



Cleveland County Community Transportation Service Plan *Final Report*

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Prepared by



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EXECUTIVE SUMMARY

INTRODUCTION

The Transportation Administration of Cleveland County, Inc. (TACC) provides public transportation using the combined resources of county funding, the Federal Transit Administration (FTA) Section 5311 program, and the North Carolina Department of Transportation (NCDOT) Public Transportation Division's (PTD) Rural Operating Assistance Program (ROAP), and other sources. The transit system operates subscription and demand response service throughout Cleveland County, as well as deviated fixed route service within the City limits of Shelby (operating under the name Cleveland County Transit or CCT). The system is available to any member of the general public but is primarily used by seniors, Medicaid clients, persons with disabilities and clients of various human service programs.

The Community Transportation Service Plan (CTSP) represents a strategic effort to evaluate TACC's current approach in all facets of management and operations, improve the delivery of existing transportation services, and ensure that the transit system is meeting the mobility needs of the transportation disadvantaged and the general population now and planning a response to their projected mobility needs over the next five years. This report also fulfills the NCDOT requirement that every five years transit systems develop a CTSP as a prerequisite for receiving Federal and State funding for capital, administrative and operating assistance.

The CTSP for TACC has the following purposes, as prescribed by NCDOT:

- To identify the current performance and organizational direction of the system;
- To recommend strategies to improve operations and management that increase mobility options for transit dependent individuals and the general public;
- To improve the efficiency and effectiveness of the organization and the transportation services it provides to the public;
- To support and encourage defensible, results-based budget requests to NCDOT for funding; and
- To promote the coordination of public transportation services across geographies.

These objectives have guided the preparation of this study and are reflected in the final recommendations.

SUMMARY OF THE CTSP

To meet the study objectives outlined above, this report provides a comprehensive look at transit provision in Cleveland County. This includes a description and analysis of current transit services as well as the operating environment in which those services are provided. Using this inventory of information and the analyses performed, a comprehensive set of financial, management, operational, and service alternatives are presented.

System Existing Conditions

TACC is a private non-profit that provides the public transportation services for Cleveland County. The 14 member Board of Directors services as the Governing and Advisory Board for TACC and meets monthly. At least one member of the Board is appointed by the Cleveland County Commissioners.

TACC provides subscription and demand response services throughout Cleveland County as well as a deviated fixed route service within the City of Shelby. TACC also provides out-of-county trips for medical and human services. On average in 2009 TACC provided between 325 and 400 trips per day using 22 peak period vehicles (services provided Monday through Friday, 4:30 AM to 6:00 PM). Most services are provided to 22 agencies via subscription services. TACC also operates the Cleveland County Transit (CCT)/Shelby Circulator, which provides a single one-way loop route through the City of Shelby (\$1.25 one-way fare). In 2009 TACC provided around 74,000 passenger trips and around 4,225 trips on the Shelby Circulator. Most of TACC's operating statistics (ridership, vehicle miles etc.) have been fairly consistent in the last 3 fiscal years. TACC's operations costs have increased by 22 percent in the last 3 fiscal years (mainly due to an increase in the cost of fuel) while administrative costs have increased over 10 percent during the same period. All other costs have changed less than 10 percent. In 2010 TACC staffing consisted of an Executive Director, an Assistant Director, 3 administrative employees 3 operations employees as well as 5 full-time and 18 part-time drivers.

Public outreach sessions were held at various locations as well rider surveys conducted. The survey results show that a majority of the respondents were aware of TACC/CCT services in the county and a majority of the riders were satisfied with the services provided. In addition, sessions were held with the TACC Board of Directors and interviews conducted with various human service agencies to receive their input. Finally, a review of other plans, studies and data (including the Lake Norman Rural Planning Organization Coordinated Public-Human Service Transportation Plan) was undertaken to determine possible needs.

Service Area Profile

After analyzing the existing conditions and operations within TACC, an analysis of the existing population and transportation setting within Cleveland County was performed. Of particular interest were areas in the County where transit need was the greatest. This include analysis of data on the targeted population groups, including senior citizens, persons with disabilities, low income individuals, and households without access to an automobile. The locations of activity centers that attract transit trips (i.e., major employers, shopping centers, medical and senior citizen facilities, and post-secondary schools) was mapped, and origin and destination information provided data on commuting patterns in terms of where County residents work and where County employees live. Field reconnaissance of the county was also undertaken to understand the existing and future land use, key generators, roadway characteristics, etc. Based upon the above data, a transportation needs assessment was compiled that mapped the possible transit markets within Cleveland County. The analysis showed that population growth has slowed in the last few years but the major growth has been along the southern portion of the

county, along the U.S. 74 corridor. The county has seen an increase since 2000 in the population that is at least 60 years of age, is living below the poverty level, and living with a disability. Cleveland County is now above the state average in terms of percentage of households in all these categories. However, the County continues to remain rural in nature, with limited population concentrations in the small towns. Origin and destination data also show an increasing trend in county residents commuting out of county for employment, particularly to Gaston County.

Service and Operations Proposals

Based upon the data collected and analyzed in the previous two chapters, a series of proposals for improving public transportation services are presented:

Deviated Fixed Route Service Alternatives (within Cleveland County)

- 2 new alternatives for the Shelby Circulator
- Lawndale to Fallston to Shelby
- Boiling Springs to Shelby
- Shelby to Kings Mountain

Deviated Fixed Route Service Alternatives (Out-of-County)

- Boiling Springs to Shelby to Kings Mountain to Gastonia
- Shelby to Kings mountain to Charlotte
- Shelby to Boiling Springs to Gaffney

Other proposals include offering reduced charges during the mid-day to encourage demand responsive trips during the off-peak; coordinating van pools within Cleveland County, conducting a feasibility study for a new transit center in Shelby, and improved marketing, including revising the logo and/or branding of the CCT services.

If implementing all suggested services within the next five years, the number of TACC peak vehicles would increased from 22 in 2010 to 28 in 2015, with operating costs increasing from approximately \$1.3 million 2010 to nearly \$ 2 million in 2015 (assuming both inflation and new services).

All of the proposed improvements are a menu of service options which should be reviewed and analyzed to determine which should be selected for implementation. In large measure, the pace of implementation will be based upon available funding.

SYSTEM EXISTING CONDITIONS

This chapter provides a description and analysis of Transportation Administration of Cleveland County, Inc. and provides a brief inventory of the other transit providers in the County and in the region. The information contained in this chapter was used as the base data for the development of the five-year plan.

ADVISORY AND GOVERNANCE STRUCTURE

The primary provider of public transportation service in Cleveland County is the Transportation Administration of Cleveland County, Inc. (TACC). TACC is a private non-profit corporation.

TACC operates under G.S. 55A, *North Carolina Nonprofit Corporation Act* and 26USC501(c)(3) of the Internal Revenue Code and is governed by a board of 14 members, with at least one member appointed by the Cleveland County Board of Commissioners.

TACC Board of Directors/Transportation Advisory Board

The non-profit status of TACC permits the Board to also act as the local Transportation Advisory Board (TAB) and is the legal governing body of the system and also provides policy and legislative direction for the system. The composition of the Board complies with the TAB membership guidelines established by NCDOT and provides the system with a wide array of skills and expertise related psychological services, Medicaid services, transportation planning, legal advice, insurance advice, financial advice, human resources, emergency management, and local political knowledge. The offices of the Board/TAB include a President, one or more Vice-presidents, a Secretary, and a Treasurer.

The Board/TAB does not involve itself with the day-to-day operations of TACC; this task is the responsibility of the TACC Executive Director who updates the Board/Tab at the scheduled monthly meetings.

Board/TAB members are elected for three-year terms, which begin at the first meeting of the new calendar year; Board/TAB members can be re-elected after serving a three-year term.

The purpose of the Board/TAB, as listed in the Articles of Incorporation state:

“The purpose for which the Corporation is organized is to initiate, provide, and promote a safe, adequate, and convenient transportation system for the citizens of Cleveland County”. Also, “to operate public transportation systems and to enter into and to perform contracts to operate public transportation services and facilities....”

At the completion of the CTSP study, the Board/TAB will review the recommendations and adopt this plan for the TACC system. TACC will present the CTSP to the County Commissioners for adoption as the Cleveland County Transportation Service Plan.

Board/TAB Meetings

The TACC Board meetings are held monthly. A review of a sample of meeting agenda and minutes indicated that the Board/TAB meet regularly and address the issues relevant to community transportation in Cleveland County. The Board/TAB does not have issues in achieving a quorum at its regularly scheduled meetings.

The consultant team met with the Board/TAB at one of its regularly scheduled meetings and asked the group if they felt they have sufficient opportunity to provide input and guide community transportation policy. All felt that the current structure is effective and that they have ample opportunity to provide input and guidance into local community transportation policy decision making.

EXISTING SERVICE CHARACTERISTICS

This section describes the services that make up the local community transportation network and analyzes the efficiency and effectiveness of the services provided by TACC.

Available TACC Services

TACC provides coordinated subscription and demand response services throughout Cleveland County, and also operates route deviation service in the City of Shelby. TACC also provides out-of-county service for medical and human service related purposes, with Gastonia and Mecklenburg Counties being the two most frequently served destinations. The ridership is largely transit dependent and consists mostly of human service agency clients and Medicaid recipients. Most trips are subsidized through various state and federal specialized transportation funding programs. TACC is available to any member of the general public; the fare for the general public is not subsidized and the passenger must pay the full cost of the trip.

TACC operates Monday through Friday, from 4:30 AM to 6:00 PM. On average, between 325 and 400 trips are scheduled and provided on the TACC system, with scheduled pick-ups generally occurring between the hours of 7:00 AM and 3:00 PM.

- **Subscription Service** – TACC provides subscription services to 22 human service agencies, non-profits, and organizations in Cleveland County, which provide essential services such as medical care, job training, and education to people requiring help due to age, disability, low income, or similar reasons. These agencies contact TACC to schedule trips for their clients and TACC bills the agencies for these trips. Subscription service is generally prearranged and serves specific origin and destination points on a reoccurring basis. At present, Adventure House (mental health services) and the Cleveland County Department of Social Services (Medicaid) are TACC's biggest clients. The agencies currently participating in the TACC system are listed in Table 1.

