons	Improves riders' access to retail areas Partially accommodates existing requests for service to Berkeley Commons	Sidewalk currently exists on west side of street, directly outside Berkeley Commons. However, this does not connect beyond the site frontage. Aim to provide safe walking route between bus stop and Berkeley Commons	Medium-High (will benefit existing route and riders. Will address existing requests.)

Note: all remaining bus stops are 'low' priority.

Figure 10.3: Infrastructure Plan



11 Institutional/Management Alternatives

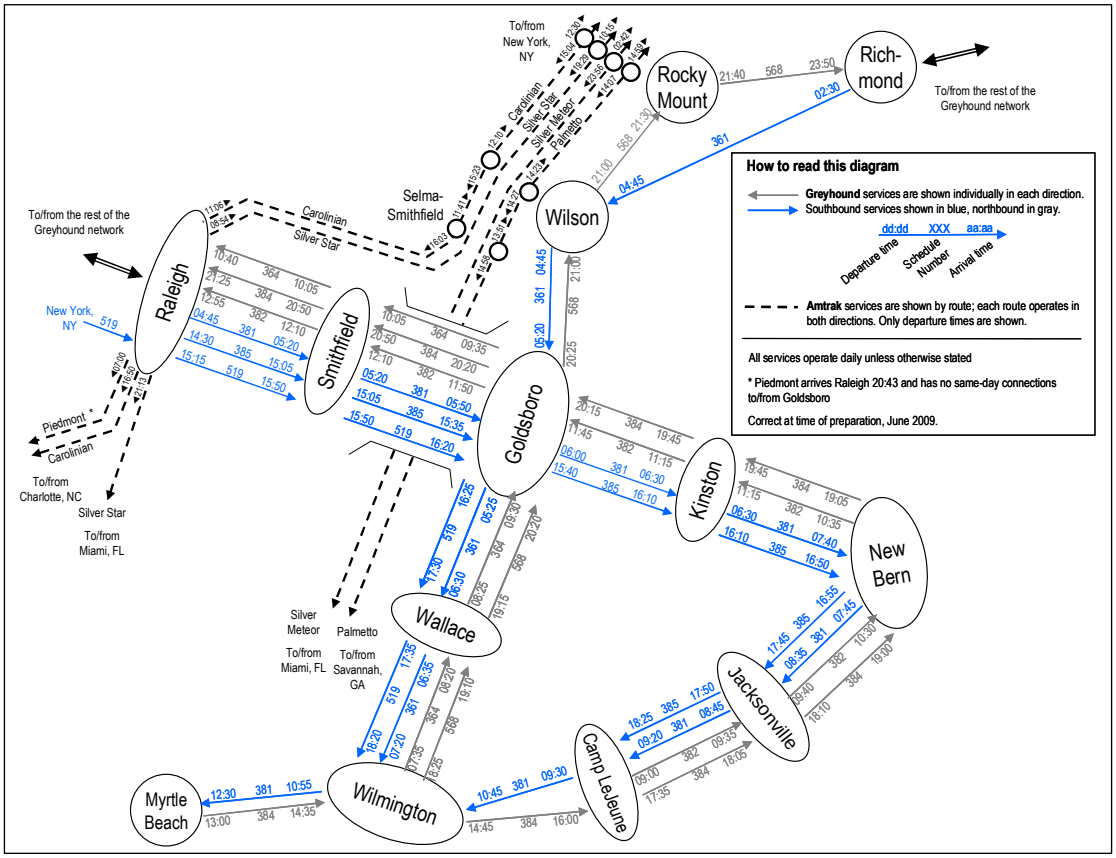
11.1 Synopsis of Existing Regional Links

This section recaps the existing Transit links between Wayne County and the rest of North Carolina; reports on future prospects; and considers how GATEWAY Transit could contribute to improved regional links.

Section 5.4 of this report described the existing regional links. These include scheduled Greyhound service, a number of private shuttle or taxi operators, and GATEWAY Transit's own out-of-county trips. Connections are also available to Amtrak stations and commercial airports outside Wayne County.

Figure 11.1 shows the scheduled services (those with a published schedule, not those which run on demand such as GATEWAY Transit or private van services).

Figure 11.1: Existing Scheduled Connections to/from Goldsboro



In addition to the scheduled services, GATEWAY Transit operates van trips to the Triangle area on most days, transporting riders for medical or other human-service needs. Although not a scheduled service, the demand is high enough that the trip operates on most days and to a regular set of locations.

11.2 Potential External Changes

In the short-term, the main potential for changes is if Greyhound restructures its routes. However, the route network was restructured a few years ago and no major changes are anticipated at the time of writing.

NCDOT is expecting to introduce an additional round-trip on the Piedmont train corridor between Raleigh and Charlotte within the next year. The new trains would be a mid-day service in each direction. Other Amtrak services through eastern North Carolina may change over time, but no substantial changes are currently expected in the short-term.

In the medium-term, NCDOT aims to provide additional Piedmont services. There are also plans, as described earlier in this report, for commuter service between Goldsboro and the Triangle, and inter-city rail service through Goldsboro to Wilmington (and ultimately also to Morehead City).

11.3 Issues for Consideration

11.3.1 Human-Service Trips

GATEWAY Transit is currently in a very good position with its out-of-county human service trips. It recovers the costs through the fees to agencies, and it has the 'critical mass' to create economies of scale by taking several riders on most trips.

However, the region-wide position is less satisfactory. There is little regional coordination, and a recent software-led project aimed at increasing coordination had mixed results. Opportunities exist to work toward improved regional coordination, as well as developing the market for non-agency riders on trips that are likely to run anyway for agency clients.

Wayne County is a natural meeting-point for trips to and from the Triangle, and GATEWAY Transit is in a good position to assist other counties. GATEWAY Transit's van to the Triangle usually has spare capacity that could be offered to other agencies. GATEWAY Transit should continue to work with other county Transit agencies as part of the effort to improve regional coordination. Three approaches could be considered:

- Offering spare seats to other agencies. This would only be on trips that GATEWAY Transit is making anyway. For example, Lenoir County could bring a rider to

Goldsboro and join the GATEWAY Transit trip to the Triangle. GATEWAY Transit's fee should aim to be less than the cost of a separate trip

- Agencies taking turns on common trip segments. For example, both Lenoir and GATEWAY Transit might have trips to the Triangle today. Today, GATEWAY Transit would make the trip, collecting the Lenoir rider at his/her home or in Goldsboro. Next time, Lenoir would make the trip and collect the GATEWAY Transit rider on the way

- A scheduled service, as described below, but aimed more closely at meeting human-service needs, could support many trips. Importantly, the scheduled service would use a pre-agreed funding formula, providing an incentive for agencies to use the scheduled service whenever appropriate

This is not to say that all trips can or should be shared. For the easternmost counties, it will rarely be cost-effective to 'pass on' a rider to GATEWAY Transit at Goldsboro, because this would create high deadhead (empty) time and mileage; in that situation the county might as well provide the trip direct.

11.3.2 Scheduled Service

GATEWAY Transit and the other counties in the region could work with NCDOT to explore the scope for additional scheduled inter-city bus service. The potential markets could include inter-city trips, connections to Amtrak trains, and some human-service trips (accepting that not all would be suitable for fixed-route service). A scheduled service would also help to establish a market for future train services, particularly if marketed as a connector service. A similar route is the existing High Point-Winston-Salem Connector – a fixed route service provided by the Piedmont Authority Regional Transportation and included in AMTRAK's timetable. Figure 11.2 presents a concept for a regional trunk route to/from the Triangle. This is along the lines of the PART service from Boone to the Triad. Importantly, it would be a scheduled route, offering daily service at fixed times, with regional commitment and a pre-agreed funding formula, rather than a curb-to-curb service funded trip-by-trip. The service model would need to be evaluated in more detail, and options include:

- Pre-booking or walk-up service (with pre-booking, stops could be omitted if no rider is booked)

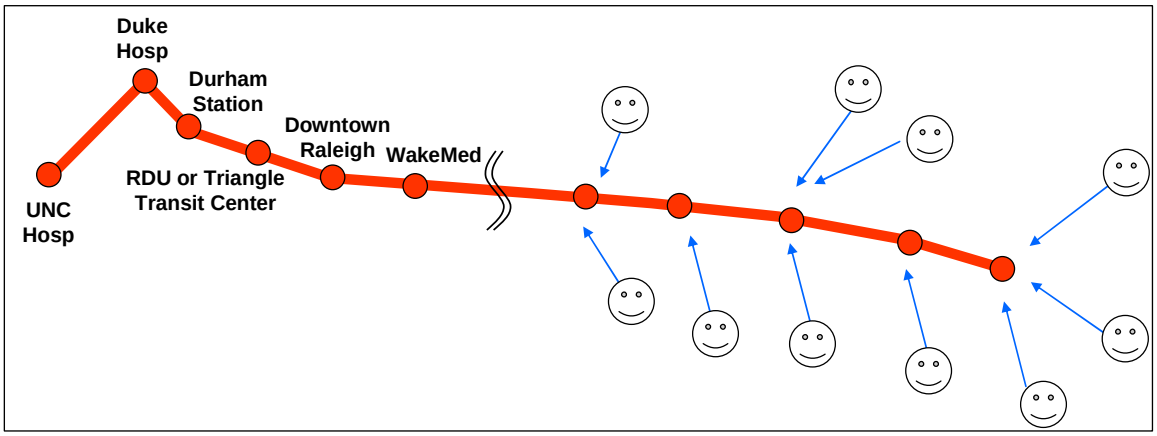
- Operation directly by a county Transit agency, or by a private contractor (as Triangle Transit is proposing for some of its future routes), or as a subsidized part of the Greyhound network

- Whether to be positioned a feeder service to Greyhound and/or Amtrak (allowing through-ticketing, but imposing some specific requirements), or as a standalone service

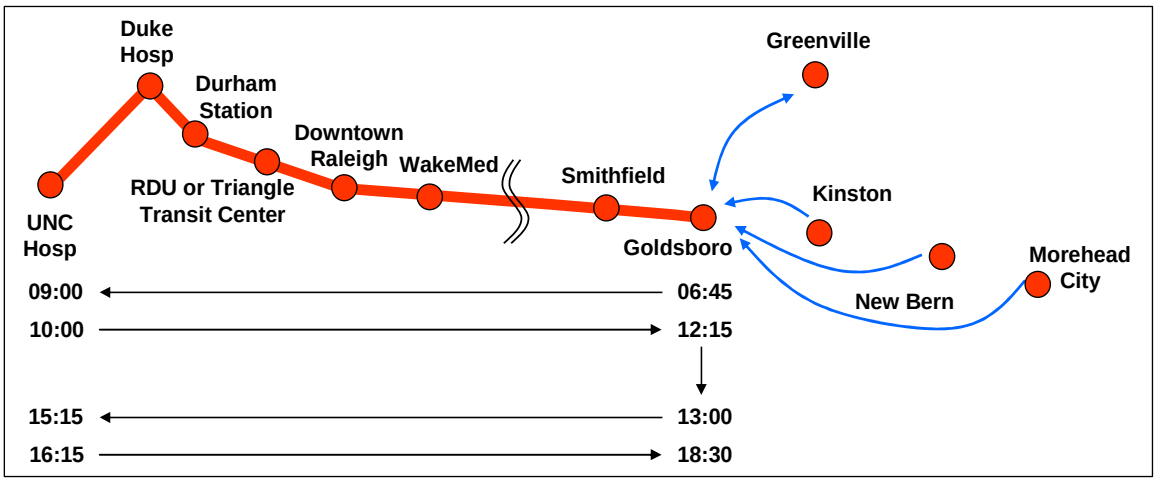
- Whether or not to be positioned as an inter-city bus service or rural feeder service for the purposes of federal funding (opening up s.5311(f) funding, but requiring meaningful connections to the national inter-city network)

Figure 11.2: Regional Trunk Route Concept

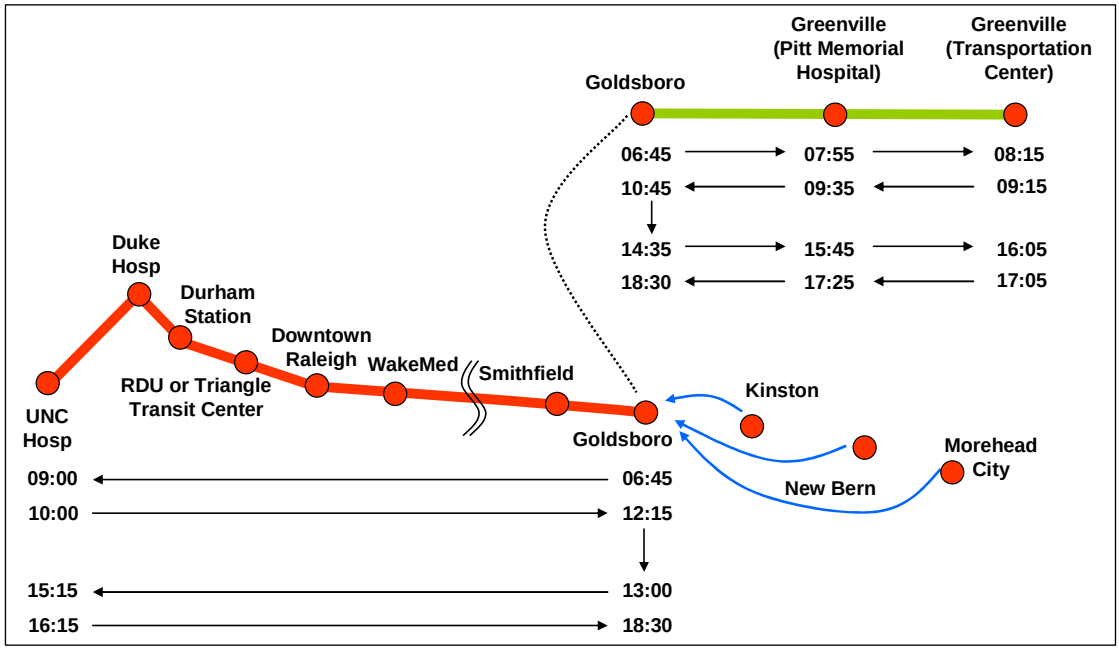
a.) Basic concept



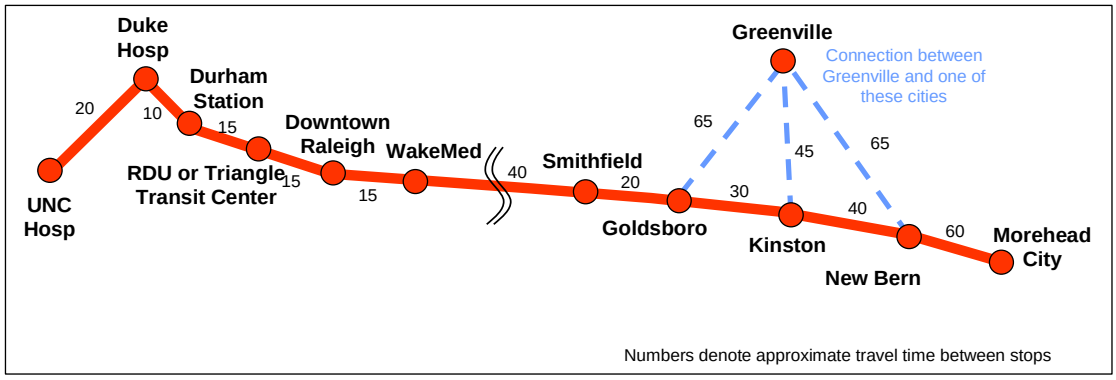
b) Possible start-up option



c) Possible expansion



d) Long-term goal



11.4 Marketing

11.4.1 Introduction

Marketing in general refers to managing a given business in such a way that focuses on identifying and satisfying customers' needs. The premises of a basic successful marketing strategy are providing the right product (or service), offering at the right price, and

adequately promoting or communicating the existence and appropriateness of the product or service to potential customers. Unfortunately, many people confuse marketing with advertising; marketing is NOT advertising or selling. Indeed, promotional items can be offered for sale, but they are typically only a small part of an overall marketing process. The key is to offer a properly designed product or service that customers *need* and *want*.

Without a doubt, the marketing program must fit within budgetary limitations of a given agency. According to the American Public Transit Association, transit providers typically budget between 0.75 and 3 percent of their gross budget on marketing promotions, with the average of around 2 percent. While this percentage is less than most private sector businesses, public sector organizations such as GATEWAY Transit can rely more heavily on media support for their public relations programs. It is best to keep in mind that transit marketing can be a complex, multi-disciplinary undertaking: the development of more comprehensive marketing and branding programs involves many procedures among traditionally unrelated fields (such as consumer marketing, graphic design and transportation planning).

11.4.2 Guidelines and Best Practices

Based on current practices of other transit agencies, some general guidelines in carrying out marketing and branding include:

- **Focusing on the positive and unique features of the service.** Marketing should emphasize the unique features of the service such as speed, reliability, service frequency and span, and comfort. The addition of the fifth fixed route that will utilize a full-size city bus offers GATEWAY Transit a very rare chance to capitalize on the city bus by showcasing to the public (via advertising on-board the new bus as well as kick-off campaigns/promotions) that transit in general is:
    a. More efficient than or private automobile
    b. More convenient
    c. Less expensive and easier than driving and parking
    d. A way to avoid or alleviate traffic congestion
    e. An economic alternative to automobile ownership
- **Knowing your market.** Market research is a critical component of any successful initiative. Like any successful marketing program, the provider of a given service needs to understand who the customer is. For a transit service, this means understanding who rides (or will ride) the service, as well as why, when and what they value or expect from transit services. Several types of research can be used, including intercept surveys on buses and at transit stops, telephone and web surveys, and focus groups. Increasingly, social networking sites, like Facebook or MySpace, are being used to carry out market research studies

- **Targeting Individuals.** Provide individualized information that helps inform and encourage hesitant users, offering specific information and incentives to try GATEWAY Transit
- **Establish Partnerships**. Build programs or partnerships with local employers, officials, and businesses to help encourage transit use
- **Build an online Transit Toolbox.** Provide an easy to use and comprehensive online system users guide with the necessary information about local routes, resources, and proper usage of GATEWAY Transit – this strategy would rely heavily on revamping GATEWAY Transit's website. GATEWAY should also work with local businesses and other public agencies to provide links on their respective websites
- **Incorporate Feedback**. Establish clear feedback channels within the marketing program to identify and overcome potential barriers within the system. Establish a database of customers' input, including suggestions and complaints

11.4.3 Potential New Marketing Initiatives

Marketing strategies should be targeted at the portion of the population most willing and able to engage in alternative transportation modes. Programs should first identify the portions of residents who would never, might sometimes, or would often use transit. Recent examples of successful transit marketing initiatives which GATEWAY Transit should explore include:

- Coordination Opportunities with Employers – GATEWAY could start a program (such as 'Employer Pass subsidy program') where they would match an employer subside of a monthly pass – for instance, if a certain employer offers a 10 percent subsidy for a transit pass, GATEWAY would match it with their own 10 percent subsidy. Thus, an employee utilizing transit would receive a 20 percent discount on top of a regular monthly or weekly pass discount. GATEWAY could also work with major employers in Wayne County to offer and facilitate other amenities such as 'Guaranteed Ride Home' or vanpooling
- Shopping centers underwriting – arrangement could be made with Berkeley Mall or Wal-Mart who would underwrite the expense of free transit trips during specific periods such as around Christmas
- College outreach program – GATEWAY could work with Wayne County Community College to advertise their services in their classes catalogs, on WCCC website, as well as to offer GATEWAY Ride Guides across campus, most notably in common, high visibility and high foot traffic areas such as the cafeteria and the library
- Volunteers to assist potential riders – particularly useful for elderly persons and mobility-impaired persons who would use volunteers riding with them and

explaining how the transit system works to gain travel independence. One example of this kind of program is AMTRAK's Train Host, where train hosts volunteer their time to ride the trains to assist passengers, promote passenger services and answer questions about the route, ground transportation and area attractions

- Publishing Ride Guide in a local/regional newspaper and on GATEWAY's website.
- Direct mail program – whenever new service is established or extended, a direct mail campaign might be useful in order to ensure new and/or existing residents know about GATEWAY Transit servicing their respective neighborhoods. GATEWAY could also cooperate with the City of Goldsboro or local utility companies to keep track of residents who have requested new utility service in order to inform them about transit services offered to them
- Fist-time caller program – first-time GATEWAY callers can be identified and targeted for future direct mail advertising

12 Financial Alternatives

12.1 Transit Funding: Introduction

Like most Transit agencies, the fares paid by riders cover only a small proportion of GATEWAY Transit's costs. The remaining costs are covered by a combination of local income and state or federal grants.

The local income includes fees paid by human service agencies for their clients' trips, other direct income such as advertising revenue, and any contributions from county or municipal governments.

The state and federal grants are from a variety of specific funding programs, each aimed at different types of service or projects. For example, there are specific programs for urban services and for rural services. Some programs only cover operating costs (that is, day-to-day running costs such as fuel and salaries), and others only cover capital costs (that is, equipment such as vehicles and buildings). Some programs allocate money to agencies according to a fixed formula, but others are competitive programs in which agencies compete for funds. Most of the programs require a 'local match' – that is, they require local funds to contribute a certain percentage of the total. Appendix B summarizes the main state and federal funding sources that are relevant to GATEWAY Transit.

This funding structure means that GATEWAY Transit, like most Transit agencies, cannot simply make a blanket request for 'more money' from government, nor does it have complete freedom to switch funds from one type of service to another. Instead, it must tie each service or project to appropriate funding sources, and tie each funding source back to the services or projects that it is being used for.

12.2 Cost of Providing GATEWAY Transit Services

The annual operating costs for GATEWAY Transit services fluctuate from year to year, but were at the following levels in the Fiscal Year 2008-09 (the amount in parenthesis is for the previous fiscal year for comparison purposes):

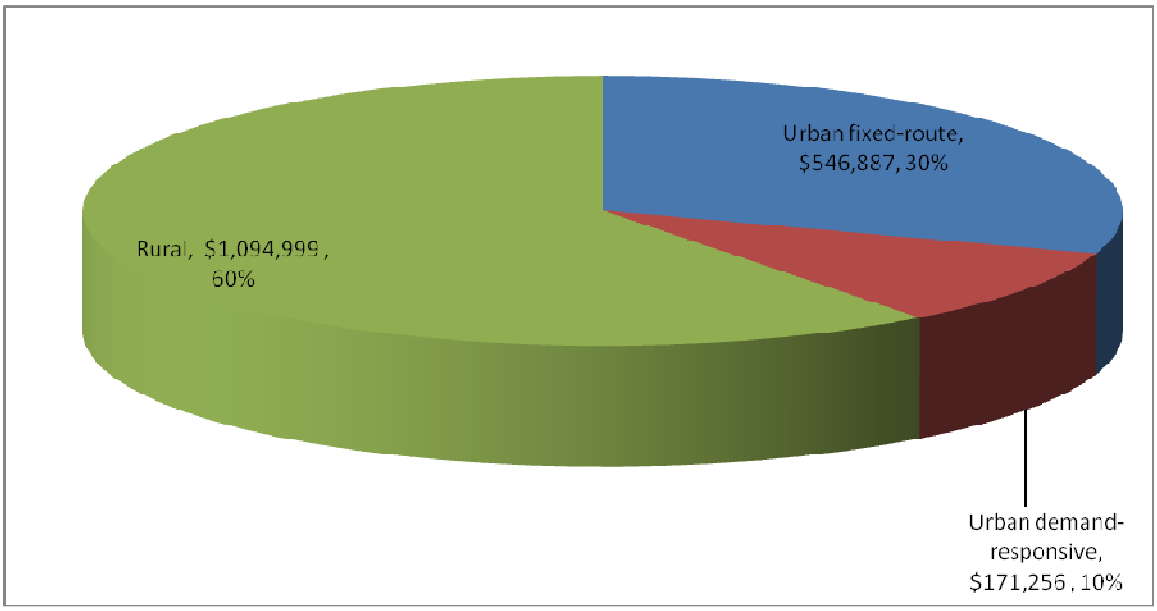
- $547,000 for urban fixed-route service ($532,000 in FY 2007-08)
- $171,000 for urban demand-responsive service ($136,000 in FY 2007-08)
- $1,095,000 for rural demand-responsive service ($1,063,000 in FY 2007-08)

Figure 12.1 shows the operating costs for Fiscal Year 2008-2009, the most recent year for which full data are available. The demand-responsive rural service makes up more than half

of the operating costs. The largest element of operating costs is the drivers' wages, and because the rural service uses more drivers than the urban service, the operating cost is inevitably higher.

Capital costs fluctuate from year to year, particularly depending on whether new vehicles are bought. The most important potential change in operating costs is usually the price of fuel, which is fairly volatile from one year to the next. Other costs, such as employee benefits, may change from year to year, but are less volatile.

Figure 12.1: GATEWAY Transit Operating Costs (FY 2008-2009)



12.3 Funding Sources: Existing

12.3.1 Routine Funds

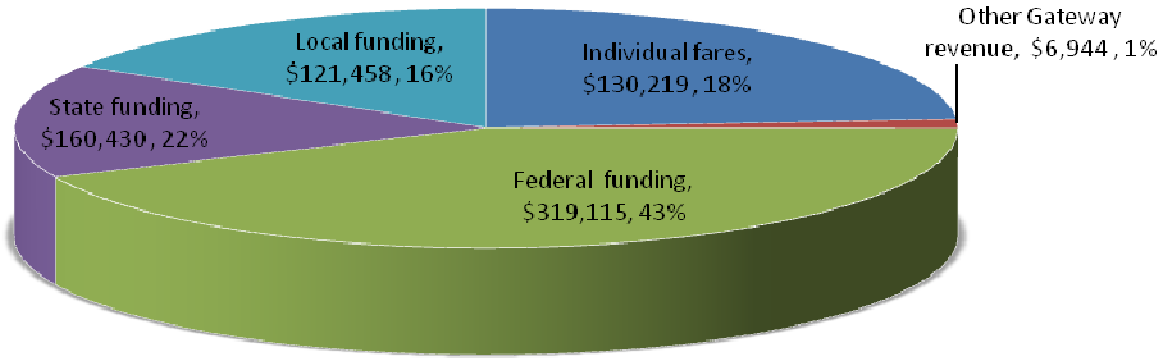
As Figure 12.2 shows, GATEWAY Transit receives operating funding from a range of sources: federal and state funding programs, local government, riders' fares, the fares paid by human service agencies for their clients' trips, and other miscellaneous income. As described above, federal and state funds usually have to be matched with local funds.

The operating cost of urban fixed-route service was mainly funded by the federal funds (43 percent), followed by fares (24 percent), local funds (16 percent), state funds (15 percent), and other transportation revenues (1 percent). The urban demand-responsive service (ADA and evening service) was mainly funded by federal funds as well (39 percent), followed by fares (29 percent), state funds (16 percent) and local funds (16 percent). The rural demand-responsive service was mainly funded by agency contract revenue (76 percent), followed by

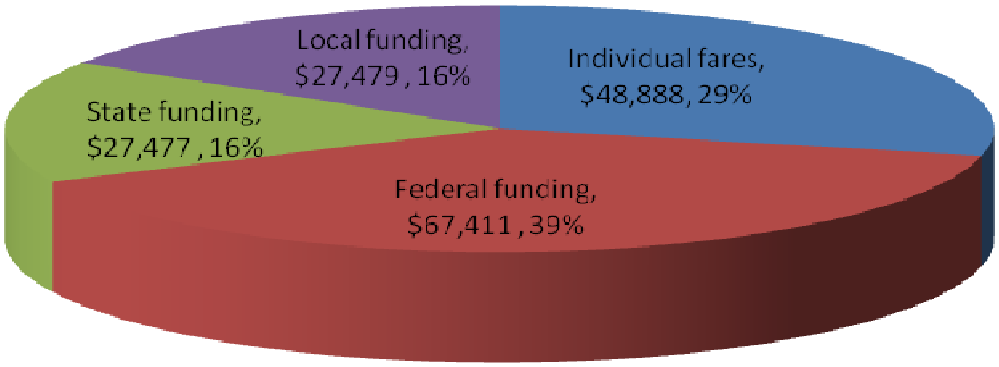
federal funding (14 percent), state funding (6 percent), local funding (2 percent), fares (2 percent), and a small contribution from other revenue sources (less than 1 percent). For the rural service, the individual fares are such a low proportion because most of the rural trips (particularly the out-of-county trips) are for human-service agency clients, and are paid for by the agencies rather than the rider.

Figure 12.2: GATEWAY Transit Operating Revenue (FY 2008-2009)

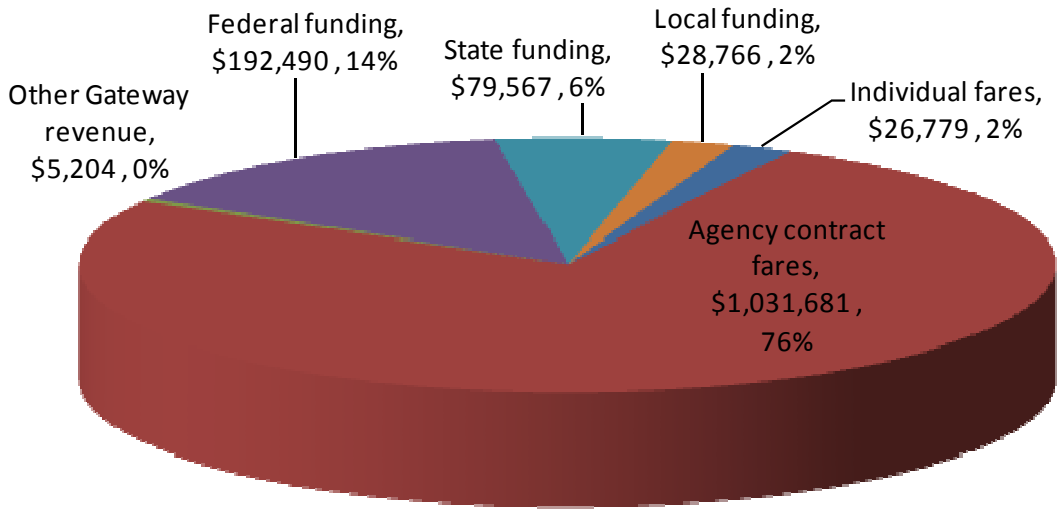
a. Urban Fixed-Route service revenue



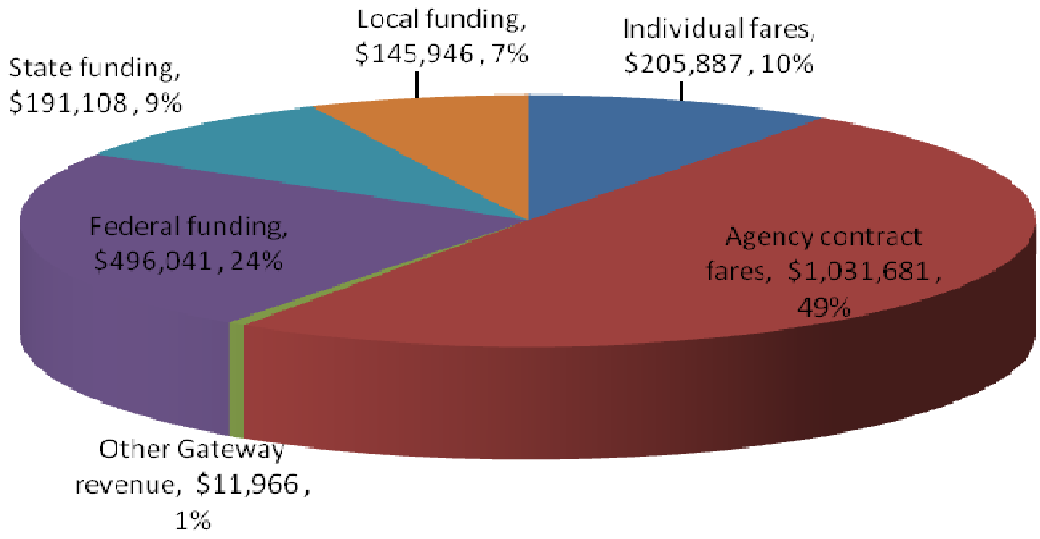
b. Urban Demand Responsive service revenue



c. Rural service revenue:



d. Systemwide total revenue:



12.3.2 Stimulus Funds

GATEWAY Transit has also received funding from the American Recovery and Reinvestment Act (ARRA), also known as the 'stimulus package' – via the Federal Transit Administration (FTA).

GATEWAY Transit received $886,000 for its urban services, to cover:

- One replacement bus and one expansion bus
- Preventive maintenance for its buses
- Operating funds
- Bus shelters and bus stop signs, and

GATEWAY Transit received $576,000 for its rural services, to cover:

- Three replacement vehicles and one expansion vehicle
- Preventive maintenance for its vehicles, and
- Radios

The ARRA funding was particularly useful for two reasons. First, it was 'free money' that supplemented existing funding and did not require a local match. Second, although it was restricted to capital expenditure, these capital purchases were then removed from more flexible operating/capital funds, enabling the latter to be used for additional operating costs.

12.4 Funding Sources: Future Outlook

12.4.1 Local Funding

Local funding is dependent on the combination of political priorities and the available municipal revenues, and could rise or fall accordingly. GATEWAY Transit is currently fortunate to have enough County funding to provide a full Rural General Public service; not all counties provide this level of funding and so not all agencies can provide this full service.

12.4.2 Agency Contracts

Human-service agencies, like any organization, can see their budgets change. However, the main risk to GATEWAY Transit is if any human service agencies terminate their contracts with GATEWAY Transit and use another provider instead. Having multiple agency contracts leads to economies of scale. Many (but not all) of the agency-funded trips can be

combined, with several agency and/or RGP riders in a van at any time. Without these economies of scale, agencies would pay more per rider, and GATEWAY Transit's RGP cost per rider would also increase.

12.4.3 Federal Funding

This report's description of Federal funding sources is correct at the time of writing. However, the Federal transportation law is due to expire on September 30, 2009, and Congress will need to debate and pass a new transportation law (known as 'reauthorization').

This reauthorization will most likely change the federal funding available to GATEWAY Transit, and the rules under which it is available. The changes could be minor, or they could be substantial. At the time of writing, some members of Congress are looking toward a fundamental change to not just the structure of the Transit funding programs (including eligibility, performance measures, etc.) but also how transportation funds (as a whole) are allocated.

It is most likely that the existing law will be temporarily extended for a few months, into the 2009-2010 Fiscal Year, while Congress considers reauthorization. Beyond the next few months, however, the picture is uncertain. Congress may pass the reauthorization quickly, or it may extend the existing law further, for perhaps 18 months, while working on the reauthorization.

GATEWAY Transit will therefore need to remain flexible in anticipating potential changes in funding levels and the rules under which funding can be provided, particularly in the later years of this five-year plan. This may include not only adjusting to new requirements, but also taking advantage of potential new funding sources.

12.4.4 Other Funding Sources

State funding, like the local funding, is dependent on the combination of political priorities and the available revenues. Farebox revenue can also fluctuate, although this is the category of income that is most directly under GATEWAY Transit's control. In addition to raising or lowering fares, an improved service could lead to extra ridership and therefore extra income. Problems with the service could lead to the opposite result. External factors will also affect farebox revenue – particularly:

- Changes in fuel costs, which encourage or discourage vehicle use
- Changes in employment rates, which will affect the number of people making trips to work

Wayne County has been hit hard by the recent economic recession. Goldsboro's jobless rate jumped to 9.2 percent in June 2009 from 5.6 percent in May 2008 and from 8.7 percent in April 2009. To keep things in perspective, it is important to remember that Goldsboro's unemployment rate oscillated only at around 4 percent back in 2000. In general, high unemployment, and economic recession in general affecting state and local budgets, has negative impacts on transit agencies since they are largely dependent on state and local funding when it comes to day-to-day operations. Many transit agencies are forced to either hike fares or implement service cuts – naturally, that kind of undesired scenario would only make matters worse for transit-dependent Wayne County residents.

12.5 Funding Sources: Future Possibilities for Additional Funding

12.5.1 Federal and State Funds

GATEWAY Transit is currently making good use of the available Federal and State funds for operating costs as well as regular capital costs. GATEWAY Transit is also working with NCDOT and its congressional delegation to secure funds for the proposed transfer center and maintenance depot from the s.5309 Bus and Bus-Related Facilities program. GATEWAY Transit would need to provide the local match. These two projects are GATEWAY Transit's highest priorities for s.5309 funding.

GATEWAY Transit could also apply for the state-administered competitive funds. These are the s.5310 Elderly and Persons with Disabilities program, s.5316 JARC and s.5317 New Freedom programs. These would need to involve specific projects that are in line with each program's eligibility criteria. For example, a reverse-commute service to employment locations along US-70, or Sunday service to retail employment locations, could be eligible for JARC funding.

GATEWAY Transit could explore s.5311(f) inter-city bus and rural feeder service funding. This funding is distributed through NCDOT's Regional and Intercity Program, which includes additional NCDOT funds. The Piedmont Authority for Regional Transportation's (PART's) twice-daily fixed-route service between Boone and Greensboro is an example of service funded under this program. The program could be used to support scheduled service between Goldsboro and the Triangle or other cities in eastern North Carolina, or feeder service between Goldsboro and other towns in Wayne County.

There is little prospect of a viable s.5309 New Starts project within this five-year plan period. GATEWAY Transit's ridership levels are not suitable for a Very Small Starts project.

Since most Federal and State funding programs require local contributions, GATEWAY Transit will need to identify new local funding to expand service. The local sources described below could be used as the local match, or standalone funding sources, or a combination of both. In other words, the local sources could leverage additional Federal and State funding.

12.5.2 General Fund Contributions

Numerous cities, counties and states support Transit systems in part through general fund contributions. Wayne County and the City of Goldsboro currently provide General Fund contributions to GATEWAY Transit. Increased general fund contributions from local jurisdictions, either through tax or fee increases or budget reallocations, can allow a Transit agency to obtain increased state and Federal funds to expand service or undertake capital projects.

New General Fund contributions from other towns in Wayne County could be used to improve service to/from or within those towns, as well as to provide bus stop infrastructure where fixed-routes operate.

12.5.3 Recently-Authorized Funding Options

State legislation has introduced two new transit funding options at the county-by-county level in 2009. The proposal, the North Carolina General Assembly House Bill number 148, passed in August 2009. The legislation has different rules for different counties. For Wayne County, the two new options are a 0.25 percent sales tax and a vehicle registration tax of up to $7. Within each county, the revenue would be distributed to the municipalities that operate transit systems and to the county if it operates a transit system. In Wayne County, this would currently include the county and the City of Goldsboro, as the partners in GATEWAY Transit.

Sales Tax

Sales taxes are frequently used to fund Transit systems in urban areas. Until 2009, Mecklenburg County was the only county in North Carolina with the power to do so. The Mecklenburg sales tax, which funds the Charlotte Area Transit System (CATS), was adopted through popular vote in 1998 and renewed in a 2008 vote. The 2009 legislation has extended similar authority to all counties.

A sales tax requires approval by the County Commissioners, and then by voters in a referendum. If approved, the 0.25 percent tax must be used only for Transit, and must be in addition to existing funds (that is, it cannot be used as a replacement for existing funds).

The sales tax could raise approximately $2.8 million per year for GATEWAY Transit (Table 12.1).

Table 12.1: Potential 1/4 Cent Sales Tax Revenue in US Dollars

	Wayne 2008	*Goldsboro 2008*	*Mount Olive 2008*	*Fremont 2008*	*Pikeville 2008*	*Eureka 2008*	*Seven Springs 2008*	*Walnut Creek 2007*	*Total*
Existing 1% Local Government Option Sales Tax (Article 39) Revenue	8,449,585	2,212,458	573,213	54,855	43,781	9,414	3,829	94,657	**11,347,135**
1/4% Transit Sales Tax revenue - on same basis	2,112,396	553,115	143,303	13,714	10,945	2,354	957	23,664	**2,836,784**
1/4% Transit Sales Tax revenue - excluding non-transit municipalities	2,248,129	588,655							**2,836,784**

Vehicle Registration Tax

Wayne County can levy an annual vehicle registration tax in any full-dollar amount up to $7. As with the sales tax, this must be used only for Transit. Again, it would require approval by the County Commissioners. However, it would not require a referendum, and would not have to be in addition to existing funds.

There are currently around 118,000 registered vehicles in Wayne County. Based on data from similar counties, it is estimated that a $1 registration tax could raise approximately $118,000 annually for GATEWAY Transit. A full $7 tax would raise approximately $826,000 annually.

Likelihood of Implementation

There currently appears to be little public or political debate over either of the recently-approved funding sources in Wayne County. A sales tax is unlikely to be viable in the foreseeable future. A modest vehicle registration tax may be more achievable, but is not currently under consideration.

Although some tax and fee increases do not require approval by the public, the public and local decision-makers will still need to be convinced of the need for the increases. If the additional revenue would support service expansion, for instance, the nature of the expansion (i.e., new routes or longer service hours) and rationale for it must be clear. On the other hand, if funding were needed to prevent service reductions (due to decreases in availability of other funds, for instance), the system's ability to support basic human service and mobility needs would need to be defended.

12.5.4 Service Contracts

Currently, GATEWAY Transit has service contracts with several human-service organizations (HSOs), such as Medicare. There may be scope to expand beyond the traditional HSO market into service contracts with other key employers or institutions. These partners would pay the fully allocated cost (or a significant share of it) of the service, either through monthly payments for service to GATEWAY Transit or purchase of a certain number of passes or fares on behalf of employees or clients. The contract would stipulate the amount and conditions of payment to GATEWAY Transit and the service to be provided in return, which could consist of purchases of general-public demand-response van trips (akin to a subscription service), addition of trips to an existing fixed route or introduction of a new fixed route, depending on the anticipated demand and location of the sites to be served. For example:

- A cluster of service or health-sector employers could fund additional evening fixed-route service to provide employees with Transit home after work

- Late-evening subscription trips could be arranged with a large employer to provide employees with direct service to dispersed home locations
- A new fixed route could be developed between GATEWAY Transit's transfer center and a rural job site, with trips scheduled to coincide with shift start and end times and routed to provide convenient service for as many employees as possible
- Fixed-route or demand-response service to a work site in an adjacent county could be developed in collaboration with the employer and the adjacent county's public transportation provider
- Particular human-service needs, such as later-evening or Sunday service, could be addressed through collaboration with social service agencies to obtain a foundation grant
- A local college could purchase passes for all of its students through their semester fees, with revenues supporting increased daytime fixed-route and evening demand-response service to the college

Any new or expanded fixed-route service will be most effective and straightforward to implement when the potential riders travel at consistent times each day (i.e., fixed work shift start and end times throughout the week) and live in concentrated areas or corridors. Potential riders with lower levels of personal vehicle access, such as students, human-service clients and lower-wage employees, will also be more likely to use the service. Since these conditions may be hard to meet in a low-density, automobile-oriented area such as Wayne County, demand-response service may be most appropriate until travel patterns and demand levels warrant design of a fixed route. For employer-based services, employers may focus their recruiting efforts in areas served by new routes to provide workers with a convenient commute option and improve service effectiveness.

Any contracted services must act as public transportation, rather than as private charters, to conform to federal regulations which restrict Transit agencies from using federally-funded assets for charter service. In particular, the services must be open to the public, and cannot be restricted to partners' employees or clients.

12.5.5 Stop Accessibility and Amenity Improvements

GATEWAY Transit may be able to leverage Federal funds to improve bus stop access and amenities from local construction projects. For instance, sidewalk extensions and pedestrian crossing improvements funded by the City of Goldsboro or NCDOT could be augmented with JARC or New Freedom funds to improve bus stop access for low-income individuals or people with disabilities, respectively. Similarly, GATEWAY Transit could apply for Federal funds to install bus stop signs and shelters if a local jurisdiction would fund a portion of the construction costs, which would constitute the local match. Employers and

other institutions whose properties GATEWAY Transit serves directly could also support bus stop improvements by installing signs and shelters on GATEWAY Transit's behalf.

12.5.6 Farebox Revenue

Farebox revenue, although a relatively small source of income, is an important one – partly because GATEWAY Transit has direct control over many elements of the fare structure, and partly because it directly affects riders.

GATEWAY Transit can increase or decrease the basic fare. As well as the direct increase or decrease in revenue for each trip, this can increase or decrease the number of trips (a rise will discourage ridership, a cut will encourage ridership). Overall, at least in the short-term, incrementally raising or lowering fares will raise or lower income. In the past couple of years, many Transit agencies have raised fares in order to make up for rising costs and falling local income. Some have been able to reduce fares in order to encourage ridership, or simply to better support their communities during the recession.

As an illustrative example, a 50 percent across-the-board increase in urban fixed-route fares could generate approximately $65,000, which would allow an approximately 12 percent increase in the urban fixed-route budget. However, there are disadvantages to raising fares: it would have a direct impact on riders, and would discourage ridership (which in turn dampens the increase in revenue). Some riders already consider the current fares to be high for the amount and quality of service.

GATEWAY Transit currently offers 22-ride tickets (for the price of 20 rides) and all-day passes (costing $2.50, the pass saves money for anyone making three or more trips in a day). Although, at first glance, GATEWAY Transit appears to lose money by offering these discounts, there are good reasons to do so. While pass programs do not necessarily increase revenue, they often increase ridership. In particular, passes offer a financial benefit to regular riders, who may ride more often to maximize the value of their passes, and the reduced price per ride may woo occasional users to purchase passes and ride more consistently. Passes also offer a convenience to riders in that they do not need to pay at the start of each trip. Transit agencies benefit operationally from faster passenger boardings, and financially from the up-front revenue. Finally, passes are well-suited to distribution through Commuter Check programs, since employers can purchase passes on their employees' behalf directly from Transit agencies rather than distributing benefit checks.

12.5.7 Advertising Income

Net income from advertisements at Transit stops and on vehicles can serve as a local funding match for FTA grants and provide general revenue for Transit operators and municipalities. GATEWAY Transit can pursue advertising agreements with individual businesses, or can contract with an advertising firm. In either case, GATEWAY Transit

could and should maintain some control over the types of businesses that could place advertisements on its vehicles or at its stops. The overall proceeds may be small for a system of GATEWAY Transit's size but could still support meaningful service and capital improvements. Advertising may take a few forms:

- Advertisements at bus shelters: advertising firms typically provide specially designed shelters that contain advertisements mounted in large, backlit display cases. Advertising firms may pay for much or all of the cost of purchasing and installing these shelters; depending on the firms' interest, this could be a means to add bus shelters in high-traffic areas, such as along commercial corridors. Revenues are often split contractually among the advertising firm, Transit operator and municipality
- Bus wraps: many Transit agencies earn revenue by allowing the sides and rear of buses to be treated as advertising space, whereby advertising firms pay to "wrap" buses with full-vehicle advertisements. (The wraps contain cutouts for vehicle doors, allow windows to be opened and permit ample light to enter the vehicle.) The 35-foot Transit buses that GATEWAY Transit will receive will be best-suited to this treatment given their size. An alternate approach for vehicle exteriors is to mount large advertisements in brackets on the sides and rear of buses
- Onboard advertisements: individual businesses or advertising firms may also be allowed to place placards on buses. These are typically placed in the brackets above the aisles on Transit buses. This is one of the simplest ways to earn advertising revenue but will likely be less lucrative than shelter advertisements or bus wraps. Advertising does carry the disadvantage that it interrupts the agency's image or 'brand'. This is particularly true of bus wraps as well as other external advertisements. Some agencies aim to live without advertising on buses for that reason, but others accept the trade-off for a useful source of income

12.5.8 Other Transportation-Related Income

GATEWAY Transit may also be able to generate other incidental sources of income, although the opportunities for these are limited. A shared transfer center with Greyhound on the Goldsboro Union Station site offers an opportunity to GATEWAY Transit to act as the Greyhound ticket agent. GATEWAY Transit would earn a commission on the ticket sales.

13 Development Strategies

This section describes development strategies that would support GATEWAY Transit services and its riders.

13.1 Transit and Pedestrian Access Program

The proposed Transit and Pedestrian Access Program has already been described in Section 10.6 of this report.

13.2 Medical District Stop Location and Access

Section 10.6 described the issues relating to stop locations and access in the medical district. As described in that section, GATEWAY Transit is recommended to work with Wayne Memorial Hospital, the City of Goldsboro and NCDOT to examine precise future stop locations in the medical district. This includes the medical offices on either side of Wayne Memorial Drive, as well as the hospital itself. The outcome of that study should be adopted by the City, so that the recommendations can be followed in future developments in that area.

13.3 Satellite Transfer Points

Section 10.7 described the two recommended 'superstop' satellite transfer points at Spence Avenue (near Wal-Mart) and in the Berkeley Mall area. The Spence Avenue transfer point would most likely use existing public right-of-way, but could alternatively be progressed as part of a property redevelopment. The Berkeley Mall transfer point could also be created in basic form on existing city right-of-way, but as described in Section 10.8, more extensive facilities are possible in conjunction with future commercial redevelopment. It could also become a 'flagship' stop at the heart of the commercial area.

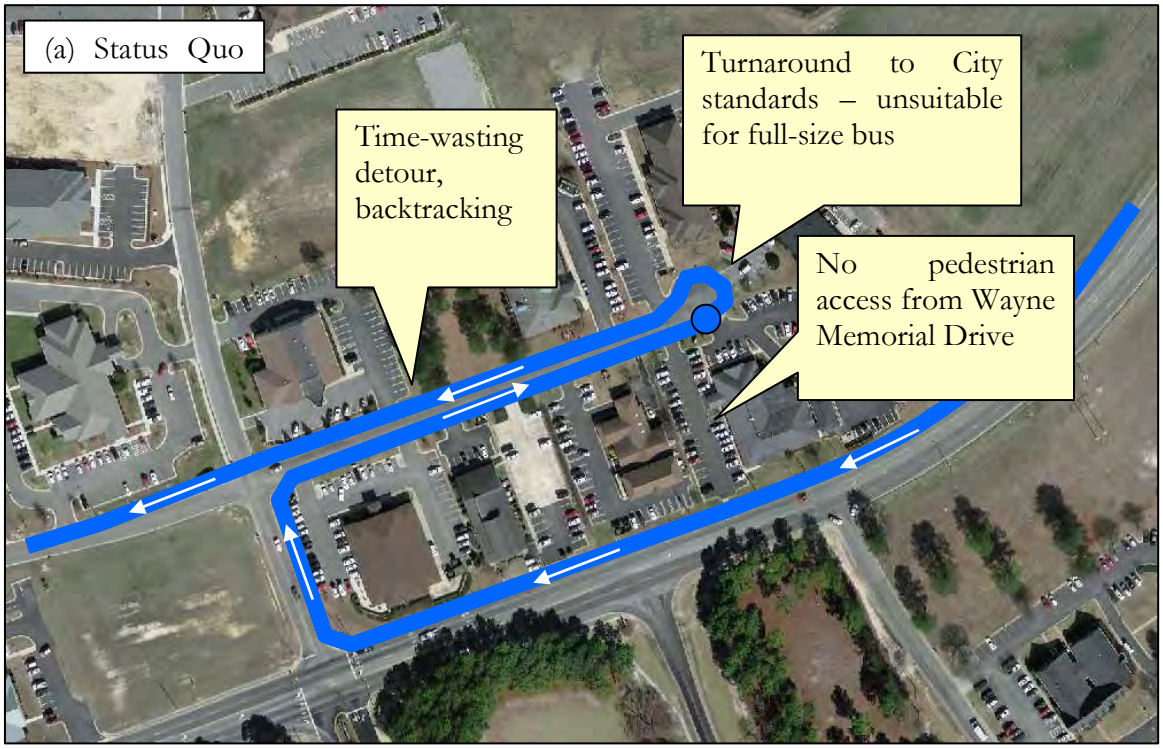
13.4 Land Development Standards

Goldsboro does not currently have design standards that encourage Transit-friendly land development. As a result, some important developments have proved to be difficult to serve effectively with Transit. This is particularly true for retail areas situated behind large parking lots, or new office/institutional developments arranged around cul-de-sacs. Often, simple adjustments could have made Transit service more effective.

The Goldsboro Unified Development Ordinance (UDO or 'Zoning Ordinance'), which became effective in July 2007, was a major step forward, as it introduced a number of transportation-related provisions including the need for sidewalks. However, the ordinance does not address Transit-friendly design.

GATEWAY Transit and the City are recommended to work together to develop and adopt Transit-friendly design standards. These could take the form of simple guidelines or a checklist, based on existing examples. An example of benefits of Transit-friendly design is shown in Figure 13.1.

Figure 13.1: Example of the Benefits of Transit-Friendly Design Standards



This is an illustrative example of the benefits of Transit-friendly design standards, and does not represent a proposal for construction at this location. A turnout is shown due to the character of the arterial street at this location; this does not imply that turnouts should be the norm.

14 Five-Year Transit Plan

14.1 Introduction

After a careful consideration of the characteristics of Wayne County and analysis of the current GATEWAY transit system and its needs, the following Five-Year (short-term) Transit Plan has been developed for GATEWAY Transit. The following factors are intended to be addressed by the Five-Year Plan:

1. The need to promote public transportation options that increase the quality of life of Wayne County citizens.
2. The need to provide safe and dependable transportation mobility options to the general public, low income individuals, elderly persons, and/or persons with disabilities.
3. The need to create a seamless public transportation network within Wayne County that provides service to all geographies, jurisdictions, and program areas.
4. The need to support the full integration of federal, state, local, and private programs supporting public and human service transportation.
5. The need to improve the efficiency and effectiveness of federal, state, locally, and privately funded public transportation programs.
6. The need to develop a defensible and cost-constrained implementation plan that utilizes results-based metrics to gauge effectiveness.

The Five-Year Plan is based on the following assumptions:

- Service quantity will expand, if warranted and feasible, in order to maintain and enhance service quality.
- No additional operating funds will become available for local transit programs, and the Plan should be financially sustainable within the existing funding sources. This disclosure does not apply to the Union Station Transfer Center and an Operations and Maintenance Center.

The Service, Institutional, Management, and Financial elements of the Five-Year Plan are presented in the sections below. Figure 14.1 highlights the details of the Five-Year Plan. Together, those elements (indicated by their respective numbers equaling to the focus/support areas in Table 14.1) will support GATEWAY's focus areas, including:

1. Maintain stable long-term financial footing

2. Improve service to riders

3. Build GATEWAY brand/image

4. Build capability to grow (management, planning, facilities)

5. Be ready to grow with 'schemes to go'

6. Be at the table in transportation decisions

In addition, the proposed recommendations support NC DOT's objectives for this kind of Plan, including:

1. Timely development and availability of transportation services

2. Improving the efficiency and effectiveness of federal/state-funded programs

3. Supporting and promoting coordination

4. Providing dependable transportation

5. Enhancing the coordination of existing services

6. Building upon the coordination efforts that exist

7. Serving as a basis for funding requests.

Table 14.1: GATEWAY Transit Five-Year Plan

Recommendation	*Milestones*	*Service Supported*		*NCDOT Objectives Supported*							*Gateway Focus Areas Supported*					
		Urban	**Rural**	**#1**	**#2**	**#3**	**#4**	**#5**	**#6**	**#7**	**#1**	**#2**	**#3**	**#4**	**#5**	**#6**
Establish an Operations and Maintenance Center	Feasibility Study															
	Site environmental work															
	Secure funding															
	Final design	X	X		X		X			X	X			X		
	Construction															
	Commissioning and opening															
Continue Union Station Transfer Center project	Site environmental work															
	Secure funding															
	Finalize relationship with Greyhound	X	X	X	X	X	X	X	X	X	X	X	X	X		
	Final design															
	Construction															
	Commissioning and opening															
Improve fixed-route schedules with fifth route and other necessary changes (December 2009)	Full route planning															
	Public review															
	Final route design / scheduling	X		X	X		X	X		X		X	X			
	Prepare rider information															
	Implement															
Adjust schedules if required, 3 months after implementation	Evaluate performance															
	Prepare adjustments															
	Public review	X		X	X		X	X		X		X	X			
	Final route design /															

	scheduling													
	Prepare rider information													
	Implement													
Revise schedules for changeover to Union Station Transfer Center	Full route planning													
	Public review													
	Final route design / scheduling	X			X	X	X	X	X		X	X	X	X
	Prepare rider information													
	Implement													
Continue to migrate fixed-route services from cutaways to 35-foot buses (two buses currently on order)	Receive & accept first bus													
	Publicity tour with first bus (November 2009)	X			X	X		X			X		X	X
	Introduce first bus on East End route (December 2009 schedule change)													
	Introduce second bus on Berkeley Mall route; cutaway becomes spare													
	Evaluate cost-effectiveness and review strategy													
Introduce electronic fareboxes (currently on order)	Receive, test and accept													
	Staff training	X	X			X					X		X	
	Prepare rider information													
	Changeover date													
Revise fare options (taking advantage of electronic fareboxes)	Offer all-day passes on buses													
	Evaluate reducing all-day fare to $1 (to encourage use and reduce coin handling)	X				X			X		X		X	X

	Evaluate multi-ride pass options (consider offering monthly pass and/or stored-value to replace 22-ride pass)															
Plan for Satellite Transfer Locations at Spence Avenue (Wal-Mart area) and Berkeley Mall area (Note: construction is assumed beyond 5 years)	Include in LRTP	X		X	X	X	X	X		X		X	X		X	
	Feasibility study															
Introduce Mobility Manager position (recently filled)	Already filled	X	X	X	X	X	X	X	X	X		X	X	X		
Introduce Planning and Outreach Manager	Liaise with MPO for possible shared position															X
	Include in Gateway and/or MPO budget(s) budget	X	X	X	X	X	X	X		X		X	X	X		
	Fill position															
Transit and transit-access facilities in all new highway schemes/upgrades	Include policy in LRTP	X		X	X					X				X	X	X
	City and county adopt explicit transit-inclusion policy															
Have fixed-route service expansion options 'ready to go'	Adopted SRTP	X		X			X			X		X	X	X	X	
Have bus stop improvements 'ready to go'	Priority list for stop amenities	X	X	X			X			X		X	X	X	X	
Have vehicle needs 'ready to go'	Fleet replacement plan	X	X	X			X			X		X	X	X	X	
Improve marketing and information	Introduce website (in progress)															

	Introduce attractive 'Ride Guide'				X		X	X	X
	If schedule changes are deferred much beyond December 2009, introduce interim updated schedules and maps using existing format	X	X						
	Updated information available before each subsequent schedule change								
	Unify branding on all vehicles - flow new bus paint scheme/logos into existing vehicles								
Consider additional ways to involve riders in service-planning	Rider Involvement Plan	X	X	X	X		X	X	X
Increase effectiveness of rural service (PPA recommendation)	Create outline of steps to improvement								
	Implement outlined actions								
	Evaluate progress using next VUD collection period								
	Implement reservation window (maximum 2 weeks or one month in advance)		X	X	X	X	X	X	
	Allow reservations up to 24 hours before trip, not 48 hours (ADA regulations)								

	Constantly strive to attract new riders											
	Constantly strive to improve performance											
Increase information control and accuracy for rural service (PPA recommendation)	Begin tracking service-hour and revenue-hour information correctly by removing fueling, maintenance and breaks											
	Begin using ordered manifests with se3parate lines for pickups and drop-offs											
	Purchase a time clock to keep driver pay hours											
	Define late cancellations and begin tracking by client and funding agency	X	X	X	X	X	X	X	X	X	X	X
	Develop a system to track ADA eligible and non-urban trips											
	Work with clients and funding agencies to reduce no-show and cancellation rates											
	View daily, weekly and monthly performance reports to manage efficiency											
	Track driver pay hours daily to minimize overtime											
	Ensure that all clients on											

	manifest are scheduled to ride																		
	Attend ITRE Paratransit Foundations courses																		
Utilize all aspects of scheduling software (PPA recommendation)	Designate a staff member as primary RouteMatch contact																		
	Use automated scheduling engine to place trips		X		X							X	X	X	X				
	Use automated scheduling engine and manual adjustments to print estimated pickup/drop-off times on manifests																		
	Attend all user group meetings																		
Review compliance with ADA requirements (PPA recommendation)	Review compliance with ADA requirements (PPA recommendation)	X	X		X		X				X			X					
Use maintenance software in real-time instead of post-processing information (PPA recommendation)	Use maintenance software in real-time instead of post-processing information (PPA recommendation)	X	X		X		X				X								
Coordinate with neighboring transportation providers for out-of-county trips (PPA recommendation)	Coordinate with neighboring transportation providers for out-of-county trips (PPA recommendation)		X		X	X	X	X	X			X		X					
Adjust Mount Olive fixed-route service for better performance (e.g. area service within Mount Olive)	New Mount Olive service format/schedule		X	X	X		X				X			X					

Service expansion items from ten-year plan, as resources allow	n/a	X	X	X	X	X	X
Capital investment items from ten-year plan, as resources allow	n/a	X	X	X	X	X	X

X = Recommendation supports this service / objective / focus area

14.2 Service Plan

An effective and appropriate service strategy is the backbone of any transit plan. This strategy includes the types of service provided, their schedules and routes, and the overall quality of service – altogether these components can either 'break or make' a given transit system. This section describes the proposed improvements to GATEWAY Transit that will be implemented over the next five years: 2010 through the end of 2014. The elements of a Service Plan are also shown in Table 14.1. The overall short-term strategy regarding fixed-route services is to expand and enhance service with addition of the fifth route and other necessary changes such as schedule adjustments. The service strategy aims to make transit more efficient and accessible to the riders.

14.2.1 Fixed Route Service Improvements

Phase I – Fixed Route Short-term Service Improvements (2010)

Implement the 2010 short-term improvements (see Appendix C), including:

- Introduce the new fifth fixed route, '**East End**.' The route is recommended to run from the Transfer Center to Berkeley Mall, Wal-Mart and Wayne Community College (WCC). At WCC, it will wait for classes to finish, then leave WCC and run via the medical district to the Transfer Center in downtown Goldsboro near the Courthouse via North William and North John streets, and back to the Transfer Center along East Ash Street. This route is the proposed recipient of the first city bus

- The **Berkeley Mall** route: implement a shorter and simpler route along Elm Street and through downtown

- The **Wayne Memorial** route: recommended to remain unchanged through 2010

- The **North End** route: the extensions in alternate hours to Wal-Mart in Rosewood and to the O'Berry Center are recommended for elimination. The time saved by eliminating the extensions will allow the route to continue from downtown along Royall Avenue to Wal-Mart on Spence Avenue, and return along Royall Avenue to the Transfer Center

- The **South End** route: make adjustments aimed at improving access to/from some key destinations

- Purchase two additional Fixed-Route Buses: to be used wherever most needed, preferably for Berkeley Mall and Wayne Memorial routes

- Establish additional transfer points at Wal-Mart (Spence Avenue), where the Berkeley Mall and East End meet; and Downtown: in the courthouse area, where four routes meet

- Add and/or eliminate bus stops as shown in the Appendix C (Table C.10)

Phase II– Fixed Route Service Improvements (2011-2014)

- Revise all schedules and routing as needed for changeover at Union Station Transfer Center

14.2.2 Paratransit Service Improvements

Phase I– Paratransit Service Short-term Service Improvements (2010)

Paratransit Urban:

- No changes

Paratransit Rural:

- Adjust Mount Olive fixed-route service for better performance

- Increase effectiveness of rural service (PPA recommendation) by specifically:

    - Implementing reservation window (maximum two weeks or one month in advance)

    - Following ADA regulations and allowing reservations up to 24 hours before trip, not current 48 hours

    - Increasing information control and accuracy (PPA recommendation) by specifically:

        - Tracking service-hour and revenue-hour information correctly

        - Using ordered manifests with separate lines for pickups and drop-offs

        - Defining late cancelations and tracking them by client and funding agency

        - Developing a system to track ADA eligible and non-urban trips

- Working with clients and funding agencies to reduce no-show and cancellation rates

Phase II– Paratransit Service Improvements (2011-2014)

Paratransit Rural:

- Provide Sunday service

14.3 Capital Plan

The following capital projects aimed at improving the GATEWAY Transit system have been identified as financially feasible in the 2010-2014 time frame.

14.3.1 Union Station Transfer Center

A key component of the Five-Year Plan will be an attractive and functional multi-model transfer center in revitalized Union Station on the western edge of downtown Goldsboro. Union Station is an existing GATEWAY Transit project that is carried forward in this CTSP. The transfer center, along with the proposed operations and maintenance center, should be the considered the highest priority transit capital project. The very nature of the transfer center, its multi-modal focus, as well as its central location, will allow for better coordination of routes, including paratransit ones, and serve as a base for expansion of transit services. Overall, Union Station will serve as the key transit facility in Wayne County and the surrounding counties as well. The Transfer Center is described in more detail in Section 10.4

14.3.2 Operations and Maintenance Center

Along with Union Station, this is an existing GATEWAY Transit project that is carried forward in this CTSP. The proposed Operations and Maintenance Center would provide a fixed base and allow GATEWAY Transit to perform maintenance and fueling in-house. The proposed Maintenance Center is described in Section 10.3.

14.3.3 Passenger Amenities

Overall, GATEWAY Transit should aim at improving the amenities and accessibility of stops by:

- Establishing standards for providing particular amenities and preparing and maintaining a Priority List for stop amenities. The expansion of service will require establishing new bus stops and transit benches and shelters where applicable. Transit benches are typically warranted at bus stops with five or more

passenger boarding per day, while transit benches typically require 15 or more passenger boardings per day

- Continuing to work with landowners at stops that are located on private land
- Establishing a sponsorship program for amenities
- Undertaking a full bus stop access/safety/lighting audit
- Establishing a Transit and Pedestrian Access Program that would prioritize improvements in the most important locations
- Working with the City of Goldsboro and NCDOT to ensure that access to bus stops, and accessibility at bus stops, forms part of their ongoing maintenance and improvement programs
- Working with the City of Goldsboro and NCDOT to ensure that proposed highway schemes include full provision for pedestrian access
- Working with the City of Goldsboro to improve the Transit-friendliness of its land development

14.3.4 Transit Vehicles

GATEWAY Transit currently has a fleet of five minbuses used for fixed route service and 23 vans used for paratransit service. One 35-foot long city bus was bought recently and is ready to be used on a new East End route in December 2009. GATEWAY expects to continue its migration on fixed-routes from cutaways to 35-foot long city buses. Two more buses are currently on order, to be delivered in 2010. The service plan as proposed requires an increase in the number of required buses on fixed routes by two vehicles (in order to add the fifth and sixth route). All of GATEWAY's transit fleet vehicles with the exception of the city buses will reach the end of their economically useful lives at the end of the Five-Year Plan and will warrant replacement. Out of the five minbuses utilized by GATEWAY on its fixed routes, two will need to be replaced in 2011, and three in 2012. In terms of paratransit services, one van will need to be replaced in 2009, none in 2010, five in 2011, seven in 2012, three in 2013, and seven in 2014. While this replacement schedule is fairly flexible, GATEWAY should plan ahead to accommodate the need to replace vehicles that reach their useful lifespan at suggested intervals. Thus, the recommendation is that GATEWAY prepares a Fleet Replacement Plan.

14.3.5 Advanced Transit System Technologies

The PPA described the following scheduling and information-management improvements that would improve efficiency of GATEWAY's rural service:

- Full implementation of GATEWAY's scheduling software, resulting in more efficient routing and reductions in scheduling time
- Use of automated scheduling engine to place trips on most efficient routes and printing estimated pickup/drop-off times on driver manifests
- Use of maintenance software in real-time instead of post-processing the information

The improvements are described in detail in Section 4.2.5. These recommendations are part of the Five-Year Plan. The process of their implementation should begin in November 2009 - six month after the PPA was conducted.

14.4 Institutional Plan

14.4.1 Regional Transit Trips Coordination

GATEWAY Transit should continue to work with the surrounding counties' Transit agencies as part of the effort to improve regional coordination. Three approaches could be considered:

- Offering spare seats to other agencies
- Agencies taking turns on common trip segments

A scheduled service aimed more closely at meeting human-service needs, could support many trips. Importantly, the scheduled service would use a pre-agreed funding formula, providing an incentive for agencies to use the scheduled service whenever appropriate.

14.4.2 Inter-City Bus Service

U.S. Congress included federal funding for rural inter-city bus service in the Intermodal Surface Transportation Efficiency Act of 1991 (ISTEA) and continued the funding in 1998 with the Transportation Equity Act for the 21st Century (TEA-21). GATEWAY Transit and the other counties in the region should work with NCDOT and private companies such as Greyhound and Carolina Trialways to explore the scope for additional scheduled inter-city bus service. This service would connect cities and towns in the surrounding counties, including AMTRAK stations, Greyhound stations and major points of interest (such as employers in the Research Triangle Park, Raleigh-Durham International Airport, major

nearby cities such as Greenville, Selma, Smithfield, Rocky Mount, Wilson, Raleigh, Jacksonville, etc.).

One example of a successful inter-city bus service is the service provided by the South Central Arkansas Transit and operated by the Central Arkansas Development Council (CADC) in Malvern, Arkansas. This rural bus feeder service provides intercity transportation using Section 5311(f) funds. The service operates a 20-passenger bus twice a day, funded through a combination of Greyhound assistance, Section 5311(f) operating assistance, ticket commission revenue, and agency funds. In another part of the country, in Polk County in Florida, the Polk County Transit Services uses Section 5311(f) rural assistance funds to provide the inter-city Transit service in the City of Winter Haven, reaching into remote areas.

An example of a successful inter-city bus program with a unique approach to funding is Travel Washington offered by the Washington State Department of Transportation (WSDOT). Travel Washington uses private contractors to provide the transportation on the bus routes. Traditionally, local matching funds are needed for each individual bus route and provider and are difficult for local communities to secure. In 2006, WSDOT received approval from the Federal Transit Administration (FTA) to use private capital investment as local match funds for the Travel Washington intercity bus routes. The local match comes from the capital investment made by Greyhound Bus Lines. This new innovative funding structure and interagency partnership allows for intercity travel as part of a network that serves regional needs rather than isolated separate communities.

14.4.3 Marketing Strategy

Marketing is an essential element of a cost-effective transit service – potential GATEWAY riders are not able to make a rational decision regarding whether to use transit services made available to them if they do not know about the mobility options the transit system offers them. In general, up to three percent of the total operating budget should be used to conduct a focused marketing effort aimed at fostering awareness among Wayne County's residents regarding GATEWAY transit options and to ultimately increase ridership levels. The recommended marketing strategy for the Five-Year includes:

- Introducing Planning and Outreach Manager

- Improving existing marketing materials – a new schedule with revised routes (map) will be needed and it provides an opportunity to showcase regional connections GATEWAY offers; new GATEWAY website; attractive 'Ride Guide;' unified branding/logo on all GATEWAY vehicles

- Encouraging more input from the public regarding the services it offers. Accordingly, GATEWAY should consider additional ways to involve riders in

actual service planning. The Rider Involvement Plan should be prepared and implemented in 2011

14.5 Financial Plan

14.5.1 Fares Strategy

GATEWAY TRANSIT should strive to introduce electronic fareboxes as soon as possible, with a total changeover to the electronic transit fare payment completed by March 2010. At that time, GATEWAY should also revise fare options, taking advantage of the new payment system. Along with all-day passes, a variety of multi-ride pass options should be offered as well. A discounted monthly pass and/or stored value card should be evaluated as a potential replacement for the 22-ride pass. Lastly, GATEWAY should consider reducing the all-day cash fare to $1 in order to encourage transit use and to minimize coin handling and boarding times. It remains to be seen how the revised fare options would affect the ridership. Reduced cost monthly passes might induce transit use. On the other hand, farebox revenues might decrease slightly due to reduced cost of the transit passes.

14.5.2 Providing Transit Services through Existing Local, State, and Federal Funding

GATEWAY Transit will need to rely on existing local, state, and federal transit funding sources to fund its ongoing operating costs. The financial impacts on operating costs of the proposed Five-Year Plan are presented in Tables 14.2 through 14.7 and described in detail below.

The methodology used to develop the Financial Plan consisted of the following steps:

1. Developing forecasts of the annual operating and administrative costs, as presented in Table 14.2 'Base case' operating and administrative costs were estimated, assuming no change in the level of services and a three percent annual inflation rate. Using the calculated Base Case, future projected operating and administrative costs were identified for the recommended GATEWAY Transit service improvements. These projected costs were multiplied by the inflation rate as well. As shown in Table 14.1, operating and administrative costs in the final year of the Five-Year Plan (Fiscal Year 2013-14) are estimated to equal around $2,463,000, a 13.6 percent increase from the estimated Base Case figure of $2,168,000.
2. Estimating ridership for each of the recommended GATEWAY Transit service improvements, as shown in Table 14.3. The 'Base Case' ridership represents existing ridership factored by projected population growth in Wayne County. In terms of the status quo/base case scenario, GATEWAY Transit ridership is assumed to increase annually by the projected average rate of population growth in Wayne County –

assumed to be a fairly negligible 0.0004 percent annual population growth rate, based on 0.03 percent county-wide population growth rate per decade.

After calculating base case ridership, the ridership impacts of the recommended improvements / service enhancements are identified. It typically takes two full years for new fixed route transit services to reach full ridership potential and one year for a service revision to reach full ridership potential. As such it is assumed that ridership for major service changes to the urban transit network - such as the addition of the fifth route - will reach 65 percent of full ridership potential in the first year of service and 90 percent in the second year. The calculated projected ridership is then further discounted by 50 percent to reflect even more realistic projection levels associated with introducing major changes to GATEWAY Transit services. Rural network's projected ridership is calculated using the same methodology as described; it is, however, discounted even further (80 percent) to account for the fact that the proposed service change is demand-responsive rather than fixed route, and is on Sundays when ridership can typically be expected to be lower than on weekdays.

Overall, as seen in Table 14.3, implementing recommended service improvements as outlined in the Five-Year Plan is likely to increase systemwide ridership by 8.7 percent (or about 29,000 trips) over the base case scenario levels in the final Fiscal Year of The Five-Year Plan. The projected ridership in Fiscal Year 2013-14 after all proposed transit recommendations are implemented is about 365,000 (as compared to 336,000 projected for the base case scenario).

3. Estimating passenger fare revenues based on the ridership forecasts. In order to estimate farebox revenues, most recent performance analysis of GATEWAY Transit was conducted first. The Fiscal Year 2008-09 (shown in Table 14.4) made it possible to calculate GATEWAY's fare per passenger trip – or, in other words, what GATEWAY actually receives from each passenger for each trip ($0.68 systemwide). The fare per passenger trip was later used (as a multiplier) to calculate both the Base Case farebox revenues, as well as the Five-Year Plan's projected farebox revenue. As seen in Table 14.5, the implementation of the various Five-Year Plan elements is expected to increase passenger farebox revenues in the final year of the Plan (Fiscal Year 2013-14) from $234,000 (status quo scenario) to $251,000 (with implemented improvements). This represents a 7.4 percent in farebox increase of the Five-Year Plan service over the Base Case service.

4. Estimating the capital costs of the Capital Plan elements, as shown in Table 14.6. The following capital funding will be required to implement transit service recommendations from the Five-Year Plan:

    - Development of the Union Station Transfer Center:
        - Funding required:

        - An estimated total of $4.5 million, with the bulk of it, $4.1 million, needed for construction and commissioning of the facility and the remaining $400,000 estimated to be needed for environmental studies and final design
    - Where will the funding come from?
        - The funds for preparing the final design, as well as construction and commissioning of the Union Station Transfer Center will mostly come from the FTA 5309 Capital Investment Program (80 percent) and will be supplemented with the required state (10 percent and local match (10 percent)
        - The estimated $150,000 in funds required for the environmental studies are assumed to be funded equally by FTA 5307 Urban Formula Funding (50 percent) and GATEWAY local funds (50 percent)

- Development of the Operations and Maintenance Center:
    - Funding required:
        - A total of around $2 million, with the bulk of it, $1.4 million, needed for construction and commissioning of the facility and the remaining $600,000 estimated to be needed for feasibility study, environmental studies and final design
    - Where will the funding come from?
        - The funds required for preparing the final design, as well as construction and commissioning of the Operations and Maintenance Center will mostly come from the FTA 5309 Capital Investment Program (80 percent) and will be supplemented with the required state (10 percent and local match (10 percent)
        - The estimated $100,000 in funds required for the feasibility study and $120,000 required for the environmental studies are assumed to be funded equally by FTA 5307 Urban Formula Funding (50 percent) and GATEWAY local funds (50 percent)

- Purchase of the two new 35-foot city buses and replacing van fleet as needed:
    - Funding required:
        - An estimated total of around $3.3 million, with approximately $721,000 needed to purchase the city buses and approximately $2,588,000 needed to replace van fleet within the Five-Year Plan period (see Section 14.6 for the proposed van fleet schedule replacement)

  - Where will the funding come from?
    - The required funding will mostly come from the FTA 5309 Capital Investment Program (80 percent) and will be supplemented with the required state (10 percent) and local match (10 percent)

- Satellite Transfer Stations feasibility study:
  - Funding required:
    - An estimated total of around $30,000
  - Where will the funding come from?
    - The feasibility study is assumed to be funded equally by FTA 5307 Urban Formula Funding (50 percent) and GATEWAY local funds (50 percent)

- Evening/Sunday service feasibility study:
  - Funding required:
    - An estimated total of around $33,000
  - Where will the funding come from?
    - The feasibility study is assumed to be funded equally by FTA 5307 Urban Formula Funding (50 percent) and GATEWAY local funds (50 percent)

- Fare options revision and a systemwide switchover to electronic fareboxes:
  - Funding required:
    - An estimated total of around $30,000
  - Where will the funding come from?
    - The required funding will mostly come from the FTA 5307 Urban Formula Funding (80 percent) and will be supplemented with the required state (10 percent) and local match (10 percent)

- Establishing additional transfer points at Wal-mart and the Courthouse area:
  - Funding required:
    - An estimated total of around $4,000
  - Where will the funding come from?
    - The required funding will come mostly from a fairly new source of federal funding, the FTA Job Access and Reverse Commute

(JARC) (80 percent), and will be supplemented with the required local match (20 percent). Since the proposed transfer points will essentially be in the form of enhanced bus shelters, tapping into JARC funds is very desirable. JARC can be used to fund construction of shelters provided that the shelters are located in predominantly low-income areas and along transit routes that connect low-income persons to employment or employment-related activities. Shelters can also be installed along routes that provide reverse commute service. JARC funds can also be used to make existing shelters accessible for people with disabilities provided that the above conditions apply. Alternatively, instead of JARC, GATEWAY Transit may instead use New Freedom funds to construct accessible bus shelters. The required local match in that scenario would remain at 20 percent. Notably, projects must be in a locally-adopted Coordinated Plan in order to qualify to receive JARC or New Freedom funding

- Priority list improvements for bus stops:
  - Funding required:
    - An estimated total of around $28,000
  - Where will the funding come from?
    - The required funding will come from a fairly new source of federal funding, the FTA 5317 New Freedom (50 percent), and will be matched with the required local match (50 percent). It should be noted that although the project duration would last for four years, the U.S. Department of Transportation allows for use of these funds over multiple years. Although mobility management refers to 'short term,' management activities to plan and implement coordinated services can occur on a multi-year basis. Notably, projects must be in a locally-adopted Coordinated Plan in order to qualify to receive New Freedom funding
- Full implementation of rural paratransit scheduling software:
  - Funding required:
    - An estimated total of around $5,000
  - Where will the funding come from?
    - The required funding will mostly come from the FTA 5311 Rural Formula Funding (80 percent) and will be supplemented with the required state (10 percent) and local match (10 percent)

5. The compounded results of the above calculations were utilized to develop the actual Financial Plan, as shown in Table 14.7. Thus, in order to estimate the operating subsidy estimate for GATEWAY Transit, the agency's projected operating revenue forecasts were subtracted from its projected operating cost forecasts. The following sources would be used to subsidize GATEWAY Transit's operating costs:

   a) In terms of the Base Case Scenario, GATEWAY Transit urban network will continue to rely on FTA 5307 and FTA 5309 funds, reflecting the rate of inflation (assumed to be three percent annually). The estimated urban costs and revenues were estimated by averaging the data showing received assistance from various sources from 2005 to 2009 and adjusting it for inflation (assumed to be three percent annually). This method differs slightly from the estimation technique used in projecting GATEWAY Transit operating costs shown in Table 14.2 where only the most recent data was taken into account to estimate the costs.

   b) In terms of future improvements to the Base Case Scenario, the urban side of GATEWAY Transit will rely on FTA 5307 for its expansion plans. The operating costs of the proposed East End route will be funded by the FTA 5307 (50 percent), and will be matched with the required state and local match (25 percent each). The required local match required to implement proposed improvements to the urban subsystem of GATEWAY Transit will range from about $46,000 in FY 2009-10 to around $50,000 in FY 2013-2014, the final year of the Five-Year Plan.

   c) In terms of the Base Case Scenario, GATEWAY Transit rural network will continue to rely on Community Transportation Program FTA 5311 funds, reflecting the rate of inflation (assumed to be three percent annually). The estimated urban costs and revenues were estimated by averaging the data showing received assistance from various sources from 2002 to 2009 and adjusting it for inflation (assumed to be three percent annually). The operating costs will be funded by CTP 5311, with the federal assistance of 80 percent of the administrative costs and 50 percent of the operating costs. The NCDOT will typically match 5 percent of CTP 5311 administrative costs. GATEWAY Transit is also eligible to participate in North Carolina's Rural Operating Assistance Program (ROAP). Any ROAP funds sub-allocated to GATEWAY Transit will need to be deducted from assistance each of the following years if they were left unspent. Finally, the local match will amount to 15 percent of the total assistance provided by CTP 5311 in terms of administrative costs and 50 percent in terms of operating costs. The actual estimated Base Case Scenario rural costs and revenues were estimated by averaging the data showing received assistance from various sources from 2002 to 2009 and adjusting it for inflation (assumed to be three percent annually).

d) In terms of future improvements to the Base Case Scenario, the rural side of GATEWAY Transit will rely on Community Transportation Program FTA 5311 funds for its expansion plans. The operating costs will be funded by CTP 5311, with the federal assistance of 80 percent of the administrative costs and 50 percent of the operating costs. The NCDOT will typically match 5 percent of CTP 5311 administrative costs. Finally, the local match will amount to 15 percent of the total assistance provided by CTP 5311 in terms of administrative costs and 50 percent in terms of operating costs. The required local match required to implement proposed improvements to the rural subsystem of GATEWAY Transit will range from about $29,000 in FY 2010-11 to around $31,000 in FY 2013-2014, the final year of the Five-Year Plan. The actual local assistance each year was determined by first estimating the value that could be assigned to Sunday service based on the operating costs of the entire paratransit rural network in each respective future year (as shown in Table 14.2) and dividing it by the operating costs of the proposed service. That weighed percentage ratio – assumption that Sunday service would be worth 5.13 percent of the paratransit service in terms of its operating costs was then used to estimate the required assistance needed to provide this service in each year of the Five-Year Plan.

e) The required estimated local match will peak at $412,000 in the final Fiscal Year of the Five-Year Plan (2013-14). This represents nearly a three-fold increase from the current existing local match during the Fiscal Year 2008-09 ($146,000). It should be noted, however, that the total projected local match (that includes proposed improvements) will vary from one fiscal year to another during the Five-Year Plan. Thus, while it is projected to be around $412,000 during the final Fiscal Year of 2013-14, it is at $339,000 during the Fiscal Year of 2009-10. Since the proposed service improvements are to be implemented gradually, it gives GATEWAY Transit enough time to prepare for those expenses and secure new source of local funding (for instance, an increase vehicle registration tax instituted in Wayne County could be used to fund GATEWAY Transit). Potential local sources of additional funding are described in detail in Section 12.5.3. What is even more encouraging is the fact that GATEWAY Transit would operate at a surplus for the entire duration of the Five-Year Plan, ranging from a low of about $32,000 in FY 2013-14 to $215,000 in FY 2010-11. The projections show the maximum required local match, variables such as increased ROAP funds (these could amount to $250,000 in FY 2009-10 alone), could drastically decrease the required local match. Finally, the surplus could be used to decrease the amount of required assistance in the first place and decrease required funding overall.

f) It should be noted that FTA 5316 Job Access and Reverse Commute (JARC) funds, FTA 5317 New Freedom, and FTA 5311 Rural Formula Funding could be used to further expanding both the urban and rural paratransit GATEWAY

service options, including items from the Mid-Term Plan, such as the Cherry Commuter fixed route van service and new rural routes.

Overall, the proposed Financial Plan indicates that GATEWAY Transit can implement recommended service improvements from the Five-Year Plan after ensuring that the local funds required for such purpose are available. While the increase in required local funds is substantial, the benefits of improved and increased service are significant enough to warrant the full implementation of service improvements proposed within the Five-Year Plan, and, if resources allow (for instance, from JARC or Wayne County's vehicle tax increase), implement capital investment items from the Mid-Term Plan. If the Five-Year Plan's items alone are successfully implemented, GATEWAY Transit ridership will increase by nine percent over today's levels, while farebox revenues will grow much more substantially – by 22 percent. The Five-Year Plan will provide an entirely new fifth fixed route service (provisionally referred to as 'the East End') that will expand service and add new bus stops in previously underserviced areas of Goldsboro such as North John Street and East Ash Street, as well as improve connections between downtown Goldsboro, the medical corridor and Wayne County Community College. The improvements in scheduling and rerouting of the existing GATEWAY Transit fixed routes will result in faster and more convenient service to riders and improve the effectiveness of the overall transit network – in a move towards the 'complete transit network,' as described in the Mid-Term and Long-Term service Plans. In addition, Sunday paratransit service will be offered to offer GATEWAY riders an opportunity to use transit on Sundays for a variety of purposes (including journey to work trips), the only day during the week GATEWAY currently does not offer service. Finally, the capital improvements such as the multimodal Union Station Transfer Center and GATEWAY operations and maintenance center will enable GATEWAY to become a truly regional and comprehensive transit agency.

Table 14.2: GATEWAY Transit Projected Operating Costs Estimates

	FY 2009-10	*FY 2010-11*	*FY 2011-12*	*FY 2012-13*	*FY 2013-14*
Base Case Operating Cost:					
Fixed Routes	**$563,294**	**$580,192**	**$597,598**	**$615,526**	**$633,992**
Paratransit Urban	**$176,394**	**$181,685**	**$187,136**	**$192,750**	**$198,533**
Paratransit Rural	**$1,127,849**	**$1,161,684**	**$1,196,535**	**$1,232,431**	**$1,269,404**
Fixed costs	**$58,321**	**$60,070**	**$61,872**	**$63,729**	**$65,640**
Total	*$1,925,857*	*$1,983,633*	*$2,043,142*	*$2,104,436*	*$2,167,569*
				Service Plan Elements Incremental Impacts:	
				Urban Fixed Routes Network:	
New 5th fixed route - 'East End'	**$195,932**	**$201,809**	**$207,864**	**$214,100**	**$220,523**
Total Urban Network	*$195,932*	*$201,809*	*$207,864*	*$214,100*	*$220,523*
					Rural Network:
Sunday service		**$ 59,592**	**$61,379**	**$63,221**	**$65,117**
Total Rural Network		*$ 59,592*	*$61,379*	*$63,221*	*$65,117*
Enhanced Marketing Costs	**$10,000**	**$5,000**	**$5,000**	**$5,000**	**$10,000**
Total Service Plan Elements Incremental Impacts	*$205,932*	*$266,401*	*$274,243*	*$282,320*	*295,640*
Total Transit Operating Cost	2,131,788	$2,250,034	$2,317,385	$2,386,756	$2,463,209

Table 14.3: GATEWAY Transit Projected Ridership Estimates

	Actual		*Projected*			
	FY 2008-09	FY 2009-10	FY 2010-11	FY 2011-12	FY 2012-13	FY 2013-14
Base Case Ridership:						
Fixed Routes	**218,169**	**218,256**	**218,344**	**218,431**	**218,518**	**218,606**
Paratransit Urban	**20,624**	**20,632**	**20,641**	**20,649**	**20,657**	**20,665**
Paratransit Rural	**96,478**	**96,517**	**96,555**	**96,594**	**96,632**	**96,671**
Total	*335,271*	*335,405*	*335,539*	*335,673*	*335,808*	*335,942*
Service Plan Elements Incremental Impacts:						
Urban Network:						
New 5th fixed route - 'East End'		**18,279**	**25,320**	**28,145**	**28,257**	**28,269**
Total Urban Network		*18,279*	*25,320*	*28,145*	*28,257*	*28,269*
Rural Network:						
Sunday service			**518**	**718**	**798**	**798**
Total Rural Network		*0*	*518*	*718*	*798*	*798*
Total Service Plan Elements Incremental Impacts		*18,279*	*25,838*	*28,862*	*29,055*	*29,066*
Total Transit Program Ridership	*335,271*	353,685	361,377	364,536	364,863	365,009

Table 14.4: GATEWAY Transit Performance Analysis Fiscal Year 2008-09

Line Item	*Fixed Routes*	*Paratransit Urban*	*Paratransit Rural*	*Systemwide*
One-way Passenger Trips	218,169	20,624	96,478	335,271
Operating Expenses	$546,887	$171,256	$1,094,999	$1,813,142
Passenger Fares	$130,220	$69,564	$26,779	$226,563
Vehicle Service Hours	17,113	*	40,320	57,433
Vehicle Service Miles	221,426	*	672,506	893,932
Passenger Trips / Vehicle Service Hours	12.7	n/a	2.4	5.8
Passenger Trips / Vehicle Service Miles	0.99	n/a	0.14	0.38
Operating Cost per Passenger - Trip	$2.51	$8.30	$11.35	$5.41
Operating Subsidy per Passenger - Trip	$1.91	$4.93	$11.07	$4.73
Farebox Recovery Ratio	23.81%	40.62%	2.45%	12.50%
Fare per passenger trip	$0.60	$3.37	$0.28	$0.68

*Had been operated as deviated fixed-route, hence no DR miles or hours

Table 14.5: GATEWAY Transit Estimated Farebox Revenues

	Actual		*Projected*			
	FY 2008-09	FY 2009-10	FY 2010-11	FY 2011-12	FY 2012-13	FY 2013-14
Base Case Fare Revenues:						
Fixed Routes	**$130,220**	**$134,180**	**$134,234**	**$134,288**	**$134,341**	**$134,395**
Paratransit Urban	**$48,888**	**$71,679**	**$71,708**	**$71,737**	**$71,765**	**$71,794**
Paratransit Rural	**$26,779**	**$27,593**	**$27,604**	**$27,615**	**$27,627**	**$27,638**
Total	*$205,887*	*$233,453*	*$233,546*	*$233,640*	*$233,733*	*$233,827*
Service Plan Elements Incremental Fare Revenues:						
Urban Network:						
New 5th fixed route - 'East End'		**$11,238**	**$15,566**	**$17,303**	**$17,372**	**$17,379**
Total Urban Network		*$10,968*	*$15,192*	*$16,887*	*$16,954*	*$16,961*
Rural Network:						
Sunday service		**-**	**$148**	**$205**	**$228**	**$228**
Total Rural Network		-	*$148*	*$205*	*$228*	*$228*
Total Service Plan Elements Incremental Fare Revenue		*$10,968*	*$15,340*	*$17,092*	*$17,182*	*$17,189*
Total Transit Program Fare Revenues		$244,421	$248,887	$250,732	$250,916	$251,016
Service Plan Fare Revenues Increase Above Base Case		**4.7%**	**6.6%**	**7.3%**	**7.4%**	**7.4%**

Table 14.6: GATEWAY Transit Capital Plan

			Projected		
Capital Plan Costs:	**FY 2009-10**	**FY 2010-11**	**FY 2011-12**	**FY 2012-13**	**FY 2013-14**
Union Station Transfer Center:					
-Environmental Studies	**$150,000**				
-Final Design		**$250,000**			
-Construction			**$500,000**	**$1,500,000**	
-Commissioning and Opening					**$2,100,000**
Operations and Maintenance center:					
-Feasibility Study	**$100,000**				
-Environmental Studies		**$120,000**			
-Final design			**$400,000**		
-Construction				**$700,000**	
-Commissioning and Opening					**$700,000**
Establish additional transfer points at: Wal-mart, Courthouse	**$4,000**				
Satellite Transfer Stations - feasibility study *(construction beyond 2014)*			**$30,000**		
Evening/Sunday fixed-route service - feasibility study (implementation beyond 2014)				**$35,000**	
Electronic fareboxes /fare options revision		**$30,000**			
Priority List improvements for bus stops in Wayne County		**$7,000**	**$7,000**	**$7,000**	**$7,000**
Vehicle Fleet Replacement and Expansion:					
-two new 35-foot City buses	**$721,000**				

-Vans: Replacement	**$92,700**	**$477,405**	**$ 983,454**	**$303,887**	**$730,343**
Full implementation of paratransit rural scheduling software	**$5,000**				
Total Capital Plan Costs	***$1,072,700***	***$ 884,405***	***$1,920,454***	***$2,545,887***	***$3,537,343***
Revenues:					
S.5309 Capital Investment Program	**$650,960**	**$581,924**	**$1,506,763**	**$2,003,110**	**$2,824,274**
S.5307 Urban Formula Funding	**125,000 $**	**$84,000**	**$ 15,000**	**$ 17,500**	
S.5316 Job Access and Reverse Commute (JARC)	**$ 3,200**				
S.5317 New Freedom		**$3,500**	**$3,500**	**$3,500**	**$3,500**
S.5311 Rural Formula Funding	**$4,000**				
Matching NC DOT 10%	**$81,870**	**$75,741**	**$188,345**	**$250,389**	**$353,034**
Required local match 10%	**$81,870**	**$75,741**	**$188,345**	**$250,389**	**$353,034**
Required local match 20%	**$800**				
Required local match 50%	**$125,000**	**$63,500**	**$18,500**	**$21,000**	**$3,500**
Total Local Match	***$207,670***	***$139,241***	***$206,845***	***$271,389***	***$356,534***
Total Capital Plan Revenues	***$1,072,700***	***$884,405***	***$1,920,454***	***$2,545,887***	***$3,537,343***

Assumptions: 3 percent annual inflation rate where applicable.