Table 1 – Subscription Contracts

Agencies/Organizations
Adventure House
Century Care
Cleveland Council of Aging
Cleveland County Department of Social Services
Cleveland County Health Department
Cleveland County Kidney Association
Cleveland Pines Nursing Center
Cleveland Regional Medical Center
Congregate Meal Program
Crawley Memorial Hospital
Day Reporting
Dialysis Clinic
Foster Grandparent Program
Kings Mountain Aging
Kings Mountain Hospital
Life Enrichment Center (adult day care)
N.C. Division of Services for the Blind
Pathways contract organizations
Shelby Senior Center
Veterans Council
White Oak Manor of Shelby and Kings Mountain
Work First Employment

The largest agency in Cleveland County that does not contract with TACC is Cleveland Vocational Industries, Inc., which is a non-profit agency providing employment and training opportunities for adults who have barriers to employment. Cleveland Vocational Industries stopped contracting with TACC in 1995 when the agency received a grant for vehicles and began transporting their clients. The agency currently operates seven vans to and from work sites in the County. TACC still transports a handful of Cleveland Vocational Industry clients on an individual basis.

- **Demand Response Service** – TACC provides curb to curb service for the general public anywhere within Cleveland County on seat available basis, as approved by the Board of Directors. Prospective riders wanting to schedule a reservation must call TACC at least 24 hours in advance of the desired pick-up time, with all calls taken until 2:00 PM; TACC does accept reservations over the system’s answering machine and does not have the capability for reservations to be made on-line.
- **Cleveland County Transit (CCT)/Shelby Circulator** – Operating under the name Cleveland County Transit (CCT), TACC operates a route deviation service that

circulates throughout the City of Shelby and serves many of the city's major activity centers. The service consists of a single route making designated stops on an established schedule; additionally, the route will deviate from its alignment up to $\frac{3}{4}$ of a mile by request only to satisfy ADA service requirements. This route operates Monday through Friday from 7:15 AM to 4:45 PM. The fare to ride this service is \$1.25 each-way. One vehicle operates along this route at a time with three vehicles in the TACC fleet dedicated to this service – two 1999 Dodge conversion vans (that are not wheelchair accessible) and one 2000 Dodge lift-equipped van. TACC has recently purchased two lift equipped vans with ARRA funds that will replace the two 1999 Dodge vans that are used on this route.

Other Human Service Transportation in Cleveland County

The State of North Carolina requires nursing homes and assisted living facilities in the state to provide transportation services for their clients. In Cleveland County, these facilities generally own one van, which is operated on an as needed basis for medical appointments, weekly shopping trips, and social events. These facilities do not charge an upfront fare for the use of the vans, but rather, include the cost of operating this transportation service in the overall fee these businesses charge to their customers or clients.

Senior centers in Cleveland County also provide transportation services for their clients; however, this service is provided for free and paid for through mileage reimbursements funded by the Elderly and Disabled Transportation Assistance Program (EDTAP) that is administered by TACC.

It is important to note that TACC provides backup transportation to the senior centers, as well as many of the senior care agencies and businesses in the County.

Public and Private Transportation Services in Cleveland County

While TACC is the only provider of public transportation service in Cleveland County, there are other private service providers that also serve the county.

- **Taxi Services** – There are three taxi companies based in Shelby, including the East Marion Cab Company, Weaver's Taxi, and AA United Cab. Attempts to speak with these companies regarding rates and service area proved largely unsuccessful; however, the services are regulated in Shelby and charge around \$2.50 per mile.
- **Van Pool Program** – In the City of Kings Mountain, the Charlotte Area Transit System (CATS) coordinates a van pool program for a group of local residents employed at the Norfolk Southern facility in Charlotte. The CATS system provides a fifteen passenger van, pays the insurance to the drivers and passengers, and pays the costs related to fuel and maintenance. In return, the van pool participants pay a monthly fee that covers a portion of the costs of the van pool

service. This van pool operates Monday through Friday and is currently the only van pool service operating in Cleveland County.

- **Greyhound Bus Lines, Inc.** – In Kings Mountain, Greyhound Bus Lines operates four trips per day from a facility located at 726 York Road in the downtown area of the city; the buses travel in the eastbound, westbound, and southbound directions to Charlotte, Asheville, and Greenville, with the buses continuing past these cities and serving other places along the Greyhound network.

Regional Public Transportation Services

The closest regional population center to the Shelby and Kings Mountain areas is the City of Gastonia in Gaston County; this city is served by a number of different transit services, as shown below:

- **AMTRAK** – The City of Gastonia is served by the Amtrak Crescent line, which operates daily service between New York City – Charlotte –Atlanta – and New Orleans. The Crescent line makes one stop in the City each day at around 3:00 AM; the station is unstaffed but does provide free parking.
- **Gastonia Transit** – This is a fixed route bus system serving the City of Gastonia; the system is comprised of seven routes that operate Monday through Friday from about 5:30 AM to 6:30 PM and on Saturdays from about 8:00 AM to 6:00 PM.
- **Gaston County ACCESS** – This service operates subscription and demand response service throughout Gaston County Monday through Friday from 5:00 AM to 6:00 PM.
- **Charlotte Area Transit System (CATS)** – On weekdays, CATS operates the 85x Gastonia Express between downtown Gastonia (the Gastonia Transportation Center) and downtown Charlotte (the Charlotte Transportation Center); this route is designed for Gastonia residents employed in Charlotte and consists of four trips in the morning to Charlotte and four return trips in the afternoon back to the City of Gastonia. This service is a combined effort of CATS and the City of Gastonia, with CATS operating and marketing the service and Gastonia contributing 50 percent of the operating costs.

Operating Statistics

TACC’s operating statistics for FY 2007 through FY 2009 are presented in Table 2 and summarized below.

During FY 2009, TACC carried approximately 74,000 passengers or around 300 trips per day, which represents a decline of about 1% from FY 2007 and a decline of about 2.5%

compared to FY 2008. The flat trend in ridership during the three year period could be the result of TACC transitioning from 12 and 13 seat vans to eight seat vans during FY 2009, which although increased the number of peak vehicles, had the affect of decreasing the available capacity on the system. However, an analysis of driver manifests for one entire day in December 2009 showed that TACC carried approximately 371 passenger trips during the day.

Table 2 – TACC Operating Statistics

Characteristic	FY 2007	FY 2008	FY 2009	% Change
Vehicle Service Miles	574,865	612,573	575,934	0.2%
Vehicle Revenue Miles	832,495	873,804	558,787	-32.9%
Vehicle Service Hours	28,447	30,939	28,024	-1.5%
Peak Vehicles	20	20	22	10.0%
Passenger Trips				
Medicaid	27,987	37,478	39,027	39.4%
Human Service	44,257	31,671	26,786	-39.5%
Non-Contract	2,416	6,816	8,260	241.9%
Subtotal	74,660	75,965	74,073	-0.8%

Source: FY 2007-FY 2009 OPSTATS Reports

Though ridership was fairly static during the three year period, the ridership market exhibited significant change, with the number of Medicaid trips increasing by almost 40% and surpassing subscription trips to become TACC’s largest ridership group (52.6% of total); conversely, subscription trips declined by almost 40%, with their share of the total ridership falling from approximately 60% during FY 2007 to about 36% during FY 2009. Non-contract ridership more than tripled, but still comprises a relatively minor share of TACC’s overall ridership (11.2% of total).

Commensurate with the modest drop in ridership between FY 2007 and FY 2009, the number of service/revenue hours operated by TACC declined 1.5%. At the same time, the number of revenue miles operated by TACC fell by almost one-third while overall service miles stayed about the same (+0.2%); this performance may be attributed to the number of out-of-county trips more than doubling during the three year period, from 1,885 during FY 2007 to 4,899 during FY 2009. The increase in out-of-county travel may correlate with the increase in Medicaid riders and their need for medical care that is not available in Cleveland County.

Transportation Efficiency and Effectiveness Measures

Table 3 shows the performance measures related to transportation activities at TACC. These performance measures relate to the efficiency of day to day operations, including scheduling, dispatching, supervision, and training.

- **Passenger Trips per Service Hour** – The number of passenger trips per service hour is a common measure of productivity in the transit industry. In rural areas this measure can be lowered by increasing trips to out-of-county destinations, increasing service to more

sparsely populated areas, or providing more demand response trips or fewer subscription trips.

Productivity on the TACC system has stayed at the same rate of 2.6 passengers per service hour between Fiscal Year 2007 and Fiscal Year 2009; this performance is reasonably productive considering the overall size and density of Cleveland County, and is likely attributed to demand being largely concentrated in the cities of Shelby and Kings Mountain, which provides greater opportunities to schedule grouped trips. Additionally, TACC can maintain higher productivity because the system has full control over the scheduling of subscription trips and can decide how many of these passengers ride on a particular trip.

Table 3 – TACC Transportation Performance Trends

Characteristics	FY 2007	FY 2008	FY 2009	% Change
Passenger Trips/Service Hours	2.6	2.5	2.6	0.00
Service Miles/Service Hours	20.21	19.80	20.55	1.70
Passenger Trips/Capita	0.78	0.79	0.77	-0.79
Passenger Trips/Peak Vehicle	3,733	3,798	3,367	-9.81
Service Hours /Peak Vehicle	1,422	1,547	1,274	-10.44

Source: FY2007-FY2009 OPSTATS Reports

- **Service Miles per Service Hours** – The number of service miles per service hours is an indication of the average speed of TACC vehicles throughout the operating day. This measure includes time for pick-ups and drop-offs and other times when the vehicle is stopped. This measure has remained constant averaging about 20 service miles per service hours during the three year period.
- **Passengers per Capita** - The number of passengers per capita indicates the level of utilization by the County population. In 2007, TACC provided 0.78 transit rides per person in Cleveland County, which is a drop of less than one percent compared to 2009 per capita ridership of 0.77. Again, this performance is consistent TACC providing the same level of service during the three year period.
- **Service Hours per Peak Vehicle** – The number of service hours per peak vehicle fell from 1,422 hours in FY 2007 to 1,274 hours in FY 2009, a decline of approximately 10 percent. This performance is consistent with TACC operating a similar number of hours and miles during the three year period but requiring 22 peak vehicles in FY 2009 compared to 20 peak vehicles in FY 2007. As noted previously, this is the result of TACC transitioning from 12 and 13 seat vans to eight seat vans during FY 2009, which means that TACC needs to place more vehicles in service to meet the same level of demand.