Table 14.7: GATEWAY Transit Financial Plan

Financial Plan Items:			***Phase I Improvements***	***Phase II Improvements***			
Operating Subsidy Revenues: by GATEWAY Transit subsystem:	Actual	Average	Projected	Projected			
	FY 2008-09	2005-2009	FY 2009-10	FY 2010-11	FY 2011-12	FY 2012-13	FY 2013-14
Urban Network: Base Case:							
Operating Costs	$718,143	$699,242	$720,219	$741,826	$764,080	$787,003	$810,613
Farebox Revenues	$179,108	$183,850	$189,365	$195,046	$200,897	$206,924	$213,132
Other revenue (vehicle sales, interest, ads)	$ 6,762	$12,309	$12,679	$ 13,059	$13,451	$ 13,854	$14,270
Urban Network Base Case Operating Subsidy Requirements	*$532,273*	*$503,083*	***$518,175***	***$533,721***	***$549,732***	***$566,224***	***$583,211***
Urban Network Operating Assistance: Base Case							
Federal assistance	$303,551	$211,417	$231,110	$238,044	$245,185	$252,540	$260,117
State assistance	$111,541	$131,709	$143,978	$148,297	$152,746	$157,328	$162,048
Local government assistance	$117,180	$130,895	$143,088	$147,380	$151,802	$156,356	$161,046
Urban Network Base Case Operating Assistance	*$532,272*	*$474,020*	***$518,175***	***$533,721***	***$549,732***	***$566,224***	***$583,211***
Urban Network: Improvements							
Operating Costs: Proposed Improvements	*n/a*		*$195,932*	*$201,809*	*$207,864*	*$214,100*	*$220,523*
Farebox Revenues	*n/a*		$10,968	$15,192	$16,887	$16,954	$16,961
Other revenue (vehicle sales, interest, ads)	*n/a*		$734	$1,017	$1,131	$1,135	$1,136
Urban Network Improvements Operating Subsidy Requirements	*n/a*		***$184,230***	***$185,600***	***$189,846***	***$196,010***	***$202,426***

Urban Network Operating Assistance - Improvements:							
Federal assistance: FTA 5307 Urban Formula Funding (50% of total)*	*n/a*	*n/a*	$92,115	$ 92,800	$94,923	$98,005	$101,213
NCDOT match of FTA 5307 Urban Formula Funding (25% of total)*	*n/a*	*n/a*	$46,057	$46,400	$47,462	$49,003	$50,606
Local match of FTA 5307 Urban Formula Funding (25% of total)*	*n/a*	*n/a*	$46,057	$46,400	$47,462	$49,003	$50,606
Urban Network Base Case Operating Assistance	*n/a*	*n/a*	***$184,230***	***$185,600***	***$189,846***	***$196,010***	***$202,426***
Rural Network: Base Case		Average 2002-2009					
Operating Expenses:							
Administrative	$58,214	$91,431	$112,140	$115,504	$118,970	$122,539	$126,215
Operating	$1,036,785	$828,132	$1,015,709	$1,046,180	$1,077,565	$1,109,892	$1,143,189
Total Operating Expenses:	*$1,094,999*	*$919,563*	*$1,127,849*	*$1,161,684*	*$1,196,535*	*$1,232,431*	*$1,269,404*
Farebox Revenues	$26,779	$44,581	$27,593	$27,604	$27,615	$27,627	$27,638
Contract revenue (i.e. agency trip fares)	$1,031,681	$703,119	$1,062,631	$1,094,510	$1,127,346	$1,161,166	$1,196,001
Other revenue (vehicle sales, interest, advertising, other)	$5,204	$29,573	$30,460	$31,374	$32,315	$33,285	$34,283
Rural Network Base Case Operating Subsidy Requirements	*$31,335*	*$142,289*	***$7,164***	***$8,195***	***$9,258***	***$10,354***	***$11,482***

Rural Network Base Case Operating Assistance:							
		Average 2002-2009					
Federal assistance:							
CTP 5311 Administrative (typically 80%)	$192,490	$110,803	$114,127	$117,551	$121,077	$124,710	$128,451
Total Federal Assistance	*$192,490*	*$110,803*	*$114,127*	*$117,551*	*$121,077*	*$124,710*	*$128,451*
State assistance:							
CTP Administrative (typically 5% match of CTP 5311)	$12,036	$25,984	$26,763	$27,566	$28,393	$29,245	$ 30,122
ROAP funds suballocated to GATEWAY	$101,805	$63,237	$65,134	$67,088	$69,101	$71,174	$73,309
Unspent ROAP funds suballocated to GATEWAY	$34,274	$9,955	$10,254	$10,562	$10,879	$ 11,205	$11,541
Total State assistance	*$79,567*	*$79,265*	*$81,643*	*$84,092*	*$86,615*	*$89,214*	*$91,890*
Local government assistance:							
Local administrative (typically 15% match of CTP 5311)	$28,766	$25,984	$26,763	$ 27,566	$28,393	$29,245	$30,122
Local operating (typically 50% match of CTP 5311)	$0	$119,976	$123,576	$127,283	$131,101	$135,035	$139,086
Total Local assistance	$28,766	$145,960	$150,339	$154,849	$159,495	1$64,279	$169,208
Rural Network Base Case Operating Assistance	*$300,823*	*$336,028*	*$346,109*	*$356,492*	*$367,187*	*$378,203*	*$389,549*
Rural Network Base Case Surplus or Deficit	$269,488	$193,739	**$338,945**	**$348,297**	**$357,929**	**$367,849**	**$378,067**

Rural Network - Improvements:							
Operating Costs	*n/a*	*n/a*	*n/a*	$59,592	$61,379	$63,221	$65,117
Farebox Revenues	*n/a*	*n/a*	*n/a*	$148	$205	$228	$228
Contract revenue (i.e. agency trip fares)	*n/a*	*n/a*	*n/a*	$ 5,872	$8,375	$9,584	$9,872
Rural Network Improvements Operating Subsidy Requirements	*n/a*	*n/a*	*n/a*	***$53,571***	***$52,800***	***$53,409***	***$55,018***
Rural Network Base Case Operating Assistance – Improvements:							
Federal assistance:							
CTP 5311 Administrative (80% of total)	*n/a*	*n/a*	*n/a*	$2,446	$2,519	$2,594	$2,672
CTP 5311 Operating (50% of total)				$28,267	$29,115	$29,989	$30,889
Total Federal Assistance	*n/a*	*n/a*	*n/a*	$30,713	$31,634	$32,583	$33,561
State assistance:							
CTP Administrative (5% of CTP 5311)	*n/a*	*n/a*	*n/a*	$153	$157	$162	$167
Total State assistance	*n/a*	*n/a*	*n/a*	$153	$157	$162	$167
Local government assistance:							
Local administrative (15% of CTP 5311)	*n/a*	*n/a*	*n/a*	$459	$ 472	$486	$501
Local operating (50% of CTP 5311)	*n/a*	*n/a*	*n/a*	$28,267	$29,115	$29,989	$30,889
Total Local assistance	*n/a*	*n/a*	*n/a*	$28,726	$29,588	$30,475	$31,390
Rural Network Improvements Operating Assistance	*n/a*	*n/a*	*n/a*	***$59,592***	***$61,379***	***$63,221***	***$65,117***
Rural Network Base Case Surplus or Deficit	*n/a*	*n/a*	*n/a*	**$6,020**	**$8,580**	**$9,812**	**$10,100**

Projected Systemwide Financials:							
Operating Costs	$1,813,142	$1,618,804	$2,043,999	$2,164,911	$2,229,858	$2,296,754	$2,365,657
Farebox Revenues	$205,887	$228,430	$227,926	$237,991	$245,605	$251,733	$257,959
Contract Revenues	$1,031,681	$703,119	$1,062,631	$1,100,383	$1,135,720	$1,170,750	$1,205,873
Other revenue (vehicle sales, interest, ads)	$11,966	$41,882	$43,873	$ 45,450	$46,897	$48,274	$49,689
Total Operating Subsidy Requirements	*$563,608*	*$645,372*	*$709,569*	*$781,088*	*$801,637*	*$825,997*	*$852,137*
Federal assistance	$496,041	3$22,220	$437,352	$479,108	$492,820	$507,839	$523,342
State assistance	$191,108	$210,974	$271,678	$278,942	$286,980	$295,707	$304,712
Local government assistance	***$145,946***	***$276,855***	***$339,484***	*$377,355*	*$388,345*	*$400,113*	*$412,250*
Total Operating Assistance	*$833,095*	*$810,048*	*1,048,514 $*	***$1,135,405***	***$1,168,145***	***$1,203,658***	***$1,240,303***
Total Local Capital Costs	*n/a*	*n/a*	$207,670	$139,241	$206,845	$271,389	$356,534
Systemwide Projected Surplus or Deficit	2$69,487	$164,676	$131,275	**$215,077**	**$159,663**	**$106,273**	**$31,633**
Minimum local match required to AVOID DEFICIT	$ (123,541)	$112,179	$208,209	**$162,279**	**$228,682**	**$293,840**	**$380,618**

14.6 Implementation Plan

This schedule outlines a timeline of the actions necessary for successful implementation of the improvements identified in the Five-Year Plan.

14.6.1 Fiscal Year 2009-10

GATEWAY fixed-routes:

- Implement Phase I - the 2010 Fixed Route short-term service improvements
- Introduce electronic fareboxes
- Revise fare options
- Continue migration to 35-foot city buses; purchase two additional city buses

GATEWAY paratransit urban:

- Implement Phase I - the 2010 Paratransit Service short-term service improvements;

GATEWAY paratransit rural:

- Follow all recommendations outlined in the PPA
- Adjust Mount Olive fixed-route service for better performance
- Coordinate with neighboring transportation agencies for out-of-county trips

Systemwide:

- Operations and Maintenance Center – feasibility study
- Operations and Maintenance Center – secure funding (ongoing)
- Union Station Transfer Center – site environmental work, finalize relationship with Greyhound. Finalize Memorandum of Understanding between the City of Goldsboro, GATEWAY Transit, and NCDOT
- Union Station Transfer Center – secure funding (ongoing)
- The City of Goldsboro and Wayne County adopt explicit transit-inclusion policy

- Improve Marketing and Information: website, 'Ride Guide,' unified branding/logo
- Prepare a Priority List for bus stop amenities
- Prepare a Fleet Replacement Plan
- Replace one van (paratransit)

14.6.2 Fiscal Year 2010-11

GATEWAY fixed-routes:

- Begin implementing Phase II - the 2011-14 Fixed Route service improvements
- Finalize schedule for Phase II - the 2011-14 Fixed Route service improvements
- Continue migration to 35-foot city buses
- Introduce electronic fareboxes
- Revise fare options

GATEWAY paratransit urban:

- Begin implementing Phase II - the 2011-14 Paratransit service improvements

GATEWAY paratransit rural:

- Provide Sunday Demand-Responsive service to/from retail areas

Systemwide:

- Operations and Maintenance Center – site environmental work
- Operations and Maintenance Center – secure funding (ongoing)
- Union Station Transfer Center – final design
- Union Station Transfer Center – secure funding (ongoing)
- Prepare a Rider Involvement Plan to involve riders in service planning
- Service expansion items from Mid-Term Plan as resources allow

- Capital investment items from Mid-Term Plan as resources allow
- Replace seven transit vehicles (two urban service-bound minibuses, five vans paratransit-bound

14.6.3 Fiscal Year 2011-12

GATEWAY fixed-routes:

- Continue implementing Phase II - the 2011-14 Fixed Route service improvements

GATEWAY paratransit urban:

- Continue implementing Phase II - the 2011-14 Paratransit service improvements

GATEWAY paratransit rural:

- Provide Sunday Demand-Responsive service to/from retail areas

Systemwide:

- Operations and Maintenance Center – final design
- Operations and Maintenance Center – secure funding (ongoing)
- Union Station Transfer Center – construction
- Union Station Transfer Center – secure funding (ongoing)
- Satellite Transfer Locations – feasibility study (*construction beyond 2014*)
- Service expansion items from Mid-Term Plan as resources allow
- Capital investment items from Mid-Term Plan as resources allow
- Replace ten transit vehicles (three urban service-bound minibuses, seven vans paratransit-bound)

14.6.4 Fiscal Year 2012-13

GATEWAY fixed-routes:

- Continue implementing Phase II - the 2011-14 Fixed Route service improvements

- Evening/Sunday fixed-route service: feasibility study (*implementation beyond 2014*)

GATEWAY paratransit urban:

- Continue implementing Phase II - the 2011-14 Paratransit service improvements

GATEWAY paratransit rural:

- Provide Sunday Demand-Responsive service to/from retail areas

Systemwide:

- Operations and Maintenance Center – construction
- Operations and Maintenance Center – secure funding (ongoing)
- Union Station Transfer Center – construction
- Union Station Transfer Center – secure funding (ongoing)
- Service expansion items from Mid-Term Plan as resources allow
- Capital investment items from Mid-Term Plan as resources allow
- Replace three transit vehicles (three vans paratransit-bound)

14.6.5 Fiscal Year 2013-14

GATEWAY fixed-routes:

- Continue implementing Phase II - the 2011-14 Fixed Route service improvements
- Revise schedules for changeover to Union Station Transfer Center

GATEWAY paratransit urban:

- Continue implementing Phase II - the 2011-14 Paratransit service improvements
- Revise schedules for changeover to Union Station Transfer Center

GATEWAY paratransit rural:

- Provide Sunday Demand-Responsive service to/from retail areas

Systemwide:

- Operations and Maintenance Center – commissioning and opening
- Operations and Maintenance Center – secure funding (ongoing)
- Union Station Transfer Center – commissioning and opening
- Union Station Transfer Center – secure funding (ongoing)
- Service expansion items from Mid-Term Plan as resources allow
- Capital investment items from Mid-Term Plan as resources allow
- Replace seven transit vehicles (seven vans paratransit-bound)

15 Mid-Range Transit Plan

15.1 Introduction

This section of the report describes the Mid-Range Plan also referred to as the 'Ten-Year Plan, with proposed changes to be implemented in the 2015-2024 time period. The Goldsboro fixed-route system is the main focus of the Mid-Range Plan, as the main focus in this time frame should be to continue improving the fixed-route segment of the GATEWAY transit system. The goal of the Plan is to suggest how GATEWAY Transit could expand beyond the five routes that are proposed for the five-year planning horizon. It aims to lay a framework for long-term growth, as well as provide 'next steps' options for using any additional funding that becomes available. The basic idea beyond the proposed changes is to steer GATEWAY towards implementing a 'complete' transit system. It should be noted that it is expected that the next SRTP will fully develop the proposed recommendations contained within this section with actionable items. For a detailed description of some of the proposed Mid-Range improvements refer to the Appendix D.

15.2 Service Plan

15.2.1 Fixed Route Service Improvements (2015-2024)

Consider the sixth fixed route, tentatively named **Berkeley Mall Counter-Clockwise**, since the proposed route would be a counter-clockwise service on the core part of the existing Berkeley Mall route. **Berkeley Mall Counter-Clockwise** would provide a symmetrical service to the Edgerton Street and areas around Elm Street, improve access to Berkeley Mall, and relieve ridership pressure on the Berkeley Mall route.

Consider developing additional 'mid-term' service corridors and orbital routes around Goldsboro's periphery:

- US-70 corridor to Rosewood: one potential high priority corridor service, operating west from Union Station to Little River Shopping Center and on to Rosewood. The US-70 corridor route is envisioned as a two-way service (riders could travel inbound/outbound without having to go all around the rest of the loop)

- Orbital route: an orbital route connecting the main commercial area with the college and hospital area, with designated transfer points in each of these areas should be developed. As proposed, the orbital route would be operating between Wayne Community College and Spence Avenue (Wal-Mart); if resources allow, this service could be extended at each end, creating additional direct links to northern and/or eastern Goldsboro as well as the Berkeley Mall area

Consider Evening Fixed-Route Service: service could be extended into the evening on all fixed routes if warranted.

Consider Sunday Fixed-Route Service: service could be extended into Sunday on all fixed routes if warranted.

Construct 'Superstop' satellite transfer points at Spence Avenue and Berkeley Mall.

Synchronize and Recalibrate all schedules, including new routes, for flawless transfer at Union Station Transfer Center.

15.2.2 Paratransit Service Improvements (2015-2024)

Paratransit Urban:

- Cherry Commuter route: use JARC funds to introduce a new Cherry Commuter route: demand-responsive, yet semi-fixed in reality. Tailored to commuters' needs, the service would use a van and would operate at commuter times only. This service is intentionally not tied into other fixed-route segments since it is designed to be adjustable in response to regular commuters' needs, such as shift-change times at the hospital. The route would serve the Transfer Center, APV, Cherry Hospital and the O'Berry Center

- S-70 West Corridor Reverse-Commute Service: use JARC funds to establish a new service targeted at reverse-commute trips to employment locations on US-70 west to Rosewood (including Wal-Mart)

Paratransit Rural:

- Provide additional fixed-route services to and from Goldsboro

- Expand the Mount Olive-Goldsboro service with additional runs

- Introduce a new service from Mar-Mac and/or Dudley to Goldsboro

- Reinstate the Fremont/Pikeville service, with changes needed to improve ridership

- **Start providing local 'circulator' service in towns**: each circulator connects residential areas with the main local destinations. Where a fixed-route service also operates between the town and Goldsboro, a designated transfer point and coordinated schedules would allow for transfers

- **Develop thresholds for offering circulator service**

- **Develop basic service model** (for instance deadhead from Goldsboro)

- Provide area or deviated fixed-route services with fixed-route segments to/from Goldsboro. The potential areas and corridors include:

    - Fremont, Pikeville and Belfast (US-117 corridor, replacing the experimental fixed-route service)

    - Mount Olive and Dudley (US-117 corridor, replacing the experimental fixed-route service)

    - Dudley (Potts Road area, replacing the experimental fixed-route service)

    - Mar-Mac (including US-13 corridor)

    - Rosewood via Cherry Hospital and US-70

    - Buck Swamp Road area (via Belfast)

15.3 Capital Plan

15.3.1 Passenger Amenities

GATEWAY Transit should continue improving the amenities and accessibility of stops by:

- Using the Priority List to focus efforts aimed at improving stop amenities. The expansion of service will require establishing new bus stops and transit benches and shelters where applicable. Continuing to work with landowners at stops that are located on private land

- Evaluating and expanding a sponsorship program for amenities

- Using the Transit and Pedestrian Access Program to focus on locations where improvements are most needed

- Working with the City of Goldsboro and NCDOT to ensure that Transit and Transit-access facilities are part of all new highway schemes/upgrades

15.3.2 Transit Vehicles

GATEWAY Transit should:

- Follow the schedule of vehicle replacement as outlined in the Fleet Replacement Plan

- Make a switchover to city buses on all fixed routes if possible

15.3.3 Advanced Transit System Technologies

GATEWAY Transit should:

- Explore and possibly implement real-time schedule information technology at least at the Union Station multi-modal transfer center and 'Superstop' satellite transfer points at Spence Avenue and Berkeley Mall

- Explore and possibly implement priority lanes for buses (curbside, median, contraflow)

- Explore and possibly implement traffic signal priority, both active and passive, as well as queue jumpers

- Evaluate whether certain vehicle design improvements such as level boarding or wider doorways, would benefit GATEWAY Transit on its busiest fixed routes

15.4 Institutional Plan

15.4.1 Regional Transit Trips Coordination

GATEWAY Transit should expand on the work initiated during the Five-Year Plan with the surrounding counties' Transit agencies as part of the effort to improve regional coordination.

15.4.2 Fixed Route Service to the Triangle / Amtrak

GATEWAY Transit should work with NCDOT and other agencies in the region to establish regional fixed-route service to Triangle / Amtrak (precursor to commuter/inter-city rail)

15.4.3 Marketing Efforts

GATEWAY Transit's marketing efforts should be particularly extensive in the areas where GATEWAY service will be expanded or introduced.

15.5 Financial Plan

15.5.1 Funding Model

GATEWAY Transit should develop its funding model. The model would include required local contribution.

15.5.2 Fare-free Option

GATEWAY Transit should consider fare-free service on an experimental basis to boost ridership and raise awareness about the mobility options made available to Wayne County residents by GATEWAY Transit. A typical experimental period may last from three months and be followed by analysis and evaluation of the results.

15.5.3 Develop Regional Fixed-Routes

GATEWAY Transit should consider development of rural/regional fixed-routes in order to be eligible for consideration as inter-city or feeder service for funding purposes.

16 Long-Term Transit Plan

16.1 Introduction

This section of the report describes the Long-term Plan, with proposed changes to be implemented in the 2025-2034 time period. The goal of the Long-Term Plan is to point to the overall direction GATEWAY Transit should be heading in the future and suggest specific service improvements needed to implement the 'complete transit network' strategy, for which the groundwork was laid in the Five-Year and Mid-Range plans.

In addition to continuing the work on implementing strategies suggested in the Mid-Range Plan, GATEWAY Transit should consider implementing the following transit recommendations from the Goldsboro Urban Area 2035 LRTP Update:

- Implementing the recommendations of the GATEWAY Transportation Service Plan
- Utilizing the Transportation Service Plan to assess current service and explore changes in route frequency and duration
- Analyzing ridership trends bi-annually or whenever significant changes in service occur
- Considering supplementing the existing radial bus routes with a circulator
- Implementing a coordinated marketing plan
- Utilizing web-based technology
- Distributing printed materials at more locations
- Identifying satellite transfer stations for future expansion
- Ensuring that future routes are responsive to future land use patterns
- Ensuring that civic land uses are within walking distance of public transit
- Maximizing the use of Union Station as a multimodal transportation center
- Educating the public about carpool and vanpool services

- Coordinating upgrades to transit stops with improvements to the pedestrian and bicycle network

- Enhancing bus stops

- Improving the safety and security of the transit system

In addition, GATEWAY Transit should continue to explore additional potential service corridors. Figure 16.1 shows potential service corridors GATEWAY should investigate. The map is intended for long-range planning purposes and represents aspirations that may only be fulfilled within the fifteen-year horizon, or beyond. It can be seen as a Transit equivalent of the 'vision map' for highways in the Long-Range Transportation Plan. Existing routes within the core urban area are omitted for clarity, but are assumed to remain in place.

The potential trends within this timescale are:

- Opening of the US-70 bypass, encouraging large-scale development around the interchanges and creating demand for Transit to employment areas. This pattern of events has proved to be common in North Carolina when bypasses and loops have been opened

- Possible growth of Goldsboro and nearby areas, spreading out from the Triangle region and potentially fueled by commuter rail service, and

- The nationwide potential for shifts from car use to Transit, in response to congestion, fuel costs, or national policies related to energy use or climate change

Some of the potential corridors, such as New Hope or Airline, would address existing requests for service. Others would serve newly-developing areas, particularly around the US-70 bypass, or would increase the service coverage within the existing urban area. The 'Crosstown' route represents an extension of the initial orbital route described in Section Appendix D.

Ultimately, if many of the suggested corridors receive Transit service, the system would develop well beyond the traditional local hub-and-spoke network with a single pulse and would likely include:

- Splitting the pulse at Union Station (which can accommodate up to 12 buses at once)

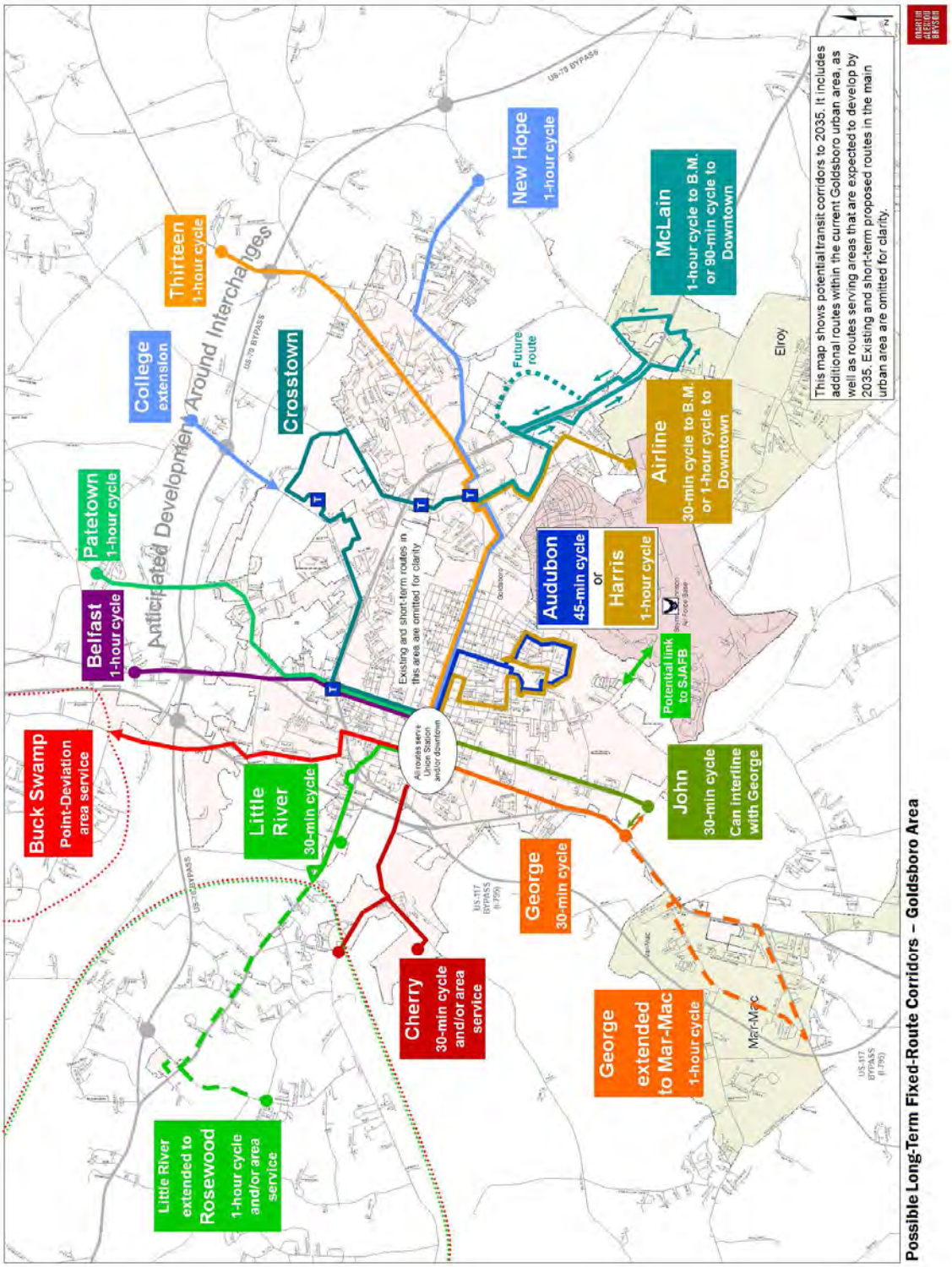
- Scheduling the longer routes on common corridors (such as William Street and Ash Street) at different times of the hour, to provide the most frequent and evenly-spaced service on the common section

- Developing the infrastructure on the busiest corridors with upgraded stops and Transit priority measures

- Routes interlining through Union Station, to provide one-seat rides from north to south or from east to west

- Additional transfer points to make connections between corridors, along with enhanced orbital service. Transfer points could be provided on Wayne Memorial Drive (at the hospital and/or College), and on William Street where several corridors may ultimately meet

Figure 16.1: GATEWAY Transit: Potential Long-Term Corridors



17 Appendix A: On-Board Survey Results

A.1 On-Board Survey – An Overview

M/A/B conducted an on-board survey of fixed route and demand responsive Transit riders to determine rider characteristics, trip purposes, trip origins and destinations, riding habits of the passengers, perceptions of service and potential improvements. The surveys were conducted on all fixed routes and four demand responsive routes over two typical service days and were available in English and Spanish. Surveyors were also on hand to verbally administer the surveys to disabled or limited English proficiency persons. The survey results were used to identify existing benefits and deficiencies and help quantify Transit demand.

A.2 Methodology

The on-board survey was offered to the riders of the GATEWAY Transit Bus and Van service in April 2009. The bus riders completed a total of 274 bus surveys and van riders completed additional 26 surveys. There were slight differences between bus and van survey design. It should be noted, that the results of van surveys should be treated as less significant when compared to the bus surveys due to the smaller sample of respondents. The summary is *not* intended as a full statistical analysis of the results. Instead, it is intended as an easy-reading summary of the results and their possible implications for the GATEWAY Transit.

Statistical note: In some cases, multiple answers were accepted from each respondent (i.e. riders could indicate that they used more than one other service). In those cases, the percentages analyzed and discussed actually constitute the proportion of valid responses rather than the number of respondents that answered the question. The questions were proportions were used include Question 2, 3, 4, 6, 7, and 10. For example, Question 2 in the bus survey has 7 possible answer choices. We received 274 surveys with 374 responses to the question. This is due to the fact some of the respondents picked multiple choices when answering a given question.

The summary of the results will begin with identification of the most important issues as gathered from both bus and van surveys, followed by more detailed analysis of the bus surveys, and, finally, the analysis of van surveys.

A.3 Summary of Significant Issues

The top issues identified in the surveys can be summarized as follows:

- Overall, the perception of both GATEWAY Transit Bus and Van service was good among the surveyed riders
- Many aspects of the GATEWAY Transit service were perceived to be first-rate by the riders, particularly the cost of service, safety and driver courtesy
- Most riders are captive Transit users rather than choice users – they depend on GATEWAY Transit

Several service improvements would result in significant increase in ridership levels:

- Expanding service hours, particularly during weekday evening hours
- Serving more destinations, particularly within the City of Goldsboro
- Offering a weekly/monthly discount pass

A.4 Question-by-Question Analysis: GATEWAY Transit BUS SERVICE

The actual on-board bus survey is shown in Figure A.1. For each question, the following are provided: **Purpose** (a brief explanation of why the question was asked, **Results** (a brief summary of the main results) and **Significance** (an assessment of what the results mean for GATEWAY Transit).

Figure A.1: GATEWAY Transit Bus Service On-Board Survey

GATEWAY Bus Service On-Board Rider Survey

GATEWAY Goldsboro-Wayne Transportation Authority

Please help improve the service. All responses are confidential.

1. How did you get to the bus stop for this trip?
   - □ Walked □ Bicycled □ Drove alone
   - □ Was dropped off □ Taxi □ Transferred from another bus

2. What is the purpose of this trip?
   - □ Work □ School □ Recreation/Social
   - □ Shopping □ Medical/Dental Services □ Human/Social Services
   - □ Personal Business

3. Why did you choose to ride the GATEWAY Bus service for this trip? Mark all that apply.
   - □ Disability □ Limited mobility □ Lack of alternatives
   - □ Cost of service □ Environmental □ Convenience
   - □ Avoid traffic

4. If the GATEWAY Bus service did not exist, how would you have made this trip?
   - □ GATEWAY Van service □ WayneNET Van service □ Greyhound Bus service
   - □ Walk □ Bicycle □ Drive alone
   - □ Ride with someone □ Taxi □ Buy or rent a car
   - □ I would have sent someone on this trip for me □ I would not have made this trip

5. How long have you been riding the GATEWAY Bus service?
   - □ Less than 1 year □ 1-3 years □ More than 3 years

6. On average, how often do you ride each of the following Wayne County public transit services?

	5+ per week	2-4 per week	1-4 per month	Occasionally	Never
GATEWAY Bus: Berkeley Mall	□	□	□	□	□
North End	□	□	□	□	□
Slocumb Street	□	□	□	□	□
Wayne Memorial	□	□	□	□	□
GATEWAY Van	□	□	□	□	□
WayneNet Van	□	□	□	□	□
Greyhound Bus	□	□	□	□	□

7. Please indicate your opinion of the following GATEWAY Bus service qualities.

	Excellent	Good	Average	Fair	Poor	No Opinion
Driver courtesy	□	□	□	□	□	□
Comfort: Buses	□	□	□	□	□	□
Bus stops	□	□	□	□	□	□
Transfer facility	□	□	□	□	□	□
Cost to ride	□	□	□	□	□	□
Hours of service	□	□	□	□	□	□
Places served	□	□	□	□	□	□
Service: Convenience	□	□	□	□	□	□
Frequency	□	□	□	□	□	□
Reliability	□	□	□	□	□	□
Safety	□	□	□	□	□	□
Schedule/information: Telephone	□	□	□	□	□	□
Printed	□	□	□	□	□	□

Please turn over →

GATEWAY Bus Service On-Board Rider Survey

GATEWAY Goldsboro-Wayne Transportation Authority

Please help improve the service. All responses are confidential.

8. Overall, how do you rate the GATEWAY Bus service?
   □ Excellent □ Good □ Average □ Fair □ Poor

9. Are there any locations inside or outside Wayne County that need GATEWAY Bus service – if so, which ones? Please provide city and destination name (ex. Courthouse) or major cross streets.

   Location:_____

   Location:_____

   Location:_____

   Location:_____

10. If the following improvements were made, how many additional trips would you make, on average?

	5+ per week	2-4 per week	1-4 per month	Occasional	None
More courteous drivers	□	□	□	□	□
More comfortable: Buses	□	□	□	□	□
Bus stops	□	□	□	□	□
Transfer facility	□	□	□	□	□
Bicycle racks on buses	□	□	□	□	□
Lower cost to ride: Regular fare	□	□	□	□	□
Monthly ride pass	□	□	□	□	□
Student ride pass	□	□	□	□	□
Youth ride pass	□	□	□	□	□
Longer service hours: Weekday AM	□	□	□	□	□
Weekday PM	□	□	□	□	□
Weekend AM	□	□	□	□	□
Weekend PM	□	□	□	□	□
More places served: Wayne County	□	□	□	□	□
Outside Wayne Co.	□	□	□	□	□
Goldsboro	□	□	□	□	□
Triangle region	□	□	□	□	□
Amtrak (Selma)	□	□	□	□	□
Increased: Convenience	□	□	□	□	□
Frequency	□	□	□	□	□
Reliability	□	□	□	□	□
Safety	□	□	□	□	□
Better schedule/information: Telephone	□	□	□	□	□
Printed	□	□	□	□	□
On-line	□	□	□	□	□

11. Please provide any other comments or suggestions:_____

_____

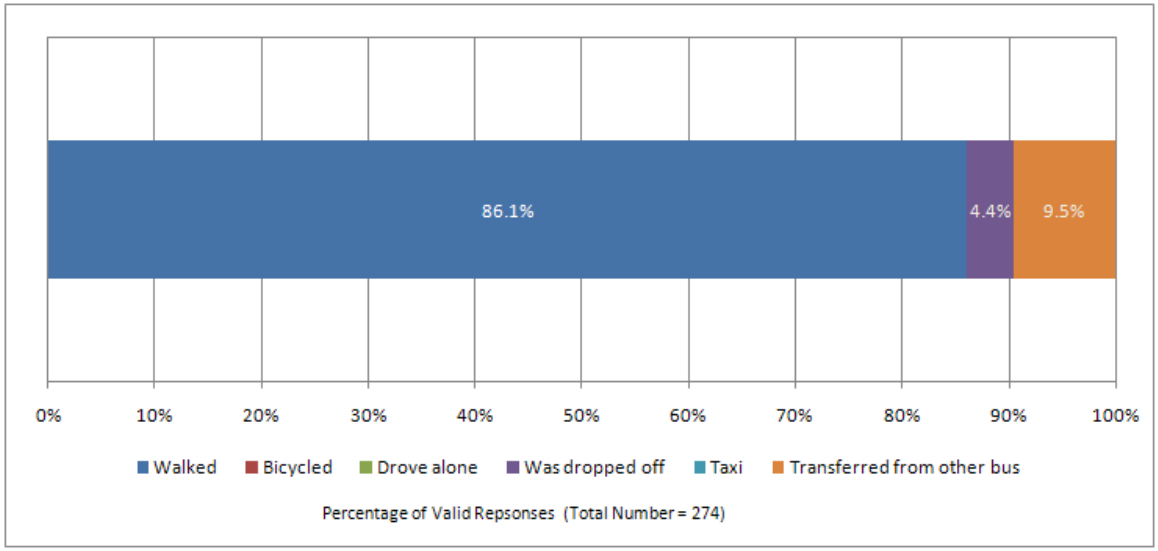
_____

_____

Thank you for participating. If you have any questions, comments, or suggestions, please contact Greg Saur at: 919-829-0328 (p) or transit@mabtrans.com.

A.4.1 How did you get to the bus stop for this trip?

Figure A.2: GATEWAY Transit Bus Service On-Board Survey: Question 1



Purpose:

To understand how riders get to GATEWAY Transit bus stops.

Results:

The vast majority of the respondents, 86.1 percent, reached their respective GATEWAY Transit's bus stops by walking (see Figure A.2). The second most popular mode utilized by the riders was an actual transfer from another bus (presumably at the Transfer Center) – 9.5 percent used this method to get to their GATEWAY Transit bus stop. Lastly, 4.4 percent were dropped off at the bus stop, which means someone with access to a vehicle drove them to their bus stop.

Notably, none of the surveyed riders bicycled, drove alone, or took a cab in order to get to the bus stops.

Significance:

It is not surprising that the majority of riders walked to their bus stops. It is the most affordable transportation mode easily accessible to most people. It should be recognized that although sidewalks' condition in Goldsboro is generally fair, many of the roadways served by GATEWAY Transit Bus/Van service lack suitable pedestrian facilities.

It would be expected that at least some of the respondents would bicycle to their bus stops – it is necessary to investigate bicycle conditions in Wayne County to understand whether they are conducive to bicycling and whether bicycle racks installed at bus stops / transfer station and on actual buses would promote bicycling as one of the means to get to Transit stops.

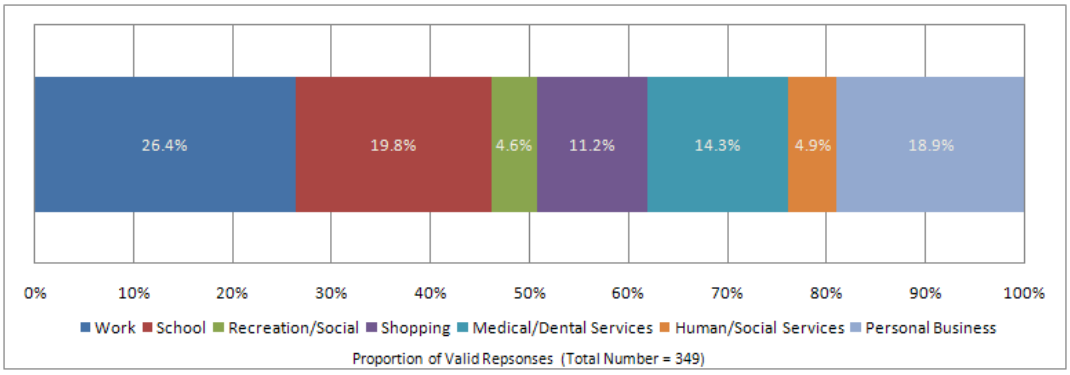
In general, there should be a comprehensive planning effort to improve pedestrian/bicycle facilities in Wayne County.

However, although none of the respondents took a cab to *get* to the bus stops, it should be noted some of the respondents mentioned taking a taxi in lieu of return bus trip. This is most likely due to the lack of sufficient late evening GATEWAY Transit Bus service.

The fact that none of the surveyed riders drove alone, or took a cab in order to get to the bus stops actually makes sense given the economics of those transportation modes – they are essentially much more expensive than in comparison to walking.

A.4.2 What is the purpose of this trip?

Figure A.3: GATEWAY Transit Bus Service On-Board Survey: Question 2



Purpose:

To find out the Transit trip purpose(s) and get an idea about the type of trips' Origins/Destinations.

Results:

As seen in Figure A.3, the greatest proportion of the trips, 26.4 percent, was for work purposes. About 19.8 percent of the trips were to and from school, 14.3 percent for medical/dental services, while 11.2 percent were for shopping purposes. Lastly, about 10 percent of the trips were for human/social services and recreation/social purposes.

We can separate the types of riders who utilize GATEWAY Transit services into three distinct groups: regular riders who take GATEWAY Transit service to get to work and school; scheduled riders who use GATEWAY Transit for medical/dental services and human/social services, and variable riders who use GATEWAY Transit services for personal business and recreation/social reasons, as well shopping trips.

Regular riders constitute about 46.2 percent of the surveys sample pool of riders (or, to be more precise, valid responses since the riders had the option to choose more than one category when answering the question), followed by variable riders who comprise 34.6 percent, and, lastly, scheduled riders at 19.2 percent.

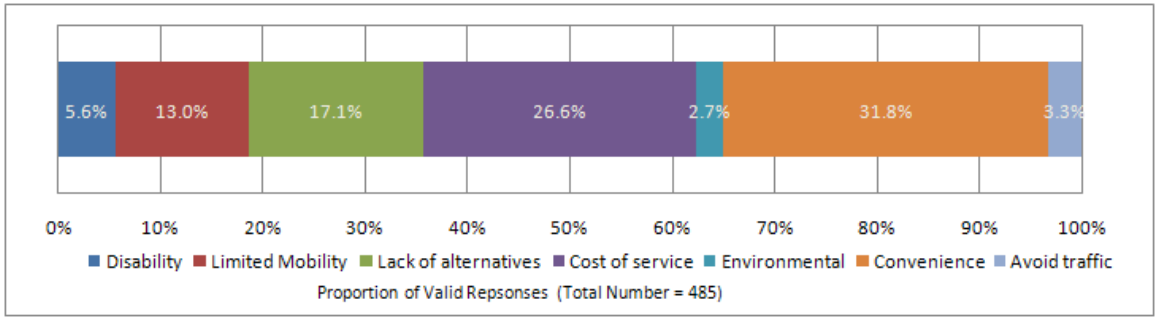
Significance:

The GATEWAY Transit Bus service trips are spread among all purposes, with regular riders comprising nearly half of all respondents, and scheduled riders constituting nearly 20 percent of the ridership base.

Thus, Transit fulfills critical mobility need for residents (workers, students, hospital/clinic patients, etc).

A.4.3 Why did you choose to ride the GATEWAY Transit bus for this trip this trip? Mark all that apply.

Figure A.4: GATEWAY Transit Bus Service On-Board Survey: Question 3



Purpose:

To understand the reason(s) behind the decision to ride GATEWAY Transit Bus. To separate captive (Transit dependent) versus choice riders.

Results:

As seen in Figure A.4, the majority of GATEWAY Transit bus riders are captive riders who fully depend on Transit due to disability, limited mobility, lack of alternatives and lack of funds to pursue them. In fact, 62.3 percent of the responses could be categorized as being from captive riders (disability, limited mobility, lack of alternatives, cost of service). The remaining 37.7 percent were choice riders who deliberately chose to ride GATEWAY Transit either because they perceived the service to be convenient, environmentally-friendly, or to avoid traffic.

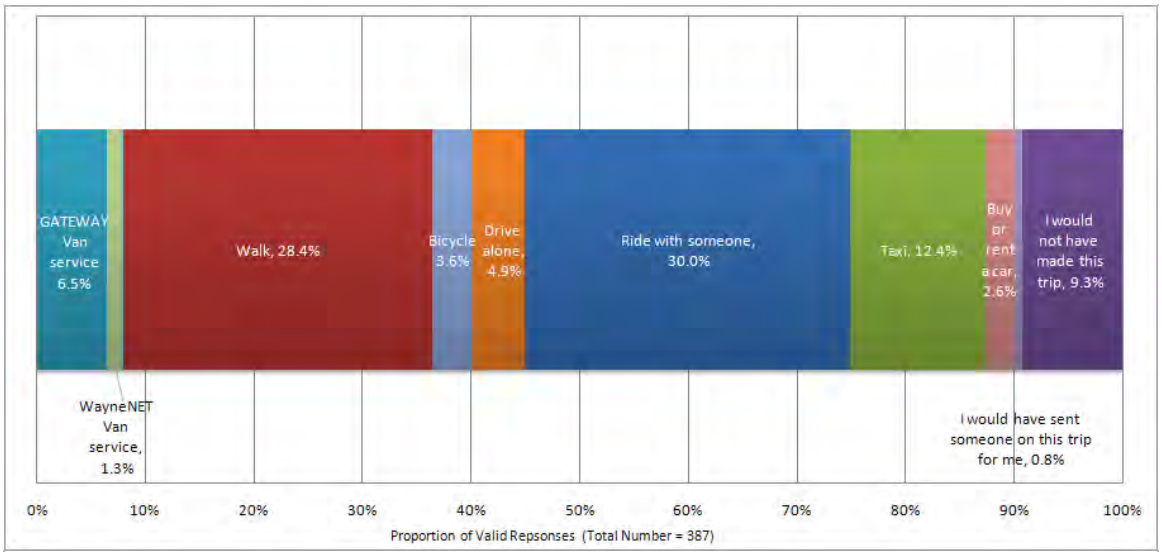
In terms of individual categories, the greatest proportion of the responses, 31.8 percent, pointed to convenience as the main factor that influenced their decision to ride GATEWAY Transit buses. The cost of service was a significant factor as well, at 26.6 percent of the total proportion of responses. Lack of alternatives and limited mobility combined amounted to a staggering 30 percent of the proportion of all responses. Disability was a factor for 5.6 percent of the proportion of responses, while avoiding traffic and environmental reasons were at 3.3 percent and 2.7 percent, respectively.

Significance:

The majority of the riders were captive riders and thus GATEWAY Transit needs to strive to serve their needs first, followed by accommodating choice riders who comprised the minority of the respondents.

A.4.4 If the GATEWAY Transit Bus service did not exist, how would you have made this trip?

Figure A.5: GATEWAY Transit Bus Service On-Board Survey: Question 4



Purpose:

To find out how riders would have made the trip if Transit services were not available. To find out the relationship between captive and choice riders. To understand alternative transportation options.

Results:

The result are shown in Figure A.5. Captive riders: about 9.3 percent of the respondents would not make the trip if the service was not available and 0.8 percent would have sent someone else on this trip for them – presumably someone with access to a vehicle. Thus, 10 percent of the respondents would probably not have made the trip at all if GATEWAY Transit Bus service was not available. An additional 6.5 percent would have relied on GATEWAY Transit Van service instead, while 1.3 percent would have used WayneNET Van service. In addition, 30 percent of the respondents would get a ride from someone else, 12.4 percent would take a cab, and 0.3 percent would utilize existing Greyhound Bus service.

In terms of choice riders, some of them would opt to drive if the GATEWAY Transit services were not available: nearly 5 percent of the respondents stated they would choose to drive alone, while 2.6 percent would rather rent or buy a vehicle. Non-motorized transportation would be the mode of choice for 32 percent of the surveyed respondents; if GATEWAY Transit Bus service was not available, 28.4 percent would walk to their destinations while 3.6 percent would bicycle instead (the latter finding is quite surprising considering that none of the respondents actually bicycle to the bus stops –see Question 1).

Significance:

The riders who indicated that they would not have made the trip at all (9.3 percent) are particularly important as those riders' mobility would be reduced if the GATEWAY Transit Bus service was not available. These riders essentially have no other means of traveling – they have very limited mobility options.

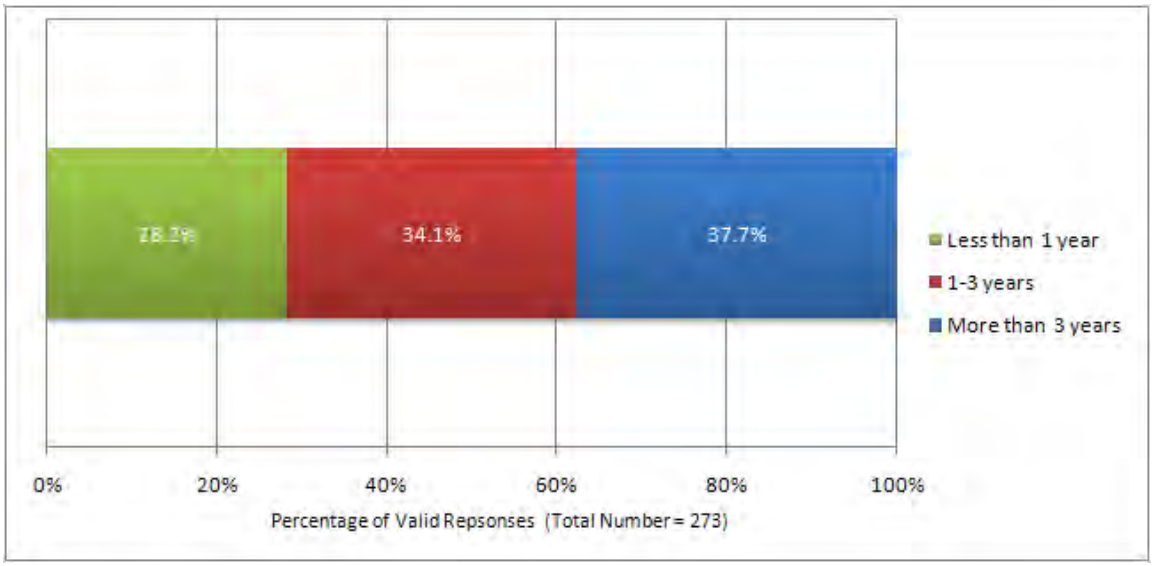
The fact that nearly 30 percent of the riders would choose to walk if the bus service was not available points to the importance of creating and sustaining a suitable pedestrian-friendly environment in and around Goldsboro (this premise is further supported by the fact that 86 percent of GATEWAY Transit users actually walked to their bus stops as well - see Question 1). In addition, it suggests that at least some of the bus trips' distances might not be very enormous since the riders would seriously consider walking instead.

On the other hand, the data might also suggest that walking would be chosen because other alternatives such as taxi or buying/renting a car would be too costly. In effect, people would walk because that is the only mode of transportation that is affordable.

Lastly, it is important to recognize that about 8 percent of the respondents would still choose other existing Transit services in the area even if GATEWAY Transit Bus service was not available (GATEWAY Transit Van service, Wayne NET Van service, Greyhound Bus service). These riders are likely to either be very much dependent on Transit for their daily needs and/or like using Transit in general (likely prefer to use Transit over other modes).

A.4.5 How long have you been riding the GATEWAY Transit Bus service?

Figure A.6: GATEWAY Transit Bus Service On-Board Survey: Question 5



Purpose:

To find out how long the riders have been patrons of the GATEWAY Transit Bus service and if their experiences with the service have been satisfactory enough to be retained as loyal riders.

Results:

As shown in Figure A.6, about 28.2 percent of the riders are fairly new to the bus system as they have been riding it for less than 1 year. More than 34 percent have used it for 1 to 3 years and close to 38 percent have used it for more than 3 years and about.

Overall, nearly 72 percent of the surveyed riders have been using GATEWAY Transit Bus service for longer than 1 year.

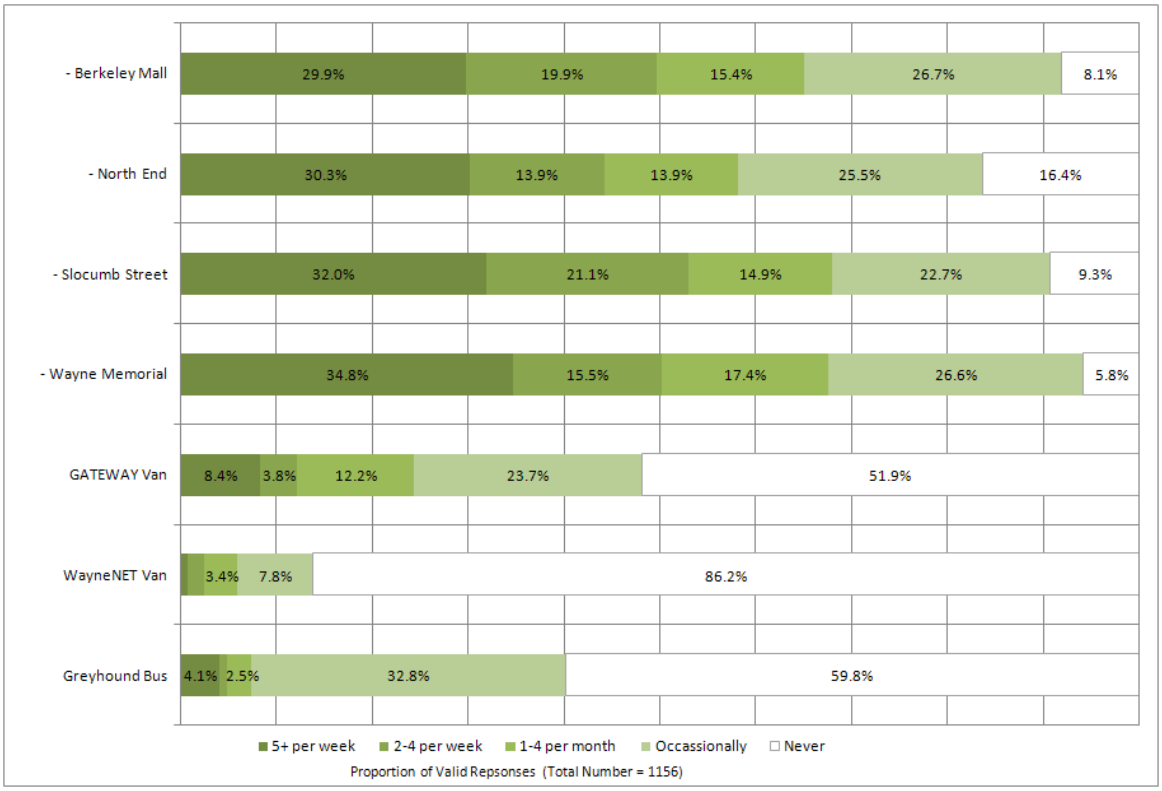
Significance:

The GATEWAY Transit Bus service riders are mostly established riders who have been utilizing the service for a long time. This points out the important role the service plays in those people's daily lives - i.e. they are used to riding a bus and expect the service to continue, improve and expand. It also suggests the actual high quality of service since these are all return riders who have used GATEWAY Transit for a long time.

As important is the fact that nearly one in every three surveyed riders is fairly new to the GATEWAY Transit Bus service – these riders are likely to be retained if the service continues improving and they perceive it be a viable alternative to other modes of transportation available to them in the future. This segment of riders presents an opportunity to GATEWAY Transit to increase the pool of riders utilizing the system on a regular basis in the future, especially if significant improvements would be made to the GATEWAY Transit system and if the gasoline prices return and/or the economy does not improve significantly.

A.4.6 On average, how often do you ride each of the following Wayne County public Transit services?

Figure A.7: GATEWAY Transit Bus Service On-Board Survey: Question 6



On average, how often do you ride each of the following Wayne County public transit services?					
	5+ per week	2-4 per week	1-4 per month	Occassionally	Never
GATEWAY Bus:					
- Berkeley Mall	29.9%	19.9%	15.4%	26.7%	8.1%
- North End	30.3%	13.9%	13.9%	25.5%	16.4%
- Slocumb Street	32.0%	21.1%	14.9%	22.7%	9.3%
- Wayne Memorial	34.8%	15.5%	17.4%	26.6%	5.8%
GATEWAY Van	8.4%	3.8%	12.2%	23.7%	51.9%
WayneNET Van	0.9%	1.7%	3.4%	7.8%	86.2%
Greyhound Bus	4.1%	0.8%	2.5%	32.8%	59.8%

Purpose:

To find out how often riders use bus service as well as all other Wayne County public Transit services.

Results:

The results are shown in Figure A.7. If we separate the results into three distinct categories: regular riders (those who ride GATEWAY Transit buses 2-4 times per week or more); occasional riders (who ride it 1-4 per month /occasionally) and non-riders (who never ride GATEWAY Transit or never take certain GATEWAY Transit routes /do not utilize other Transit services available in Wayne County), we can conclude that:

Regular riders tend to regularly patronize GATEWAY Transit fixed bus routes, with the North End route being the most popular, followed by Slocumb Street, Wayne Memorial, and Berkeley Mall. Overall, none of the GATEWAY Transit Bus routes stands out as strikingly more popular than the others, likely due to the fact that many of the respondents' trips encompassed 2 routes as they included transfer trips in their responses.

About 12.2 percent of regular riders also ride GATEWAY Transit Van, while 4.9 percent of them also use Greyhound Bus on a regular basis. The latter finding is surprising considering the fact there is no local Greyhound service within the City of Goldsboro and Wayne County. This suggests that some riders use Greyhound to travel regionally quite frequently. Lastly, only 2.2 percent of regular riders frequently utilize WayneNET Van service.

In terms of occasional riders, GATEWAY Transit fixed bus routes are still the most populat public Transit option in the County, but GATEWAY Transit Van and Greyhound Bus service are nearly as popular. In fact, about 35 percent of the surveyed people ride GATEWAY Transit Van and Greyhound Bus occasionally, this is on par with their occasional usage of Slocumb Street and North End GATEWAY Transit Bus routes. Overall,

WayneNET Van service is used the least by occasional riders out of all public Transit options available in Wayne County (similarly to regular riders' infrequent use of that service).

Lastly, non-riders tend to use WayNET Van, Greyhound Bus and GATEWAY Transit Van services only sporadically in Wayne County, suggesting that these riders essentially patronize GATEWAY Transit Bus service almost exclusively.

Significance:

The data suggests that all GATEWAY Transit fixed bus routes are nearly equally important since the riders use them all very frequently. The 'North End' route is used less frequently when compared to others as more than 40 percent of the respondents claim to use it only occasionally at most. This might suggest that the route needs to be rerouted in order to serve more focal points and capture more captive riders / increase future ridership levels. During the actual surveying process, it was observed that the 'Wayne Memorial' and 'Berkeley Mall' routes' buses seemed to be the most crowded.

About 12.2 percent of regular riders use GATEWAY Transit Van regularly, suggesting cross-usage of services. On the other hand, more than half of the riders *never* use GATEWAY Transit Van service. The GATEWAY Transit Van's fairly high frequency of use suggests there exists a market for the service among a certain group of users – thus, the kind of users riding the GATAWAY Van could be targeted and service further tailored to suit their needs. One option would involve using a dedicated bus route to serve the van needs in Goldsboro or at least modifying one or more of the existing GATEWAY Transit Bus routes to capture those riders.

Wayne Net Van is even less popular with riders, perhaps due to the fact that it is a costly Transit option and that many people actually use it for out of county travel since otherwise GATEWAY Transit Bus service is available for the most part.

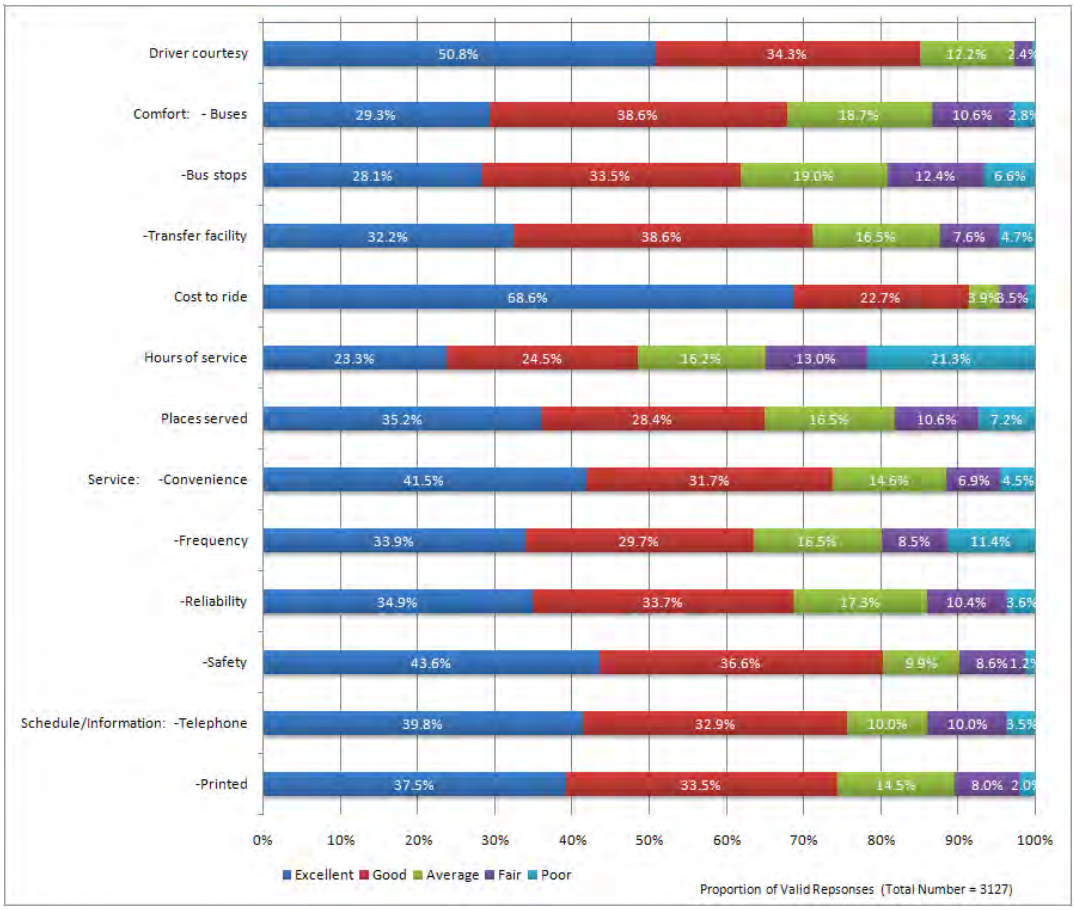
While about 5 percent of the respondents claimed to ride Greyhound Bus 5 on a regular basis (suggesting that those people use Greyhound Bus in the region – perhaps to get to and from Goldsboro as there exists no service within the city itself), close to 93 percent of the riders claim to use it only occasionally at most.

Lastly, the fact that nearly one in every three surveyed riders is fairly new to the GATEWAY Transit Bus service should not be underestimated – these riders are likely to be retained if the service continues improving and they perceive it be a viable alternative to other modes of transportation available to them in the future.

A.4.7 Please indicate your opinion of the following GATEWAY Transit Bus service qualities?

Figure A.8: GATEWAY Transit Bus Service On-Board Survey: Question 7

Please indicate your opinion of the following GATEWAY Bus service qualities.	Excellent	Good	Average	Fair	Poor	No opinion
Driver courtesy	50.8%	34.3%	12.2%	2.4%	0.4%	0.0%
Comfort: - Buses	29.3%	38.6%	18.7%	10.6%	2.8%	0.0%
-Bus stops	28.1%	33.5%	19.0%	12.4%	6.6%	0.4%
-Transfer facility	32.2%	38.6%	16.5%	7.6%	4.7%	0.4%
Cost to ride	68.6%	22.7%	3.9%	3.5%	1.2%	0.0%
Hours of service	23.3%	24.5%	16.2%	13.0%	21.3%	1.6%
Places served	35.2%	28.4%	16.5%	10.6%	7.2%	2.1%
Service: -Convenience	41.5%	31.7%	14.6%	6.9%	4.5%	0.8%
-Frequency	33.9%	29.7%	16.5%	8.5%	11.4%	0.0%
-Reliability	34.9%	33.7%	17.3%	10.4%	3.6%	0.0%
-Safety	43.6%	36.6%	9.9%	8.6%	1.2%	0.0%
Schedule/Information: -Telephone	39.8%	32.9%	10.0%	10.0%	3.5%	3.9%
-Printed	37.5%	33.5%	14.5%	8.0%	2.0%	4.5%



Purpose:

To understand the riders' perceptions of the current quality of the GATEWAY Transit services rendered to them and to know which of these qualities need improvements.

Results:

Overall, as shown in Figure A.8, three qualities received 80 percent plus 'better than average' rating (good or excellent): cost to ride, safety, and driver courtesy. In terms of 'comfort,' about 66.8 percent of the riders rated the buses, bus stops, and transfer facility as better than average (good or better). However, 19 percent of riders perceived the bus stops to be below average (fair or poor rating) in terms of quality, and 13.4 percent thought the same of the GATEWAY Transit buses.

The riders were generally very pleased with the costs of service, with 91.3 percent of them assigning it an above average rating (good or better), but they were actually quite dissatisfied with the hours of service and places served. Alarmingly, 21.3 percent of the riders thought the hours of service were 'poor' and nearly 35 percent of the respondents perceived the hours of service were worse than average ('fair' or 'poor'). The riders were less displeased with places served by the GATEWAY Transit Bus system but, nonetheless, 27 percent of the riders perceived that aspect of the GATEWAY Transit Bus service to be below average ('fair' or 'poor').

In terms of service convenience, frequency, reliability, and safety, the riders were most pleased with safety aspect of service, with 80 percent of the respondents giving it an 'excellent' or 'good' rating (better than average), and still quite pleased with convenience with 73 percent of the respondents rating it in the same manner. The riders perceived the GATEWAY Transit Bus service to be quite reliable, with 68.6 percent rating that quality of service as above average ('excellent' or 'good'). However, 19.9 percent of the riders also thought frequency of service was worse than average ('fair' or 'poor'), and 10.4 percent of the riders also gave reliability the same kind of rating. Altogether, the frequency of service was the service quality that the riders thought needed the most improvement.

Lastly, in terms of schedule/information, the riders were generally satisfied with these service qualities, with more than 70 percent rating them as above average (either 'excellent' or 'good' rating).

Significance:

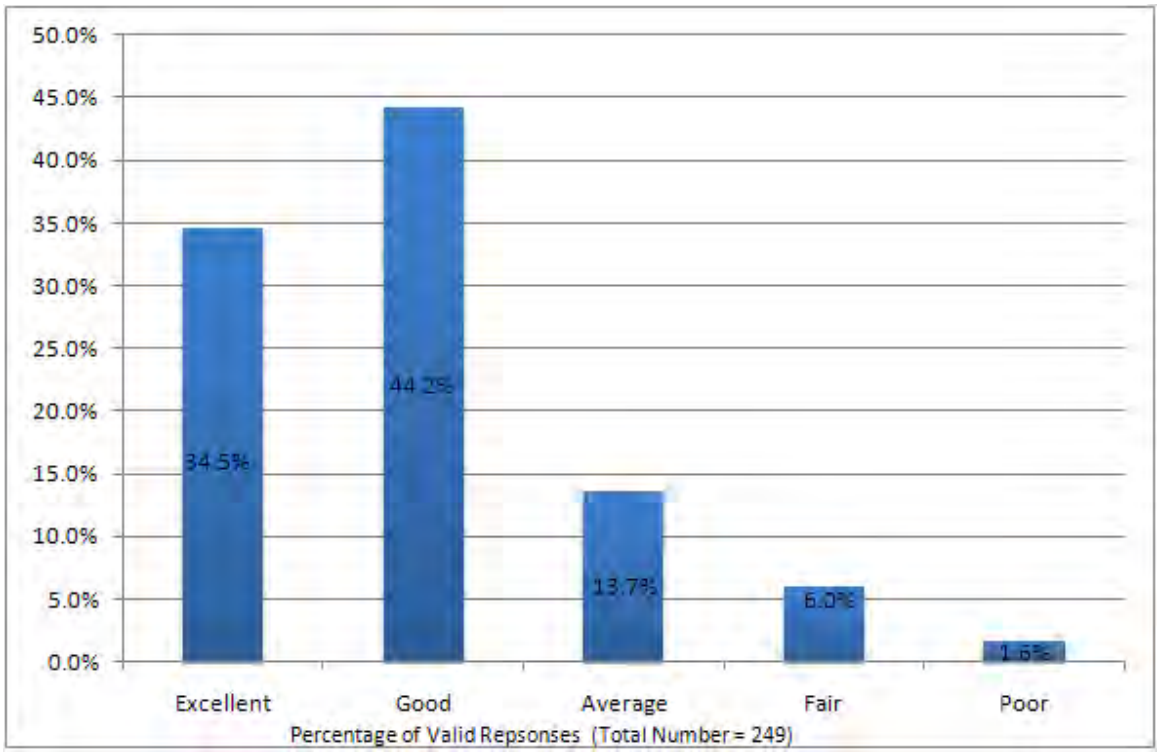
The overall data suggest that service is perceived to be good (*note: this perception is further confirmed in the answers given to Question 8 below*). The riders are particularly satisfied with the cost of service, giving high ratings to the safety aspect of service and acknowledging high level of driver courtesy.

However, the results also suggest that the two qualities in need of improvement are the hours or service and frequency of service. The field data and observations suggest that the riders are specifically not satisfied with the lack of late evening and Sunday service and that one hour service headways seem not to be adequate, particularly in terms of 'Wayne Memorial' and 'Berkeley Mall' routes. In terms of reliability, the riders might specifically refer to the fact that the buses often arrive late at the transfer center and cause delays on all four routes, as none of the buses can depart until all arrive at the transfer center allowing the riders to transfer.

Comfort-wise, the actual bus vehicles could use improvements / could be upgraded – the riders complained about the width of the seats, unnecessary seat belts, and lack of overhead handles. The bus stops could use better markings (including pavement markings) and more actual bus shelters could be installed as well.

A.4.8 Overall, how do you rate the GATEWAY Transit Bus service?

Figure A.9: GATEWAY Transit Bus Service On-Board Survey: Question 8



Purpose:

To understand the riders' overall impression of the current GATEWAY Transit Bus service.

Results:

Overall, as shown in Figure A.9, about 78.7 percent of the riders thought GATEWAY Transit Bus service was above average ('excellent' or 'good' rating), and about 13.7 percent thought the service was average. Lastly, about 7.6 percent of the respondents perceived the service overall to be below average ('fair' or 'poor' rating).

Significance:

The data suggest that the riders generally rate the GATEWAY Transit Bus service as quite 'good.' However, this question is very general in nature, and the riders' answers to more specific Questions 7 and 10 also point out that perhaps the surveyed respondents were a bit too optimistic / generous when answering Question 8. In fact, it is likely that humans tend to remember specific issues (i.e. dislikes of the bus service) associated with service much better and point them out if specific questions listing them are asked.

A.4.9 Are there any locations inside or outside Wayne County that need GATEWAY Transit Bus service – if so, which ones? Please provide city and destination name (ex. Courthouse) or major cross streets.

Purpose:

To find out the riders' opinion about the areas/places where the GATEWAY Transit Bus service might be needed.

Results:

A variety of responses were given (see below), but the two areas the riders noted as needing the GATEWAY Transit Bus service the most were Dudley and Mt. Olive. However, it is worth noting that GATEWAY Transit Bus service has actually started to Dudley and Mt. Olive since the survey was administered.

Royall Avenue was requested twice. It is not clear which locations on Royall Avenue were in the riders' minds; GATEWAY Transit currently serves part of Royall Avenue directly. The Assisted Living Center, which is on Royall Avenue was also requested; this is not currently served by GATEWAY Transit routes.

The Butterball factory was requested twice.

The school area on New Hope Road was requested twice – possibly three times if the request for New Hope Road also referred to this area.

Locations that need GATEWAY Transit service as requested by the surveyed passengers (Question 9):

Request	Notes
Dudley and Mt. Olive	
LaGrange	
US Highway 70 / Rosewood	
Raleigh, Pikesville, Freemont, Pittsville, Greenville, Smithfield, Kinston, Greensboro	
Royal Ave	i.e. Royall Ave
Arrington Bridge Rd	
New Hope Road area	
Ditch Bank Road	i..e. Ditchbank Road
Sycamore St	
Walnut Creek area	
Royall Ave	
Down past Eastern Wayne High School	
Pineview Avenue	
US Highway 111	
Berkley Commons	
Mar-Mac	
Piedmont Airline [Road]	
Butterball Turkey	
Chicken plant	Presumably means Butterball

Dollar General across from Wal-Mart	
E. Wayne Elementary	
Lincoln Apts.	Presumably refers to Lincoln Drive housing
Mimosa Park	
At Walgreen and Blowland	
Piggly Wiggly (seating needed)	Location is already served; comment appears to relate to bus stop facilities
Case Farms	Not mapped - could refer to any of several locations
Mitchell hair school	Spence Ave retail area, near Wal-Mart
AT&T	
Ollies	Spence Ave retail area, near Wal-Mart
DMV	Most likely refers to driver license office, 701 W Grantham St
Senior Center	Most likely refers to Goldsboro Assisted Living and Alzheimer's Care, on Royall Ave

Significance:

A variety of responses suggest that there are many destinations currently not served by GATEWAY Transit Bus service with demand for Transit. If the demand is analyzed and service warranted, these destinations should be serviced by GATEWAY Transit Bus Transit in the future.

A.4.10 If the following improvements were made, how many additional trips would you make, on average?

Purpose:

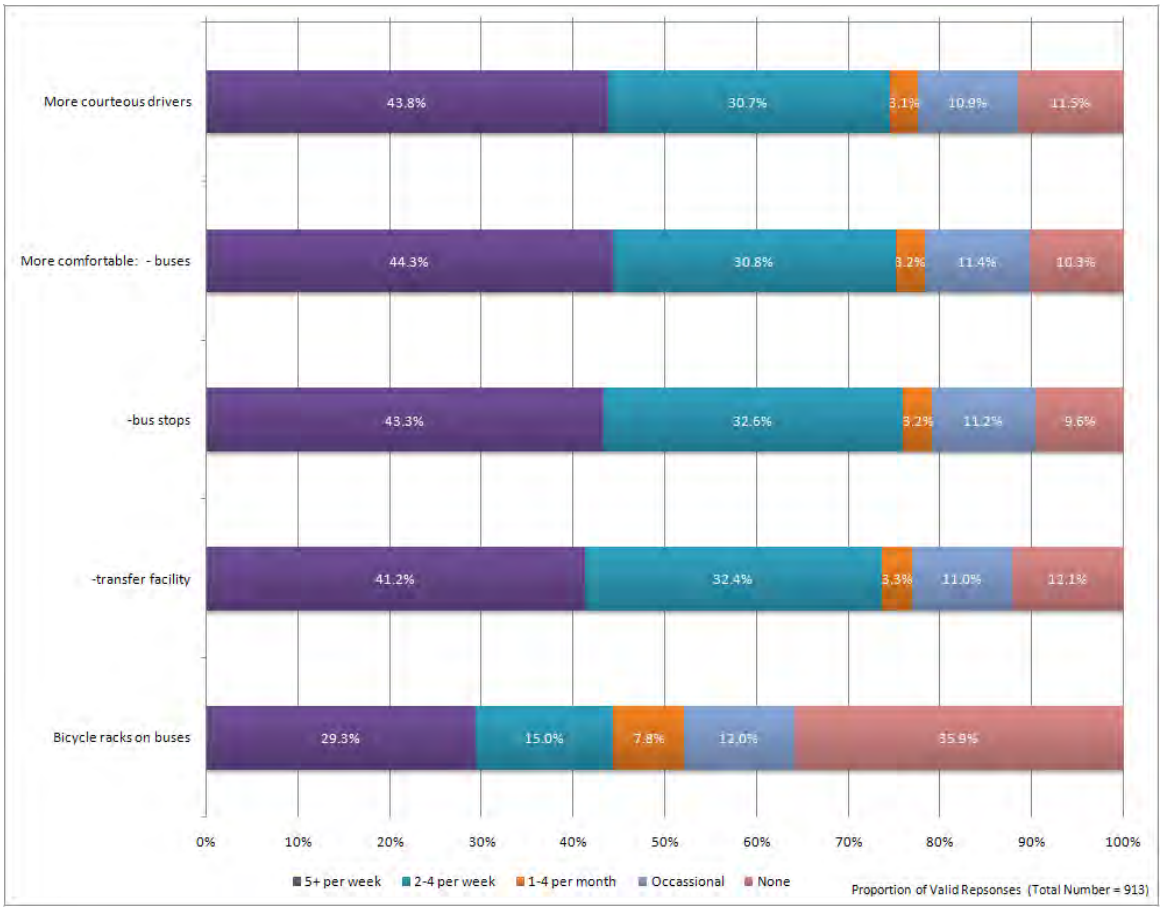
To find what types of service improvements could result in increased ridership levels.

Results:

Note: results were broken into 6 distinct sub-categories.

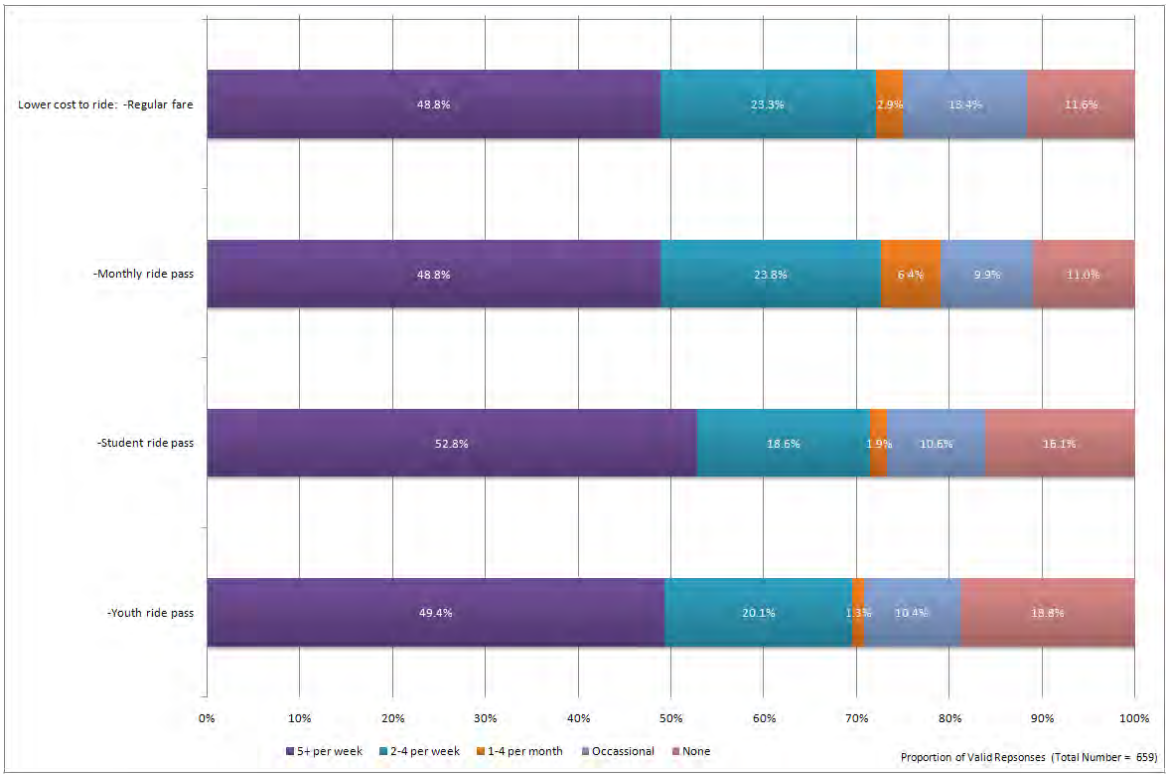
If we separate the results of each subcategory into three distinct groups: regular riders (those who ride GATEWAY Transit buses 2-4 times per week or more); occasional riders (who ride it 1-4 per month /occasionally) and non-riders (who never ride GATEWAY Transit or never take certain GATEWAY Transit routes /do not utilize other Transit services available in Wayne County), we can conclude that:

Figure A.10a: GATEWAY Transit Bus Service On-Board Survey: Question 10



Comfort-wise (see Figure A.10a), there was not a single improvement that particularly stood out, but about 75 percent of the riders claimed that more courteous drivers, more comfortable buses and bus stops, and a nicer transfer facility would result in them becoming *regular riders* (take at least additional 2-4 Transit trips per week). Close to 45 percent of the surveyed riders would be more likely to become regular riders if bicycle racks were installed on buses.

Figure A.10b: GATEWAY Transit Bus Service On-Board Survey: Question 10



The riders were generally fairly satisfied with the current cost of GATEWAY Transit Bus service (see Figure A.10b). Roughly 75 percent of all respondents claimed they would become *regular riders* (make at least 2-4 or more Transit trips per week) if some sort of a fare discount was implemented – either in the form of a weekly/monthly pass or an actual single ride fare decrease. In terms of cost reduction, the student ride pass has a slight edge in the number of positive responses among the other options presented in the survey. This exemplifies the importance of the Wayne County Community College as one of the focal points in the GATEWAY Transit Bus service system – community college students comprise a large portion of the GATEWAY Transit riders particularly on the 'Wayne Memorial' route and evidence suggests they would be more likely to use the service even

more if there existed a student ride pass. The youth pass was the kind of a discount pass least likely to induce more ridership as 18.8 percent of the respondents claimed they would not make any additional trips if that kind of pass existed (of course, one of the limitations of the survey is the fact that the actual respondents *belonged* to one of the specific demographic groups: adults, students, and youth riders. Thus, it was likely their choice of answer was influenced by their age or whether they were enrolled in school as the pass offered specifically for them would essentially lower their ride cost).

Overall, as shown in Figure A.10c, responses suggest that extended service hours and providing service on the weekends could result in increased ridership levels. In particular, nearly 76 percent of the respondents claimed that longer evening weekday and weekend service hours would result in them becoming regular GATEWAY Transit riders (taking additional 2-4 or more trips on average per week). In addition, only about 8 percent of the respondents would *not* make any additional Transit trips if the weekday/weekend evening hours of service were to be extended.

Figure A.10c: GATEWAY Transit Bus Service On-Board Survey: Question 10

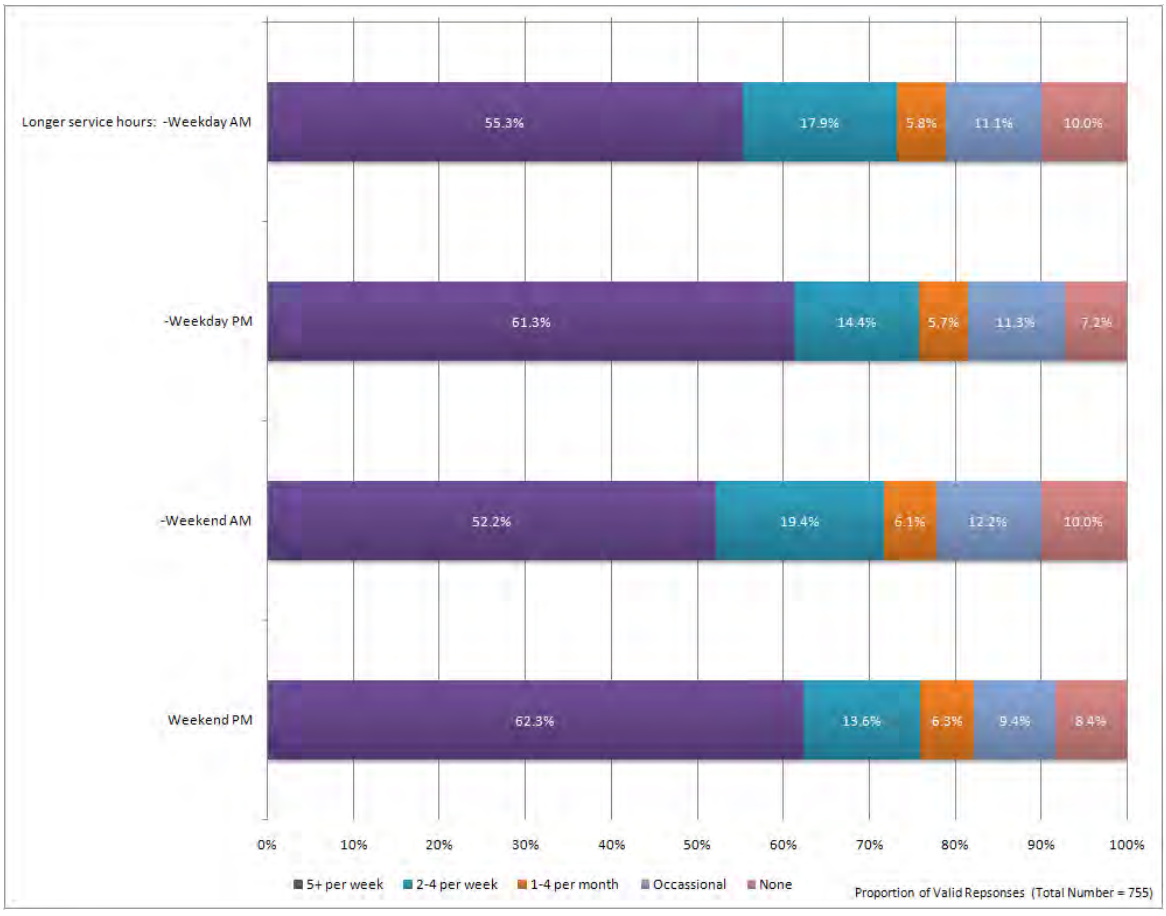
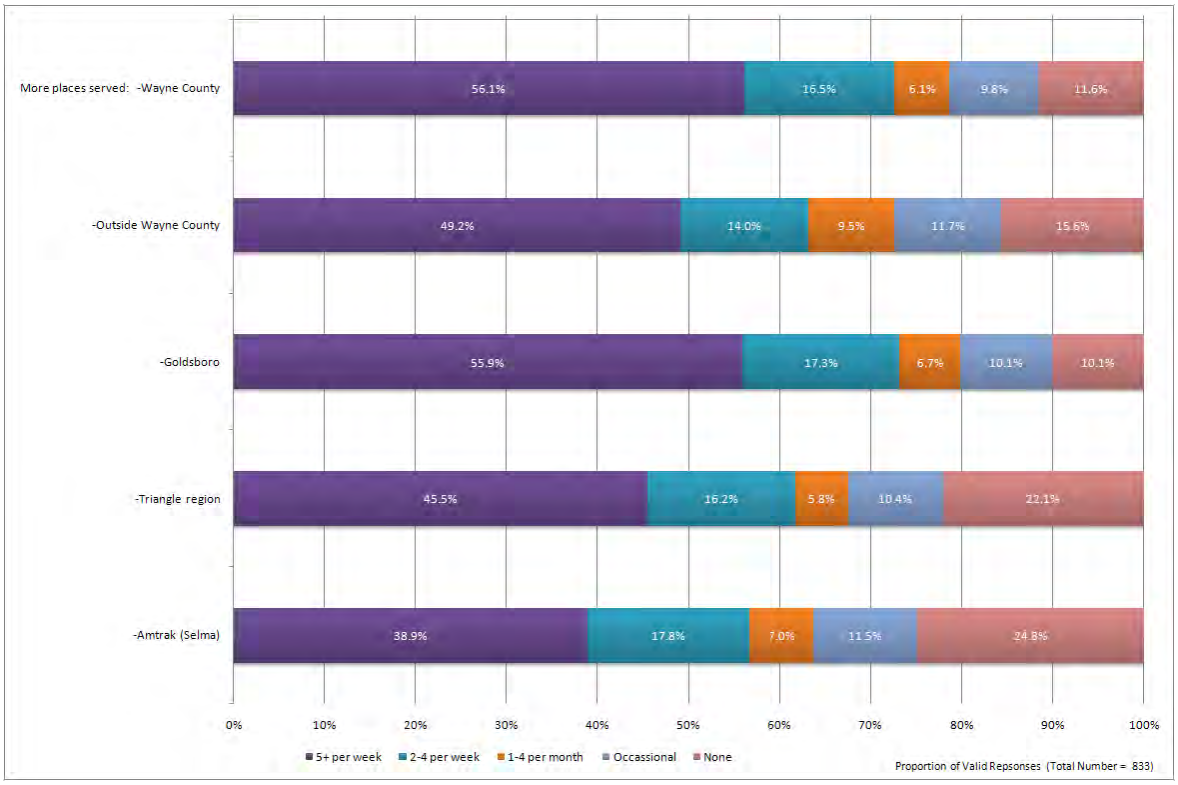
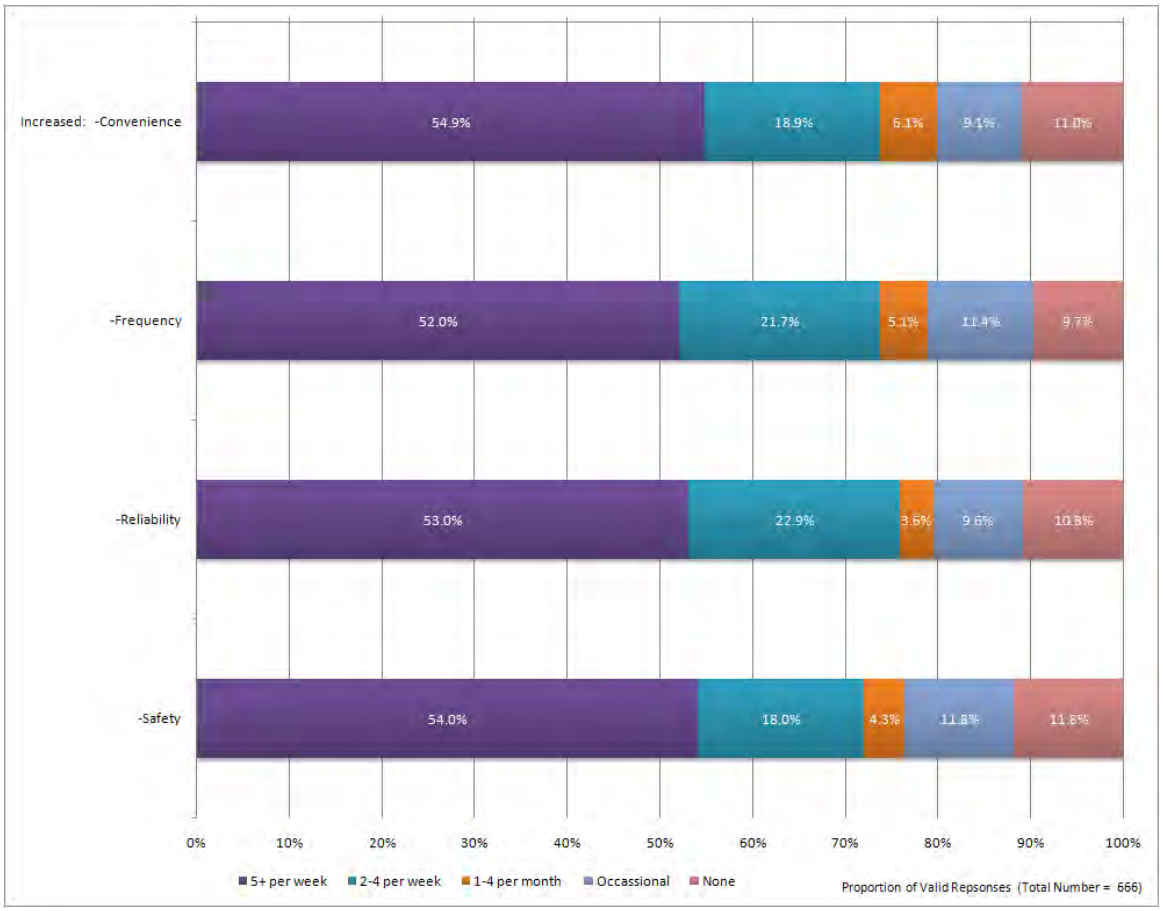


Figure A.10d: GATEWAY Transit Bus Service On-Board Survey: Question 10



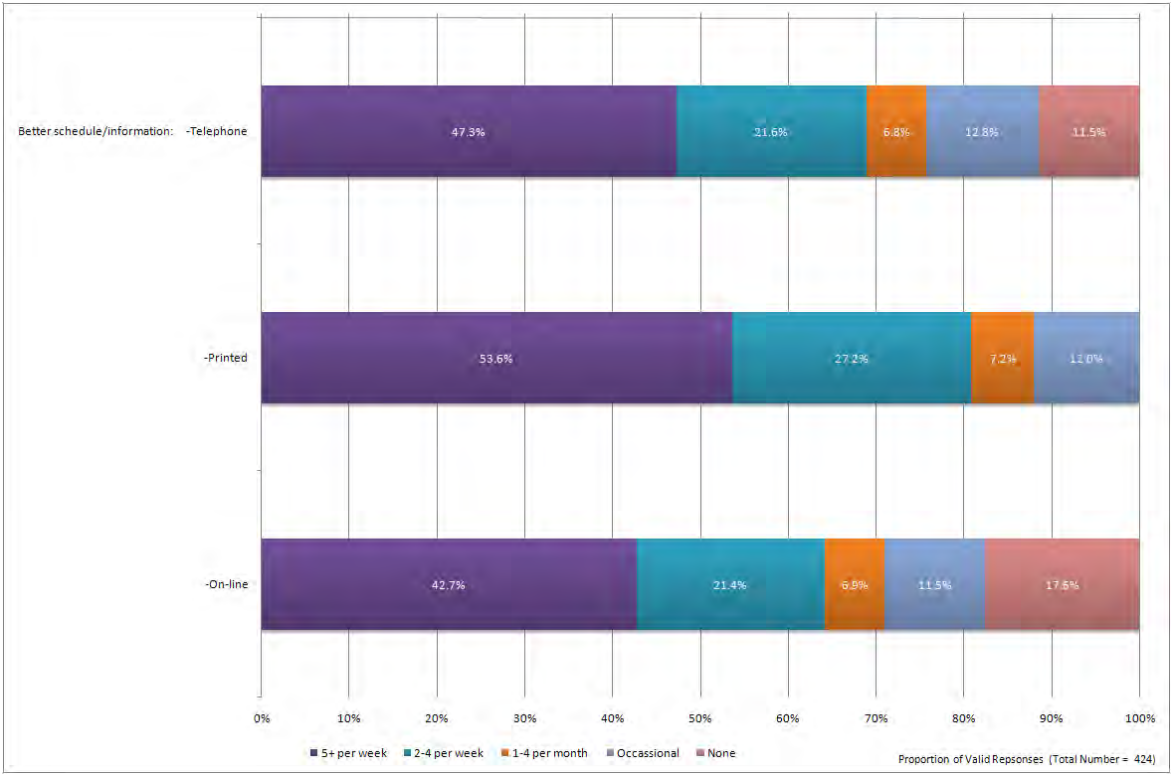
In terms of area served, the riders would generally take more Transit trips if more places were served by Transit in Goldsboro and Wayne County rather than regionally (see Figure A.10d). About 73 percent of the riders would become regular riders (take 2-4 or more additional Transit trips per week) if GATEWAY Transit served more places in Goldsboro and Wayne County. On the other hand, GATEWAY Transit Bus service to the Triangle region and Selma (Amtrak station) would not result in such drastic ridership increases – in fact, about 23 percent of the respondents claimed that extending GATEWAY Transit Bus service to the Triangle and Selma would *not* result in them taking any additional Transit trips. Still, it seems that what the riders *really* want is a more comprehensive regional Transit system overall – one could be skeptical about the 40 to 45 percent of riders claiming that they would take 5 or more *additional* Transit trips if the GATEWAY Transit Bus service actually extended to the Triangle and Selma, but what these answers really suggest is the need to study a more regional and comprehensive approach to Transit planning in the Goldsboro region and to essentially offer residents commuting choices.

Figure A.10e: GATEWAY Transit Bus Service On-Board Survey: Question 10



In terms of service convenience, frequency, reliability, and safety, about 74 percent of the respondents claimed that improvements to those service qualities would result in them taking at least 2-4 additional Transit trips per week – or essentially become regular riders (see Figure A.10.e). The safety aspect had a slight positive edge over the other qualities, with the most percentage of riders who claimed not willing to make any additional Transit trips if safety improvements were made to the GATEWAY Transit Bus Service – which technically suggests they are quite satisfied with the safety aspects of the service. This finding coincides with the riders' answer to Question 7 (see above) in which they were asked about their opinion regarding safety on the GATEWAY Transit bus system - 80 percent of the respondents gave it an 'excellent' or 'good' rating.

Figure A.10f: GATEWAY Transit Bus Service On-Board Survey: Question 10



Lastly, the data suggests that the riders would be willing to take additional Transit trips if improved Transit information/scheduling was made available to them in a *printed* format, followed by phone and on-line (see Figure A.10f). The riders would prefer access to improved information regarding the Transit system in the printed format as it is probably the most accessible to them. Notably, the respondents also noted in their answers to Question 7 that they were a bit more satisfied with the available GATEWAY Transit Bus service information by telephone rather than in print.

Significance:

In general, it seems the riders would be willing to make many more additional Transit trips if the proposed service improvements were made. As far as specific improvements' usefulness is concerned, the survey results suggest longer weekday and weekend hours of service as well as Sunday service would result in the most significant increase in ridership levels and be most beneficial. In addition, more comprehensive and frequent local service would definitely result in increased Transit ridership ('more buses, more often').

There is a strong desire among the GATEWAY Transit riders to be able to purchase and use some sort of a weekly/monthly Transit pass.

If the actual bus stops and bus vehicles were to be improved, the survey data suggest that the riders would be willing to take additional Transit trips.

Lastly, improvements to the available (and additional) information regarding the GATEWAY Transit's scheduling in the printed format could result in furthering the riders' (and the community at large – potential riders) knowledge about the Transit service made available to them and therefore entice them to take Transit more often.

A.4.11 Please provide any other comments or suggestions.

A large number of respondents made additional comments as most all the riders are affected by the GATEWAY Transit Bus service on a daily basis. The following points aim to give an overall flavor of the comments. A sample of direct quotes is given *in quotations belows*.

More specific themes included:

- Longer operating hours and Sunday service – a reoccurring comment, with many respondents suggesting that bus service should run at least until 9PM or 11PM on the weekdays and that there should be Sunday service as well:
    - 'The buses should run longer and be must bigger to accommodate the patrons. 5:45-6:30PM is too short because people and patrons work past these times.'
    - 'People get off from work later in the evenings.'
    - 'My suggestion is the GATEWAY Transit need to run late night, pass 6:30 and run on Sundays.'
    - 'Need to go longer hours like up to 9PM.'
    - 'I wish we had later bus at least until 12AM.'
    - 'I think they should run til 11PM. Some people work second shift jobs. And it's hard to get a ride at night sometimes.'
    - 'Consider second shift even though there are safety concerns you may increase revenue.'
    - 'It would be nice to ride on Sunday.'

- 'Stop at later times for people would have rides for work or schooling. Run longer than 5:40 or 6!'
- 'Run longer, run more. Run on Sunday.'
- 'Run on Sundays because people do work on Sundays.'

- Increased frequency of service – many respondents suggested that one-hour headways are not adequate:
  - 'I think if we had the buses come every thirty minutes then they would be a little better.'
  - 'The only thing I think they really need to improve is the time it runs. Like it should be every 30 min cause you have to sit at one place for an hour.'
  - 'More buses that run on a thirty-minute interval.'
  - 'I feel that once an hour at each stop is not good. It should be twice an hour.'
- Some riders also commented about the need for more than one transfer center so that riders do not have to go all the way to the only existing transfer center in order to switch buses:
  - 'You should not have to come back to transfer center in order to get on another bus. Transfers need to be intersectable.'
  - 'Need more transfer stops. Need better vans, most are broken. Need of more buses, some trips are too long. Cut out extended trip, buy more buses.'

One rider summed up the prevailing sentiment among most of the survey respondents particularly well:

> 'Increased frequency, extended service, Sundays!! Shorter routes, start routes earlier on Sats!! Appeal to riders - should not be only poor + minorities. In order for GATEWAY Transit to grow it's got to be the way to go!! For broader appeal.'