- **Passenger Trips per Peak Vehicle** – The need to have a larger peak vehicle fleet to serve a similar level of demand resulted in vehicle utilization dropping by approximately 10 percent during the three year period.

CCT – Shelby Circulator

The operating statistics listed above do not break-out the ridership associated with the CCT – Shelby Circulator. However, TACC did provide ridership statistics from FY 2009; the annual service miles and service hours were then calculated by the project team to determine the route’s productivity an average speed during the year. The operating statistics associated with the CCT – Shelby Circulator route are presented in Table 4.

Table 4 – CCT – Shelby Circulator Operating Statistics

CCT Operating Statistics	2009
Vehicle Service Miles	33,150
Vehicle Service Hours	2,375
Passenger Trips	4,225
Passengers per Service Hour	1.8
Vehicle Service Miles/Service Hours	13.9

In FY 2009, the CCT – Shelby Circulator carried 4,225 passengers or an average of 352 trips per month; the overall productivity of the route was 1.8 passengers per hour.

The average speed of the route was determined by dividing service miles by service hours. This measure includes time for pick-ups and drop offs and other times when the vehicle is stopped. In FY 2009, the route operated at an average speed of approximately 14 miles per hour.

ANALYSIS OF DEMAND

As part of this study, a detailed analysis of the current demand on the TACC system was conducted. The source of information for this analysis is driver manifests for one complete day of service in December 2009. An extensive analysis of vehicle utilization and productivity was also performed by ITRE, so there was little need to perform any additional analysis for that purpose.

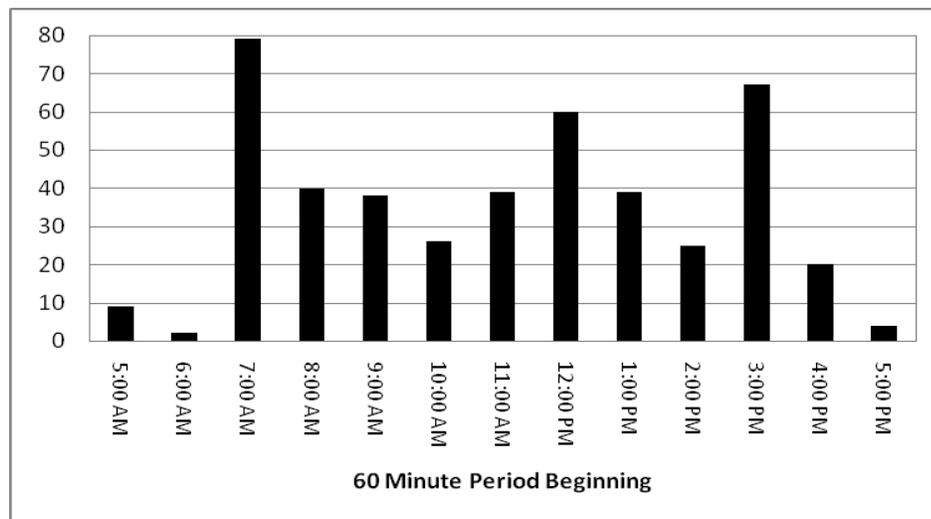
Composition of Demand

An analysis of the demand on the TACC system was undertaken and includes data obtained from all driver manifests utilized on December 17, 2009. On this day, TACC provided 371 trips, of which 213 (57.4%) were subscription trips and 158 (42.6%) were demand response trips through the Medicaid program. This is consistent with the distribution of trips noted in the ITRE Performance Plan (60% subscription and 40% demand response).

One factor that affects both the efficiency as well as the resource need of the TACC system is the distribution of that demand throughout the day. Using data from the December 17, 2009 TACC driver manifests, the distribution of demand on the TACC system throughout the day was determined.

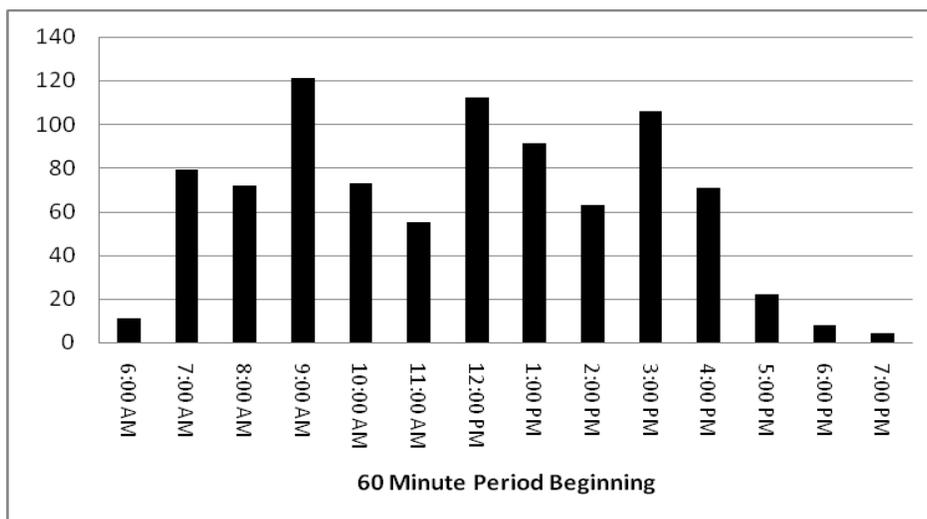
Figure 1 shows that the demand for pick-ups on the TACC subscription and demand response services has three distinctive peaks during the 7:00 AM hour, 12:00 PM hour, and the 3:00 PM, with demand remaining fairly consistent during the hours between these time periods. This type of demand distribution is common for systems operating subscription or demand responsive service models. While a more even distribution of demand would allow for more efficient use of resources, the distribution throughout the day is difficult to alter due to the nature of the trips being served.

Figure 1 - Time Distribution of Demand – Scheduled Pick Ups



Scheduled pick-ups are only one element of the scheduled operation of service. The intensity of activity also depends on drop-off times. Together, these equal trip ends, that is, anytime a vehicle stops for a passenger to board or alight from the vehicle. This provides a more accurate picture of the level of activity on the TACC system. Figure 2 provides the pattern of trip ends for each 60-minute period throughout the same service day as the scheduled pick up times. What the figure shows is that trip end activity is much less distinctively peaked than the pattern of scheduled pick-ups. Though the busiest hour for trip ends occurs during the 9:00 AM hour, TACC exhibits a consistent amount of passenger activity throughout the day until 5:00 PM; the chart also shows that there is some excess capacity in the system during the midday period. Again, this pattern is typical of a system operating subscription and demand service.

Figure 2 - Time Distribution of Demand – Trip Ends

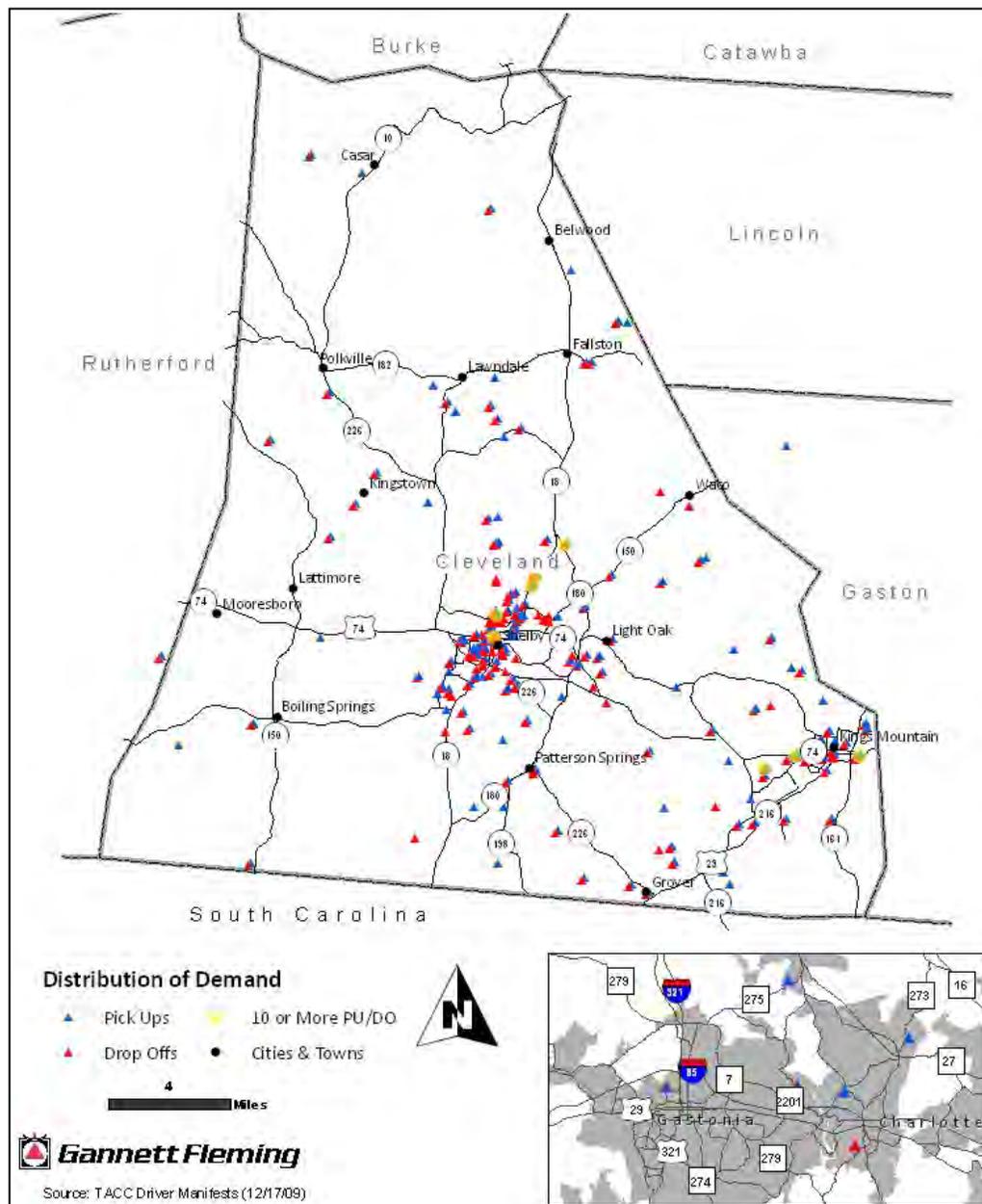


The figures show that most passenger activity occurs between the hours of 7:00 AM and 3:00 PM, with some excess capacity in the system during the midday period. The ITRE Performance Plan indicated that TACC is using some vehicles throughout the day for less than one hour, which indicates that with some adjustments to the scheduling process, TACC could provide additional general public general purpose demand response service in the County during the midday period.