Significance:

Longer service hours, particularly on the weekdays would result in providing more mobility to many people, especially since it would enable workers taking GATEWAY Transit *to* work to also make the return trip using Transit.

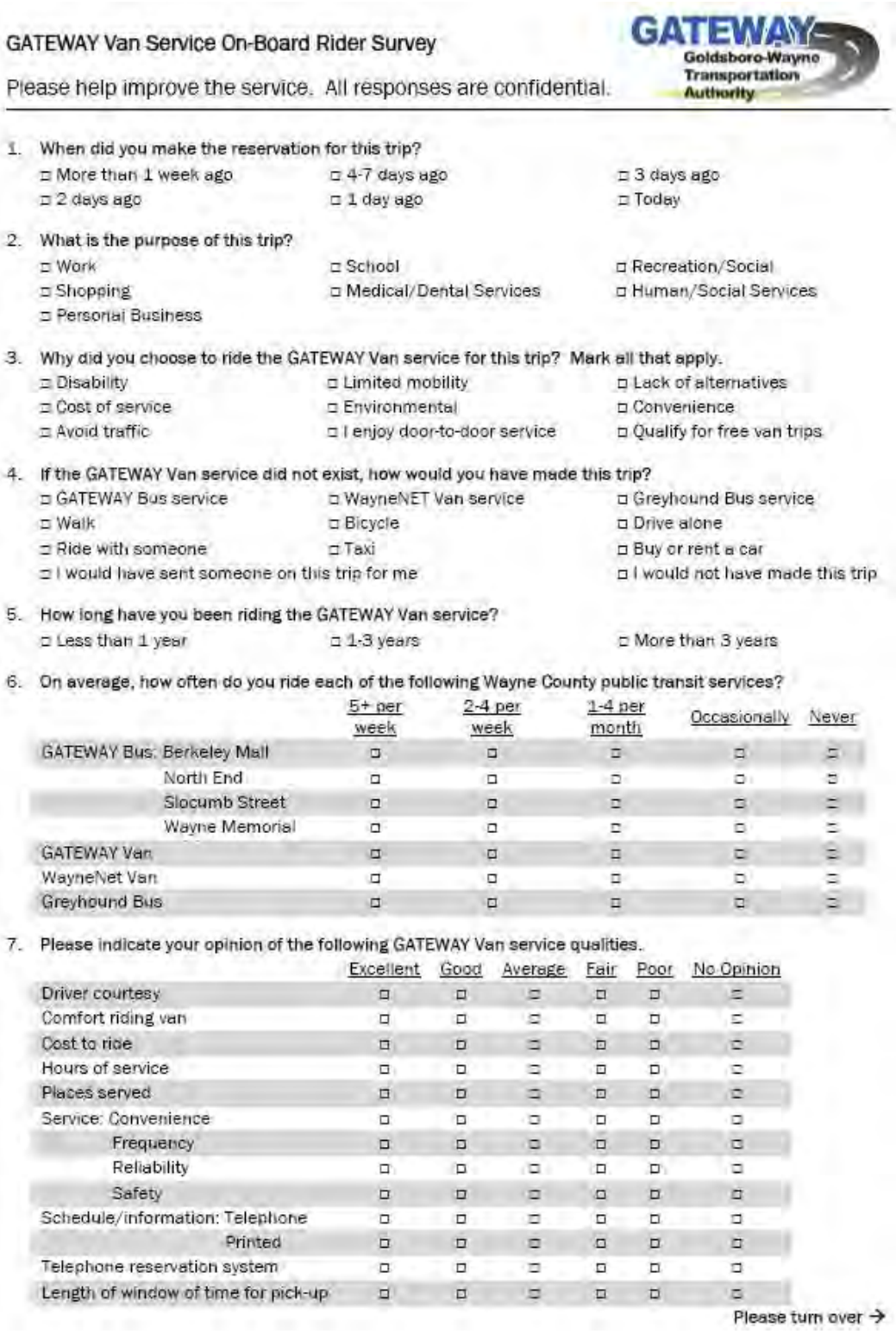
Frequency could be increased particularly during morning and late afternoon rush hour; 30-minute headways instituted for the two busiest routes – Berkeley Mall and Wayne Memorial would probably result in most positive returns.

Lastly, formal or semi-formal mini Transit centers should be located throughout Goldsboro to facilitate transfer between routes without the need to go all the way to the main transfer center.

A.5 Question-by-Question Analysis: GATEWAY Transit VAN SERVICE

The actual on-board van survey is shown in Figure A.11. For each question, the following are provided: **Purpose** (a brief explanation of why the question was asked, **Results** (a brief summary of the main results) and **Significance** (an assessment of what the results mean for GATEWAY Transit).

Figure A.11: GATEWAY Transit Van Service On-Board Survey



GATEWAY Van Service On-Board Rider Survey

GATEWAY Goldsboro-Wayne Transportation Authority

Please help improve the service. All responses are confidential.

1. When did you make the reservation for this trip?
   - ☐ More than 1 week ago
   - ☐ 4-7 days ago
   - ☐ 3 days ago
   - ☐ 2 days ago
   - ☐ 1 day ago
   - ☐ Today

2. What is the purpose of this trip?
   - ☐ Work
   - ☐ School
   - ☐ Recreation/Social
   - ☐ Shopping
   - ☐ Medical/Dental Services
   - ☐ Human/Social Services
   - ☐ Personal Business

3. Why did you choose to ride the GATEWAY Van service for this trip? Mark all that apply.
   - ☐ Disability
   - ☐ Limited mobility
   - ☐ Lack of alternatives
   - ☐ Cost of service
   - ☐ Environmental
   - ☐ Convenience
   - ☐ Avoid traffic
   - ☐ I enjoy door-to-door service
   - ☐ Qualify for free van trips

4. If the GATEWAY Van service did not exist, how would you have made this trip?
   - ☐ GATEWAY Bus service
   - ☐ WayneNET Van service
   - ☐ Greyhound Bus service
   - ☐ Walk
   - ☐ Bicycle
   - ☐ Drive alone
   - ☐ Ride with someone
   - ☐ Taxi
   - ☐ Buy or rent a car
   - ☐ I would have sent someone on this trip for me
   - ☐ I would not have made this trip

5. How long have you been riding the GATEWAY Van service?
   - ☐ Less than 1 year
   - ☐ 1-3 years
   - ☐ More than 3 years

6. On average, how often do you ride each of the following Wayne County public transit services?

	5+ per week	2-4 per week	1-4 per month	Occasionally	Never
GATEWAY Bus: Berkeley Mall	☐	☐	☐	☐	☐
North End	☐	☐	☐	☐	☐
Slocumb Street	☐	☐	☐	☐	☐
Wayne Memorial	☐	☐	☐	☐	☐
GATEWAY Van	☐	☐	☐	☐	☐
WayneNet Van	☐	☐	☐	☐	☐
Greyhound Bus	☐	☐	☐	☐	☐

7. Please indicate your opinion of the following GATEWAY Van service qualities.

	Excellent	Good	Average	Fair	Poor	No Opinion
Driver courtesy	☐	☐	☐	☐	☐	☐
Comfort riding van	☐	☐	☐	☐	☐	☐
Cost to ride	☐	☐	☐	☐	☐	☐
Hours of service	☐	☐	☐	☐	☐	☐
Places served	☐	☐	☐	☐	☐	☐
Service: Convenience	☐	☐	☐	☐	☐	☐
Frequency	☐	☐	☐	☐	☐	☐
Reliability	☐	☐	☐	☐	☐	☐
Safety	☐	☐	☐	☐	☐	☐
Schedule/information: Telephone	☐	☐	☐	☐	☐	☐
Printed	☐	☐	☐	☐	☐	☐
Telephone reservation system	☐	☐	☐	☐	☐	☐
Length of window of time for pick-up	☐	☐	☐	☐	☐	☐

Please turn over →

GATEWAY Van Service On-Board Rider Survey

Please help improve the service. All responses are confidential.

8. Overall, how do you rate the GATEWAY Van service?
   ☐ Excellent ☐ Good ☐ Average ☐ Fair ☐ Poor

9. Are there any locations inside or outside Wayne County that need GATEWAY Van service – if so, which ones? Please provide city and destination name (ex. Courthouse) or major cross streets.

   Location:_____

   Location:_____

   Location:_____

   Location:_____

10. If the following improvements were made, how many additional trips would you make, on average?

	5+ per week	2-4 per week	1-4 per month	Occasional	None
More courteous drivers	☐	☐	☐	☐	☐
More comfortable vans	☐	☐	☐	☐	☐
Lower cost to ride	☐	☐	☐	☐	☐
Longer service hours: Weekday PM	☐	☐	☐	☐	☐
Saturday PM	☐	☐	☐	☐	☐
Sunday service	☐	☐	☐	☐	☐
More places served: Wayne County	☐	☐	☐	☐	☐
Outside Wayne Co.	☐	☐	☐	☐	☐
Goldsboro	☐	☐	☐	☐	☐
Increased: Convenience	☐	☐	☐	☐	☐
Frequency	☐	☐	☐	☐	☐
Reliability	☐	☐	☐	☐	☐
Safety	☐	☐	☐	☐	☐
Better schedule/information: Telephone	☐	☐	☐	☐	☐
Printed	☐	☐	☐	☐	☐
On-line	☐	☐	☐	☐	☐
Better Reservation System: Telephone	☐	☐	☐	☐	☐
On-line	☐	☐	☐	☐	☐
Shorter pick-up time window	☐	☐	☐	☐	☐

11. Please provide any other comments or suggestions:_____

_____

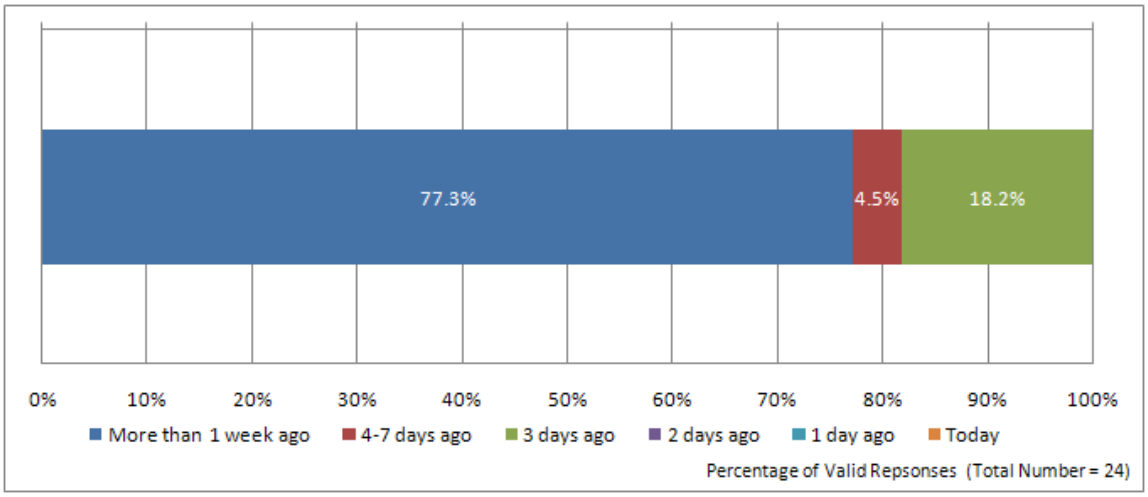
_____

_____

Thank you for participating. If you have any questions, comments, or suggestions, please contact Greg Saur at: 919-829-0328 (p) or transit@mabtrans.com.

A.5.1 How did you make the reservation for this trip?

Figure A.12: GATEWAY Transit Van Service On-Board Survey: Question 1



Purpose:

To understand how far in advance GATEWAY Transit Van riders reserve the rides.

Results:

As shown in Figure A.12, the vast majority of the respondents, 77.3 percent (or 10 riders out of 22 who responded to this question) reserved their GATEWAY Transit Van trip more than 1 week in advance. Only 4.5 percent of the respondents reserved their trip 4 to 7 days in advance, while 18.2 percent did it 3 days ago.

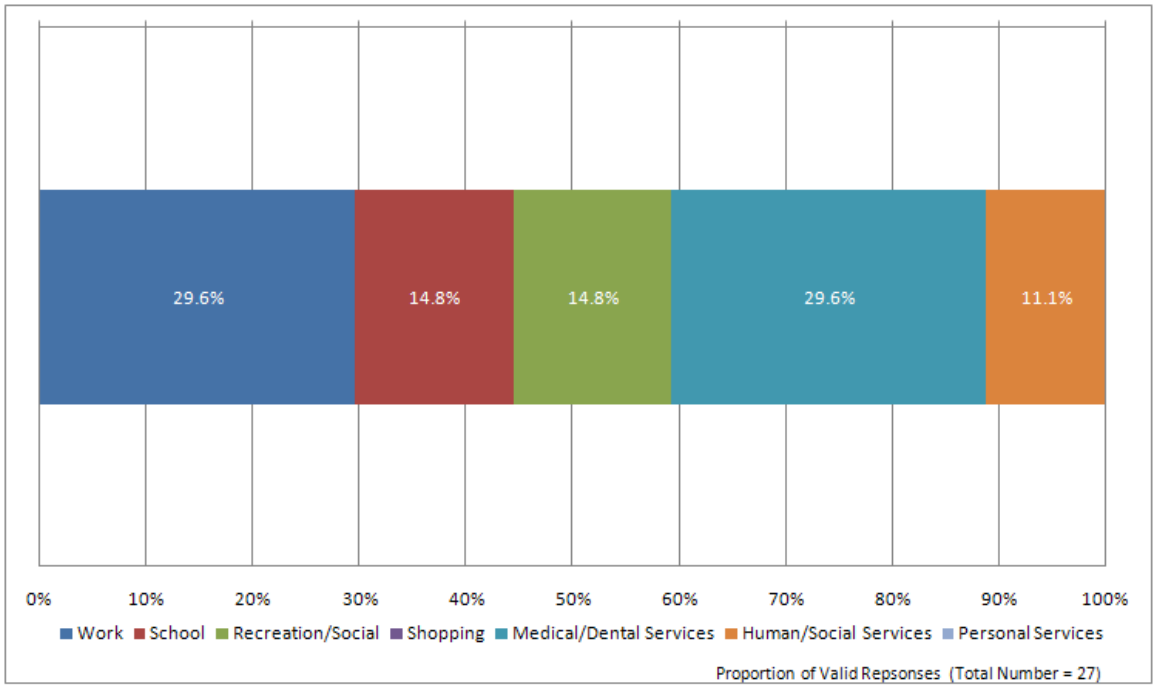
Notably, none of the surveyed riders reserved their seats *less* than 3 days in advance – which is understandable as the rides require 48 hour notice.

Significance:

Advance reservation is very popular with GATEWAY Transit Van riders. However, reserving Van rides way in advance can oftentimes result in no-shows and cancellations since riders are more likely to stick to their plans if they make the reservations only a few days in advance (due to an actual scheduled need – i.e. a doctor's appointment etc).

A.5.2 What is the purpose of this trip?

Figure A.13: GATEWAY Transit Van Service On-Board Survey: Question 2



Purpose:

To find out the Transit trip purpose(s).

Results:

As shown in Figure A.13, the greatest proportion of the trips, 29.6 percent, was for both work and medical/dental services. Nearly 30 percent of all trips were either school or recreation/social -related. Finally, 11.1 percent of all trips were human/social-services-related.

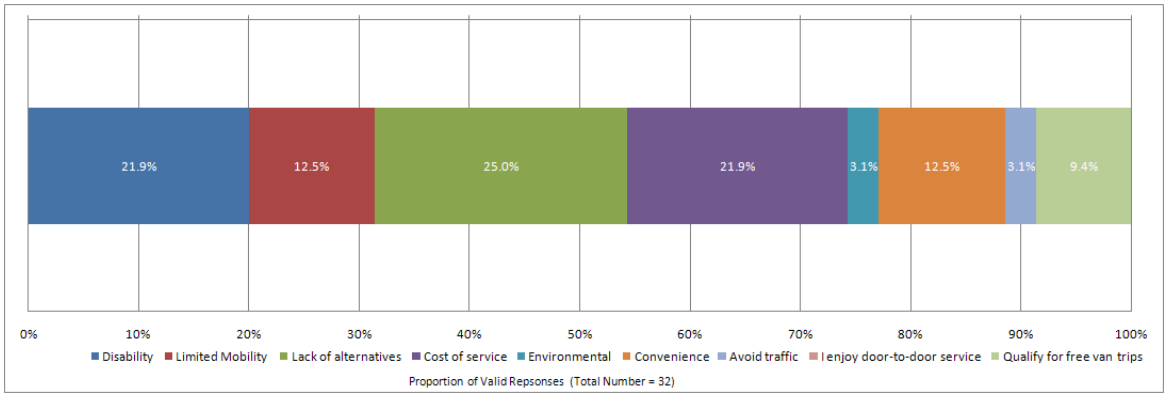
Notably, none of the trips were for shopping purposes or personal services-related.

Significance:

GATEWAY Transit Van service is heavily utilized for a variety of purposes, but primarily to get to work and medical facilities. The main difference between the GATEWAY Transit Bus and GATEWAY Transit Van utilization is that the Van service is not used *at all* for shopping or personal services trips. Also, it is important to point out that twice as many riders (proportion-wise) depend on GATEWAY Transit Van for being able to get to their medical/dental appointments.

A.5.3 Why did you choose to ride the GATEWAY Transit Van service for this trip? Mark all that apply.

Figure A.14: GATEWAY Transit Van Service On-Board Survey: Question 3



Purpose:

To understand the reason(s) behind the decision to ride GATEWAY Transit Van. To separate captive (Transit dependent) versus choice riders.

Results:

As shown in Figure A.14, the greatest proportion of the responses, 25 percent, pointed to lack of other alternatives as the main factor that influenced their decision to ride the GATEWAY Transit Van service. Disability and limited mobility combined was a factor for nearly 34 percent of the respondents. The cost of service and convenience combined was a factor for about 34 percent of respondents. Nearly 10 percent of the respondents qualified for free van trips. Other factors such as environmental reasons and avoiding traffic did not play a major role in influencing the riders' choice of whether to use the GATEWAY Transit Van service on that day. None of the riders used the service because they actually 'enjoyed door-to-door service.'

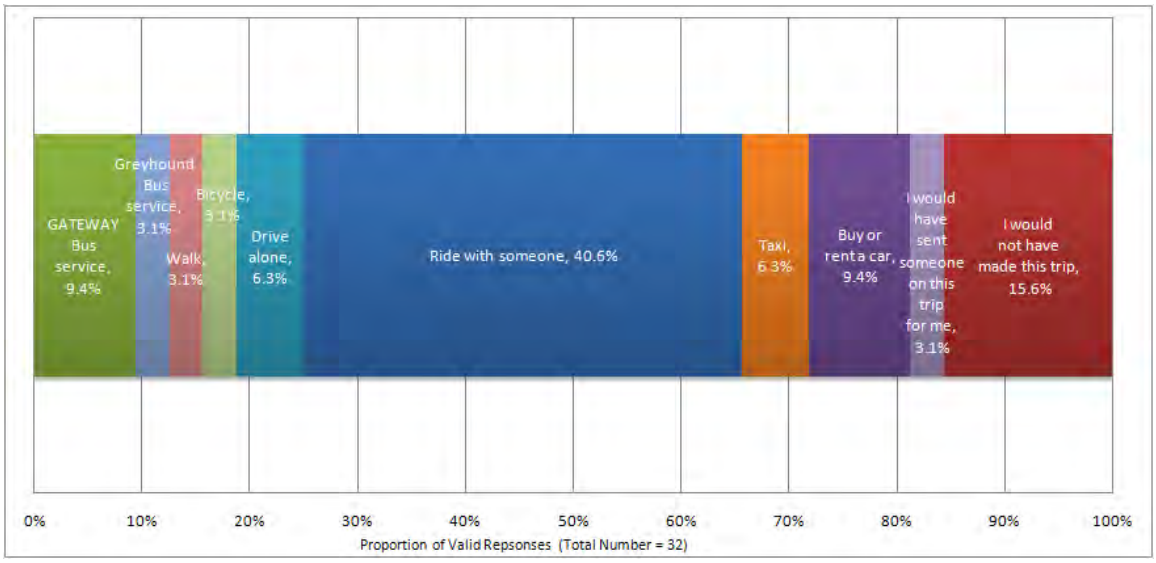
The majority of GATEWAY Transit Van riders can be categorized as captive riders. In fact, 90.7 percent of the responses could be categorized as being from captive riders (disability, limited mobility, lack of alternatives, cost of service, qualify for free van trips) – this compares to 62.3 percent of captive riders taking GATEWAY Transit Buses – although, notably, the bus survey lacked an option of 'Qualify for free van trips.' The remaining 9.3 percent were choice riders (compared to 37.7 percent of GATEWAY Transit Bus choice riders) who deliberately chose to ride GATEWAY Transit either because they perceived the service to be convenient, environmentally-friendly, or to avoid traffic (none of the choice riders claimed to ride GATEWAY Transit Van because they 'enjoyed door-to-door service.' Naturally, that option was not available as part of the bus survey.

Significance:

It is clear that the lack of alternatives, disability, cost of service and limited mobility were the principal factors that influenced the respondents' decision to use GATEWAY Transit Van service. It seems they had no other choice. The percentage of captive riders taking GATEWAY Transit Van service is much higher than the percentage of captive riders patronizing GATEWAY Transit Bus service.

A.5.4 If the GATEWAY Transit Van service did not exist, how would you have made this trip?

Figure A.15: GATEWAY Transit Van Service On-Board Survey: Question 4



Purpose:

To find out how riders would have made the trip if GATEWAY Transit Van service was not available.

Results:

The results are shown in Figure A.15. Captive riders: about 15.6 percent of the respondents would not make the trip if the service was not available (compared to 9.3 percent in terms of GATEWAY Transit Bus riders) and 3.1 percent would have sent someone else on this trip for them (compared to 0.8 percent GATEWAY Transit Bus service-wise) – presumably someone with access to a vehicle. Thus, nearly 19 percent of the respondents would probably not have made the trip at all if GATEWAY Transit Van service was not available. An additional 9.4 percent would have relied on other existing Transit option - GATEWAY Transit Bus service, while 31.1 percent would have used Greyhound Bus service. In addition, 40.6 percent of the respondents would get a ride from someone else (compared to 30 percent in terms of GATEWAY Transit Bus riders) and 6.3 percent would take a cab (compared to 12.3 percent).

In terms of choice riders, some of them would opt to drive if the GATEWAY Transit services were not available: 6.3 percent of the respondents stated they would choose to drive alone (compared to nearly 5 percent in terms of GATEWAY Transit Bus riders), while 9.4 percent would rather rent or buy a vehicle (compared to 2.6 percent). Non-motorized transportation would be the mode of choice for only 6.2 percent of the surveyed respondents (compared to 32 percent of GATEWAY Transit Bus service riders-wise!); if GATEWAY Transit Bus service was not available, 3.1 percent would walk to their destinations (compared to 28.4 percent of bus riders), while 3.6 percent would bicycle instead (similar rate to that of bus riders).

Significance:

The 15.6 percent riders who indicated that they would not have made the trip at all are particularly important as those riders' mobility would be greatly reduced if GATEWAY Transit Van service was not available.

It is important to recognize that about 9.4 percent of the respondents signaled that they would use the GATEWAY Transit Bus service instead – despite it not being a 'door-to-door' service and perhaps not as convenient.

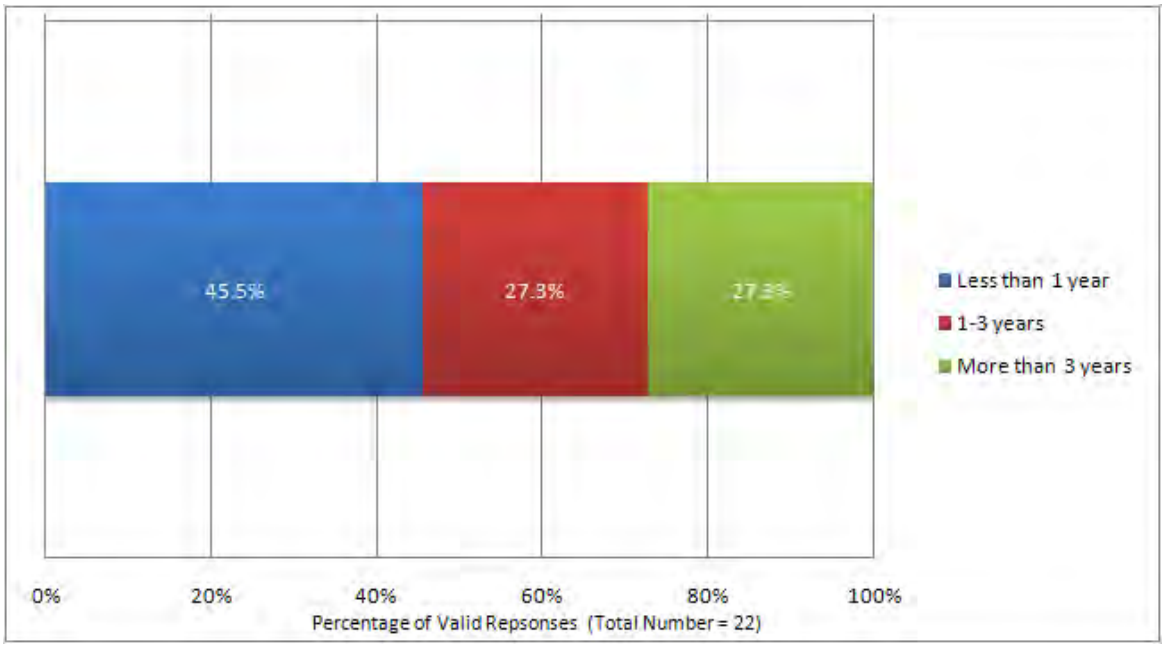
In stark contrast to GATEWAY Transit Bus riders, not many GATEWAY Transit Van riders would rely on non-motorized transportation in lieu of GATEWAY Transit Van service – the fact that only one person would choose to walk and one person would choose

to bicycle instead of using the van service suggests that GATEWAY Transit Van riders might not be able to walk far due to a variety of probable reasons, possibly health-related.

Lastly, 40 percent of the GATEWAY Transit Van riders would actually opt to ride with someone instead, suggesting that they know or would have to find someone who could give them a ride to wherever they need to go. This indicates the necessity of the trip and also they would essentially have to make the trip work by finding someone they could rely on to get them to their destinations.

A.5.5 How long have you been riding the GATEWAY Transit Van service?

Figure A.16: GATEWAY Transit Van Service On-Board Survey: Question 5



Purpose:

To find out how long the riders have been patrons of the GATEWAY Transit Van service.

Results:

Overall, as shown in Figure A.16, 45.5 of the surveyed riders have been using GATEWAY Transit Van service for less than 1 year, with 27.3 percent using it for 1 to 3 years and 27.3 percent using it for more than 3 years.

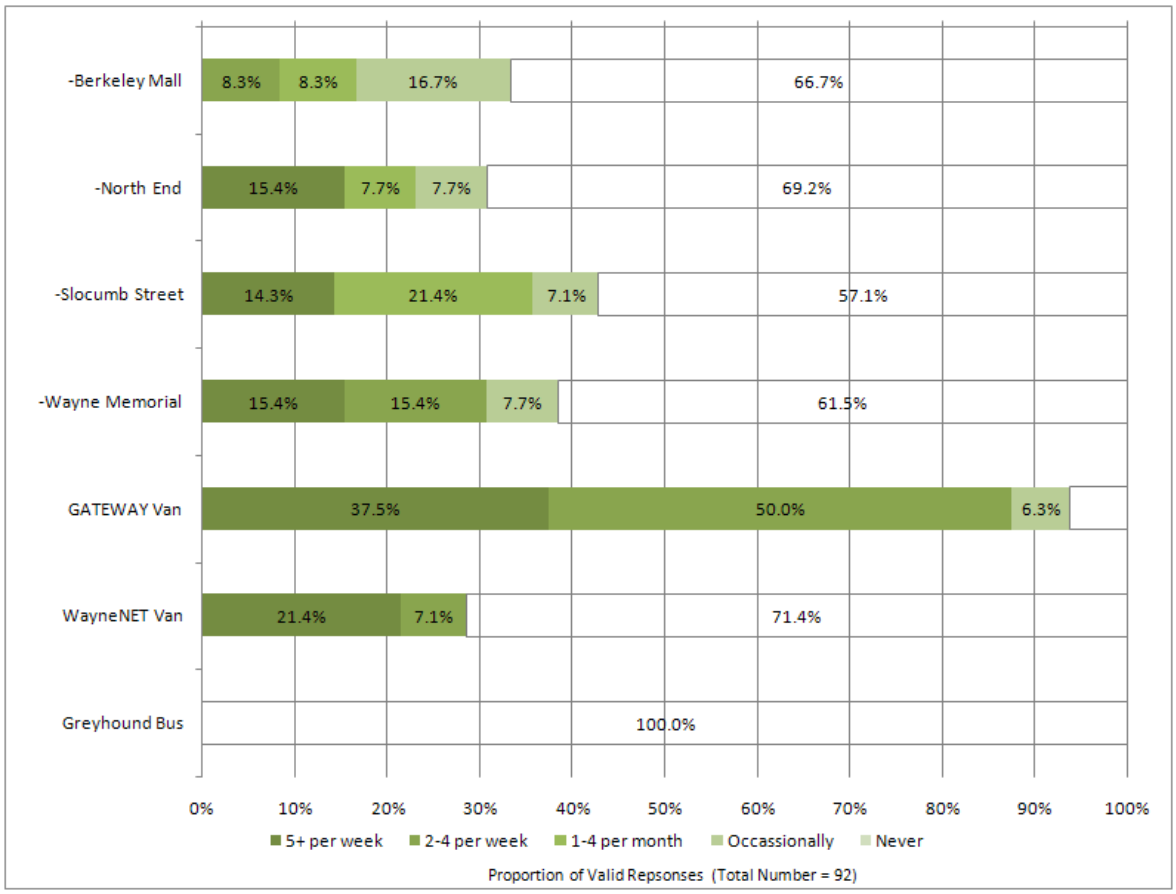
Significance:

The GATEWAY Transit Van service riders are a mix of established riders who have been utilizing the service for a long time and some newer riders as well. Significantly, nearly half of the GATEWAY Transit Van riders have only been using the service for less than a year.

In general, GATEWAY Transit Bus riders are more established users of the service than GATEWAY Transit Van riders.

A.5.6 On average, how often do you ride each of the following Wayne County public Transit services?

Figure A.17: GATEWAY Transit Van Service On-Board Survey: Question 6



On average, how often do you ride each of the following Wayne County public transit services?					
	5+ per week	2-4 per week	1-4 per month	Occassionally	Never
GATEWAY Bus:					
-Berkeley Mall	0.0%	8.3%	8.3%	16.7%	66.7%
-North End	15.4%	0.0%	7.7%	7.7%	69.2%
-Slocumb Street	14.3%	0.0%	21.4%	7.1%	57.1%
-Wayne Memorial	15.4%	15.4%	0.0%	7.7%	61.5%
GATEWAY Van	37.5%	50.0%	0.0%	6.3%	6.3%
WayneNET Van	21.4%	7.1%	0.0%	0.0%	71.4%
Greyhound Bus	0.0%	0.0%	0.0%	0.0%	100.0%

Purpose:

To find out which of the Wayne County public Transit services the riders use the most.

Results:

The results are shown in Figure A.17. If we separate the results into three distinct categories: regular riders (those who use Transit 2-4 times per week or more); occasional riders (who ride it 1-4 per month /occasionally) and non-riders (who never use Transit services), we can conclude that:

Surveyed GATEWAY Transit Van riders tend to use Van service the most – in fact, 87.5 percent of them are regular riders. Regular riders tend to also regularly patronize GATEWAY Transit fixed bus routes, with the Wayne Memorial route being the most popular (30.8 percent of the GATEWAY Transit Van users are the route's regular riders), followed by North End (15.4 percent), Slocumb Street (14.3 percent), and Berkeley Mall (8.3 percent). Interestingly, Van riders' responses largely overlap GATEWAY Transit Bus service riders responses to the same question – both groups patronize the Wayne Memorial, Slocumb Street and North End routes much more than the Berkeley Mall route (although overall percentage use of the routes is higher among the GATEWAY Transit Bus users. This is quite an intriguing finding, since Berkeley Mall seemed to be also the most crowded route overall (along with the Wayne Memorial route).

About 28.5 percent of regular riders also ride WayneNET Van service. This is a very significant portion of the Van riders, particularly when compared to the 2.2 percent of the GATEWAY Transit Bus service riders who also regularly use WayneNET Van service.

In terms of occasional riders, GATEWAY Transit fixed bus routes are still the most popular public Transit option in the County, even more so than the Van service. In fact, about 28.5 percent of the surveyed riders occasionally ride the Slocumb Street line and 25 percent occasionally ride the Berkeley Mall route. Interestingly, 6.3 percent of the surveyed Van riders use that service only occasionally. Overall, WayneNET Van service and Greyhound

Bus service are used the least by occasional riders out of all public Transit options available in Wayne County with none of the respondents claiming to use it. Lastly, non-riders tend to avoid Greyhound Bus service the most of all public Transit services in Wayne County.

Significance:

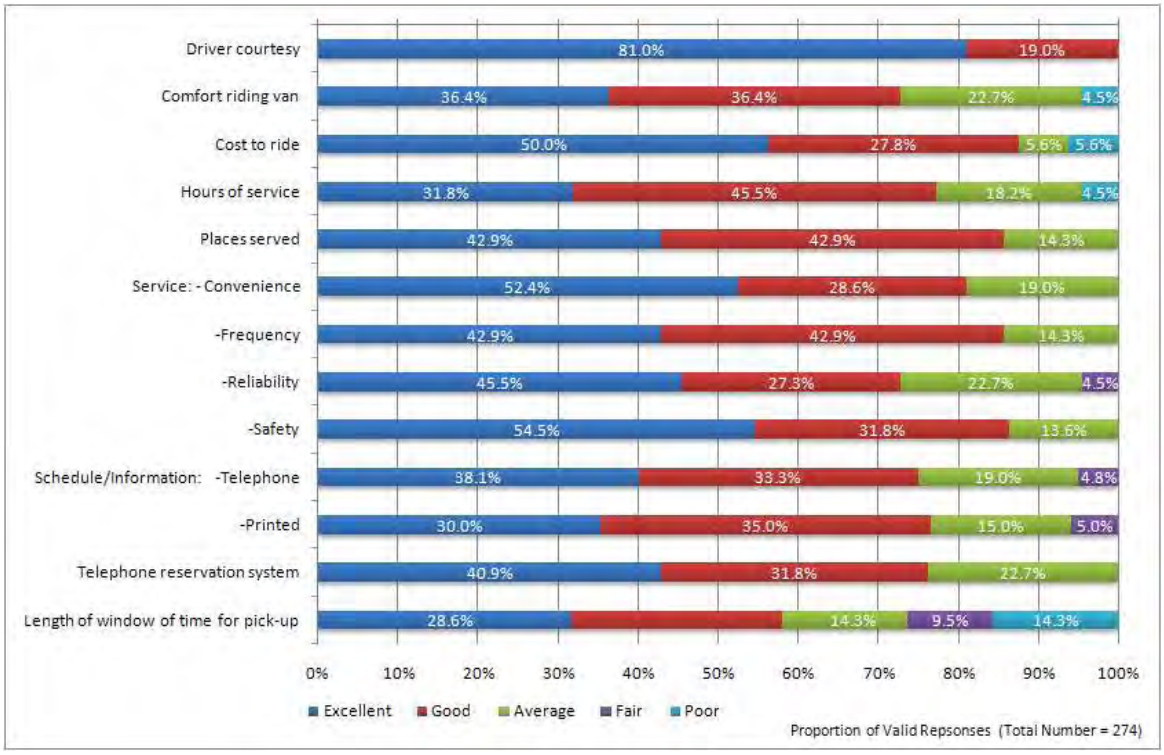
The data suggests the GATEWAY Transit Van service is the most important and most popular public Transit service in Wayne County among the surveyed riders.

Other Transit services are less popular choices; with the GATEWAY Transit Bus service enjoying some regular and occasional riders and WayneNET van service heavily utilized by 28.5 percent of the surveyed riders.

The relatively high usage rates of the GATEWAY Transit Bus service by the surveyed Van riders suggest there is an opportunity to lure some of the GATEWAY Transit Van riders to GATEWAY Transit Bus service, particularly if the routes are modified / expanded to better serve their specific needs.

A.5.7 Please indicate your opinion of the following GATEWAY Transit Van service qualities.

Figure A.18: GATEWAY Transit Van Service On-Board Survey: Question 7



Please indicate your opinion of the following GATEWAY Van service qualities.	Excellent	Good	Average	Fair	Poor	No opinion
Driver courtesy	81.0%	19.0%	0.0%	0.0%	0.0%	0.0%
Comfort riding van	36.4%	36.4%	22.7%	0.0%	4.5%	0.0%
Cost to ride	50.0%	27.8%	5.6%	0.0%	5.6%	11.1%
Hours of service	31.8%	45.5%	18.2%	0.0%	4.5%	0.0%
Places served	42.9%	42.9%	14.3%	0.0%	0.0%	0.0%
Service: - Convenience	52.4%	28.6%	19.0%	0.0%	0.0%	0.0%
-Frequency	42.9%	42.9%	14.3%	0.0%	0.0%	0.0%
-Reliability	45.5%	27.3%	22.7%	4.5%	0.0%	0.0%
-Safety	54.5%	31.8%	13.6%	0.0%	0.0%	0.0%
Schedule/Information: -Telephone	38.1%	33.3%	19.0%	4.8%	0.0%	4.8%
-Printed	30.0%	35.0%	15.0%	5.0%	0.0%	15.0%
Telephone reservation system	40.9%	31.8%	22.7%	0.0%	0.0%	4.5%
Length of window of time for pick-up	28.6%	23.8%	14.3%	9.5%	14.3%	9.5%

Purpose:

To understand the riders' perceptions of the quality of the GATEWAY Transit services rendered to them and to find out which of those qualities need improvements.

Results:

Overall, as shown in Figure A.18, five qualities received 80 percent plus 'better than average' rating (good or excellent): driver courtesy (100 percent!), safety, places served, frequency, and convenience (*compared to cost to ride, safety, and driver courtesy in terms of the answers given by the GATEWAY Transit Bus riders*). In terms of 'comfort,' about 72.8 percent of the riders rated riding the van as better than average (good or better; compared to an average of 66.8 percent of the bus riders assigning this kind of rating to the comfort category).

The riders were generally very pleased with the costs of service, with 77.8 percent of them assigning it an above average rating (good or better; compared to 91.3 percent of GATEWAY Transit Bus riders assigning the very same rating), and they were actually quite satisfied with the hours of service (77.3 percent assigning a better than average rating) and places served (85.8 percent with similar rating). In stark contrast to the GATEWAY Transit Bus riders, only 4.5 percent of the riders thought the hours of service were 'poor' (compared to the bus riders' 21.3 percent). In terms of places served, only 14.3 percent of the GATEWAY Transit Van riders thought the coverage area was below average ('fair' or 'poor'), while 27 percent of the GATEWAY Transit Bus riders perceived that aspect of the service to be below average.

In terms of service convenience, frequency, reliability, and safety, the riders were most pleased with safety aspect of service, with 86.3 percent of the respondents giving it an 'excellent' or 'good' rating (better than average; compared to 80 percent in terms of GATEWAY Transit Bus service riders; *notably, safety was the factor GATEWAY Transit Bus riders were most pleased with as well*), and still very much pleased with frequency of service with 85.8 percent of the respondents rating it in the same manner. The riders perceived the GATEWAY Transit Van service to be quite convenient with 81 percent of them assigning it a better than average rating. Finally, in terms of reliability, 72.8 percent of the riders rated it above average ('excellent' or 'good' – compared to 68.6 percent GATEWAY Transit Bus riders-wise). However, 27.2 percent of the riders also thought reliability of service was worse than average ('fair' or 'poor' - compared to 10.4 percent of GATEWAY Transit Bus riders who assigned that rating to the bus service reliability). Overall, reliability of service was the service quality GATEWAY Transit Van riders thought needed the most improvement.

In terms of schedule/information, the riders were somewhat satisfied with these qualities in both telephone and printed format, with about 71.4 percent rating the former as above average (either 'excellent' or 'good' rating).

The Van survey included two additional answer choices specific to the GATEWAY Transit Van service; regarding the riders' opinion about the telephone reservation system and the length of window of time for pick-up. While the riders were generally satisfied with the telephone reservation system with 72.7 percent giving it a better than average rating, they were less pleased with the existing 2-hour length of window of time for pick-up. Only about 52.4 percent of the riders perceived that quality of service to be better than average, and only 28.6 percent perceived it as excellent – this constitutes the quality of service with the lowest 'excellent' rating of them all. In addition, 14.3 percent of the surveyed riders perceived the length of window of time for pick-up to be 'poor.'

Significance:

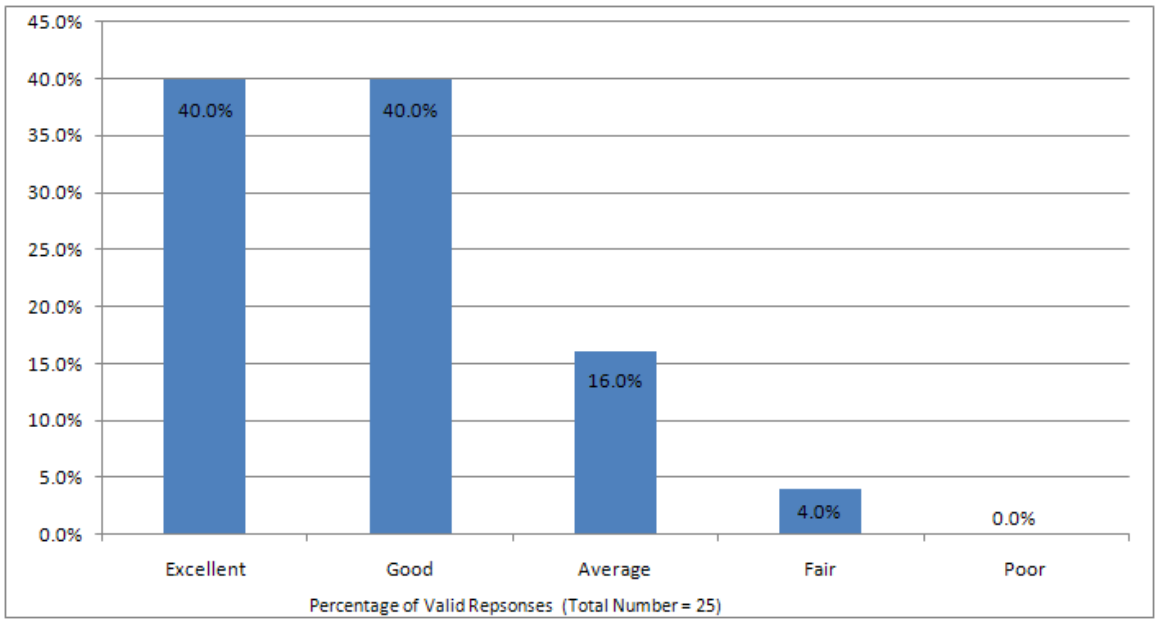
Driver courtesy is one of the service qualities regarded very highly – the riders place a high value on the human contact and interaction with the drivers.

The data suggests a major issue with the length of window of time that is made available for pick-up.

Other areas in need of improvement include printed and telephone schedule/information and reliability of service.

A.5.8 Overall, how do you rate the GATEWAY Transit Van service?

Figure A.19: GATEWAY Transit Van Service On-Board Survey: Question 8



Purpose:

To understand the riders' overall impression of the GATEWAY Transit Van service.

Results:

Overall, as shown in Figure A.19, about 80 percent of the riders assigned either 'excellent' or 'good' rating (better than average) to the GATEWAY Transit Van service, and 16 percent thought the service was average. Only about 4 percent of the riders perceived the service to be fair, and none of the riders rated the service as 'poor.'

In general, GATEWAY Transit Van service is rated just slightly above GATEWAY Transit Bus service by the respective riders, but the difference is neglible.

Significance:

The data suggest that the riders generally rate the GATEWAY Transit Van service as 'good' or even 'excellent.' However, this question is very general in nature, and the riders' answers to more specific Questions 7 and 10 also point out that perhaps the surveyed respondents were a bit too optimistic / generous when answering Question 8. (*Note: note this similarity with Question 8 from the GATEWAY Transit Bus Service On-Board Rider Survey*)

A.5.9 Are there any other locations inside or outside Wayne County that need GATEWAY Transit Van service – if so, which ones? Please provide city and destination name (ex. Courthouse) or major cross streets.

Purpose:

To find out the riders' opinion about the areas/places where the GATEWAY Transit Van service might be needed.

Results:

Since the responses were specific and there were not many of them to begin with, what follows is the actual list of requested destinations / Van pick-up points. Most of the requested locations were either in Mt. Olive or along Cashwell:

- Mt Olive, NC
- Wal-Mart and also Piggly Wiggly in Mt Olive
- Cashwell and Berkley-need a stop-Kirkland Retirement Home
- Cashwell and Graves- Cashwell Mews Apts, Fredericksburg Apts
- Cashwell and Langston- Hunting Rd Apt
- Rosewood-Daycare
- Wages - 601 E Royal Ave
- The Hospital

Significance:

Some of the destinations that were mentioned by the GATEWAY Transit Van riders are already served by GATEWAY Transit Bus service. Thus, there exists an opportunity to shift GATEWAY Transit Van riders to GATEWAY Transit Bus service.

Specifically, there is already new GATEWAY Transit Bus service to Mt. Olive. Incidentally, Mt Olive was one of the destinations specifically mentioned by GATEWAY Transit Bus riders as needing GATEWAY Transit service.

A.5.10 If the following improvements were made, how many additional trips would you make, on average?

Purpose:

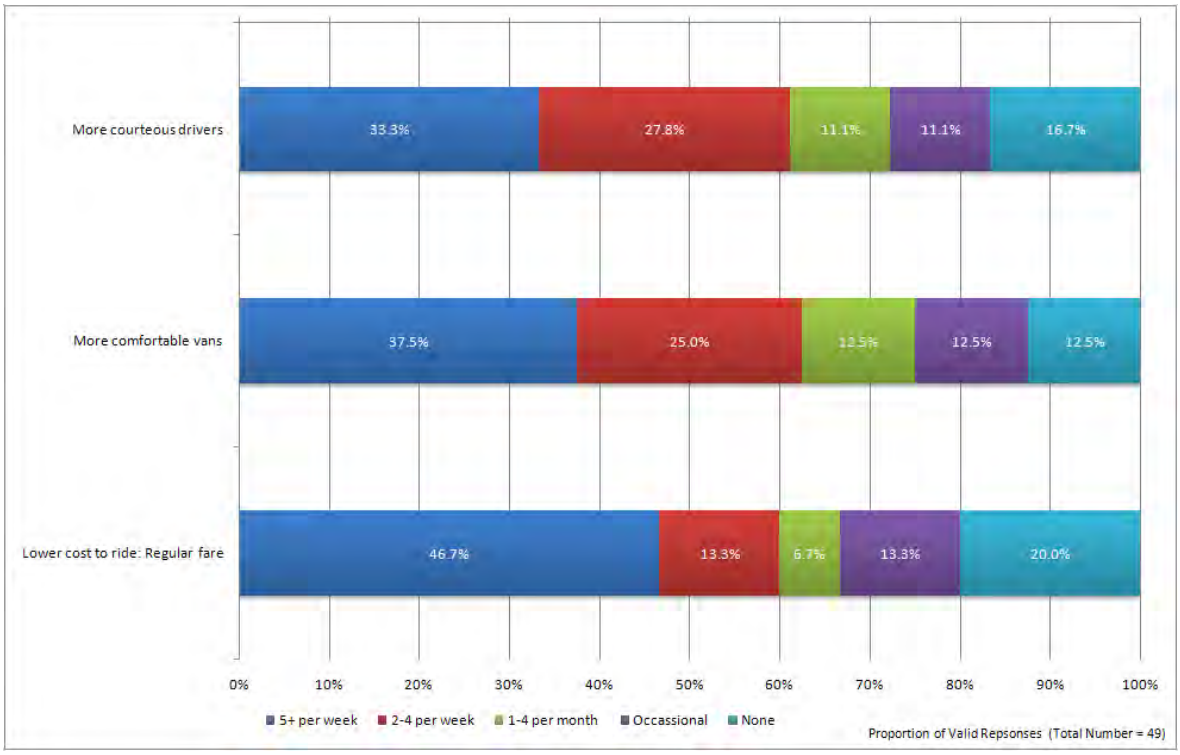
To find what types of service improvements could result in increased ridership levels.