Using the sample of driver manifests from December 17, 2009, the geographic distribution of demand of TACC’s subscription and demand response services was analyzed. The geographic distribution of demand is graphically depicted in Figure 3.

As shown, scheduled pick-ups and drop offs on TACC’s subscription and demand response services are heavily concentrated in the City of Shelby and to a lesser extent, the City of Kings Mountain; these cities exhibit the highest population densities and also contain most of the County’s activity centers and services. The remaining demand is evenly dispersed throughout the portions of the County located south of State Route 182. The driver manifests indicated limited demand for out-of-county travel; however, the trips that did leave Cleveland County were primarily destined for Gaston County and centered in and within close proximity to the City of Gastonia.

Figure 3 – Distribution of Demand of TACC Subscription & Demand Response Trips



The major origin and destination points are concentrated in Shelby and Kings Mountain and consist of medical, human service and senior citizen facilities. Table 5 lists the sites with at least 10 pick-ups and drop-offs based on the December 2009 driver manifests used in this analysis.

Table 5 – Common Origin and Destination Locations

Site	Location	Number of Pick-Ups & Drop-Offs
Adventure House	Shelby	76
Kings Mountain Aging	Kings Mountain	43
Life Enrichment Center of Cleveland Inc.	Kings Mountain	33
American Red Cross	Shelby	26
Life Enrichment Center – Adult Day Care	Shelby	23
Dialysis Clinic Incorporated	Shelby	17
Dialysis Clinic Incorporated	Kings Mountain	14
McLeod Addictive Disease Center	Gastonia	10
Cleveland Community Home and Support	Shelby	10
Excel Youth Academy	Shelby	10

Source: TACC driver manifests December 17, 2009

The ITRE Performance Plan indicated that many of the TACC vehicles are on the road at the same time, with certain runs being served by multiple vehicles. Based on the distribution of demand shown in Figure 4, many of the vehicles in service are operating within close proximity of one another, which likely indicates that passengers could be consolidated onto fewer vehicles; however, due to capacity constraints, TACC would need to purchase larger vehicles to implement this operational change. The drawback to larger vehicles is their higher operating costs compared to the vans currently utilized by TACC and the inability in some cases to provide service on unpaved or narrow routes/driveways due to the size of a larger vehicle. Additionally, larger body-on-chassis type vehicles would require the driver to hold a Commercial Driver’s License (CDL).

Billing and Scheduling

TACC utilizes CTS software for billing and scheduling its demand response and subscription services. TACC bills funding sources \$1.63 per mile, with charges by the rider share van mile.

The Scheduler/Dispatcher takes calls from customers requesting trips and schedules them on the most appropriate vehicle run according to geography and time. Approximately 60 percent of the daily passenger trips operated by TACC are subscription trips, which are pre-booked in advance and do not change on a daily basis. Non-subscription trips require a 24 hour advanced reservation, with availability based on a first-come, first served basis. Reservations are taken Monday through Friday until 2:00 PM for the next day service; however, all other reservations are accepted anytime between 6:00 AM and 6:00 PM. TACC does not accommodate reservations over the answering machine, by fax, or by through e-mail.

Currently, TACC typically schedules its runs with all subscription trips and uses designated runs to address non-subscription, or daily trips. Although TACC makes every attempt to ride-share, the ITRE Performance Plan and recent Reservation History Reports indicate TACC is increasingly scheduling more runs with one passenger. This increase is

primarily attributed to the growing number of Medicaid trips, which are much harder to ride-share on account of the various times of medical appointments and the spatial distribution of medical destinations.

Staff reported that the CTS software has some limitations in terms of scheduling ability; for instance, TACC schedulers can only assign trips to runs and do not have the ability to lay out the actual order of the movements the vehicle should make. TACC is upgrading to Route Match scheduling software. With the upgrade, it will be possible to move away from having set daily schedules for particular runs and allow the software to assign trips to runs based on location and time of day.

TACC has procedures in place to capture and enter data regarding service actually operated. TACC drivers record information regarding trips provided onto their manifests. This information is then manually entered into the CTS system. This information is then used for operations reporting purposes as well as for invoicing.

Drivers are typically assigned to the same runs and operate the same vehicle on a daily basis. As a result, drivers know the most direct and quickest route to take and become familiar with the assistance needs of passengers; additionally, drivers become familiar with lift and wheelchair tie-down equipment to speed up the boarding process and also develop an understanding of the maintenance needs of their vehicle enabling the driver to catch maintenance issues before service interruptions occur.

TACC drivers take their assigned transit vehicle home with them at night to minimize deadhead travel the next service day. This is a common practice among rural systems and can be effective as long as the first pick up and last drop off are scheduled appropriately. The ITRE Performance Plan indicated that TACC operates a much higher level of deadhead travel compared to its peers; however, based on a review of a TACC Reservation History Report from February 25, 2010, out-stationing vehicles does not seem to be the problem, but rather how vehicles are being scheduled throughout the day. Although some deadhead travel is unavoidable in large rural areas, such as Cleveland County, TACC should regularly analyze vehicle runs and trip assignments to ensure that no changes have occurred that can impact efficiency.

ITRE Performance Plan

Using the Operating Statistics (OPSTATS) and Vehicle Utilization Data (VUD) reports compiled by the NCDOT, ITRE analyzed the operations of TACC and published a report in April 2009. The report analyzed TACC's operational policies, human resources, organizational culture, and the system's planning process, with the objective being to assist TACC in achieving better performance and improving its business practices.

ITRE assembled a list of priority goals in the report to guide TACC's policy decisions in the coming years. The goals identified in the plan included:

- Targeted performance measures;

- Eliminate billing method from impacting scheduling;
- Reduce the number of runs;
- Evaluate the effectiveness of out-stationing; and
- Reduce late cancellations on manifests.

TACC responded to the goals identified in the Performance Plan as follows:

- TACC agreed with the performance targets listed in the plan but stressed that customer service must continue to be a top concern;
- TACC noted that the planned implementation of Route Match scheduling software should address the impact of the billing method on scheduling;
- The CTSP process will further investigate the use of single trip runs;
- The CTSP will also analyze the cost effectiveness of the out-stationing practices; and
- TACC noted that Medicaid has a lenient no-show and cancellation policy which affects the overall rate for TACC.

All of these issues will be considered further as part of the CTSP process.

FUNDING AND FINANCIAL MANAGEMENT

TACC is funded mostly through contract revenue paid by human service agencies, the Federal Transit Administration (FTA) Section 5311 program for rural and small urban areas, and the North Carolina Rural Operating Assistance Program (ROAP) – which includes the Elderly and Disabled Transportation Assistance Program (EDTAP).

Table 6 provides information on the trend in the operating costs of the TACC system between FY 2007 and FY 2009.

Table 6 – TACC Operating Costs Trends

Expenses	FY 2007	FY 2008	FY 2009	% Change
Administrative	\$229,349	\$232,071	\$253,577	10.6%
Operations	\$813,473	\$981,472	\$992,060	22.0%
Subtotal	\$1,042,822	\$1,213,543	\$1,245,637	19.4%
Revenue				
Federal Assistance	\$194,947	\$184,414	\$202,609	3.9%
State Assistance	\$143,401	\$140,081	\$150,272	4.8%
Local Assistance	\$81,541	\$79,042	\$75,994	-6.8%
Contract Revenue	\$693,343	\$796,471	\$853,098	23.0%
Passenger Fares/Donations	\$3,152	\$5,124	\$5,914	87.6%
Other	\$5,329	\$6,093	\$11,006	106.5%
Subtotal	\$1,121,713	\$1,211,225	\$1,298,893	15.8%

Source: FY 2007-FY 2009 OPSTATS Reports

TACC’s operating costs increased by approximately 19 percent between FY 2007 and FY 2009, with most of the increase occurring between FY 2007 and FY 2008, when the cost of vehicle operations increased almost 21 percent, from \$813,473 to \$981,472; the significant increase in fuel prices in 2008 was a major contributing factor for this cost increase, as was the need to hire drivers to compensate for capacity constraints brought on by the new van configurations that have fewer seats; increasing cost of workers’ compensation insurance, as well as various technology purchases – new office computers and upgrades to the internet service and scheduling software – also contributed to higher operating costs during the three year period.

Contract revenue has accounted for nearly two-thirds of TACC’s total revenue during the FY 2007 through FY 2009 period, and has increased by almost 16 percent during this time. The increase in contract revenue has occurred despite the fact that ridership among agencies paying for the contracted service declined by almost 40 percent; this increase in revenue can be attributed to TACC providing more Medicaid trips during this period. Federal and State assistance increased by about four percent and five percent, respectively, during the three year period and comprise the second and third largest sources of TACC revenue. Revenue from passenger fares and other sources – such as donations and earned interest – increased significantly in percentage terms, however, taken together, these two revenue sources comprise only around one percent of TACC’s revenue.