Results:

Note: results were broken into 6 distinct sub-categories.

If we separate the results of each subcategory into three distinct groups: regular riders (those who ride GATEWAY Transit Van service 2-4 times per week or more); occasional riders (who ride it 1-4 per month /occasionally) and non-riders (who never utilize GATEWAY Transit Van service), we can conclude that:

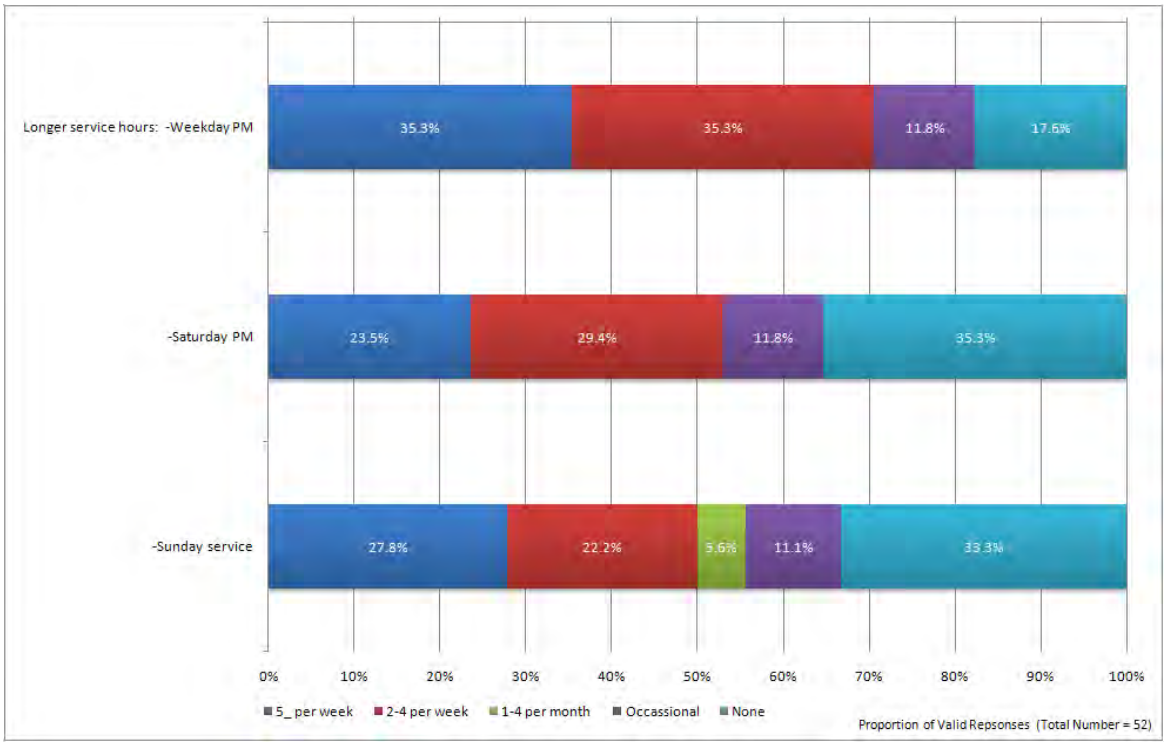
Figure A.20a: GATEWAY Transit Van Service On-Board Survey: Question 10



As shown in Figure A.20a, the riders would welcome more courteous van drivers – more than 60 percent of the riders would become regular riders and ride the GATEWAY Transit Van service at least 2-4 times per week more often if the improvement was made reality

(compared to 74.5 percent of the GATEWAY Transit Bus riders who claimed the same). The scenario is very similar for improving the actual comfort of the ride and its cost: 62.5 percent of the surveyed riders would become regular riders if the former was improved and 60 percent would do the same if the latter was improved.

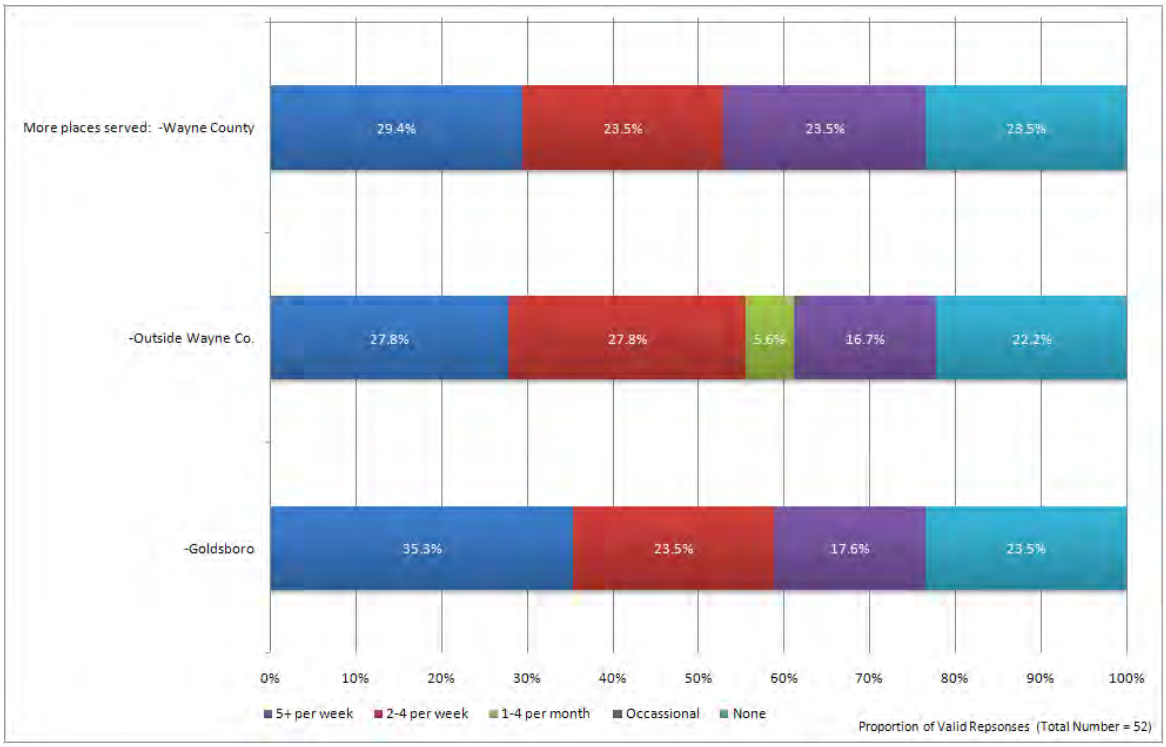
Figure A.20b: GATEWAY Transit Van Service On-Board Survey: Question 10



As shown in Figure A.20b, nearly 71 percent of the respondents would become regular riders (use the van service at least 2-4 times per week more often) if the weekday evening hours were extended (compared to 75.7 percent of GATEWAY Transit Bus riders). Next in terms of priority when it comes to longer service hours would be Saturday afternoons/evenings (53 percent of the respondents would become regular riders if service was extended during those periods – compared to 75.9 percent GATEWAY Transit Bus riders-wise), followed by Sunday service (50 percent would become regular riders). Worth noting is the fact that only 17.6 percent of the riders claimed that longer weekday evening hours would result in them *not* taking any additional Transit trips – but that percentage of 'none' responses doubled for Sunday and Saturday afternoon service. This implies that the riders definitely place more importance on longer service on the weekdays than during the weekends and would actually find the extended hours of service on the weekdays more useful to them. Note: this finding can be quite puzzling considering the fact the existing hours of operation of GATEWAY Transit Van service are actually until 11:30 PM at night.

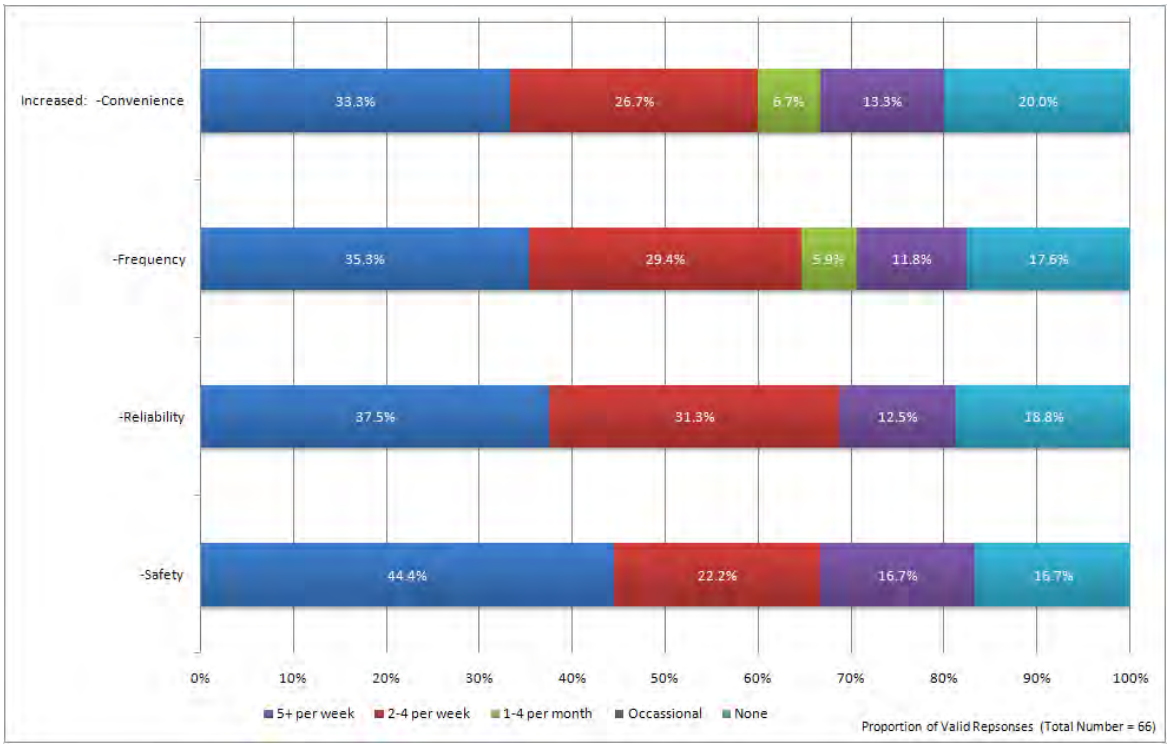
Perhaps there is a lack of information among the surveyed riders regarding those hours of service.

Figure A.20c: GATEWAY Transit Van Service On-Board Survey: Question 10



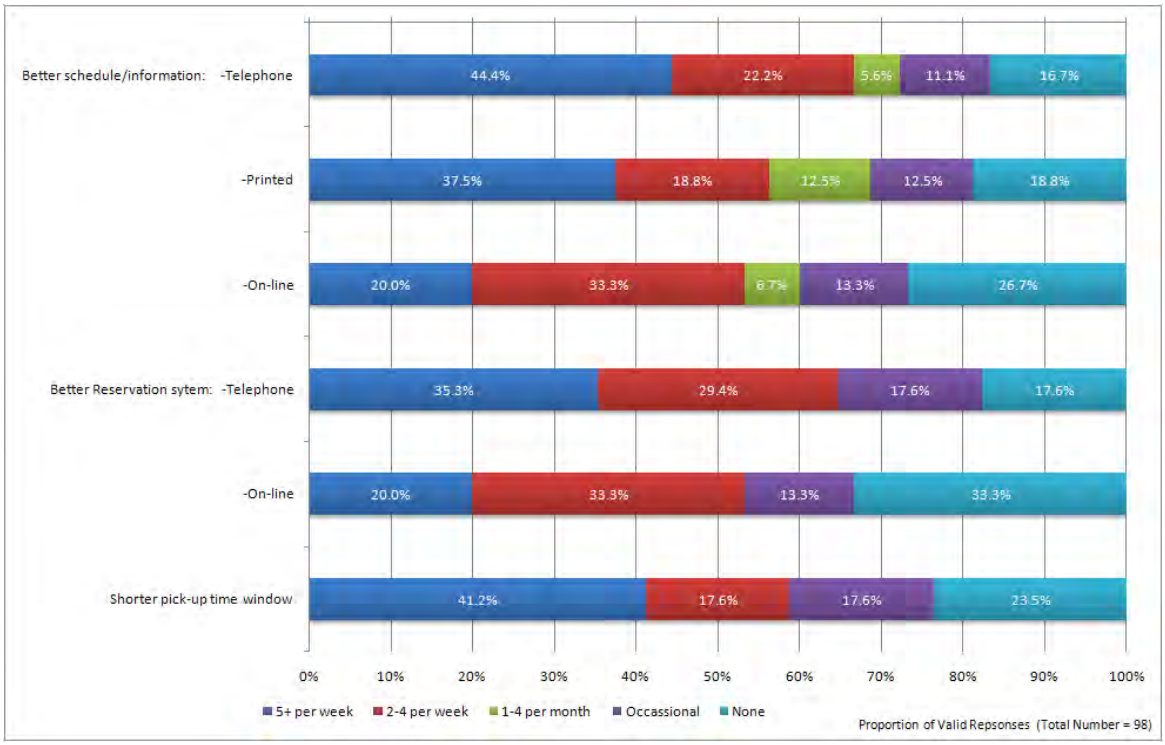
In terms of area served, the riders would generally take more Transit trips if more places were served by Transit in Goldsboro and Wayne County rather than regionally (see Figure A.20c). About 56 percent of the riders would become regular riders (take additional 2-4 trips per week or more) if GATEWAY Transit Van service served more places in Goldsboro and Wayne County (compared to 73 percent of GATEWAY Transit Bus riders). That is quite surprising considering the van service covers the whole county – perhaps there is some misinformation regarding the geographic extent of the existing service.

Figure A.20d: GATEWAY Transit Van Service On-Board Survey: Question 10



As shown in Figure A.20d, in terms of service convenience, frequency, reliability, and safety, about 65 percent of the respondents claimed that improvements to those service qualities would result in them taking at least 2-4 additional Transit trips per week, or, in other words, become regular riders (compared to 74 percent GATEWAY Transit Bus riders-wise). It seemed that the 'convenience' aspect of the improvements was the one the riders perceived to be a little less important than the others.

Figure A.20e: GATEWAY Transit Van Service On-Board Survey: Question 10



As shown in Figure A.20e, the surveys suggested that improved *telephone* schedule/information system would yield more positive results than improving other means of making trip reservations (this is compared to GATEWAY Transit Bus riders preferring improvements to schedule/information in a *printed* format).

The data suggests that the riders would be willing to take additional Transit trips if improved reservation system was made available to them via telephone. The riders would prefer access to improved information regarding the Transit system by phone as that is probably how they prefer to reserve the GATEWAY Transit Van service in the first place.

Lastly, shorter pick-up time window would result in nearly 60 percent of the riders taking at least 2 to 4 more additional trips per week – or essentially becoming regular riders. Interestingly, the answers given to Question 7 showed a high degree of dissatisfaction with that aspect of the GATEWAY Transit Van service, but the respondents were gentler when responding to Question 10.

Overall, the responses given to Question 10 suggest that longer weekday evening hours, shorter pick-up time window, and increased safety and reliability are some of the main qualities that – if improved – could result in increased ridership levels.

Significance:

In general, it seems the riders would be willing to make many more additional Transit trips if the proposed service improvements were made. As far as specific improvements' usefulness is concerned, the survey results suggest that longer weekday evening hours, shorter pick-up time window, and increased safety and reliability would result in the most significant increase in ridership levels and be most beneficial.

A.5.11 Please provide any other comments or suggestions?

Results:

A few respondents made additional comments; they mostly referred to issues with pick-up time, as in, the time to pick-up riders could be better because:

> 'If you have a pick up time & you have to be somewhere else by another time, it could be a problem getting there on time.'

In addition, quite a few respondents praised the van drivers.

Significance:

Pick up time window makes trips much longer than many riders would prefer.

The fact the van drivers received so much praise suggests the riders really enjoy the personal interaction and attention they receive from the drivers – that human touch cannot be underestimated as it most definitely increases their quality of life.

18 Appendix B: Federal and State Funding Sources

B.1 Introduction

GATEWAY Transit can (and does) apply through the North Carolina Department of Transportation (NCDOT) to receive Federal Transit Administration (FTA) funds. NCDOT also provides matching State funds for many capital, operating, planning and administrative expenditures, in some cases the full non-Federal share.

In Federal Transit funding, there is a distinction between large urban areas (populations above 200,000), small urban areas (populations from 50,000 to 200,000) and rural areas. GATEWAY Transit serves both a small urban area (the Goldsboro urban area, as defined by the Census Bureau) and a rural area (the remainder of Wayne County), and is therefore eligible for the funding sources in these two categories.

The following description of project categories and FTA funding programs is not exhaustive, but augments NCDOT guidance and describes types of projects for which GATEWAY Transit could pursue funding. A summary table is also provided. This includes funding sources already used by GATEWAY Transit, as well as others that could be pursued in the future.

B.2 Activities Eligible for Funding

B.2.1 Capital Projects

FTA's definition of a capital project is expansive. It includes not only buildings, vehicles and other major equipment, but also less obvious items such as preventive maintenance, technology purchases and mobility management. Table 18.1 lists examples of capital items.

Typically, the FTA funds up to 80 percent of the cost of capital projects. Certain expenses are eligible for 90 percent federal funding, including improvements to bicycle access to Transit and equipment required for either ADA or Clean Air Act Amendment compliance. When purchasing new buses, a funding applicant may either itemize elements eligible for the 90-percent capital share or opt to receive a "blended" funding share of 83 percent. NCDOT will fund up to one-half of the remaining cost.

Table 18.1 Examples of Capital Projects

Vehicles: bus overhauls and replacements, fleet expansions, onboard communications and fare collection equipment, preventive maintenance, supervisory vehicle purchases, equipment such as wheelchair lifts and ramps to support compliance with the Americans with Disabilities Act (ADA).

Facilities: maintenance facility rehabilitation and construction, bus stop sign and shelter purchases and installation, Transit center construction. Transit elements of joint-development projects, and bicycle or pedestrian access to facilities, are also eligible for federal funding.

Technology: intelligent transportation systems (ITS), such as automatic vehicle location (AVL), automatic passenger counters (APCs) and computer-aided dispatching (CAD) systems[5]; computer and software purchases that support operations.

Bicycle racks on vehicles, bicycle parking at Transit centers and other treatments to improve bicycle access to Transit.

Mobility management, which consists of strategies to expand service availability through improved coordination among public and other transportation service providers. Strategies include:

Establishment of joint call centers through which travelers can receive information about or make reservations for multiple providers' services.

Planning and implementation of coordinated services.

Provision of individualized travel training and trip planning services through employer-based groups or human service organizations.

Service coordination through technological upgrades, such as shared geographic information systems (GIS) mapping, global positioning systems, vehicle scheduling systems and other ITS components.

Operation of ADA-mandated complementary paraTransit service, provided that the agency's fixed-route and paraTransit operations are fully ADA compliant.

Purchase of private bus operators.

[5] NCDOT's Policy to Qualify for Advanced Technologies identifies ITS components that may be purchased with vehicles. The Policy also establishes minimum ridership and fleet size thresholds for purchases of dispatching and scheduling software.

B.2.2 Operating Expenses

FTA programs fund up to 50 percent of net operating costs, i.e., operating revenues subtracted from operating costs, with NCDOT providing additional funding for certain rural services. Operating revenues include fares and pass sales. Operating costs include fuel, drivers' and dispatchers' wages and benefits, licenses, vehicle maintenance and insurance.

B.2.3 Planning Activities

Planning activities include technical studies aimed at improving Transit facilities, equipment or service. The studies may focus on all or part of a Transit agency: eligible areas of study include management, such as the efficiency of administrative or operating procedures; operations, including service evaluation and restructuring; and identification of service or capital needs. Alternatively, planning activities may be project-specific, including evaluations of previously funded projects, economic feasibility studies for proposed projects and detailed design work for capital projects, such as preparation of engineering and architectural surveys, plans and specifications. FTA will fund up to 80 percent of the cost of a planning activity; NCDOT will fund up to 10 percent of the cost of studies in urbanized areas and 10 to 20 percent of the cost of studies in rural areas, depending on the scope.

B.3 Key Funding Programs

Various FTA and NCDOT funding programs support the activities described above, though not all programs support all categories of activity. The most general FTA programs are split by geography, with one (Section 5307) applicable to urban areas and another (Section 5311) to rural areas. Other programs are confined to particular categories of activity (i.e., capital projects only) or activities targeted toward certain populations. Each FTA program is described in brief below with examples of applicable projects. Applicable or comparable NCDOT programs are described under the FTA program headings. For small urban areas and rural areas, most FTA funding is channeled through NCDOT, which in some cases adds its own funds to programs. For this reason, the FTA and NCDOT funding streams are described together.

B.3.1 Section 5307 – Urbanized Area Formula Program

This program funds capital projects, planning activities and administrative costs in urbanized areas. Section 5307 funds may also support operations in urbanized areas with populations of no more than 200,000. Thus, most expenses related to the Goldsboro portion of GATEWAY Transit's services are eligible for funding under this program. Unlike other programs described below, this program does not emphasize projects that benefit certain segments of the population or pertain to specific types of service.

Capital funds from this program are typically applied to bus, Transit center and advanced technology-related projects, with combined FTA and NCDOT funds supporting up to 90

percent of project costs. For operating assistance, Section 5307 funds support NCDOT's State Maintenance Assistance Program (SMAP), which pays approximately 50 percent of urbanized area Transit agencies' eligible operating costs; GATEWAY Transit is a grantee of this program. Section 5307 funds are apportioned by formula such that each large urbanized area and state receives a certain amount of funds based on population, population density, Transit revenue miles and other factors – in other words, the funds are not limitless.

B.3.2 Section 5311 – Nonurbanized Area Formula Program

The Section 5311 program is the rural equivalent of the Section 5307 program; consequently, GATEWAY Transit can obtain these funds for capital, operating, planning and administrative expenses related to Wayne County service. NCDOT bundles Section 5311 funds into its Community Transportation Program (CTP), which provides up to 90 percent of capital costs, 85 percent of administrative costs and 50 percent of operating costs. GATEWAY Transit is a recipient of CTP funds.

Section 5311 funds are allocated to each state by a formula that considers nonurbanized population and land area relative to those of all states. Certain rapidly growing states are eligible for additional funds. Outside of the general purposes described above, certain percentages of each state's Section 5311 funds must be allocated to training (not described here) and intercity bus service (described separately below).

B.3.3 Section 5309 – Capital Investment Program – Bus and Bus-Related Facilities[6]

Section 5309 funds are for capital projects in urbanized areas, particularly projects that represent extraordinary, one-time needs or are part of high-priority regional or local initiatives. Bus transfer facilities are typically constructed with funds from this program. Funds will support inclusion of design and artistic elements, construction of pedestrian and bicycle connections and renovations of historic buildings so long as these are integral to a project.

Combined FTA and NCDOT funds will cover up to approximately 90 percent of the costs associated with Section 5309-funded projects. Section 5309 funds are heavily earmarked by Congress to particular projects or purposes. FTA allocates any remaining funds on a discretionary basis.

[6] The Capital Investment Program contains two other components: Fixed Guideway Modernization, which funds maintenance of and enhancements to rail systems and other Transit systems that operate on dedicated rights-of-way; and the New Starts/Small Starts Program, which funds construction of new or expanded fixed-guideway and bus rapid Transit systems. Fixed Guideway Modernization funds are allocated to regions with fixed-guideway Transit systems via a formula. New Starts funds are allocated competitively.

B.3.4 Section 5310 – Elderly and Persons with Disabilities Program

The Elderly and Persons with Disabilities Program (Section 5310) funds projects and services that improve mobility for senior citizens and people with disabilities. The primary funding recipients are private, non-profit organizations that serve the particular transportation needs of these populations. However, a public Transit agency may receive funding under limited circumstances: it must either certify that no private organizations exist to provide specialized service or must be designated by NCDOT and local jurisdictions as the lead coordinator of human-service transportation programs.

Most Section 5310 funds support capital projects. The mobility management strategies detailed in the Capital Projects section are eligible for funding, as are vehicles and related equipment. Under the SAFETEA-LU transportation funding act, which expires this year, North Carolina is one of seven states that may allocate Section 5310 funds to operations through fiscal year 2009. Projects selected for funding under the Section 5310 program must be derived from a locally developed and coordinated human services transportation plan, as GATEWAY Transit has adopted.

As per the Section 5307 and 5311 programs, Section 5310 funds are distributed by formula. Each state receives funding based on its populations of elderly and people with disabilities. However, unlike the 5307 and 5311 programs, Section 5310 funds are allocated competitively within the state.

B.3.5 Section 5311f – Intercity Bus Program

The Intercity Bus Program (Section 5311f) funds support operation of rural intercity bus services as well as "feeder" services that provide connections to intercity bus stops from surrounding rural areas. NCDOT must either allocate 15 percent of its statewide Section 5311 funding to this program or certify that sufficient rural intercity bus service exists to meet residents' needs. The funds are intended foremost for private operators, though some North Carolina public Transit agencies have implemented rural intercity routes along corridors that private carriers have declined to serve.

Capital projects eligible for Section 5311f funding include vehicle purchases for rural intercity or feeder service and depots and transfer centers that will be served jointly by Transit and intercity operators. Operationally, intercity bus service (per FTA's definition) connects two distant urban areas, operates on a regular schedule and fixed route with limited stops, has capacity for luggage transport and provides "meaningful" connections with scheduled intercity service to more distant points. Feeder service may take more diverse forms and be as simple as an extension of hours on existing services to provide timed connections with intercity trips.

NCDOT provides up to 50 percent of the cost associated with operating intercity bus or rural feeder service as part of its Regional and Intercity Program. Services funded by this program include the Piedmont Authority for Regional Transportation's twice-daily fixed-route service between Boone and Greensboro via Winston-Salem, Yadkinville and Wilkesboro. The Regional and Intercity Program also supports Travelers' Aid programs that assist homeless, stranded or indigent individuals in obtaining intercity bus fares.

B.3.6 Section 5316 – Job Access and Reverse Commute Program

The Job Access and Reverse Commute (JARC) Program serves two primary goals: (1) reducing low-income individuals' and welfare recipients' transportation barriers to employment, training and job support services; and (2) increasing Transit service for all populations to suburban employment. JARC-funded services may therefore include new shuttle routes that serve worksites directly, expanded demand-response van service in low-density employment areas, extended evening and weekend service hours to serve employees whose shifts do not coincide with typical peak commute times, and new express routes to suburban job concentrations[7]. Purchases of vehicles to operate these services, bus stop improvements (such as waiting shelters and upgraded lighting at job site bus stops) and other capital projects that support the program's goals may be funded.

The JARC program also supports transportation options outside of a Transit agency's typical scope of operations. For instance, guaranteed ride home programs that reimburse passengers for alternate transportation home (most commonly taxi rides) in case of personal emergencies may be funded. Voucher programs that enable low-income individuals to purchase rides through human service or taxi providers and loan programs that allow individuals to acquire automobiles for ridesharing purposes are also eligible projects.

Standard FTA funding shares apply for this program: 80 percent for capital projects and planning activities and 50 percent for operating costs. As with Section 5310, projects funded through the JARC program must be derived from a locally developed and coordinated human services transportation plan, and funding is allocated competitively. NCDOT does not provide matching funds for this program, though Temporary Assistance for Needy Families (TANF) funds allocated to the State constitute one potential funding source.

B.3.7 Section 5317 – New Freedom Program

The New Freedom Program (Section 5317) aims to reduce transportation barriers for people with disabilities to enter the workforce and participate in societal activities. Consequently, the program supports new, ADA-surpassing Transit services, accessibility improvements and

[7] Typically, JARC funds support the start-up of such services, with a Transit agency or other funding partners expected to assume responsibility for operating costs once the grants expire.

employment-related transportation alternatives. (Any project that was operational or funded as of August 10, 2005 is not considered "new" and is therefore ineligible for New Freedom funding.) New Freedom funds could be applied to enhancements to complementary ADA paraTransit service, for instance, such as expansion of service beyond the mandated ¾-mile fixed-route buffer, extension of service hours, or provision of same-day service. Feeder service to intercity bus or rail stations is also eligible for New Freedom funding, given that intercity services do not carry complementary paraTransit requirements. New Freedom funds cannot otherwise be used to expand the coverage, hours or days of general-public service.

Eligible capital projects under the New Freedom program include vehicle accessibility improvements, such as the purchase of wheelchair lifts that can accommodate larger or heavier mobility aids than those required by ADA. In addition, treatments to remove accessibility barriers to bus stops, such as construction of ADA-compliant sidewalks, curb cuts and pedestrian signals, may be funded. New public transportation alternatives that are eligible for New Freedom funding include voucher programs for people with disabilities similar to those described above for low-income individuals. Mobility management strategies, as detailed above in the Capital Projects section, are also consistent with the New Freedom program's intent of improving travel options for people with disabilities.

Standard FTA funding shares apply for this program: 80 percent for capital projects and planning activities and 50 percent for operating costs. As with Sections 5310 and 5316, projects funded through the New Freedom program must be derived from a locally developed and coordinated human services transportation plan, and funding is allocated competitively. NCDOT does not provide matching funds for this program A project may be funded through the New Freedom program indefinitely (i.e., receive successive New Freedom grants) provided that it remains in the human services transportation plan; however, NCDOT encourages applicants to identify other funding sources that could be applied following expiration of the initial grant.

B.3.8 Surface Transportation Program

Federal transportation funding legislation includes several other programs that are not Transit-specific but whose funds may be spent on Transit-related activities. For instance, the Surface Transportation Program (STP) funds that the Federal Highway Administration distributes to the Goldsboro MPO may be spent on capital projects related to many modes of transportation, including public Transit. The Transit and intercity bus capital projects described above are therefore eligible for STP funding, as are pedestrian and bicycle facilities that enhance access to Transit. In practice, STP funds are often allocated primarily to roadway projects, as is the case in the Goldsboro MPO's current Transportation Improvement Program (TIP). Given the flexibility of STP funds, however, roadway projects can (and should) include sidewalks, crosswalks and other Transit-supportive infrastructure.

Table B1: Summary of Main Federal and State Funding Sources

Urban													
Program		**Basic intent**	**Original source**	**Who adminis-ters?**	**How allocated?**	**Who ultimately receives?**	**For operating costs?**	**For capital costs?**	**Maximum federal share**	**NCDOT share**	**Local share**	**Flexibility**	**Other notes**
§5307 Urban Formula Funding		Operating costs of urban systems. Also capital costs in small urban areas	Federal taxes	FTA. State administers in small urban areas.	By formula to states, then by state-approved formula to urban areas. See notes	Transit agency	Yes (in small urban areas)	Yes	80% for capital, 50% for operating	Up to half of non-federal share. Typically 10% for capital, 25% for operating	Remainder of non-federal share. Typically 10% for capital, 25% for operating		For small urban areas (50,000-200,000), formula only includes population and population density. For large urban areas (>200,000), formula also includes service level and productivity measures. Small urban areas are also eligible for the Small Transit-Intensive Cities (STIC) set-aside, which gives additional funding to systems with above-average performance on certain measures.
State Maintenance Assistance Program (SMAP)		Operating costs of urban systems	State taxes	NCDOT	By formula - partly related to performance and to local funding amount	Transit agency	Yes		N/A	50%	50%		

Rural													
Program		**Basic intent**	**Original source**	**Who adminis-ters?**	**How allocated?**	**Who is typically the ultimate recipient?**	**For operating costs?**	**For capital costs?**	**Maximum federal share**	**NCDOT share**	**Local share**	**Flexibility**	**Other notes**
Community Transportation Program	§5311 Rural Formula Funding	Rural transit	Federal taxes	State	To states by formula, then within states by formula	Rural transit agencies	Yes	Yes	80% for capital and administrative, 50% for operating	5% for administrative, 10% for capital, nil for operating	15% for administrative, 10% for capital, 50% for operating	Inherently flexible - this is a general-purpose funding stream	5311(f) Inter-City Bus Program. See separate details. 15% allocation OR certification that it's not needed.
	Rural Capital Program	Capital costs of rural transit	Combinatio n of federal and state taxes	State		Rural transit agencies			90% combination of federal and state	90% combination of federal and state	10%		NOT APPLICABLE TO CONSOLIDATED URBAN/RURAL COUNTY SYSTEMS SUCH AS GATEWAY
	Human Service Transportation Management Program	Administrative costs of human service transportation	State taxes	State		Rural transit agencies			N/A	85%	15%		NOT APPLICABLE TO CONSOLIDATED URBAN/RURAL COUNTY SYSTEMS SUCH AS GATEWAY
Rural Operating Assistance Program (ROAP) (these three programs are administered under a single ROAP applitaion package) $250k in FY10 for Wayne County	Elderly and Disabled Transportation Assistance Program (EDTAP)	Funds of last resort for trips for elderly and disabled people	State taxes	State, then County	To counties by formula. County then distributes at its discretion	Human service agencies (who can then pay transit agency for trips)	Yes (fully-allocated cost of trips)	No	None	100%	None	Cannot be transferred	Can be used as local match for federal operating funds
	Employment Transportation Assistance Program (ETAP) (also known as EMPL)	Employment trips for low-income people	State taxes	State, then County	To counties by formula. County then distributes at its discretion	Human service agencies (who can then pay transit agency for trips)	Yes (fully-allocated cost of trips)	No	None	100%	None	Can be transferred to EDTAP or RGP if not needed for EMPL	Can be used as local match for federal operating funds
	Rural General Public (RGP)	Anyone not covered by other specific programs	State taxes	State, then County	To counties by formula. County then distributes at its discretion	Transit agency	Yes (fully-allocated cost of trips)	No	None	90%	10% (can be combination of fares and subsidy)	Cannot be transferred	Use for riders whose trips are not funded by other means Can be used as local match for federal operating funds

Urban or Rural													
Program		**Basic intent**	**Original source**	**Who adminis-ters?**	**How allocated?**	**Who ultimately receives?**	**For operating costs?**	**For capital costs?**	**Maximum federal share**	**NCDOT share**	**Local share**	**Flexibility**	**Other notes**
Federal Capital Investment Program	§5309 Capital Investment Program - Bus and Bus-Related Facilities	Capital investment	Federal taxes	FTA	Most funds are earmarked by Congress to specific projects. Remaining funds are distributed competitively by FTA.	Transit agencies	No	Yes	80%	10%	10%		Most common funding source for new vehicles, multimodal centers, transfer points, maitnenance depots.
	§5309 Capital Investment Program - New Starts	New or extended fixed guideway systems (rail light rail, streetcar, BRT, etc) or corridor-based bus projects	Federal taxes	FTA	Competitively by FTA	Transit agencies	No	Yes	Nominally 80%. In practice, lower share offers better change of funding	Up to half of non-federal share	Remainder of non-federal share	None. Funding is for specified projects.	
Targeted Competitive Programs	§5310 Elderly & Persons with Disabilities	Improving mobility for elderly and disabled people	Federal taxes	State	To states by formula, then competitively within states	Usually private non-profits, but can be transit agency	See notes	Yes	80% for capital, 50% for operating	None	Entire non-federal share		Projects must be in a locally-adopted Coordinated Plan in order to qualify Mainly intended for capital costs. Federal law allowed NC to use 1/3 of these funds for operating costs through 2009
	§5316 Job Access & Reverse Commute (JARC)	(a) reduce barriers to employment and training for low-income people, and (b) improve access to suburban employment for everyone	Federal taxes	State	To large urban areas or states by formula, then competitively within large urban areas or states	Transit agencies (also nonprofits)	Yes	Yes	80% for capital, 50% for operating	None	Entire non-federal share		Projects must be in a locally-adopted Coordinated Plan in order to qualify
	§5317 New Freedom	Reduce barriers to employment and societal activities for disabled people	Federal taxes	State	To large urban areas or states by formula, then competitively within large urban areas or states	Transit agencies (also nonprofits)	Yes	Yes	80% for capital, 50% for operating	None	Entire non-federal share		Projects must be in a locally-adopted Coordinated Plan in order to qualify. Project can be funded indefinitely from New Freedom, but NCDOT encourages agencies to look for other permanent funding.
Public Transportation Grant Program		Miscellaneous	State taxes	State		Transit agencies	See note	See note					Covers specific projects including (a) Apprentice and Interm Programs and (b) TDM Programs)
Surface Transportation Program		Transportation (in general)	Federal taxes	FHWA	By formula to states, then by formula to MPOs, then to projects by MPOs	MPOs							Still often considered to be 'highway funds', but in fact can be used for transit too. Statewide prioritization program about to change

19 Appendix C: Proposed Short-Term GATEWAY Transit Fixed Route Service Improvements in December 2009

C.1 Introduction

This section of the report describes the proposed changes to Goldsboro fixed-route services in December 2009.

This section only deals with the Goldsboro fixed-route network and its stops. The service span (hours and days), other routes to/from nearby towns, and the demand-responsive service are not considered here, but will be considered separately within the CTSP.

The first of GATEWAY Transit's new buses is expected to go into service in December 2009. Funding is expected to be available at the same time to add a fifth route to the Goldsboro fixed-route network, using the new bus in addition to the existing cutaway vehicles. This is a good opportunity to not only add the extra route but also make other changes that address existing concerns.

Ideally, all the recommended changes should be made at the same time, to minimize the cost and effort involved (for example, in producing new information materials) as well as to minimize potential confusion. However, the changes can be made in stages if the situation requires. In particular, the fifth route could be introduced before or after the other recommended changes.

C.2 Service-Planning Goals and Principles

The Steering Committee's objectives for the December 2009 changes were to:

- Minimize disruption to existing travel patterns. Any changes that would disrupt existing travel patterns should, if possible, wait until the transfer center moves to Union Station

- Use the fifth route to provide a departure time from Wayne Community College that fits well with class schedules

- Use the fifth route to create direct connections from the transfer center to the Berkeley Mall area, and from the Berkeley Mall area to Wayne Community College

- Provide a direct connection from the transfer center to downtown

- Reduce the journey times on the Berkeley Mall route, which suffers from late running and creates knock-on delays at the transfer center for other routes

- Provide additional transfer opportunities, at locations other than the main Transfer Center, where feasible

Other goals and service-planning principles were to:

- Take other opportunities to reduce travel times
- As far as possible, be compatible with a future move to Union Station
- Make the system easy to understand and use, especially for new riders
- Retain the hourly pulse at the Transfer Center
- Provide a regular hourly service throughout the core network
- Aim for mirrored schedules (i.e. a rider's trip should be convenient both out and back, not just one way)
- Aim for bi-directional routes (i.e. riders use the same route both out and back)
- Match the vehicle type with the route characteristics. Where possible, focus cutaways on residential areas and larger buses on main arterials
- Maximize direct links between residential areas and retail areas (e.g. there should be a grocery store on each route)
- Similarly, connect as many residential areas as possible directly to downtown
- Minimize time-consuming detours from main streets

The recommended routes described here are subject to field-testing and public consultation. The timings shown are for route-planning purposes and are deliberately conservative. The final published timings may differ slightly from these.

C.3 Overview

Figure C.1 shows the routes proposed for December 2009.

The new fifth route, provisionally named **East End**, is recommended to receive the first new city bus. The route is recommended to run from the Transfer Center to Berkeley Mall, Wal-Mart, Wayne Community College (WCC), and downtown Goldsboro including the Courthouse area Transfer Center. At WCC, it will wait for classes to finish, then leave WCC and run via the medical district to downtown Goldsboro's Transfer Center near the

Courthouse via Royall Avenue, North William Street, and North John Street. From the Courthouse, it will run back to the Transfer Center along East Ash Street. It will meet the Berkeley Mall bus at Wal-Mart, and downtown in the Courthouse area as well. The key benefits of this route are:

- faster trips to Berkeley Mall
- new direct connections from the Berkeley Mall area and Wal-Mart to the College
- much better departure time for College students leaving classes
- faster trips from the medical district
- direct connection to downtown from the College and medical district
- new quick connection between downtown and existing Transfer Center by establishing bus stops on East Ash Street

The **Berkeley Mall** route is recommended to receive the second new bus when it arrives in 2010. To improve timekeeping, a shorter and simpler route along Elm Street and through downtown is recommended. The remainder of the route is recommended to remain as it is today, although the Parkway and Target section should be kept under review in case additional changes are required to improve timekeeping further.

The **Wayne Memorial** route is recommended to remain unchanged initially. However, it may need to switch to a full-size bus in the future, and at that stage, the three turnarounds on the existing route would be eliminated for safety reasons as they are unsuitable for a full-size bus. Existing or new stops nearby would be used instead.

The **North End** route is currently the least productive route, and changes are recommended to improve both its value to existing riders and its contribution to the system. The extensions in alternate hours to Wal-Mart in Rosewood and to the O'Berry Center are recommended for elimination, due to their very low ridership and time-consuming nature. Riders to these destinations will be served by a combination of the proposed Cherry Commuter service (see below) and the existing demand-responsive service. This change means that Little River Shopping Center and Oak Street can be served at the same times each hour, instead of the current irregular times. Service beyond Little River Shopping Center to Wilco/McDonald's should be subject to further consideration. The time saved by eliminating the extensions will allow the route to continue from downtown along Royall Avenue to Wal-Mart on Spence Avenue, then return along Royall Avenue to the Transfer Center. The key benefits of this addition are:

- new direct links from residential areas and downtown to the Spence Avenue commercial district, including Wal-Mart

- new service to parts of Royall Avenue

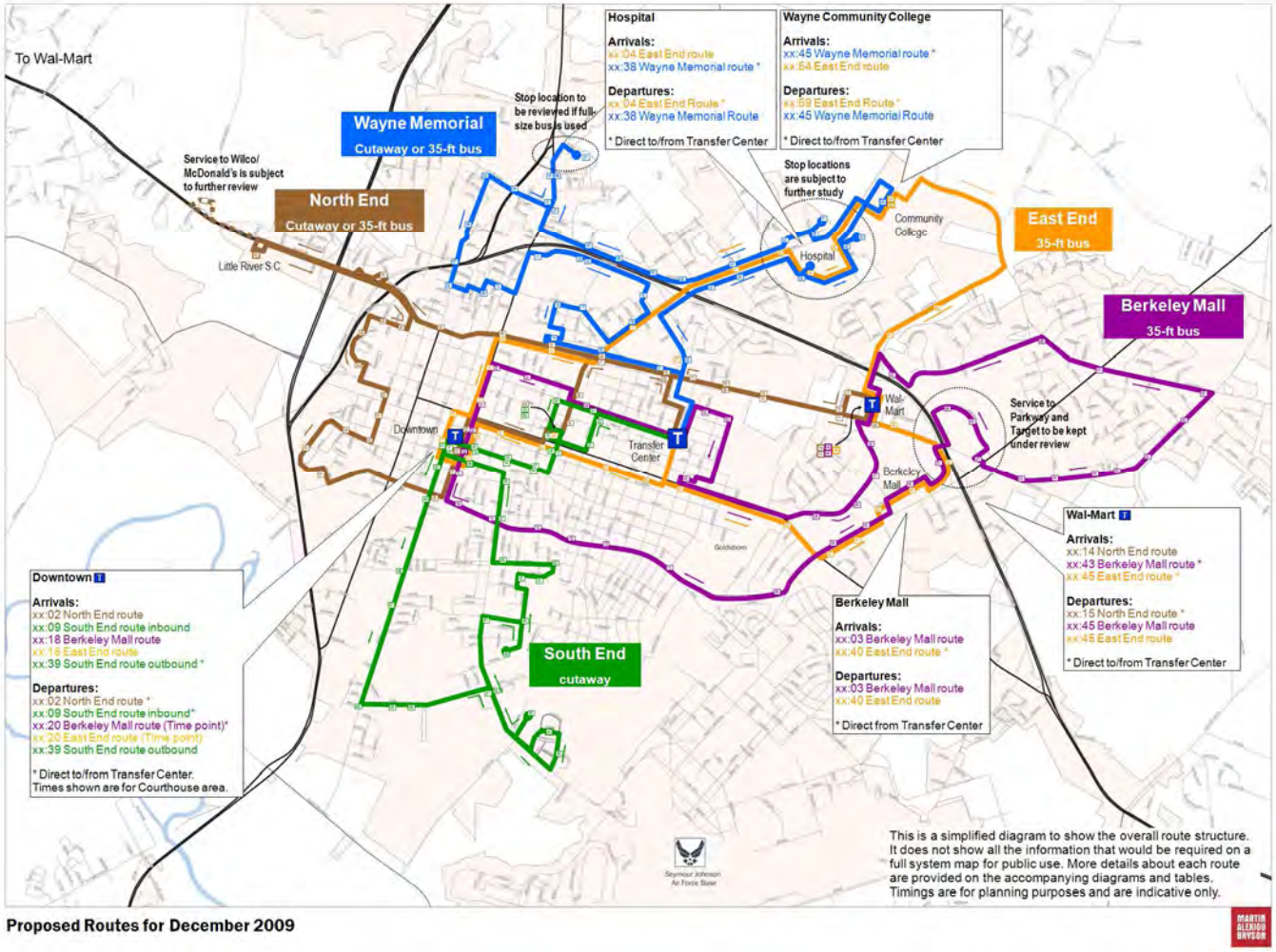
- much faster trips from Wal-Mart (GATEWAY Transit's second-busiest stop) back to the transfer center, and

- taking some of the ridership pressure off the Berkeley Mall route

The route would continue to use a cutaway, but is also suitable for a full-size bus if required in the future.

Finally, some adjustments are recommended to the **South End** route. It will keep its main role of serving the residential neighborhoods in the southern part of Goldsboro, using a cutaway van. The adjustments aim to improve access to/from some key destinations. The outbound leg is recommended to run through downtown, providing a direct link from the transfer center to downtown that currently does not exist. The exact route through downtown is subject to more detailed consideration. The route could then follow John Street to rejoin the current route at Bunche Drive, although other options are possible on this segment. The current route from Dixie Trail to Slocumb St at Chestnut Street would be retained, followed by a simplified route through downtown to Piggly Wiggly. The bus would then serve the Health Department and return to the transfer center. Some transfers are possible in downtown, although the buses would not meet.

Figure C.1 Proposed 2009 GATEWAY Transit Fixed Routes



C.4 Transfer Points

All buses will continue to pulse at xx:30 at the main transfer center (Beech Street at Madison Avenue. In addition, subject to confirmation of timings, transfers could be offered at some additional points where routes cross. In some cases, buses can be timed to meet. In other cases, one bus will follow another and so a rider will have to wait at the stop for a few minutes. The planned introduction of electronic fareboxes on-board will make it easier to issue transfer tickets.

The recommended additional transfer points are (see Table C.1 as well):

Wal-Mart (Spence Avenue): the Berkeley Mall and East End buses would meet here, allowing transfers to and from each bus. For example, riders could go quickly from Berkeley Mall to New Hope Road, or from Spence Avenue to WCC, using this transfer. In addition, the North End route would arrive here at the opposite side of the hourly cycle. For a few riders, a transfer to/from the North End route here will still be faster than a transfer at the transfer center. For others, it saves no time, compared to going via the transfer center, but they can use the half-hour wait to shop rather than being on a bus.

Downtown: the four routes that go through downtown on their inbound trips all follow different routes to the transfer center. Some people would therefore benefit from making transfers here – for example, a resident on the South End route traveling to the employment office. The exact routes through downtown are subject to more detailed consideration, but it is likely that the stops in the courthouse area would be used for transfers. The proposed courthouse area Transfer Center is also a time point for the East End route and Berkeley Mall route (buses meet).