TACC currently charges \$1.63 per shared “revenue” mile. A fare of \$1.25 per ride is charged on the CCT.

Financial Efficiency and Effectiveness

Table 7 shows key cost efficiency measures, which assess the financial resources needed to place TACC service on the street. These performance measures are impacted by labor costs, overhead, vehicle maintenance, and scheduling practices.

TACC exhibited declining cost efficiency between FY 2007 and FY 2009 as costs increased while service levels and ridership either declined or remained flat. This decreasing efficiency can be attributed to uncontrollable costs related to fuel prices and other operating inputs, as well as the increasing number of Medicaid trips (in-county and out-of-county) that were provided by TACC during the three year period. These types of trips increase the utilization of resources as they typically require TACC to transport each person separately. Finally, some of the declining cost efficiency has been caused by TACC replacing their 12 passenger lift-equipped vans with 9 passenger lift-equipped vans as part of their meeting new federal requirements for lift-equipped vehicles.

Table 7 – Financial Efficiency and Effectiveness Trends

Cost Efficiency	Figures in Dollars (\$)			% Change
	FY 2007	FY 2008	FY 2009	
Cost/Vehicle Service Miles	1.81	1.98	2.16	19.2
Cost/Vehicle Revenue Miles	1.25	1.39	2.23	78.0
Cost/Vehicle Service Hours	36.66	39.22	44.45	21.3
Cost/Passenger Trip	13.97	15.98	16.82	20.4

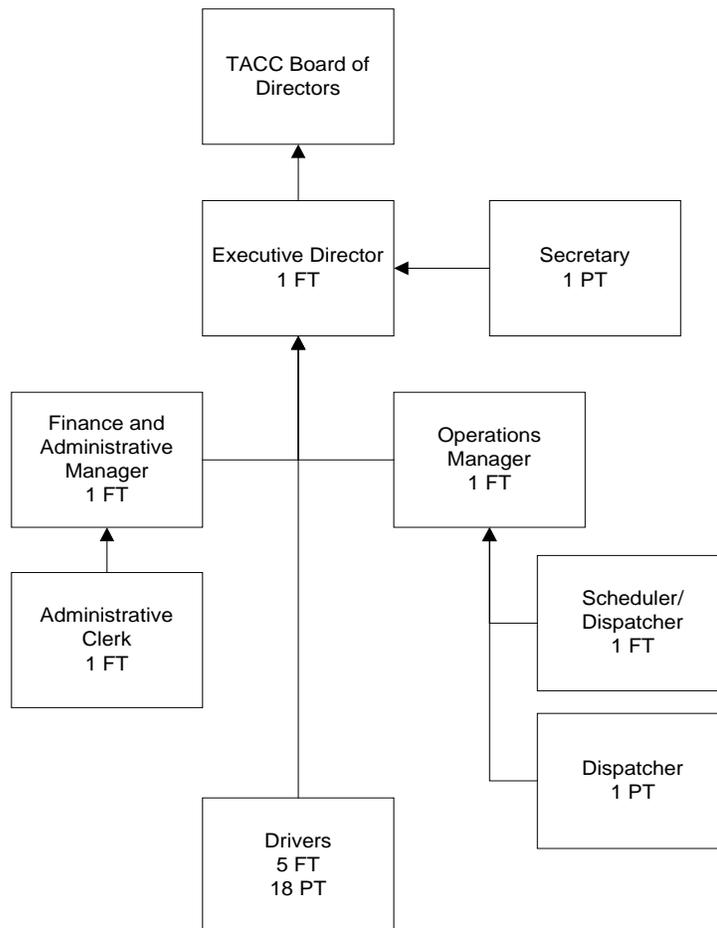
Source: FY 2007-FY 2009 OPSTATS Reports

CAPACITY ANALYSIS

The Executive Director is responsible for the day-to-day operation of the service. Along with the Executive Director, TACC employs three administrative employees consisting of a full-time Finance and Administrative Manager, one Administrative Clerk, and a part-time Secretary; the operations staff consists of a full-time Operations Manager, a full-time Dispatcher/Scheduler, one part-time Dispatcher and 23 (five FT and 18 PT) drivers. The organizational structure of the TACC system as of 2009 is presented in Figure 4 (**Note: Figure 27 shows the current organization structure as of 2010-2011**).

In addition to the positions shown in Figure 4, TACC has received permission from the Board/TAB to hire an Assistant Director and a Facility Maintenance Worker, with these positions designed to assist the system in keeping up with state and federal funding paperwork and the CCT service.

Figure 4 –TACC Organizational Structure (2009)



See Figure 27 for current TACC Structure

Administrative and Organizational Efficiency and Productivity

Table 8 shows various performance measures related to the efficiency with which TACC employees delivers its services.

Table 8 – TACC Organizational Efficiency Trends

Characteristics	FY 2007	FY 2008	FY 2009	% Change
Administrative Costs	\$229,349	\$232,071	\$253,577	10.6%
Operations Costs	\$813,473	\$981,472	\$992,060	22.0%
Total Costs	\$1,042,822	\$1,213,543	\$1,245,637	19.4%
Vehicle Service Hours	28,447	30,939	28,024	-1.5%
Labor Hours	44,548	51,417	42,926	-3.6%
Administrative Employees	4	4	4	0.0%
Operations Employees	22	25	24	9.1%
Total Employees	26	29	28	7.7%
Administrative Costs/Operations Costs	28.2%	23.6%	25.6%	-9.3%
Administrative Cost/Total Costs	22.0%	19.1%	20.4%	-7.4%
Administrative Employees/Operations Employees	18.2%	16.0%	16.7%	-8.3%
Administrative Employees/Total Employees	15.4%	13.8%	14.3%	-7.1%
Operations Employees/Total Employees	84.6%	86.2%	85.7%	1.3%
Vehicle Service Hours/Operations Employees	1,293	1,238	1,168	-9.7%
Vehicle Service Hours/Total Employees	1,094	1,067	1,001	-8.5%
Labor Hours/Vehicle Service Hours	1.6	1.7	1.5	-6.3

Source: FY 2007-FY 2009 OP STATS Reports

- Administrative Costs/Operations Costs & Total Operating Costs** – TACC’s ratio of administrative costs to operations costs decreased by 9.3 percent between FY 2007 and FY 2009, while administrative costs per total operating costs decreased by 7.4 percent. This performance is attributed to administrative costs increasing at a lower rate than operations costs and total operating costs during the three year period.
- Administrative Employees/Operations Employees & Total Employees** – The ratio of administrative employees per operations and total employees declined by 8.3 percent and 7.1 percent, respectively, between FY 2007 and FY 2009. This performance is attributed to the fact TACC’s administrative workforce did not increase in size while the operations workforce expanded by two employees during the three year period.
- Operations Employees/Total Employees** – TACC’s operations workforce as a percentage of the total workforce increased by approximately one percent during the three year period, from 84.6 percent to 85.7 percent.

- **Vehicle Service Hours/Operations Employees & Total Employees** – Since a higher number of operations employees were assigned to a similar number of vehicle hours, the ratios measuring vehicle service hours per operations employees and vehicle service hours per total employees declined by 9.7 percent and 8.5 percent, respectively, during the three year period. Although these measures indicate declining productivity, it is important to point out that capacity constraints brought on by the new van configurations has resulted in the need to operate more vehicles to serve the same level of demand.
- **Labor Hours/Vehicle Service Hours** – The number of labor hours per vehicle service hour is an indication of how efficiently employees are used in the provision of transportation services. Between FY 2007 and FY 2009, the number of labor hours per vehicle service hours declined by 6.3 percent. This performance demonstrates that TACC was able to provide service using slightly fewer labor hours during the three year period.

Fleet Inventory

According to the Public Transportation Management System report (PTMS), TACC operates a fleet of 28 federally funded vehicles, of which 25 are used to provide demand response and subscription services, with the remaining three vehicles dedicated to the CCT route in Shelby. As of 2008, the fleet includes 25 lift equipped vans, 2 conversion vans, and one 25 foot light transit vehicle. The system also has one federally funded minivan and one locally funded automobile, which are used as back-up vehicles. The PTMS indicates that all of the revenue vehicles in the fleet are equipped with cell phones. Table 9 provides a detailed fleet inventory as of 2008. It should be noted that TACC is purchasing 2-way radios for their fleet, with anticipated installation in the first quarter of 2011.

Table 9 – TACC Vehicle Inventory (as of October 2008)

Year	Make	Vehicle Type	Seating Capacity	Wheelchair Stations	Vehicle Use	Mileage Oct 2008
2007	Ford	Lift Equipped Van	8	2	R	16,990
2007	Ford	Lift Equipped Van	8	2	R	14,421
2007	Ford	Lift Equipped Van	8	2	R	9,729
2007	Ford	Lift Equipped Van	9	2	R	30,625
2007	Ford	Lift Equipped Van	9	2	R	25,346
2007	Ford	Lift Equipped Van	9	2	R	38,782
2007	Ford	Lift Equipped Van	9	2	R	18,781
2007	Ford	Lift Equipped Van	9	2	R	51,582
2007	Ford	Lift Equipped Van	9	2	R	42,627
2007	Ford	Lift Equipped Van	9	2	R	31,798
2007	Ford	Lift Equipped Van	9	2	R	34,464
2006	Ford	Lift Equipped Van	9	2	R	78,106
2006	Ford	Lift Equipped Van	9	2	R	57,996
2006	Ford	Lift Equipped Van	9	2	R	44,710
2006	Ford	Lift Equipped Van	9	2	R	64,758
2003	Ford	25 ft. LTV	20	4	B	44,170
2003	Dodge	Lift Equipped Van	12	2	R	151,711
2002	Dodge	Lift Equipped Van	12	2	R	137,874
2003	Dodge	Lift Equipped Van	12	3	R	141,893
2003	Dodge	Lift Equipped Van	12	2	R	127,562
2003	Dodge	Lift Equipped Van	12	2	R	113,001
2003	Dodge	Lift Equipped Van	12	2	R	141,294
2003	Dodge	Lift Equipped Van	12	2	R	121,826
2002	Dodge	Lift Equipped Van	12	2	R	161,933
2000*	Dodge	Lift Equipped Van	11	2	B	87,026
1999*	Dodge	Conversion Van	13	0	R	128,207
2003	Dodge	Lift Equipped Van	12	2	R	158,868
1999 *	Dodge	Conversion Van	13	0	R	128,983

Source: TACC PTMS Report * vehicles are used on the CCT route in Shelby.