Table C.1: Proposed Systemwide Transfer Locations for December 2009

Transfer Center				
From	**(arrival time)**	**To**	**(departure time)**	**Notes**
All routes	xx:25-xx:26	All routes	xx:30	Buses meet.
Wal-Mart (Spence Avenue)				
From	**(arrival time)**	**To**	**(departure time)**	**Notes**
Berkeley Mall	xx:43	East End	xx:45	Buses meet
East End	xx:45	Berkeley Mall	xx:45	Buses meet
North End	xx:14	East End	xx:45	Buses do not meet
North End	xx:14	Berkeley Mall	xx:45	Buses do not meet
Berkeley Mall	xx:43	North End	xx:15	Buses do not meet
East End	xx:45	North End	xx:15	Buses do not meet
Downtown (Courthouse Area)				
From	**(arrival time)**	**To**	**(departure time)**	**Notes**
North End	xx:02	South End	xx:09	Buses do not meet. Walk around corner from William St stop to Chestnut St stop
North End	xx:02	Berkeley Mall	xx:17	Buses do not meet. Stay at William Street stop
South End	xx:09	Berkeley Mall	xx:17	Buses do not meet. Walk around corner from Chestnut St to William St stop
Berkeley Mall	xx:18	East End	xx:20	Buses meet
East End	xx:18	Berkeley Mall	xx:20	Buses meet
Stops and timings are provisional. They are subject to field-testing and public consultation.				

C.5 Berkeley Mall Route

Proposed route: *Transfer Center – follow existing route to Elm St at Slocumb St – continue on Elm St to William St – run directly along William St to Holly St – then continue on existing route to Transfer Center.*

Proposed vehicle: 35-foot bus.

Figure C.2 shows the existing Berkeley Mall route, and Figure C.3 shows the proposed route. Table C.2 shows the existing and proposed stops and timings.

Recommended adjustments to improve speed and timekeeping:

- Service to Hinson St and Charles St eliminated in favor of more direct route. New stops on Elm St and William St to replace the eliminated segment. The North End and South End routes are also nearby as alternatives

- Route through downtown becomes a 'straight shot' along William St. Stops move up to two blocks as a result. Other routes are also available downtown as alternatives

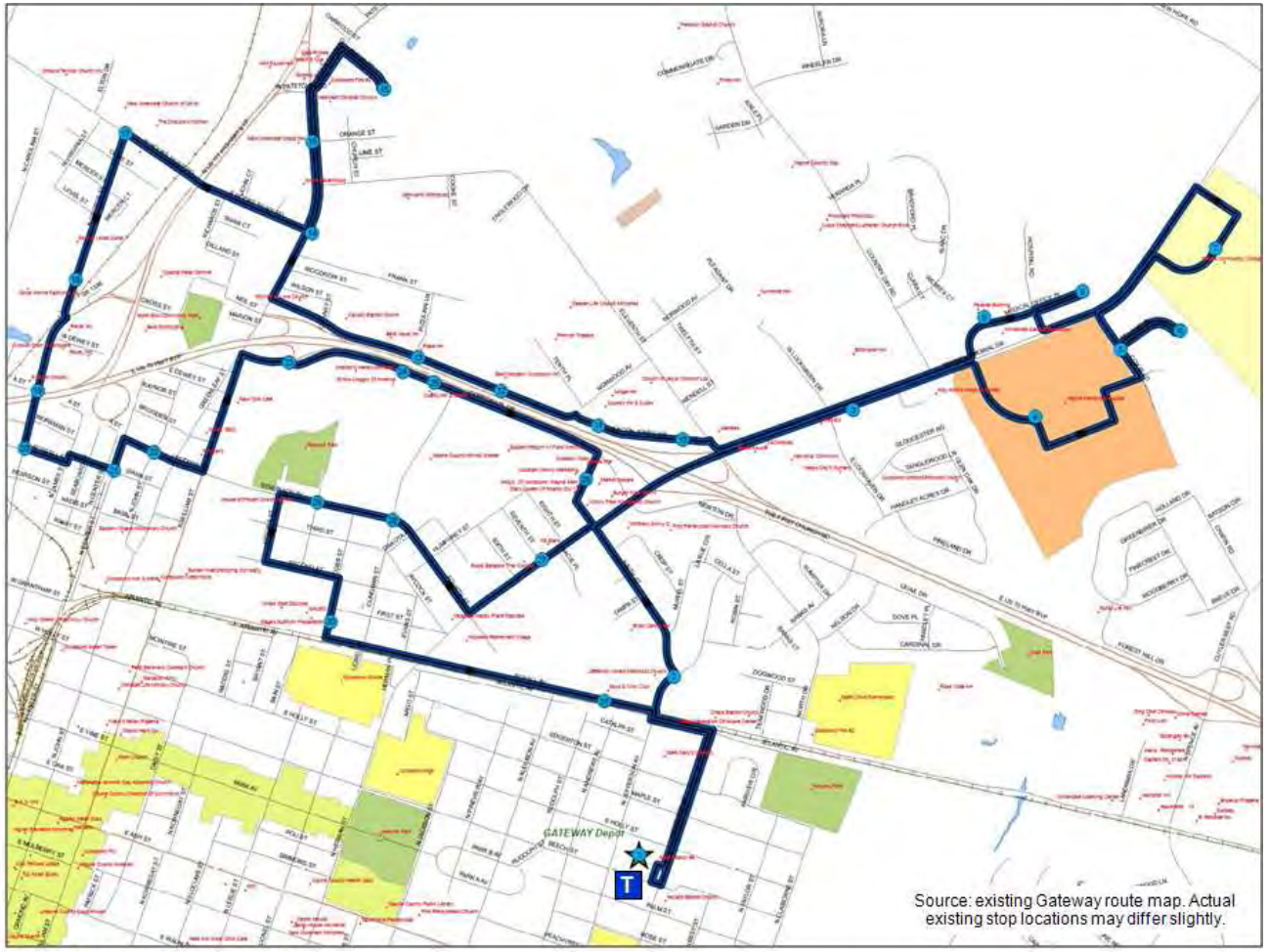
- These two 'straight shot' adjustments save approximately two minutes

- Use of low-floor bus will mean faster boarding and alighting. This may save one to two minutes per run

- The recommended extension of the North End route to Wal-Mart at Spence Avenue would take some ridership pressure off the Berkeley Mall route. This would also help timekeeping

- Service to Parkway and Target should be kept under review. The recommended changes are expected to improve timekeeping. However, if the route needs to be shortened further despite those changes, service to Parkway and Target could be eliminated. This segment could be taken over by the North End route or the East End route if their timings allow

Figure C.2: Berkeley Mall Route (Existing)



Wayne Memorial Route – Existing

Figure C.3: Berkeley Mall Route (Proposed)

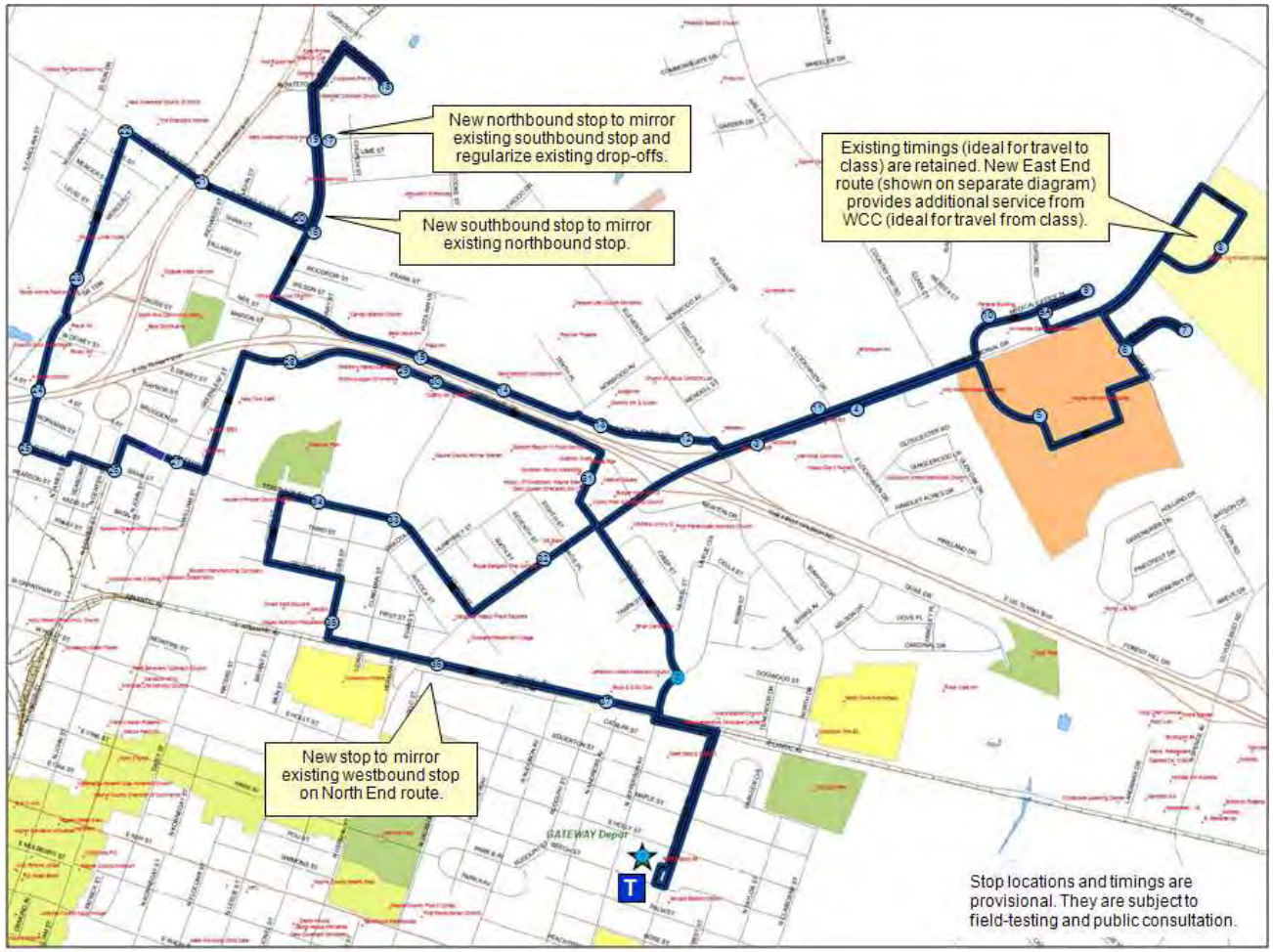


Table C.2: Berkeley Mall Route – Existing and Proposed Stops and Timing

Existing Route

ID	Description	Schedule	Notes	Proposed Changes
1	**Transfer Center**	**xx:30**		No change
2	Fairview Apts.	:32	Two stops	No change
3	Claiborne / Edgerton	:33		No change
4	Wayne Plaza	:35		No change
5	Spence Ave / Andy's	:36		No change
6	Spence / Precision Lube	:37		No change
7	Briarcliff Apts.	:38		No change
8	**Wal-Mart**	**:45**	Time point	No change to stop, but becomes transfer point.
9	Outback Steakhouse	:47		No change
10	Harding/New Hope	:49		No change
11	New Hope/Berkeley	:51		No change
12	New Hope/Central Heights	:52		No change
13	Fire Station	:52		No change
14	Central Heights/Sanborn	:53		No change
15	Central Heights/Byron	:53		No change
16	Tanglewood MHP	:54		No change
17	Weber MHP	:54		No change
18	Central Heights/Oak Forest	:55		No change
19	Royall/Staples	:57		No change initially - keep under review
20	Golds Gym	:58		No change initially - keep under review
21	Family YMCA	:59		No change initially - keep under review
22	Target	:01		No change initially - keep under review
23	Berkeley Mall	:03		No change
24	Schlotsky's Deli	:05		No change
25	K-Mart	:06		No change
26	Elm / Lee	:08		No change
27	Elm/Claiborne	:10		No change
28	Elm/Andrews	:11		No change
29	Elm / Pineview	:12		No change
30	Elm / Poplar	:13		No change
31	Elm / Slocumb	:14		No change
32	Elmwood Terrace	:15		Eliminated. Replaced by new stop on Elm @ Charles
32A	*Charles/Spruce*	*n/a*	*Posted stop, not shown on existing map or schedule*	Eliminated. Riders use William @ Spruce stop instead
33	Spruce/William	:16		Moves around corner to William @ Spruce
34	Center / Walnut	:17		Eliminated. Riders use William @ Courthouse stop instead
35	City Hall	:17		Eliminated. Riders use William @ Post Office stop instead
36	Employment Security Office	:19		Moves around corner to William @ Oak
37	Greyhound Station	:20		Eliminated. Riders use William @ Oak stop instead.
37A	*Salvation Army*	*n/a*	*Posted stop, not shown on existing map or schedule*	No change
38	Woodcrest Apts.	:22		No change
38A	*High School*	*n/a*	*Posted stop, not shown on existing map or schedule*	No change
1	**Transfer Center**	**n/a**		No change

Time points and transfer points are shown in bold with shading

Proposed Route for December 2009

ID	Description	Schedule*	Location Notes
1	**Transfer Center**	**xx:30**	
2	Fairview Apts.	:32	Two stops
3	Claiborne / Edgerton	:33	
4	Wayne Plaza	:35	
5	Spence Ave / Andy's	:36	
6	Spence / Precision Lube	:37	
7	Briarcliff Apts.	:38	
8	**Wal-Mart**	**:45**	Time point, transfer point - meets East End route
9	Outback Steakhouse	:47	
10	Harding/New Hope	:49	
11	New Hope/Berkeley	:51	
12	New Hope/Central Heights	:52	
13	Fire Station	:52	
14	Central Heights/Sanborn	:53	
15	Central Heights/Byron	:53	
16	Tanglewood MHP	:54	
17	Weber MHP	:54	
18	Central Heights/Oak Forest	:55	
19	Royall/Staples	:57	Keep under review
20	Golds Gym	:58	Keep under review
21	Family YMCA	:59	Keep under review
22	Target	:01	Keep under review
23	Berkeley Mall	:03	
24	Schlotsky's Deli	:05	
25	K-Mart	:06	
26	Elm / Lee	:08	
27	Elm/Claiborne	:11	
28	Elm/Andrews	:12	
29	Elm / Pineview	:13	
30	Elm / Poplar	:14	
31	Elm / Slocumb	:15	
32	Elm / Charles	:16	
33	William / Spruce	:17	
34	**Courthouse (William between Chestnut and Walnut)**	**:18**	New stop: timepoint, transfer point - meets East End route (buses meet). Transfer to South End and North End routes (buses do not meet).
35	William at Post Office	:20	Uses existing North End stop
36	William/Oak (Employment Security)	:21	Moved around corner from existing
37	Salvation Army	:22	
38	Woodcrest Apts.	:23	
39	High School	:24	
1	**Transfer Center**	**:26**	

Time points and transfer points are shown in bold with shading

Stops and timings are provisional. They are subject to field-testing and public consultation.

C.6 East End Route

Proposed Route: *Transfer Center – Madison St – Ash St – Berkeley Blvd – Cashwell Dr – Eastgate Dr – Berkeley Mall – Sunburst Dr – Royall Ave – Wal-Mart – Spence Ave – Culyer Best Rd – New Hope Rd – Wayne Community College – Wayne Memorial Blvd – Cox Blvd – Rear of Hospital – Hospital Patient Entrance – Wayne Memorial Blvd – Royall Ave – North William St – East Ash St – North John St – East Chestnut St – South William St – North William St – East Ash St – Madison St – Transfer Center.*

Proposed vehicle: 35-foot bus.

Figure C.4 shows the proposed East End route. Table C.3 shows the proposed stops and timings.

Recommended route specifications:

- 'Corridor' route serving the Berkeley Mall area, WCC, the medical district, and downtown

- Timings are based around leaving WCC with sufficient time for students to leave class. Other than that, the route can be flexible, and variations are possible in the exact routing before and after WCC

- Currently there are no pedestrian facilities at the signals on Berkeley Blvd, and adding these would make it much easier to get to/from bus stops (on both sides of the road) as well as to/from the commercial areas themselves. In the meantime, the recommended new northbound stops for this route along Berkeley Blvd will improve Transit access to the areas east of Berkeley Blvd. This is an existing concern

- This bus would meet the Berkeley Mall bus at Wal-Mart for transfers

- This route does not have to serve the medical district, but doing so provides improved service for people returning from the hospital or medical appointments. They can leave 20-30 minutes later and get to the transfer center at the same time as the existing schedule allows

- However, routing through the medical district is tricky. The 35-foot bus is unsuitable for the existing turnarounds and the traffic pattern makes some turns difficult. The recommended route is the most practical option for the short-term. Longer-term stop locations in the medical district area should be considered in more detail. If necessary, the East End route could omit the medical district pending resolution of the stop locations

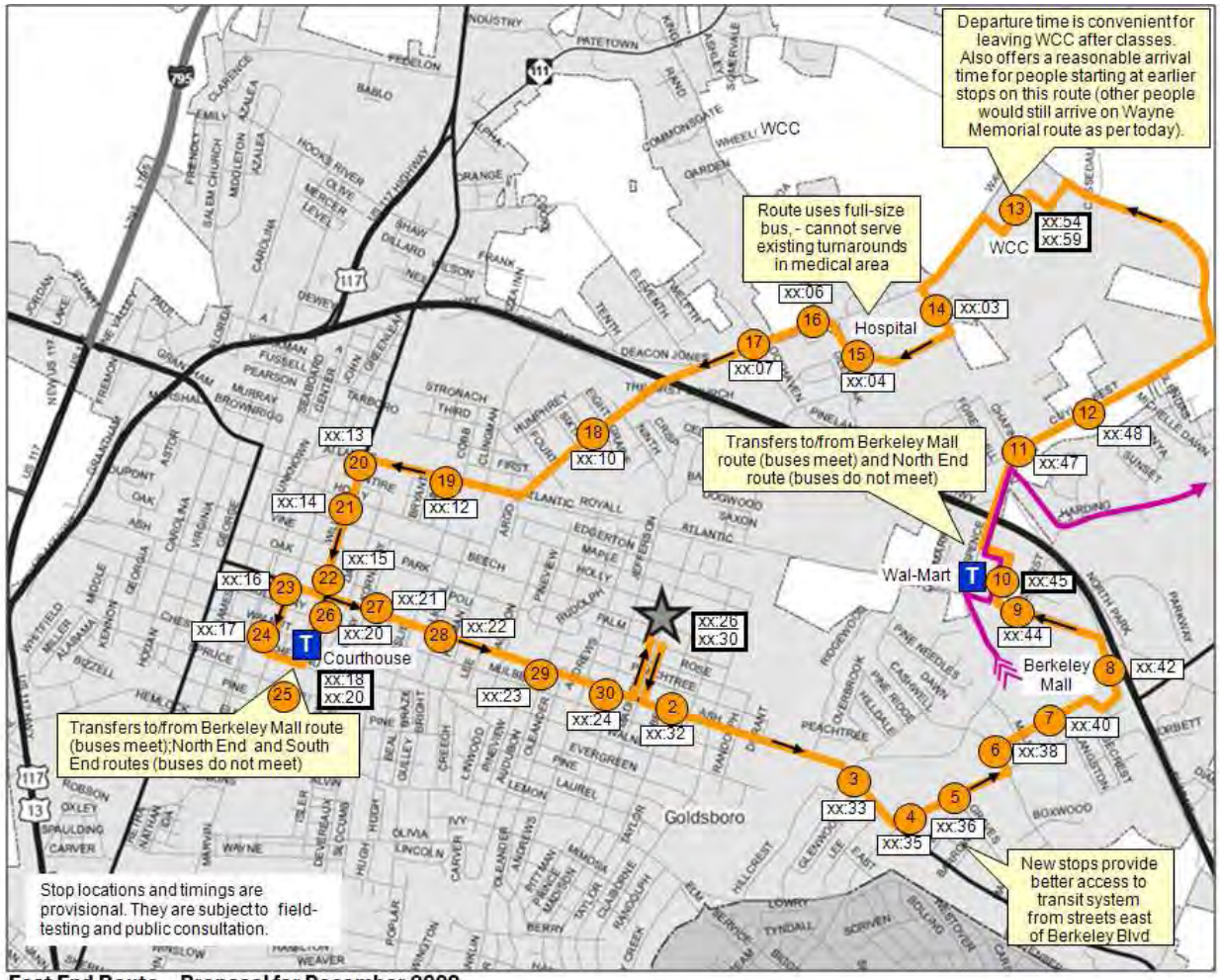
- At Kenly Savings Bank and/or W.A.G.E.S. stops, transfer would be offered to those riders wishing to switch to the Wayne Memorial route and go to the main existing Transfer Center without passing through downtown Goldsboro (waiting period time of six minutes)

- At W.A.G.E.S. and Royall/William stops, transfer would be offered to those riders wishing to switch to the North End route (westbound)

- The bus would follow North William Street (via established bus stops on the Berkeley Mall route but placed in the opposite direction) and North John Street (new bus stops) southward to the downtown Transfer Center in the courthouse area

- The East End route would meet the Berkeley Mall route bus downtown for transfers. This would also constitute the route's time point. This recommendation, like all the proposed additional transfer points, is subject to confirming the timings

Figure C.4: East End Route (Proposed)



East End Route – Proposal for December 2009

Table C.3: East End Route – Proposed Stops and Timings for December 2009

Proposed Route for December 2009			
ID	**Description**	**Schedule***	**Location Notes**
1	**Transfer Center**	**xx:30**	
2	Ash/Best	:32	New stop. Opposite Food Lion
3	Ash/Spence	:33	New stop
4	Berkeley/Ash	:35	New stop - exact location to be confirmed
5	Berkeley/Graves	:36	New stop
6	Cashwell/Eastgate	:38	New stop
7	Berkeley Mall	:40	Existing stop on Berkeley Mall route. East End route serves the stop in opposite direction
8	Target	:42	New stop - opposite existing stop
9	Royall/Sunburst	:44	New stop
10	**Wal-Mart**	**:45**	Timepoint. Transfer Point. Meets Berkeley Mall bus.
11	Culyer Best / Chafin	:47	New stop
12	Culyer Best at apartments	:48	New stop
13	**Wayne Community College**	**arr. xx:54 dep. xx:59**	Existing stop on Wayne Memorial Route. Timepoint.
14	Cox / McLamb	:03	
15	Wayne Memorial Hospital	:04	New stop on driveway near existing stop
16	Social Security building/Medical Office Place	:06	
17	CVS	:07	
18	Kenly Savings Bank	:10	Existing stop on Wayne Memorial route.
19	W.A.G.E.S.	:12	North End route serves the stop as well. Wayne Memorial route serves the stop in opposite direction.
20	Royall/William	:13	North End route serves the stop as well.
21	Salvation Army	:14	Berkeley Mall route serves the stop in opposite direction.
22	William/Oak (Employment Security)	:15	Berkeley Mall route serves the stop in opposite direction.
23	East Ash/North John	:16	New stop
24	Senior Center (southbound)	:17	New stop -opposite existing stop. South End serves the stop in both directions.
25	**Courthouse (William between Chestnut and Walnut)**	**:18**	New stop: timepoint, transfer point - meets Berkeley Mall route (buses meet). Transfer to South End and North End routes (buses do not meet).
26	William at Post Office	:20	Uses existing North End stop
27	East Ash/North Slocumb	:21	New stop
28	East Ash/North Herman / Wayne Co. Public Library	:22	New stop
29	East Ash/North Audubon	:23	New stop
30	East Ash/North Jefferson	:24	New stop
1	**Transfer Center**	**:26**	
Time points and transfer points are shown in bold with shading			
Stops and timings are provisional. They are subject to field-testing and public consultation.			

C.7 Wayne Memorial Route

Proposed Route: *Same as existing route.*

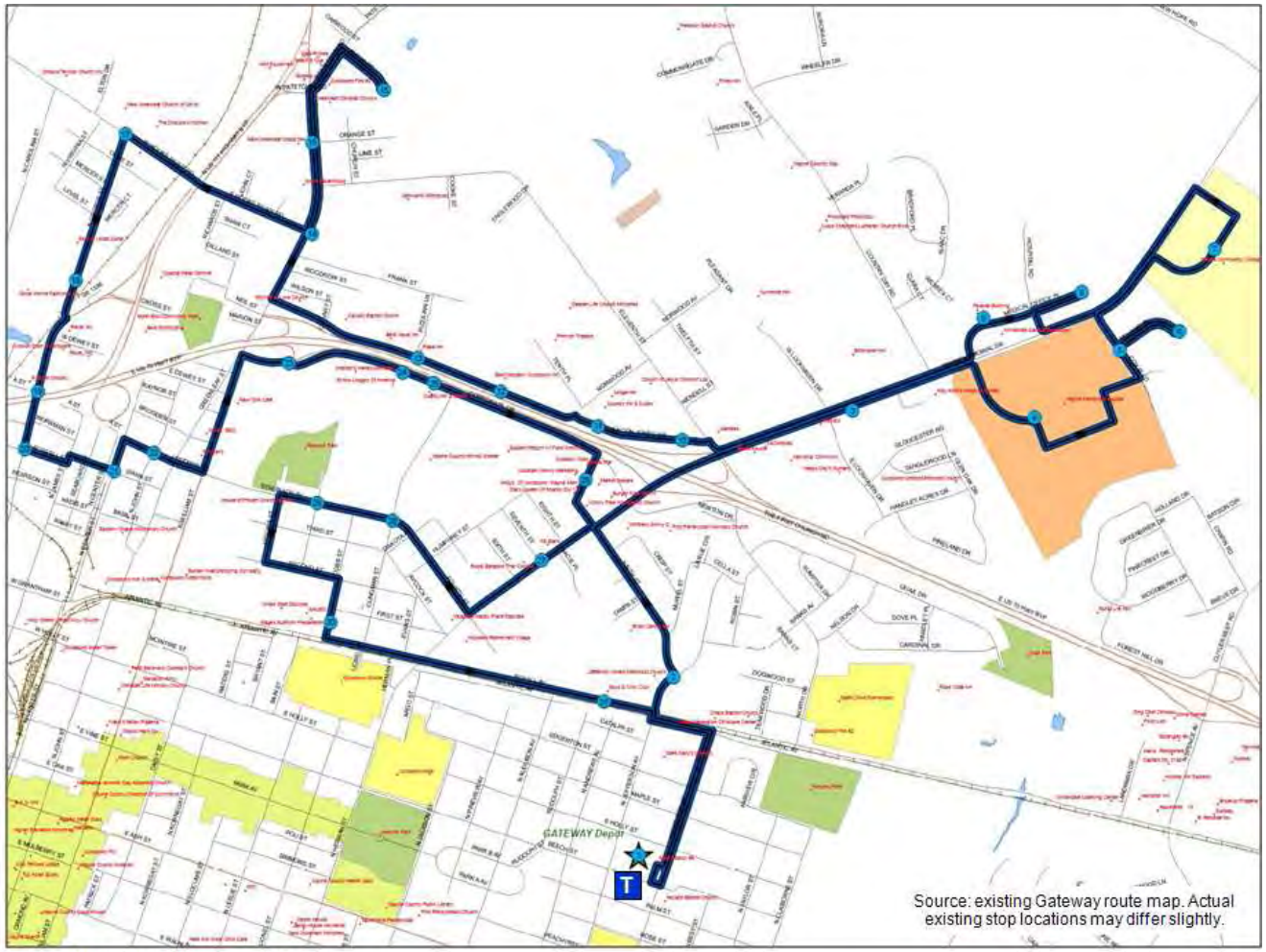
Proposed vehicle: Cutaway. There may be a need to upgrade to 35-foot bus later, with some adjustments to the route.

Figure C.5 shows the existing Wayne Memorial route, and Figure C.6 the proposed route. Table C.4 shows the existing and proposed stops and timings.

Recommended adjustments to improve speed and timekeeping:

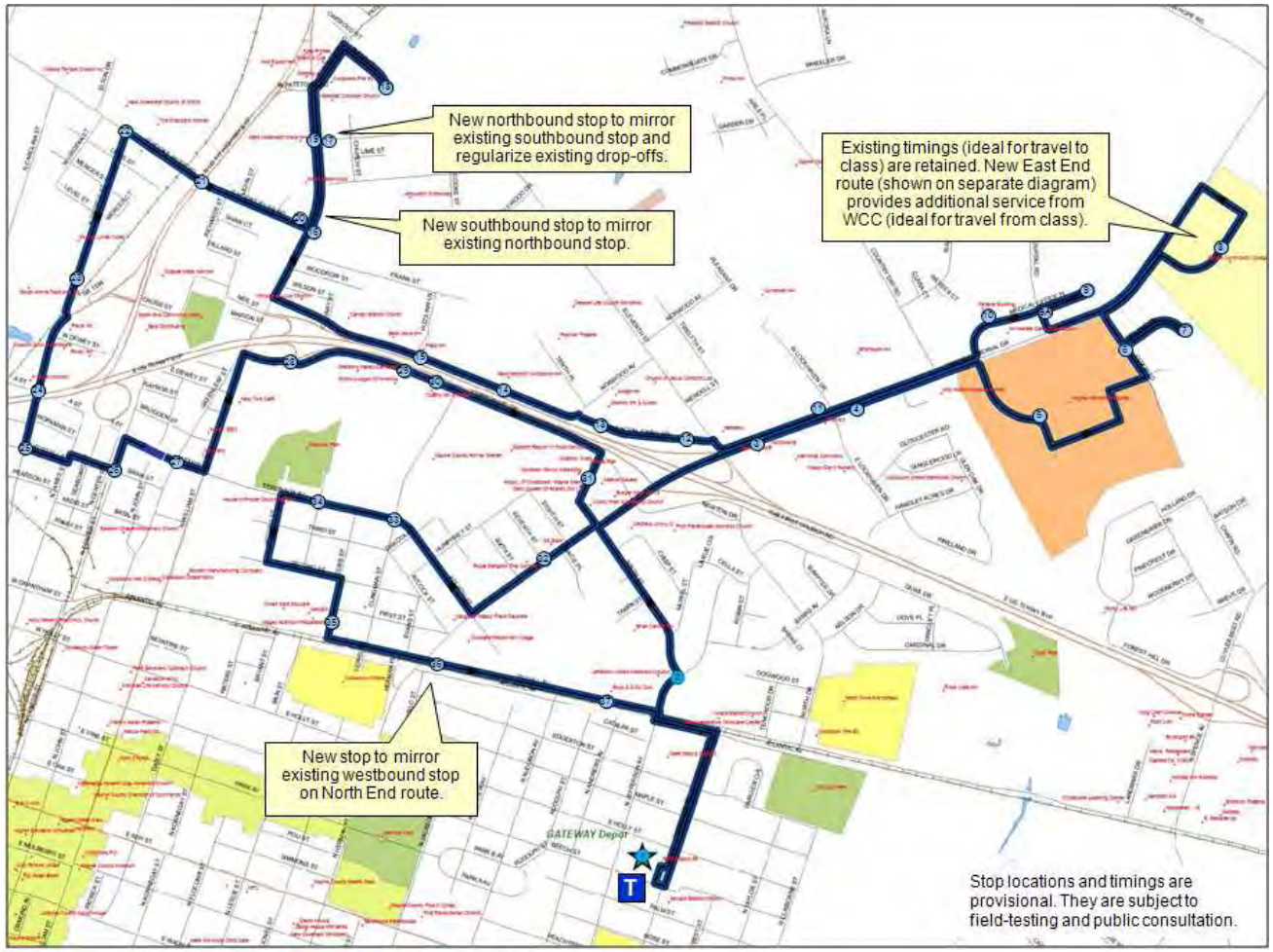
- Initially, no change from today.
- This route includes four dead-end turnarounds which would be unsuitable for a full-size bus. If the route is upgraded to a full-size bus in the future, these would need to be eliminated. Existing or new stops nearby would be used instead
- In three locations, new stops are proposed. These would 'mirror' existing stops in the opposite direction, thus providing for both inbound and outbound trips at those locations without the need to double-back along the route. One of these new stops is an existing regular drop-off location

Figure C.5: Wayne Memorial Route (Existing)



Wayne Memorial Route – Existing

Figure C.6: Wayne Memorial Route (Proposed)



Wayne Memorial Route – Proposal for December 2009

Table C.4: Wayne Memorial Route - Existing and Proposed Stops and Timings

Existing Route

ID	Description	Schedule	Notes	Proposed changes
1	**Transfer Center**	**xx:30**		
2	Jefferson St Apts.	:32		
2A	*Memorial Commons*	*n/a*	*Posted stop, not shown on existing map or schedule*	
3	Wayne Pharmacy	:36		
4	Wayne Memorial Hospital	:38	Turnaround	No immediate change. If route is converted to full-size bus, move stop to driveway to avoid turnaround.
5	Cox/McLamb Pl	:40		
6	McLamb Pl	:41	Turnaround	No immediate change. If route is converted to full-size bus, eliminate stop - riders can use nearby alternative at Cox/McLamb.
7	**Wayne Community College**	**:45**		
8	Medical Office Park	:51	Turnaround	No immediate change. If route is converted to full-size bus, move stop to intersection (Hospital Rd at Med Office Place).
9	Social Security Bldg	:53		
9A	*CVS*	*n/a*	*Posted stop, not shown on existing map or schedule*	
10	Taco Bell	:55		
11	Country Inn Suites	:55		
12	Best Western	:56		
13	Pizza Inn	:56		
14	William/Hooks River Rd	:58		
15	Alpha Arms Apts	:01	Turnaround	No immediate change. If route is converted to full-size bus, turn around at Patetown/US-117/William triangle; stop moves to William / Patetown intersection area (exact location to be determined).
16	Greenleaf Grace Village	:03		
16A	*Hooks River Rd/US-117*	*n/a*	*Posted stop, not shown on existing map or schedule*	
17	Hooks River Rd/George	:04		
18	Excel Linde	:05		
19	George/A Street	:07		
20	George/Fussell	:08		
21	Center/Swan	:09		
22	Freeman/John	:10	Posted at Greenleaf not John	
23	William/Corporate	:11	Needs posted sign	
24	Econo Lodge	:13		
25	Quality Inn	:13		
26	Market Square Shopping	:15		
27	Kenly Savings Bank	:16		
28	4th / Clingman	:17		
29	Stronach / Herring	:18		
30	W.A.G.E.S.	:19		
31	Boys & Girls Club	:21		
1	**Transfer Center**	**n/a**		

Time points and transfer points are shown in bold with shading

Proposed Route for December 2009

ID	Description	Schedule*	Notes
1	**Transfer Center**	**xx:30**	
2	Jefferson St Apts.	:32	
3	Memorial Commons	:35	
4	Wayne Pharmacy	:36	
5	Wayne Memorial Hospital	:38	
6	Cox/McLamb Pl	:40	
7	McLamb Pl	:41	
8	**Wayne Community College**	**:45**	
9A	Hospital Rd / Med Office Place	:50	New stop introduced for East End route in lieu of turnaround
9	Medical Office Park	:51	
10	Social Security Bldg	:53	
11	CVS	:54	
12	Taco Bell	:55	
13	Country Inn Suites	:55	
14	Best Western	:56	
15	Pizza Inn	:56	
16	William/Hooks River Rd	:58	
17	William/Orange	:59	New stop opposite existing
18	Alpha Arms Apts	:01	
19	Greenleaf Grace Village	:03	
20	Hooks River / William	:03	New stop opposite existing
21	Hooks River Rd/US-117	:04	
22	Hooks River Rd/George	:04	
23	Excel Linde	:05	
24	George/A Street	:07	
25	George/Fussell	:08	
26	Center/Swan	:09	
27	Freeman/Greenleaf	:10	Name corrected to match actual location
28	William/Corporate	:11	New posted sign
29	Econo Lodge	:13	
30	Quality Inn	:13	
31	Market Square Shopping	:15	
32	Kenly Savings Bank	:16	
33	4th / Clingman	:17	
34	Stronach / Herring	:18	
35	W.A.G.E.S.	:19	
36	Royall / Wayne Mem Blvd (Woodard care)	:20	New stop opposite existing
37	Boys & Girls Club	:21	
38	**Transfer Center**	**:24**	

Time points and transfer points are shown in bold with shading

Stops and timings are provisional. They are subject to field-testing and public consultation.

C.8 North End Route

Proposed Route: *Transfer Center – follow existing route to US-70 westbound – Little River Shopping Center – US-70 eastbound – Carolina St – Holly St – Oak St – Alabama St – Ash St – Carolina St – follow existing route to Herman St – continue on Herman St to Royall Ave – Wal-Mart – Landmark Dr – Royall Ave – Jefferson St – Edgerton St – Madison St – Transfer Center.*

Proposed vehicle: Cutaway. Route is also suitable for 35-foot bus if required.

Figure C.7 shows the existing North End route, and Figure C.8 shows the proposed route. Table C.4 shows the existing and proposed stops and timings.

Recommended adjustments to improve speed and timekeeping:

- The service to O'Berry Center and Rosewood Wal-Mart is recommended for elimination due to very low ridership and high resource cost. The time saved can be used better elsewhere. Service is replaced with a combination of fixed-route service tailored to commuter needs (Cherry Commuter Van) and demand-responsive service

- Eliminating the O'Berry Center and Rosewood Wal-Mart service allows the North End route to serve the Spence Avenue Wal-Mart, and the surrounding retail area instead. This is a major destination (GATEWAY Transit's second-busiest stop). The North End service would save 30 minutes for people returning from Wal-Mart to the transfer center, and would relieve pressure on the Berkeley Mall route. The North End service would also connect residential areas (Oak Street etc.) directly to this retail area

- The extension to Wal-Mart would also provide new service to the eastern part of Royall Avenue, including new stops at North Drive, the Rose Vista nursing home, and Landmark Drive

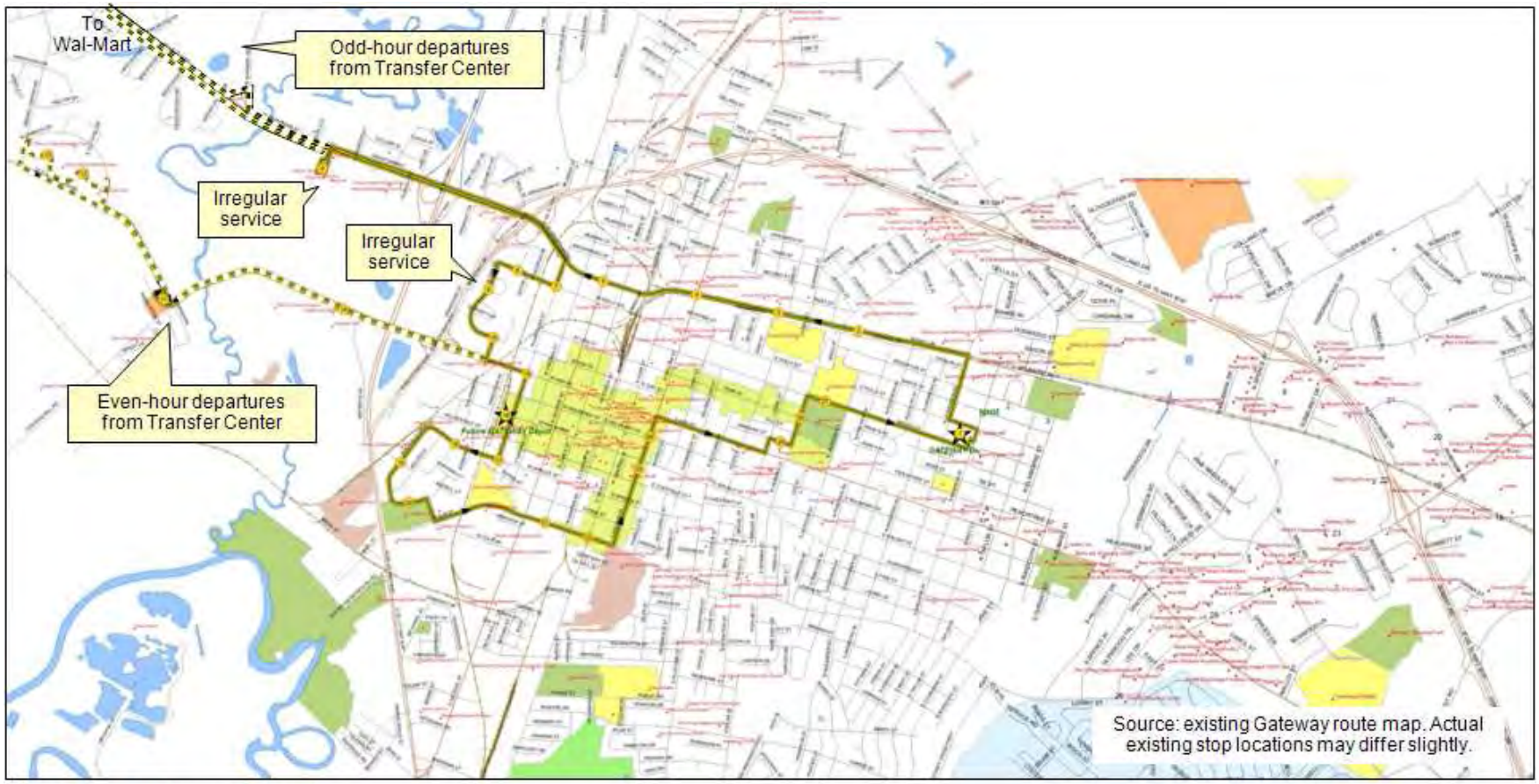
- This change also allows Little River Shopping Center and Oak St to be served at the same time each hour. Currently the timings differ by 15 minutes in alternate hours. This change will make the service easier for riders to understand

- The service to Wilco/McDonald's on US-70 should be subject to further consideration. This stop is currently provided on the way to Wal-Mart in Rosewood, and currently serves one regular commuter. It is not practical to walk there from Little River Shopping Center

- Under the provisional timings, there is not enough time to provide the recommended extension to Spence Avenue Wal-Mart *and* the Wilco/McDonald's stop. However, field-testing may show that the stop can actually be accommodated.

If the timings do allow this stop to continue, GATEWAY Transit would then need to decide whether the additional time and mileage for this stop is justified.

Figure C.7: North End Route (Existing)



North End Route – Existing

Figure C.8: North End Route (Proposed)

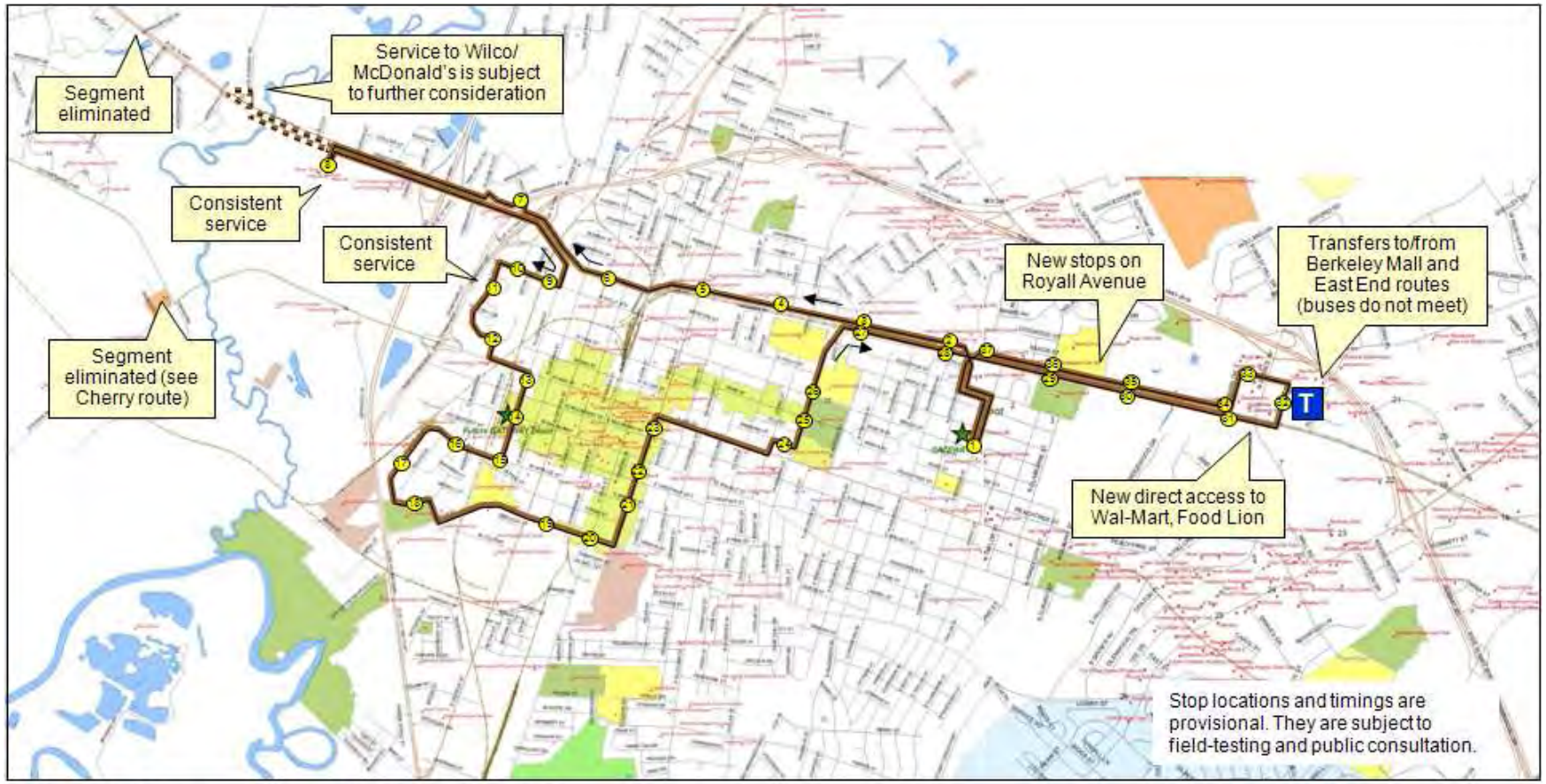


Table C.4: North End Route - Existing and Proposed Stops and Timings

Existing Route							Proposed Route for December 2009			
ID - Even	ID - Odd Hour	Description	Schedule - Even Hour	Schedule - Odd Hour	Notes	Proposed changes	ID	Description	Schedule*	Notes
1	**1**	**Transfer Center**	**:30**	**:30**		**No change**	**1**	**Transfer Center**	**:30**	
							2	Boys and Girls Club (Royall Ave)	:33	New stop, opposite existing
2	2	Woodard Care	:34	:34		No change	3	Woodard Care	:34	
3	3	W.A.G.E.S.	:35	:35		No change	4	W.A.G.E.S.	:35	
4	4	Royall/William	:36	:36		No change	5	Royall/William	:36	
5	5	George/W. Grantham	:38	:38		No change	6	George/W. Grantham	:38	
							7	DMV (Grantham / Paul)	:40	New stop
–	6	Wilco/McDonalds	↓	:42		Subject to further consideration				
–	7	Walmart-Rosewood	↓	:48		Eliminated - see Cherry route				
6	8	Little River Shop. Ctr	:42	:57		No change	**8**	**Little River Shop. Ctr**	**:42**	Timepoint
7	9	Holly/Carolina	:47	:02		No change	9	Holly/Carolina	:47	
8	10	Oak/E Alabama	:48	:03		No change	10	Oak/E Alabama	:48	
9	11	Oak/Vanderbilt	:49	:04		No change	11	Oak/Vanderbilt	:49	
10	12	Oak/W Alabama	:50	:05		No change	12	Oak/W Alabama	:50	
11	↓	Cherry Hospital	:55	↓		Eliminated - see Cherry route				
12	↓	O'Berry #1	:59	↓		Eliminated - see Cherry route				
13	↓	O'Berry #2	:00	↓		Eliminated - see Cherry route				
14	↓	APV	:03	↓		Eliminated - see Cherry route				
15	13	Ash/Carolina	:06	:06		No change	13	Ash/Carolina	:51	
16	14	Carolina/Walnut	:07	:07		No change	14	Carolina/Walnut	:52	
17	15	Carolina/Spruce	:08	:08		No change	15	Carolina/Spruce	:53	
18	16	W Spruce/Alabama	:09	:09		No change	16	W Spruce/Alabama	:54	
19	17	Whitfield/Washington	:11	:11		No change	17	Whitfield/Washington	:56	
20	18	HV Brown Park	:12	:12		No change	18	HV Brown Park	:57	
21	19	Elm/James	:14	:14		No change	19	Elm/James	:59	
22	20	Elm/John	:15	:15		No change	20	Elm/John	:00	
							21	William/Spruce	:01	New stop
23	21	Courthouse	:17	:17		No change	**22**	**Courthouse (William between Chestnut and Walnut)**	**:02**	Transfers to East end, South End, and Berkeley Mall routes (buses do not meet)
24	22	Post Office/Museum	:18	:18		No change	23	Post Office/Museum (William / Mulberry)	:03	
25	23	Health Dept	:19	:19		No change	24	Health Dept	:04	
26	24	Herman Park	:20	:20		No change	25	Herman Park	:05	
27	25	Goldsboro HS	:21	:21		Moves one block to Herman/Beech	26	Herman/Beech (for High School)	:06	New stop
							27	Royall/Herman (near Woodard Care)	:07	New stop, opposite existing
							28	Royall/Jefferson/Ninth (near Boys & Girls Club)	:08	Existing stop on Wayne Memorial route
							29	Royall/North	:09	New stop
							30	Royall/Rose Vista Nursing Home	:10	New stop
							31	Royall/Landmark eastbound	:11	New stop
							32	**Wal-Mart**	**:15**	Timepoint. Transfers to/from East End and Berkeley Mall routes (buses do not meet)
							33	Landmark at Food Lion	:17	New stop
							34	Royall/Landmark westbound	:18	New stop
							35	Royall/Rose Vista Nursing Home	:19	New stop
							36	Royall/North	:20	New stop
							37	Royall/Jefferson/Ninth	:21	New stop
1	**26**	**Transfer Center**	**n/a**	**n/a**		**No change**	**1**	**Transfer Center**	**:24**	
Time points and transfer points are shown in bold with shading							Time points and transfer points are shown in bold with shading			
							Stops and timings are provisional. They are subject to field-testing and public consultation.			