Twenty-six of the 28 vehicles in the fleet are equipped with a wheelchair lift; the two vehicles without wheelchair lifts are used on the Shelby Circulator route. The seating capacity for the entire fleet is 297 passengers. It should be noted that overall capacity of the TACC fleet has decreased in recent years due to the wheelchair lift and seating configuration of the newer vans in the fleet. This has impacted TACC’s ability to address growing demand. The new wheelchair lift configuration is the result of federal safety regulations, van configurations offered by NCDOT and not the result of a policy choice by TACC.

On a typical day, 20 vehicles are used for peak service, which results in a spare ratio of 40 percent. Federal Transit Administration guidelines suggest a 20 percent spare ratio; however, TACC maintains a larger fleet due to seating capacity constraints of the current vehicle fleet.

The NCDOT considers the useful life of vans to be 100,000 miles. Under these guidelines, 11 of the vehicles in the TACC fleet are past their useful life and should be replaced. TACC recently purchased two lift equipped vans with ARRA funds in 2009 and has a vehicle replacement schedule to replace most of the vehicles in the fleet between 2010 and 2014.

TACC Administrative and Operations Facility

TACC operates out of a facility in Shelby which the corporation leases from Cleveland County. The facility has sufficient space to address administrative and operations needs, with enough indoor storage space to accommodate half of the TACC fleet.

The facility also includes one repair bay that can be used for minor maintenance repair work. TACC does not perform vehicle maintenance in-house other than minor running repairs. TACC contracts preventative and unscheduled maintenance functions to local vendors; the Operations Manager uses Fleetmax software to monitor vehicle maintenance.

Peer Group Review

In order to provide a context for TACC's operating performance in Fiscal Year 2009 the system was compared with a group of three peer systems that exhibit similar service characteristics to TACC, including Gaston County ACCESS, Iredell County Area Transportation System (ICATS), and Union County Transportation; these systems comprise a portion of the Group 3 – West peer group that was used in the ITRE Performance Plan. Since Fiscal Year 2009 OP STATS Reports could only be obtained from the three systems listed above, the other peer systems from Group 3 – West were omitted from this analysis.

The peer comparison is presented in Table 10 and presents the performance measures that were used to describe TACC's transportation, financial, and organizational elements; general operating data for each system are not shown, but are provided in the Appendix for reference purposes. It should be noted that comparing TACC (a non-profit) against county run public systems can be complicated, given that county operated systems often have additional financial and staffing benefits/subsidies from operating within County government not available to a non-profit system like TACC. Nonetheless, these are the peer groupings used by NCDOT and ITRE for comparison purposes.

Table 10 – Peer System Analysis

Characteristics	Gaston	Iredell	Union	Average	TACC	Difference
Transportation Measures						
Passenger Trips/Service Hours	1.72	2.68	2.03	2.14	2.64	23.3%
Service Miles/Service Hours	20.97	17.90	17.85	18.90	20.55	8.7%
Passenger Trips/Capita	0.97	0.98	0.73	0.89	0.77	-13.6%
Passenger Trips/Peak Vehicle	5,999	5,711	4,738	5,483	3,367	-38.6%
Service Hours/Peak Vehicle	3,493	2,130	2,331	2,651	1,274	-52.0%
Peak Vehicles	20	21	19	20	22	10.0%
Financial Measures						
Cost/Vehicle Service Miles	\$1.12	\$1.65	\$1.52	\$1.43	\$2.16	51.2%
Cost/Vehicle Revenue Miles	\$1.18	\$2.03	\$1.81	\$1.67	\$2.23	33.3%
Cost/Vehicle Service Hours	\$23.48	\$29.54	\$27.16	\$26.73	\$44.45	66.3%
Cost/Passenger Trip	\$13.67	\$11.02	\$13.36	\$12.68	\$16.82	32.6%
Labor and Staffing Measures						
Admin Costs/Operations Costs	21.3%	25.4%	35.0%	27.2%	25.6%	-6.1%
Admin Costs/Total Costs	17.5%	20.2%	25.9%	21.2%	20.4%	-4.2%
Admin Employees/Operations Employees	10.7%	10.0%	8.5%	9.7%	16.7%	71.1%
Admin Employees/Total Employees	9.7%	9.1%	7.8%	8.9%	14.3%	61.0%
Operations Employees/Total Employees	90.3%	90.9%	92.2%	91.1%	85.7%	-5.9%
Vehicle Service Hours/Operations Employees	2,495	1,491	942	1,643	1,168	-28.9%
Vehicle Service Hours/Total Employees	2,253	1,356	868	1,492	1,001	-32.9%
Labor Hours/Vehicle Service Hours	0.9	1.4	1.2	1.2	1.5	31.6%

Source: FY 2009 OP STATS Reports

In terms of the transportation measures, TACC is more productive than the peer group, but exhibits lower utilization by County residents and lower vehicle utilization; the lower vehicle utilization is the result of TACC operating less service and carrying fewer passengers than the peer average but operating more peak vehicles. As noted previously, this is attributed to the configuration of the newer vans, which have fewer seats and require TACC to place more vehicles in service to meet the same level of demand. The lower vehicle utilization may also be attributed to the fact that TACC operates more out-of-county trips than the peer group and also provided considerably more Medicaid trips as a percent of total trips compared to the peer average. As noted previously, Medicaid trips are harder to group and typically require TACC to transport each person separately.

The financial measures indicate that TACC is a more costly system to operate compared to the peer average. TACC's total operating cost is approximately 10 percent lower than the peer average even though the system provides only about half as much service and carries a third less passengers. Again, the fact that TACC provides considerably more out-of-county trips and more Medicaid trips than the peer average is likely contributing to this contrast in financial efficiency and effectiveness. It should also be pointed out the Gaston ACCESS serves a much larger urban

area (Gastonia), which increases the overall efficiency of the system.

TACC's administrative costs to operations costs and total costs were lower than the peer average. However, the number of TACC administrative employees is about 17 percent of the number of operations employees, which is nearly three-quarters higher than the peer average of 9.7 percent; additionally, TACC's administrative staff comprises about 14 percent of the total TACC workforce, which is nearly two-thirds higher than the peer average of 8.9 percent. These measures do not reflect how well TACC is able to meet the needs of its riders, but do indicate that TACC devotes a higher percentage of its resources to administrative activities compared to the peer average.

TACC's operations staff comprises about 86 percent of the total work force, which is slightly below the peer average but indicates that the system dedicates a similar amount of its resources towards operations when compared to its peers. TACC's ratios of vehicle service hours per operating employees and vehicle service hours per total employees are nearly a third lower than the peer average. This performance is impacted by the need for TACC to operate a higher number of peak vehicles even though the system is providing much less service than the peer group. This statistic may highlight the need for TACC to modify its scheduling practices or purchase larger vehicles. However, the use of larger vehicles might prevent TACC from accessing some non-paved rural routes or driveways in the County.

PUBLIC SATISFACTION AND COMMUNITY NEEDS

To incorporate local input into the CTSP process, the scope of work for the study included a series of public walk-up meetings, bus rider surveys, and interviews with County human service agencies. This section provides a summary of the results of these public and staff participation efforts.

Public Walk-In Sessions

Three public walk-up sessions were held on December 9, 2009. Sessions were held at three different locations in the City of Shelby that are easy to access by transit. The locations included:

- Cleveland County Community College (morning)
- Cleveland County Library (afternoon)
- The Cleveland Mall (early evening)

The times of the sessions were selected based on the typical activity pattern at the location. That is, the sessions were held over periods during which it would be possible to speak with the highest number of people. Information banners were posted at each location to provide a general overview of the CTSP study and planning process. To attract attention and increase participation, participants were invited to enter a raffle for a \$25 gift card.

A total of 71 people participated in the walk-up meetings by completing a brief questionnaire that included five questions pertaining to the level of awareness of TACC services, unmet transportation needs in the County, and improvement suggestions. A copy of the survey is included in the Appendix. The survey results indicated that 81% of the participants are aware of TACC and CCT services, and know of the services by seeing the vehicles operating in the community. The results also showed that 15% of the participants have someone in their household who uses TACC and/or CCT. The most frequently cited improvement suggestion was for more general public/general purpose trips.

TACC & CCT Rider Surveys

On board rider surveys were conducted on TACC vehicles and the CCT Shelby Circulator bus in December 2009. The vehicle operators offered a survey card and pencil to any passenger willing to take the survey; the riders could either complete the survey during their trip or complete the survey after leaving the vehicle and return it the next time they rode TACC or CCT. Different surveys were prepared for TACC and the CCT Shelby Circulator, with both surveys consisting of 16 questions pertaining to riding habits, service ratings, rider demographics, and improvement suggestions. Limited writing was required to answer the questions. Copies of the survey cards are included in the Appendix.

Overall, 81 surveys were completed and returned – 65 TACC and 16 CCT. Major highlights from the surveys included:

- Almost half of the riders have been riding for less than two years;
- Half of the respondents ride three days per week or less;
- Over nine out of 10 respondents are satisfied with provided trip times;
- All service attributed were rated very favorably;
- Most respondents could be considered transit dependent in that only 4 % could have made their trip without TACC or CCT; and
- The majority of improvement suggestions concerned the expansion of service.

Stakeholder Interviews

The consultant team was provided a list of individuals from various County human service agencies who should be contacted for the purpose of gathering their observations regarding TACC services, the local transit environment, and current and future transit needs. The list included human service agencies that contract with TACC for transportation service as well as agencies that do not contract with TACC but represent potential users of the system. The agencies were contacted either by phone or through email, and were asked to respond to a series of questions regarding the recent preparation of the Local Coordinated Plan prepared by the Lake Norman RPO; the unmet transportation needs in Cleveland County; why they use or do not use TACC services; and improvement suggestions.

A total of five individuals/agencies answered questions over the telephone while two individuals responded to the questions in writing via email correspondence. Of these seven

respondents, six currently contract with TACC. Overall, only one respondent participated in the Coordinated Plan and was aware of the priorities that were developed as part of the planning effort. When provided with the list of the priorities (listed in the following section) – most of the respondents agreed with the list, with one person stating that the current vehicle inventory is sufficient to meet demand.

In terms of unmet transportation needs and improvements, comments included:

- the need for greater wheelchair accessibility;
- more affordable out-of-county fares and lower fares in remote areas where passengers have to ride alone and pay a higher fare;
- evening and weekend service;
- establish van pools to ease overcrowding on TACC vehicles and provide transportation for people needing to get to work; and
- fixed route service between Boiling Springs and Shelby.

Each respondent was very satisfied with TACC service, with respondents indicating that the system is responsive and well organized, does a good job marketing its services throughout the County, and provides excellent customer service.

A few respondents indicated during the interview process that although they think fixed route bus service is important, it is probably not feasible in the County – with the lack of ridership on a the recently discontinued Kings Mountain service being the prominent example. Further, some offered the opinion that Shelby does not have sufficient activity to support evening and weekend service.

Board of Directors Interviews

The consultant team also met with the TACC Board of Directors to discuss unmet needs and strategies to address them. The Board indicated that they agreed with the list of unmet needs and priority actions identified in the local Coordinated Plan (described below).

In addition, the Board stressed the need to:

- Assess the current service model used for the CCT service;
- Develop recommendations for the marketing and promotion of the services currently available; and
- Establish a vanpool program in Cleveland County.

Local Coordinated Plan

As noted above, the Lake Norman RPO completed a Coordinated Public-Human Service Transportation Plan for the regional planning area. This included an outreach and stakeholder involvement process to identify unmet needs in the region and to identify priority actions needed to address those needs. The priorities identified included:

- Expand the fleet of transit vehicles;
- More van pool and fixed route bus service;
- Better regional coordination of services;
- Improved integration between demand response and fixed route service; and
- Enhanced marketing of service.

In terms of potential fixed route services, the plan identifies specific corridors. In Cleveland County, these include:

- North Carolina 10 corridor between Casar and Shelby;
- North Carolina 18 corridor between Knob Creek and Shelby;
- North Carolina 150 corridor between Lincolnton and Boiling Springs via Shelby; and
- U.S. 74 corridor between Shelby and Gastonia via Kings Mountain.

The feasibility of service along these corridors and potential service models was examined as part of the service planning process for this study effort.

SUMMARY

This chapter provides an overview of the current community transportation services available in Cleveland County along with a description of how services are structured organizationally. In addition, the productivity and effectiveness of the current services was described. This analysis built upon the extensive work already conducted by ITRE in terms of operational and vehicle utilization analysis. Lastly, this chapter described the findings and priorities identified in two relevant planning documents: the Performance Plan assembled by ITRE; and the local Coordinated Public Transit-Human Service Transportation Plan assembled by the Lake Norman RPO. All of the information presented was instrumental in guiding the development of service improvement proposals throughout the remainder of the CTSP process.

SERVICE AREA PROFILE

PURPOSE

This chapter presents a description of the transportation setting within Cleveland County. It relies on information from a variety of sources, much of which is the most recent U.S. Census. It includes information on population, employment activity, travel patterns, and important destinations that generally attract transit trips. Of particular concern is ascertaining the level of transit dependence among certain population groups and households in Cleveland County, including persons age 60 and older, persons with a disability or self-care limitation, persons living below the poverty line, and households that do not own or have access to an automobile. Persons falling into one or more of these categories may have difficulty accessing major destinations – employment centers, shopping areas, medical facilities, social service agencies, etc. – without adequate transit service. Although demographic analysis cannot determine the exact need for transit service, it provides important evidence for locations that could support new or more extensive bus service.

Most of the data presented in this report have been analyzed using census block groups, which is the smallest geographical unit for analyzing demographic data; one limitation of using census block group data for this report is that population data at this level have not been updated since the 2000 Census. However, more recent population data from the 2008 American Community Survey (ACS) were available at the county level and was used to compare the changes that have occurred within the target population and household groups since the 2000 U.S. Census. In addition, general population estimates of Cleveland County for the year 2008 and beyond was available from the North Carolina Office of State Planning.

TRANSPORTATION SETTING

Cleveland County is located in the Piedmont area of North Carolina, located between the Charlotte and Greenville – Spartanburg metropolitan areas. It is bordered by South Carolina to the south, Rutherford County to the west, Burke County to the North, and Lincoln and Gaston Counties to the east. The County is bisected by several major and minor thoroughfares providing local and regional connectivity; US 74 is the County's most prominent east-west corridor and provides direct access to I-85, which serves as the primary connection to the Charlotte and Spartanburg metro areas. Important north-south thoroughfares include NC 18, NC 126, NC 150, and NC 180.

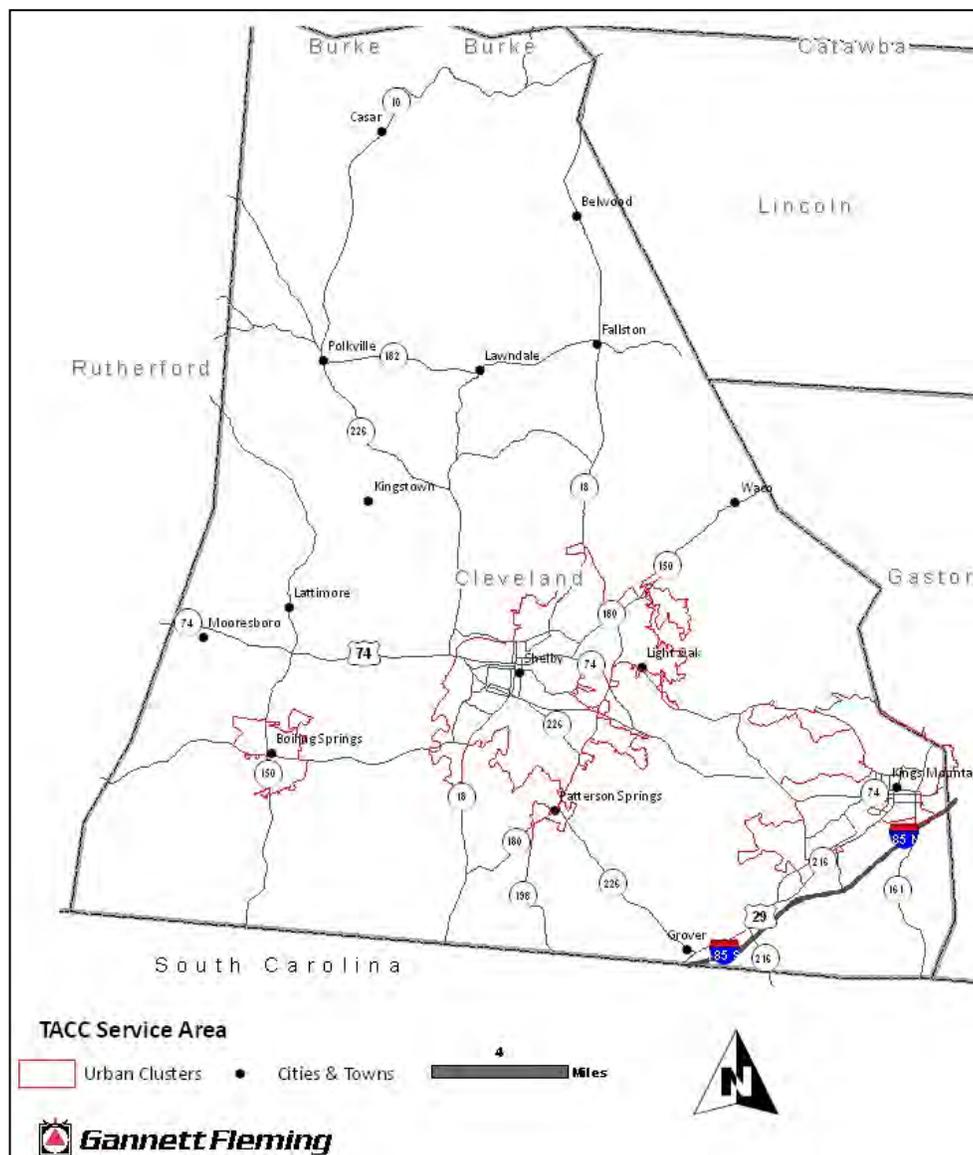
The majority of residential, commercial, and industrial development is concentrated in the southern portion of the County and along the US 74 Corridor, with the areas north of US 74 still maintaining their rural character. According to the 2015 Cleveland County Land Use Plan, county officials are likely to continue this development pattern through land use strategies designed to encourage and direct more intensive development into the southern half of the county, as a way of preserving the rural character which is predominant throughout the central and northern sections of the county.

Cleveland County is divided into 11 towns and four cities; the City of Shelby is the largest city and is also county seat. Shelby and to a lesser extent, the City of Kings Mountain, are the

principal activity centers and contain the majority of the County’s employment and services. In addition, there are three urban clusters in the County (Shelby, Kings Mountain, and Boiling Springs); these areas contain under 50,000 persons and are characterized by the Census Bureau as containing core census block groups or blocks that have a population density of at least 1,000 people per square mile and surrounding census blocks that have an overall density of at least 500 people per square mile. The base map of Cleveland County is presented in Figure 5.

Public transportation in Cleveland County is provided by the Transportation Administration of Cleveland County, Inc. (TACC), which operates human service oriented transportation throughout the county and also operates regularly scheduled weekday deviated fixed route bus service in the City of Shelby (Cleveland County Transit).

Figure 5 - Cleveland County/TACC Service Area



HISTORICAL AND PROJECTED POPULATION

Cleveland County experienced population growth rates of 13.7 between 1990 and 2000 and 2.8 percent between 2000 and 2008 (Table 11). Population projections prepared by the North Carolina Office of State Planning assume the County’s population will increase to almost 100,000 residents by 2010 and will grow by about seven percent between 2010 and 2020.