C.9 South End Route

Proposed Route: *Transfer Center – follow existing route to Walnut St at Piggly Wiggly – follow Walnut St to Downtown – John St – Dixie Trail – follow existing route to Chestnut St – John St – Walnut St – Herman St – Ash St – Lionel St – Simmons St – Herman St – Ash St – Jackson St – Beech St – Transfer Center.* Note: exact routing through downtown to be considered in more detail.

Proposed vehicle: Cutaway.

Figure C.9 shows the existing South End route, and Figure C.10 shows the proposed route. Table C.5 shows the existing and proposed stops and timings.

Recommended adjustments to improve speed and timekeeping:

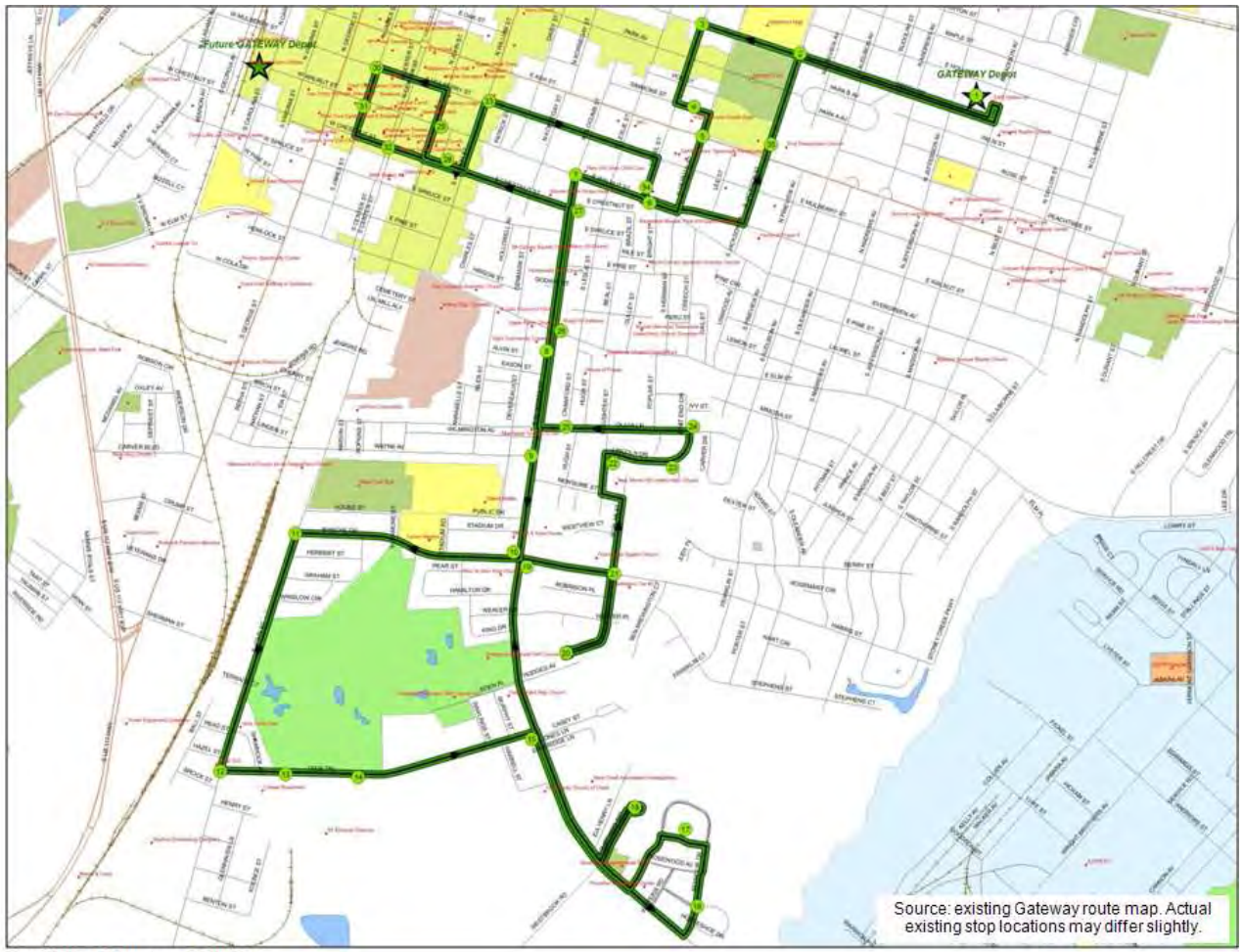
- Serves downtown on outbound trip as well as inbound. Benefits are:
    - Provides a much faster link into downtown for people starting on the Wayne Memorial route or in the area around the Transfer Center
    - Provides faster return trips from downtown for people living on the South End route
- The exact routing through downtown can be considered in more detail at the field-checking stage. The route currently shown in the recommendations aims for simplicity as well as getting quickly through downtown
- South from downtown, the currently-recommended route is along John Street to regain the existing route at Bunche Drive. However, alternatives are possible, such as John-Chestnut-Slocumb-Wayne-John
- A simpler and faster routing is also recommended for the inbound trip through downtown. The inbound and outbound stops should mirror each other for ease of use
- It is also recommended that the inbound trip should serve the Health Department. Currently the North End route serves the Health Department at xx:19 as one of the last stops before the Transfer Center. With the recommended changes, the North End route would serve the Health Department at approximately xx:04, which would result in longer trips to the Transfer Center for people returning from appointments. The South End route would serve this stop at xx:19 and therefore maintain today's convenient timings

- GATEWAY Transit could also consider serving the library (instead of Beech/Lionel) on the outbound leg. This would improve access to the library

- It is recommended that the two stops on dead-end streets (Courtyard Apartments and Poplar Street Apartments) continue as they are currently. Although they are time-consuming, they are both significant locations. Courtyard Apartments has high ridership. Poplar Street Apartments, although having low ridership, serves many seniors

- In addition to these changes, two new stops are also proposed that would 'mirror' existing stops in the opposite direction, thus providing for both inbound and outbound trips at those locations without the need to double-back along the route

Figure C.9: South End Route (Existing)



South End Route – Existing

Figure C.10: South End Route (Proposed)

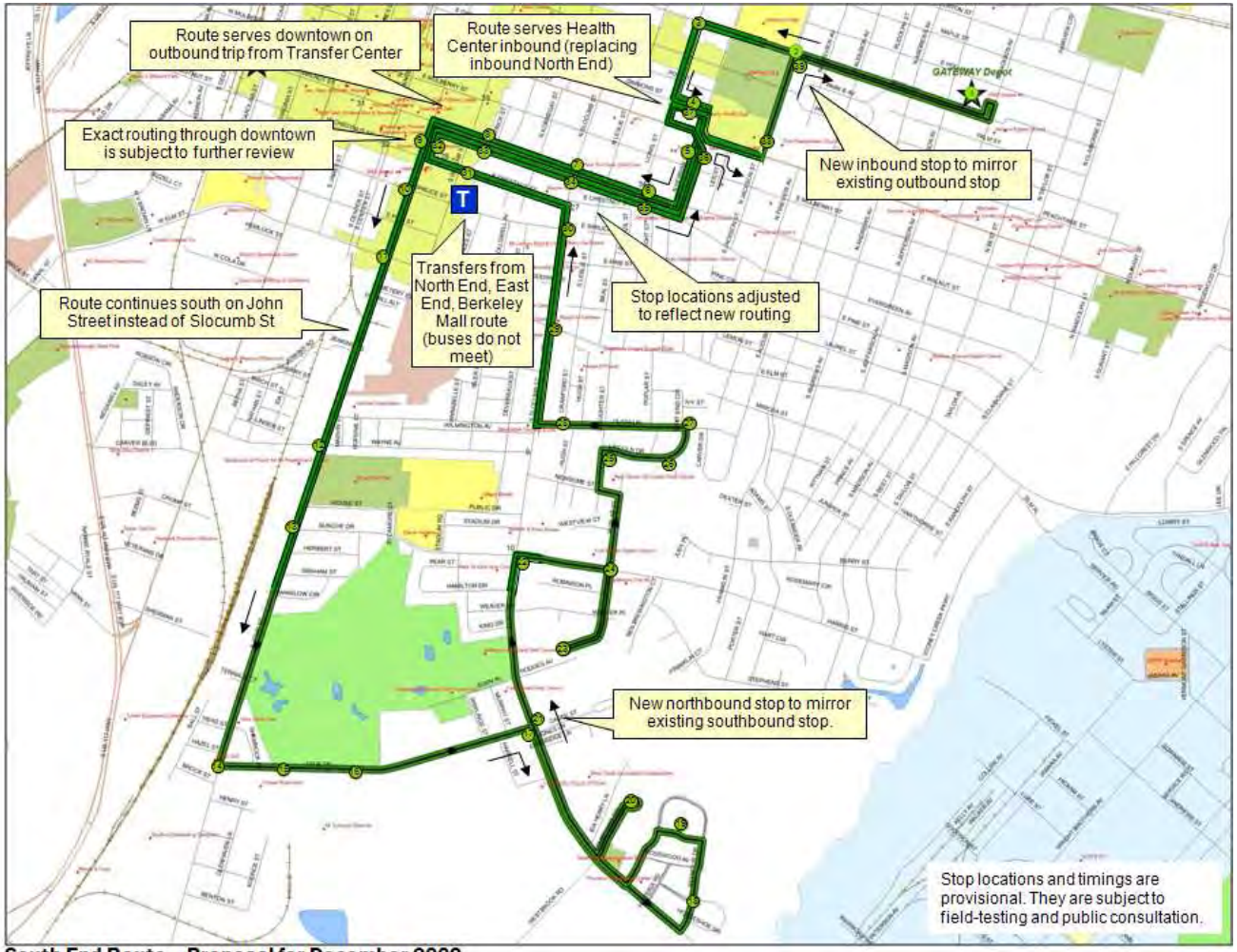


Table C.5: South End Route - Existing and Proposed Stops and Timings

Existing Route

ID	Description	Schedule	Notes	Proposed Changes
1	**Transfer Center**	**xx:30**		**No change**
2	Beech / Jackson	:31		No change
3	Lionel / Beech	:32		No change
4	Health Dept	:34		No change
5	Ash / Herman	:36		No change
6	Piggly Wiggly	:37		No change
7	Walnut St Apts.	:38	Walnut / Slocumb	No change
8	Community Crisis Center	:39		Eliminated. Riders can use existing stop on opposite corner of intersection.
9	Slocumb / Wayne	:40		Eliminated. Riders can use existing stop nearby at Olivia/Crawford, or new stop at other end of Wayne Ave (Wayne/John)
10	Slocumb / Bunche	:41		Eliminated. Riders can use existing stop on opposite corner of intersection.
11	Bunche/John	:43		Stop moves around corner to John St @ Bunche Rd
12	Dixie Trail/John	:44		No change
13	Cooper Bussman	:45		No change
14	AP Exaust	:45		No change
15	Slocumb/Dixie Trail	:47		No change
16	Seymour/Myers	:48		No change
17	**Seymour Johnson Apts**	**:49**		**No change**
18	Courtyard Apts	:51		No change
19	Slocumb/Harris	:53		No change
20	Poplar Street Apts	:55		No change
21	Harris/Poplar	:56		No change
22	Lincoln/Slaughter	:58		No change
23	Lincoln Homes	:59		No change
24	Lincoln/Olivia	:01		No change
25	Olivia/Crawford	:02		No change
26	Slocumb/Elm	:03		No change
27	Slocumb/Chestnut	:04		Stop moves one block to Slocumb @ Spruce
28	Wayne Co. Courthouse	:05		To be evaluated - could move
29	Senior Center	:07	John St between Walnut and Chestnut	No change
30	Mulberry/James	:08		Eliminated. Riders use Senior Center stop instead.
31	Eastpointe	:10		Eliminated. Riders use Senior Center stop instead.
32	Center/Chestnut	:11		Eliminated. Riders use Senior Center stop instead.
33	Post Office	:13		Eliminated. Riders use new William/Walnut stop instead.
34	Piggly Wiggly	:15		Moves around corner to Walnut @ Lionel.
35	Public Library	:17		No change
1	**Transfer Center**	**n/a**		**No change**

Time points and transfer points are shown in bold with shading

Proposed Route for December 2009

ID	Description	Schedule*	Notes
1	**Transfer Center**	**xx:30**	
2	Beech / Jackson	:31	
3	Lionel / Beech	:32	
4	Health Dept	:34	
5	Ash / Herman	:36	
6	Piggly Wiggly	:37	
7	Walnut St Apts.	:38	
8	Walnut / William (for Courthouse)	:39	New stop - Exact location to be confirmed
9	Senior Center (southbound)	:41	New stop - Opposite existing stop
10	John / Spruce	:43	New stop
11	John / Elm	:44	New stop
12	John / Wayne	:46	New stop
13	John / Bunche	:47	Around corner from existing stop
14	Dixie Trail / John	:48	
15	Cooper Bussman	:49	
16	AP Exaust	:49	
17	Slocumb/Dixie Trail (southbound)	:51	
18	Seymour/Myers	:52	
19	**Seymour Johnson Apts**	**53**	**Timepoint**
20	Courtyard Apts	:55	
21	Slocumb / Dixie Trail (northbound)	:50	New stop - Opposite existing stop
22	Slocumb/Harris	:57	
23	Poplar Street Apts	:59	
24	Harris/Poplar	:00	
25	Lincoln/Slaughter	:02	
26	Lincoln Homes	:03	
27	Lincoln/Olivia	:05	
28	Olivia/Crawford	:06	
29	Slocumb/Elm	:07	
30	Slocumb/Spruce	:08	Moved one block from existing stop
31	**Courthouse (William between Chestnut and Walnut)**	**:09**	New stop. Transfers to/from North End, East End, and Berkeley Mall route (buses do not meet).
32	Senior Center (northbound)	:11	
33	Walnut/William	:13	New stop - Exact location to be confirmed.
34	Wanlut/Slocumb	:15	New stop - Opposite existing stop
35	Piggly Wiggly	:16	Moved around corner from existing stop
36	Ash / Herman	:17	New stop - Opposite existing stop
37	Health Dept	:19	Existing stop - now also served inbound
38	Public Library	:21	
39	Beech / Jackson	:22	New stop - Opposite existing stop
1	**Transfer Center**	**:24**	

Time points and transfer points are shown in bold with shading

Stops and timings are provisional. They are subject to field-testing and public consultation.

C.10 Stops Added and Eliminated

Most of the existing stops will not change as a result of these recommendations. Some new stops are recommended, and a few existing stops are recommended for elimination (Table C.6). Full details of the proposed changes are provided in the provisional schedules that accompany this section of the report. All proposed changes are subject to field-testing, including confirmation that right-of-way is available. New stops would initially be marked with the standard GATEWAY Transit sign. In some cases, an existing stop moves to a new location, and any bench or shelter at that stop would also move to the new location.

Table C.6: Stops Proposed for Elimination in December 2009

Location	Current Route	Reason for Elimination	Alternatives
Elmwood Terrace (Charles / Hinson)	Berkeley Mall	Shorter, simpler routing needed to improve timekeeping	(1) Stop moves approximately 200 feet to Elm @ Charles. (2) Riders can also use William @ Spruce stop.
Charles / Spruce (posted stop, not listed on schedule or map)		ditto	William @ Spruce, approximately 500 feet away.
Center @ Walnut	Berkeley Mall	ditto	William @ Courthouse, two blocks away
City Hall (Center St)	Berkeley Mall	ditto	William @ Post Office, two blocks away
Greyhound Station (John St)	Berkeley Mall	ditto	William @ Oak, 2.5 blocks away.
Community Crisis Center (Slocumb @ Elm)	South End	Recommendation to run south along John St	(1) Elm @ Slocumb stop around corner on Berkeley Mall route (2) corresponding northbound stop on South End route, across Elm
Slocumb/ Wayne	South End	ditto	(1) northbound stop Olivia @ Crawford, two blocks away (2) John @ Wayne stop, at other end of Wayne Ave

Slocumb / Bunche (southbound)	South End	ditto	(1) northbound stop at opposite corner of intersection (2) John @ Bunche stop, at other end of Wayne Ave
Mulberry / James	South End	Shorter, simpler downtown route	Senior Center (John St), 3 blocks away
Eastpointe	South End	ditto	Senior Center (John St), 2 blocks away
Center / Chestnut	South End	ditto	Senior Center (John St), 1 block away
Post Office (Mulberry @ William)	South End	ditto	(1) Walnut @ William, 1 block away (2) Around corner on William St at front of post office – Berkeley Mall and North End routes
Wal-Mart, Rosewood	North End	Service eliminated	(1) Demand-responsive service (2) May become part of proposed Cherry Commuter service

This table excludes stops that move around a corner but remain at the same intersection, and stops that change routes but remain in the same place. Proposed changes are subject to public consultation and field-testing. In particular, proposed changes in downtown are subject to further detailed consideration.

C.11 Summary of Benefits

The key anticipated benefits of the recommended changes are:

- Improved timekeeping for the whole system
- Reduced crowding on the Berkeley Mall and Wayne Memorial routes
- Greatly improved service for people leaving classes at WCC (GATEWAY Transit's busiest stop)
- Greatly improved service to and from Wal-Mart on Spence Avenue (GATEWAY Transit's second-busiest stop)
- Improved service for people leaving the medical district

- Improved service for trips to the Berkeley Mall area
- Improved access *from* downtown, and *to* the Health Center, for residents on the South End route
- Improved access to downtown from WCC and the medical area via the East End route
- New service stops on North John Street (more access to downtown establishments) and East Ash Street (including Wayne County Public Library) via the East End route
- New or more-convenient service to a range of other locations, including:
    - Places on Graves Drive and Cashwell Drive, east of Berkeley Boulevard
    - Royall Avenue, especially between Jefferson Street and Spence Avenue
    - John Street from downtown south to Bunche Drive
    - Little River Shopping Center and Oak Street (regular times)
    - Culyer Best Road

C.12 Journey-Time Evaluation

Table C.7 shows the existing and proposed journey times for a total of 400 different trips. These trips were selected to provide a representative picture of how travel times would change under the proposed system. The table includes 20 stops and shows trips to and from each of them. The 20 stops include the transfer center, the ten busiest stops, and a selection of other significant stops that were chosen to give representative coverage of the rest of the system. Trips that are more than ten minutes quicker under the proposals are shaded green. Trips that are more than ten minutes slower are shown in orange.

The large number of green trips confirms that many trips – particularly to or from major destinations – would be significantly quicker. This includes almost all trips from WCC, most trips from Wal-Mart at Spence Avenue, most trips to Berkeley Mall, and numerous other trips as shown in the table. The much smaller number of orange trips relate to the residential areas on the North End route. These residential areas are proposed to be served earlier in the run than they are today. This means that trips from home will take longer, but the return trips to home will be shorter by a corresponding amount. (Put another way, each orange trip is green in the opposite direction, as the table shows.)

Table C.7: Journey-Time Matrix for December 2009 Proposals

FROM				TO																				
					Top ten locations										Other significant locations									
				Transfer Center	Wayne Community College	Wal-Mart (Spence Ave)	Courtyard Apts	Seymour Johnson Apts	Health Dept	Downtown	Piggly Wiggly	Berkeley Mall	K-Mart	Fairview Apts (Edgerton St)	Alpha Court	Oak St at Vanderbilt Cr	Whitfield Dr at H.V. Brown Park	Little River Shopping Center	Lincoln Apts	Elmwood Terrace	Elm St at Air Force Base Gate	W.A.G.E.S.	Central Heights at New Hope
			See note:	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T
		Transfer Center	A		**15** **15**	**15** **15**	**21** **25**	**19** **23**	**4** **4**	**37** **11**	**7** **7**	**33** **10**	**36** **5**	**2** **2**	**31** **31**	**26** **18**	**42** **27**	**20** **12**	**29** **33**	**9** **14**	**38** **38**	**5** **5**	**22** **22**
	Top ten locations	Wayne Community College	B	**40 (+45)** **25**		60 (+45) 45	66 (+45) 55	64 (+45) 53	49 (+45) 34	82 (+45) 41	52 (+45) 37	78 (+45) 40	81 (+45) 35	47 (+45) 32	**16 (+45)** **16 (+45)**	71 (+45) 48	87 (+45) 57	65 (+45) 42	74 (+45) 63	54 (+45) 44	83 (+45) 68	**34 (+45)** 19	67 (+45) 52
		Wal-Mart (Spence Ave)	C	**40** **10**	60 **9**		66 40	64 38	49 19	**32** **32**	52 22	**18** **18**	**21** **21**	47 17	76 46	71 33	87 42	65 27	**28** **28**	**30** **30**	**23** **23**	50 20	**7** **7**
		Courtyard Apts	D	**34** **30**	54 50	54 50		58 58	33 **24**	**16** **16**	**24** **21**	72 45	75 40	41 37	70 66	65 53	81 62	59 47	**9** **9**	**12** **12**	77 73	44 40	61 57
		Seymour Johnson Apts	E	**36** **32**	56 52	56 52	**2** **2**		35 **26**	**18** **18**	**26** **23**	74 47	77 42	43 39	72 68	67 55	83 64	61 49	**11** **11**	**14** **14**	79 75	46 42	63 59
		Health Dept	F	**6** **6**	26 26	26 **10**	**17** **21**	**15** **19**		**48** **7**	**3** **3**	44 21	47 16	13 13	42 42	37 29	53 38	31 23	**25** **29**	**5** **10**	49 49	16 16	33 33
		Downtown	G	**7** **8**	27 28	27 28	33 **14**	31 **12**	**1** **1**		**6** **6**	45 23	48 18	14 15	43 44	38 31	54 40	32 25	41 **22**	21 **3**	50 51	17 18	34 35
		Piggly Wiggly	H	**10** **9**	30 29	30 29	**14** **18**	**12** **16**	19 **3**	**30** **4**		48 24	51 19	17 7	46 45	41 32	57 41	35 26	**22** **26**	**2** **7**	53 52	20 19	37 36
		Berkeley Mall	I	**22** **22**	38 **14**	42 **5**	48 52	46 50	31 31	**14** **14**	34 34		**3** **3**	29 29	58 58	53 45	69 54	47 39	**10** **10**	**12** **12**	**5** **5**	32 32	49 12
		K-Mart	J	**18** **18**	35 **19**	39 **10**	45 49	43 47	28 28	**11** **11**	31 31	57 **5**		26 26	55 55	50 42	66 51	44 36	**7** **7**	**9** **9**	**2** **2**	29 29	46 17
		Fairview Apts (Edgerton St)	K	**53** **53**	73 22	**13** **13**	79 83	77 81	62 62	**45** **45**	65 65	**31** **31**	**34** **34**		89 89	84 76	100 85	78 70	**41** **41**	**43** **43**	**36** **36**	63 63	**20** **20**
	Other significant locations	Alpha Court	L	**24** **24**	44 44	44 44	50 54	48 52	33 33	66 40	36 36	62 39	65 34	31 31		55 49	71 56	49 41	58 62	38 43	67 67	**18** **18**	51 51
		Oak St at Vanderbilt Cr	M	**29** **37**	49 57	44 **26**	55 67	53 65	**23** **16**	**21** **14**	41 49	67 52	70 47	36 44	65 73		**16** **9**	54 54	63 75	**19** **12**	72 80	39 47	56 64
		Whitfield Dr at H.V. Brown Park	N	**13** **28**	33 48	28 **17**	39 59	37 57	**7** **7**	**5** **5**	25 40	51 43	54 38	20 35	49 64	44 51		48 45	47 66	**3** **3**	56 71	23 38	40 55
		Little River Shopping Center	O	**35** **43**	55 63	55 **32**	61 73	59 71	**24** **22**	**22** **20**	47 55	73 58	76 53	42 50	71 79	**6** **6**	**22** **15**		69 81	**25** **18**	78 86	45 53	62 70
		Lincoln Apts	P	**26** **22**	46 42	46 42	52 52	50 50	35 **16**	**13** **8**	**16** **13**	64 37	67 32	33 29	62 58	57 45	73 54	51 39		**4** **4**	69 65	36 32	53 49
		Elmwood Terrace	Q	**10** **10**	30 30	30 30	**12** **11**	**10** **9**	**3** **3**	**1** **1**	**12** **8**	60 25	63 20	17 17	46 46	41 33	57 42	35 27	**20** **19**		53 53	20 20	37 37
		Elm St at Air Force Base Gate	R	**17** **17**	37 37	37 37	43 47	41 45	26 26	**9** **9**	29 29	58 32	61 27	24 24	53 53	48 40	68 49	42 34	**5** **5**	**9** **9**		27 27	44 44
		W.A.G.E.S.	S	**6** **6**	26 26	26 26	32 36	30 34	15 15	**42** **27**	18 18	44 21	47 16	13 13	42 42	**21** **13**	**37** **22**	**15** **7**	40 44	**40** **25**	49 49		33 33
		Central Heights at New Hope	T	**33** **33**	53 53	53 53	59 63	57 61	42 42	**25** **25**	45 45	**11** **11**	**14** **14**	40 40	69 69	64 56	80 65	58 50	**21** **21**	**23** **23**	**16** **16**	43 43	

How to use this matrix:

Numbers denote journey time from stop to stop, in minutes. **Bold** denotes a direct trip.

XX	Top figure = existing
YY	Bottom figure = proposed

Example:

from	Transfer Center		
to	Wayne Community College		
	currently takes	15	minutes
	and is proposed to take	15	minutes

Major changes are shaded:

	>10 mins shorter than today
	>10 mins longer than today

This table aims to show, in a simple way, the time taken for trips to/from stops on all parts of the system. It is impossible to make reference to every possible choice of route, particularly for riders who are able to walk a few blocks. Some trips have more than one option available. For example, W.A.G.E.S. to the Health Department can currently be made via the transfer center (quickest) or directly (takes longer, but no transfer). The table is therefore based on the most likely way a rider would make the trip.

Timings are provisional, and are subject to field-checking and public consultation.

Notes

A Transfer Center Trip times assume typical arrival at transfer center at xx:25.

B Wayne Community College Bus leaves WCC just before classes end. Students leaving class must wait approximately 45 minutes for the next bus. Exising timings are shown with '(+45)' to reflect this.

E Seymour Johnson Apts Second stop.

G Downtown Assumes use of most conveneint stop (for shortest trip) in downtown area.

J K-Mart Some of the proposed shorter trips may involve the proposed stops on the east side of Berkeley Blvd. Riders not wishing to cross the street can use the existing stop, but their trip will not be short.

K Fairview Apts Some people starting at this stop will walk to the transfer center, to save time. Timings shown are for those who ride directly from the stop, rather than walk to the transfer center.

M Oak St at Vanderbilt Cr Bus arrives at different times in alternate hours (xx:49 or xx:04. This matrix assumes an average departure time of xx:56.

O Little River SC Bus arrives at different times in alternate hours (xx:42 or xx:57. This matrix assumes an average departure time of xx:50.

P Lincoln Apts This table assumes riders traveling FROM Lincoln Apartments will board at that stop. Riders traveling TO Lincoln Apartments can either alight at that stop, or use the Berkeley Mall route to Elm/Poplar and walk two blocks - this table shows whichever is quicker.

Q Elmwood Terrace This table assumes riders will use any of the nearby stops on Berkeley Mall, North End or South End routes, whchever offers the quickest journey.

C.13 Issues for Further Consideration

The recommended routes and timings are subject to field-testing and public consultation. However, there are also some specific issues that should be considered further before making final proposals for December 2009. These are:

- South End routing:
    - Whether the outbound run should serve Beech/Lionel as now, or should serve the library
    - The exact route through downtown
    - Whether to continue from downtown directly along John Street, or to mirror the inbound route along Slocumb St (perhaps continuing along Wayne Ave)
- Medical district routing and stop locations. This should take account of the proposed East End route and the introduction of 35-foot buses. It should include considering, in liaison with the hospital, whether the hospital stop should switch to the visitor entrance, which is reached from the signal on Wayne Memorial Boulevard.
- Service to Wilco/McDonald's on US-70, as described in Section C.8.

20 Appendix D: Proposed Mid-Range GATEWAY Transit Fixed Route Service Improvements (2015-2025)

D.1 Cherry Commuter Route

Proposed Route: This service would be flexible in response to the needs at any time. However, a possible 'core' route is as follows: *Union Station – Cherry Hospital – Correctional Facilities (if required) – O'Berry Center – Rosewood Wal-Mart (if required) – retrace route to Union Station.*

Proposed vehicle: Van or Cutaway.

Figure D.1 shows the proposed Cherry Commuter route.

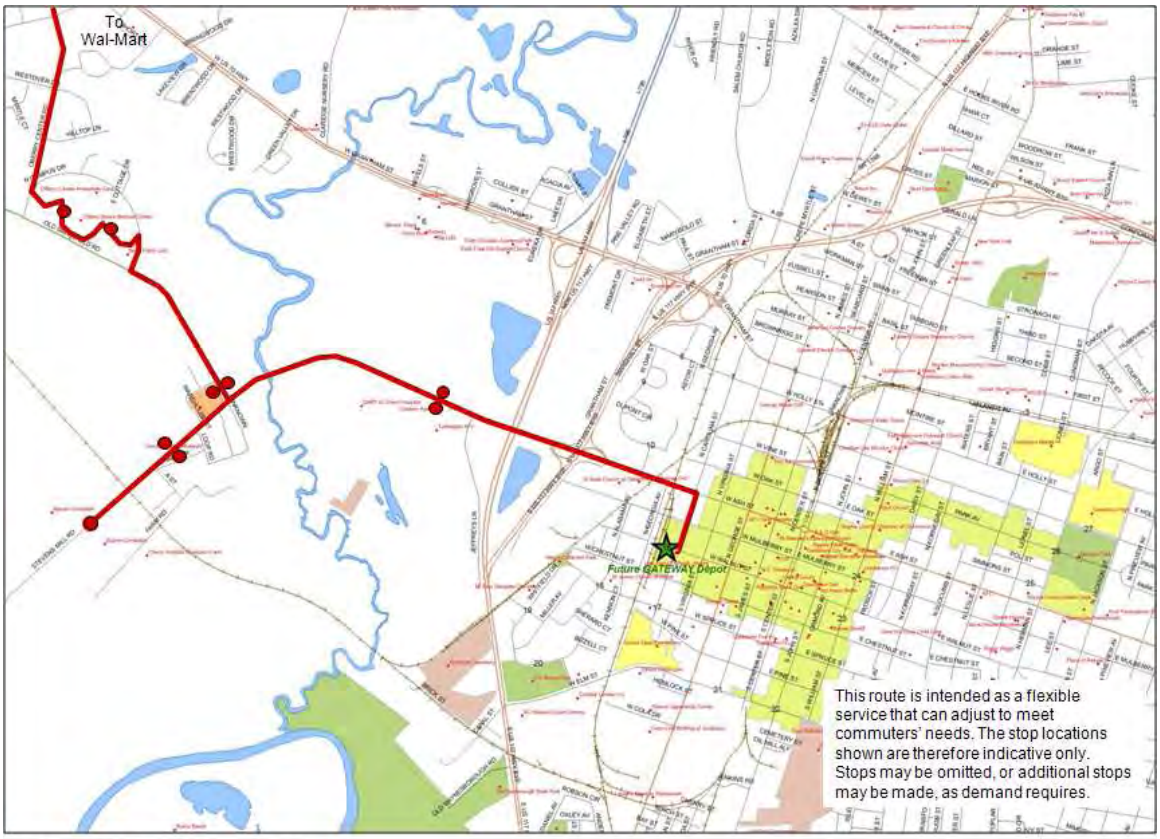
The service to Cherry Hospital and the O'Berry Center suffers from being tied into the hourly cycle of the North End route. The existing and potential riders are mostly commuters, and the service cannot easily be tailored to their needs (such as shift-change times) when it is tied into the hourly cycle. This along with the two-hourly cycle help to explain why ridership is very low.

The simplest option would be to eliminate these stops altogether, with riders using demand-responsive service instead. (Already, for example, more riders use demand-responsive service to reach Wal-Mart in Rosewood than do so on the North End route.) However, there are two disadvantages with this. Firstly, it may not be as convenient, and would certainly be more expensive, for the (relatively few) existing riders. Secondly, there is substantial employment along this route, and there is potentially a market to be tapped if an attractive service can be provided.

The recommended solution is therefore to provide a new type of service that is focused on meeting regular commuters' needs. The service would likely use a van and would operate at commuter times only. It would serve the Transfer Center, APV, Cherry Hospital and the O'Berry Center. It could also serve the Correctional Facilities and the Rosewood Wal-Mart. The service is designed to be adjustable in response to regular commuters' needs – e.g. shift-change times at hospital. This is why it is deliberately not tied into other fixed-route segments. It could also change more often than the rest of the system, without knock-on effects elsewhere.

This tailored fixed-route service would avoid disadvantaging current commuters, who currently enjoy fixed-route fares and no pre-booking. To the extent that timings allow, route-deviation service could also be offered. The same van and driver can provide demand-responsive service when not providing the fixed-route service.

Figure D.1: Cherry Commuter Route (Proposed)



Proposed Cherry Commuter Van

Sixth Route: Berkeley Mall Counter-Clockwise

If funding becomes available for an additional hourly route within Goldsboro, it is recommended that the new sixth route be a counter-clockwise service on the core part of the Berkeley Mall route. This is recommended as a priority because:

- It would provide a symmetrical service to the Edgerton Street neighborhoods (including Fairview Apartments) and the neighborhoods around Elm Street. This would address the current unbalanced travel times to/from some key destinations – for example, Elm/Claiborne to Berkeley Mall, or Fairview Apartments to downtown

- It would improve access and capacity to/from the main retail area, which is a key destination for GATEWAY Transit riders

- It would relieve ridership pressure, and therefore timing pressure, on the Berkeley Mall route

For planning purposes, this route is named **Berkeley Mall Counter-Clockwise**, but the final name could be different. Two concepts have been prepared to show how this route might fit into the network.

Figure D.2 shows Concept 'A', in which the new route is added with no consequential changes to other routes. In addition to Union Station, some transfers are possible at Berkeley Mall and Wal-Mart. These are shown using conservative timings for planning purposes, and actual timings may allow additional transfer opportunities at these locations. It may also be possible for the new route to serve Parkway. If so, this in turn would allow the North End route to eliminate Parkway in favor of Berkeley Mall, or in favor of serving the Oak Street neighborhood additionally on the outbound trip (for symmetrical service).

Figure D.3 shows Concept 'B'. In this concept, the new route is the same as in concept 'A', and the same opportunities for transfers, Parkway and the North End route also apply. However, concept 'B' takes the opportunity to make other changes to the network. The new route would provide relatively direct service from Downtown to Berkeley Mall and Wal-Mart, so the East End route would no longer be needed for this role. The East End route could be re-focused entirely on serving the Wayne Memorial Drive corridor and Wayne Community College. The arrival/departure times at the College would still be convenient. This change would improve the service on Wayne Memorial Drive, particularly by introducing two-way service on the segment from Royall Avenue to US-70. It would also mean the Wayne Memorial Route no longer had to serve the College, which in turn creates time on that route for extension into other neighborhoods or commercial areas if required. It would also provide a better split between the large-bus needs of the college and the small-bus needs of the residential neighborhoods. The disadvantages are that there would no longer be a direct link from Berkeley Mall and Wal-Mart to the College (riders would have to transfer at Union Station) and service on Culyer Best Road would be eliminated.

Note that in both concepts, the new counter-clockwise route would not serve the Harding/New Hope Road/Central Heights loop, but would instead run from Berkeley Mall to Wal-Mart. The time saved allows this route flexibility to meet other routes and/or serve Parkway.

D.2 US-70 Corridor West to Rosewood

The US-70 corridor west from Union Station to Little River Shopping Center and on to Rosewood could be the next corridor for development, particularly if funding targeted at reverse-commute trips could be obtained.

The current service to Little River Shopping Center is reasonably well-used, but it represents a time-consuming detour for the North End route. In addition, the remainder of the North End route represents a time-consuming detour for riders transferring to/from other routes. Ideally, Little River Shopping Center should be served on a direct route to or from the Transfer Center.

The North End route's current extension every two hours to Wal-Mart has very low ridership and is even more time-consuming, which is why it is recommended for elimination in December 2009. However, there is still likely to be a market for service to Wal-Mart, the surrounding stores, and the employment locations along US-70, if an attractive service can be provided. It is also possible in the future that major retail activity will shift from the existing concentration on the east side of Goldsboro, toward the land around Wal-Mart in Rosewood.

Taking these issues and opportunities into account, there are several options for developing Transit along this corridor:

- A half-hour-long route from Union Station to Little River Shopping Center. The remaining half-hour could be used for additional service to neighborhoods near Union Station, or to repeat the route

- An hour-long route from Union Station to Little River Shopping Center and west on US-70 to Wal-Mart. The section along US-70 could be limited-stop, serving only key commuter locations, or it could have frequent stops in the same way as other routes

- The hour-long route would likely also have time to continue into Rosewood, providing new links to retail and employment locations for people living near NC-581

- Alternatively, the vehicle could offer point-deviation area service in the Rosewood area. The segment from Union Station to Wal-Mart would be the core fixed-route part of the service. Riders starting within the designated zone would be able to call for the next available bus

- In each case, the Little River Shopping Center would receive regular hourly service from the new route, allowing the North End route to switch to additional locations such as Berkeley Mall

- Funding aimed at the key markets on this corridor, such as JARC funding, should be pursued

D.4 Orbital Route

Orbital routes would provide riders with faster alternatives to making transfers at the central transfer point. The December 2009 proposals involve a partial orbital service, with the new East End route running directly from Berkeley Mall and Wal-Mart to Wayne Community College. Additional orbital service could be provided in the future if resources allow.

Orbital routes can be difficult to schedule effectively. This is particularly true in Goldsboro, where (a) the hourly intervals between buses means that it is difficult to schedule efficient transfers at more than one location, and (b) the College class schedules are an important factor but are effectively fixed. For this Plan, a number of potential orbital services were investigated. The scheduling exercises confirmed that few options are viable within the current hourly service.

Figure D.4 shows a potential initial orbital service. This service would run between Wayne Community College and Spence Avenue (Wal-Mart), with one bus operating at half-hourly intervals. Transfers would be available to other routes at each end. The timings shown represent the best compromise between the conflicting demands of (a) meeting other buses for shortest transfer times, and (b) providing convenient arrival and departure times at the College. The value of this route would be greatly increased if the entire Goldsboro fixed-route network were upgraded to half-hourly service, because the new pulse at Wal-Mart (around xx:25) would be much more convenient for onward connections to and from class on this orbital route.

At this stage, it is conservatively assumed that the route cannot reliably be extended to serve Berkeley Mall with one bus. However, this could be revised in the light of field-timings and/or infrastructure improvements, particularly the proposed Cox Boulevard extension to Culyer Best Road and the proposed Spence Avenue 'superstop'. As additional resources allow, the service could be extended at each end, creating additional direct links to northern and/or eastern Goldsboro as well as the Berkeley Mall area.

D.5 Summary of Medium-Term 'Complete System'

The recommendations listed above would go a long way towards creating a 'complete system' for Goldsboro: that is, a system that effectively meets the city's main Transit needs. The 'complete system', which could be seen as a ten-year or fifteen-year vision, could include:

- Routes as described above, including Cherry Street, Rosewood and along US-70
- Two-way service on all corridors (i.e. riders can travel inbound or outbound without having to go all around the rest of the loop in one direction)

- Half-hourly intervals on all routes, Monday-Saturday daytimes and evenings
- Hourly Sunday service on all routes
- An orbital route connecting the main commercial area with the college and hospital area, with designated transfer points in each of these areas

Figure D.2: Potential Network With Six Routes (Concept A)

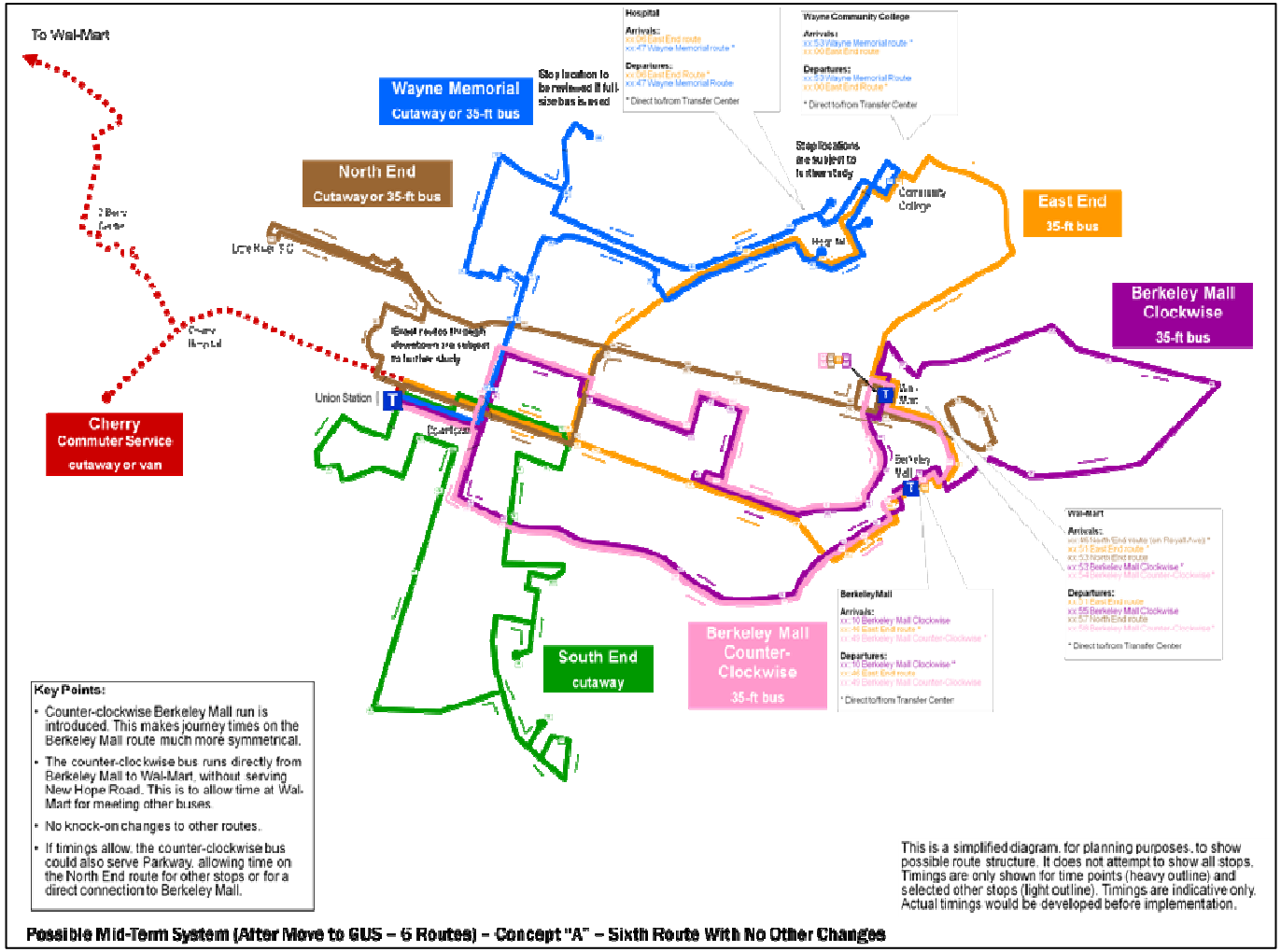


Figure D.3: Potential Network With Six Routes (Concept B)

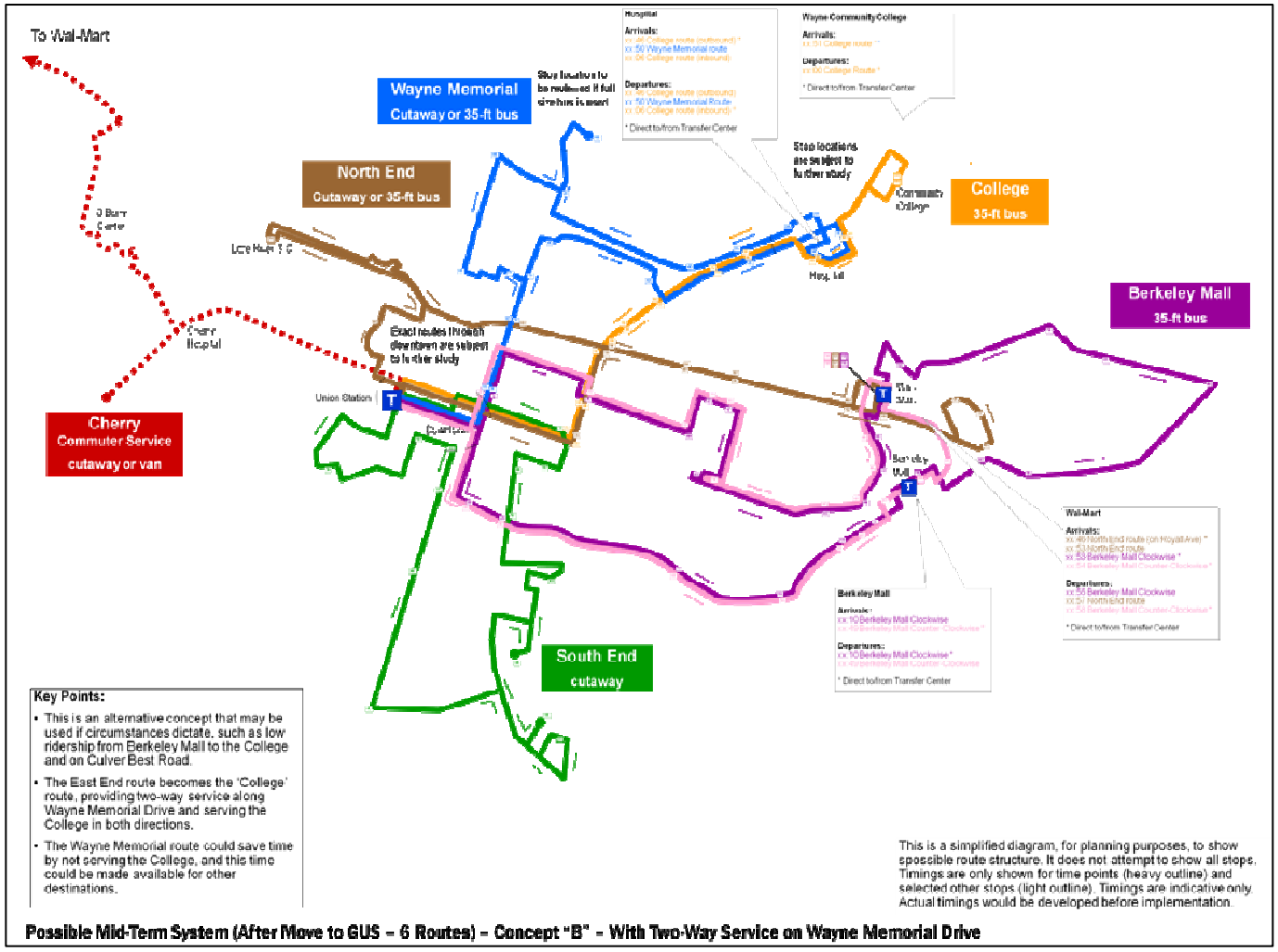


Figure D.4: Possible Initial Orbital Service