Table 11 – Historical and Projected Population

Area	1990	2000	2008	2010*	2015*	2020*	Percent Change		
							90-00	00-08	10-20
Cleveland County	84,714	96,287	99,015	99,717	103,197	106,625	13.7	2.8	6.9
North Carolina	6,628,637	8,049,313	9,222,414	9,571,403	10,424,250	11,263,964	21.4	14.6	17.7

Source: U.S. Census & *NC Office of State Planning

The majority of population growth between 1990 and 2008 has occurred at the municipal level, with three jurisdictions in the southern portion of the County – Shelby, Kings Mountain, and Boiling Springs – accounting for approximately 90 percent of the municipal growth and nearly three-quarters of the overall population growth during this time period (Table 12). Conversely, there were four municipalities that lost population since 1990, three of which – Casar, Kingston, and Polkville – are located in the northern section of the County; the fourth municipality was Patterson Springs which is located directly south of Shelby.

Table 12 – Historical Population and Population Change by Municipality

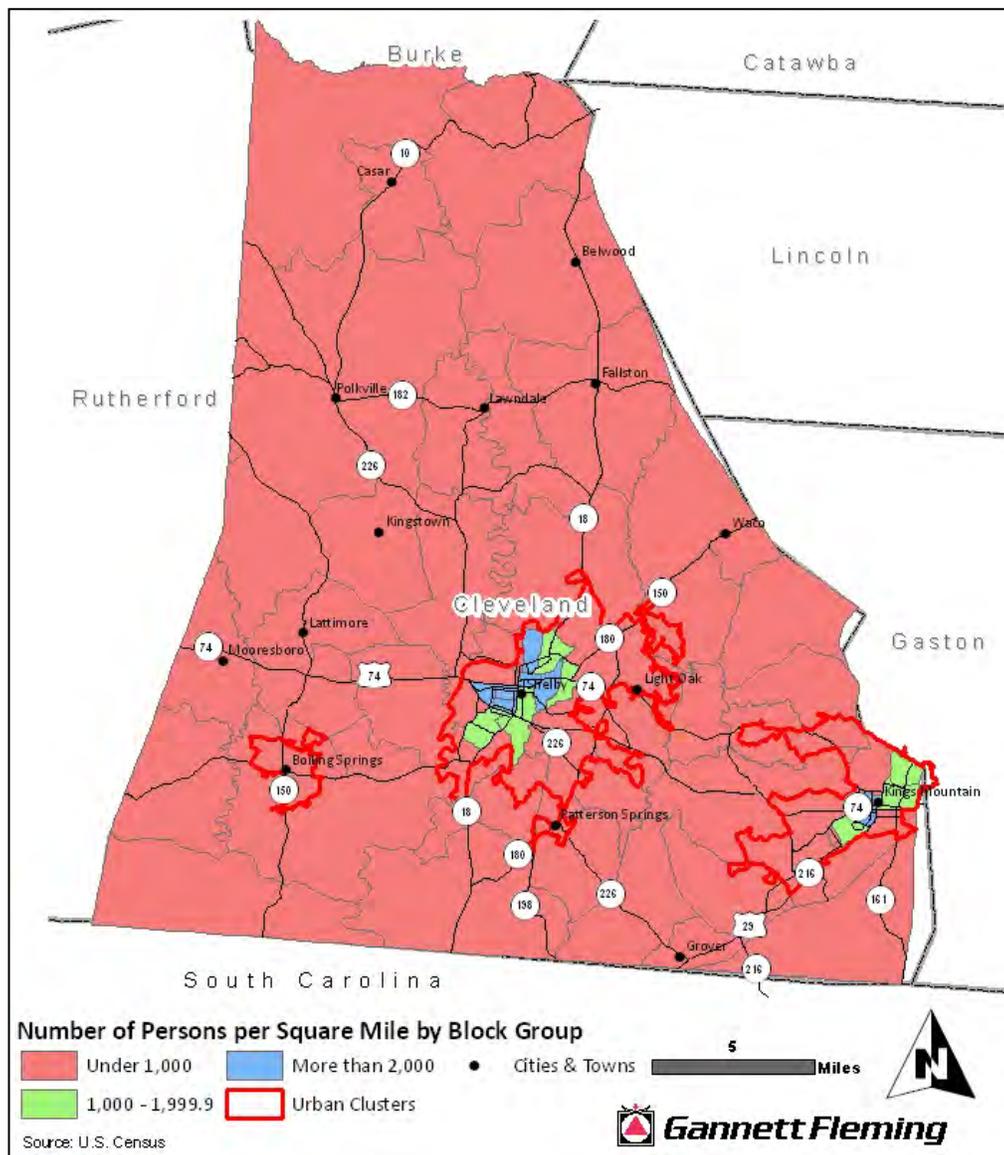
Municipality	1990	2000	2008	1990-2008: Change	
				Number	Percent
Belwood	631	969	1,018	387	61.3%
Boiling Springs	2,445	3,967	3,881	1,436	58.7%
Casar	328	335	311	-17	-5.2%
Earl	230	234	234	4	1.7%
Fallston	498	576	608	110	22.1%
Grover	516	666	697	181	35.1%
Kings Mountain	8,763	9,457	11,175	2,412	27.5%
Kingstown	956	841	847	-109	-11.4%
Lattimore	183	420	419	236	129.0%
Lawndale	573	634	633	60	10.5%
Mooresboro	294	291	331	37	12.6%
Patterson Springs	690	570	613	-77	-11.2%
Polkville	1,514	513	535	-979	-64.7%
Shelby	14,669	19,391	21,449	6,780	46.2%
Waco	320	320	327	7	2.2%
Municipal Total	32,610	39,184	43,078	10,468	32.1%
Cleveland County	84,714	96,287	99,015	14,301	16.9%

Source: 2010-2020 population projections are not available at municipal level at this time.

POPULATION DENSITY

Mapped in Figure 6, population density is an important indicator of how rural or urban an area is, which in turn affects the types of public transportation services that may be most viable. In general, fixed-route bus transportation is more practical and successful in areas with at least 1,000 persons per square mile. Lower densities call for low frequency, demand-response, or subscription services. In Cleveland County, densities of at least 1,000 persons per square mile are evident in select block groups located within the cities of Shelby and Kings Mountain. As noted above, the City of Shelby is the only community in Cleveland County served by regularly scheduled deviated fixed route bus service (i.e., Cleveland County Transit). Human service oriented transportation is provided throughout the County by TACC.

Figure 6 – Population Density



TARGET POPULATION AND HOUSEHOLD GROUPS

To plan effectively for a public and human service transportation network, it is important to identify key target population groups that largely comprise the customer base for community transportation services. The population groups analyzed in this report are those groups that may have greater transportation needs compared to the general population.

Transportation needs are defined in part by identifying the relative size and location of the population groups and households in the County most likely to be dependent on some form of public transportation service. Once the locality of populations and households with transportation needs is determined and analyzed, it is possible to evaluate the extent to which current transit services are meeting the needs of the community.

- **Senior Citizens (60+)** – Older adults tend to be frequent users of community transportation services because they are unable or unwilling to drive and because transportation services oriented to seniors exist.
- **Persons with Disabilities** – The Americans with Disabilities Act (ADA) 49 CFR 37.3 protects individuals from transportation discrimination who have either a physical, mental, or sensory disability. This is a more specific definition of disability status compared to the broader definition used in the 2000 U.S. Census long form, which identified six disability categories – physical sensory, mental, going outside of the home, self-care, and employment. This inclusive definition resulted in a larger number of people identifying themselves as having a mobility limitation than as having a disability under the Americans with Disabilities Act.

The U.S. Census Bureau revised the disability question beginning in the 2008 ACS, with the question separated into six categories – hearing, vision, cognitive, ambulatory, self-care, and independent living; having an employment disability was eliminated as a possible response.

For the purpose of this study, the disabled population refers to people with either a hearing (sensory), vision (sensory), cognitive (mental), or ambulatory (physical) disability, and did not include the population indicating a self-care or independent living disability.

- **Persons Living Below the Poverty Line** – Another important indicator of the need for and propensity to use community transportation services among an area population is the number of persons living below the poverty level. This group tends to rely more heavily on public transportation because many are unable to afford an automobile, cannot afford a second automobile for their household, or choose not to use their limited income for an automobile.
- **Households without Access to a Vehicle** – The final target group used for this analysis is households who do not own or have access to a private automobile. This is an

important statistic because households without a vehicle are considered to be entirely dependent upon alternative transportation sources.

These target populations are consistent with the customer base for current and future services and programs funded by FTA sections 5311, 5316, and 5317.

It is important to remember that in many cases, individuals in the target population groups will have more than one of the transit-dependent characteristics listed above, and in fact, will often exhibit multiple characteristics.

The County’s aforementioned target population and household groups are graphically depicted in Figure 3 through Figure 10. Each variable is examined in terms of percent of total population and population density and is presented at the census block group level. Density provides a measure of the relative size of the population within each block group while the percentages can convey transit need among sparsely populated block groups with low relative density. Since land areas among the block groups vary, it is not particularly meaningful to compare the raw numbers of persons or carless housing units in each category.

Figure 11 combines the percent and density variables from each target group, as well includes the total number to identify those areas in the County with the greatest need and potential demand for public and human service transportation.

Senior Citizens (60+)

According to the 2008 ACS, there are approximately 21,000 senior citizens living in Cleveland County. This comprises approximately 21 percent of the total population and exceeds the statewide average of 17.6 percent. Since the 2000 Census, the senior citizen population in the County has increased by almost 22 percent, which is slightly below the statewide increase of 25.2 percent.

Senior Citizens (60+)

Persons 60+	2000		2008		Change: 2000-2008	
	Number	Percent	Number	Percent	Number	Percent
Cleveland County	17,444	18.1	21,217	21.4	3,773	21.6
North Carolina	1,293,316	16.1	1,620,312	17.6	326,996	25.2

Source: 2000 U.S. Census and the 2008 American Community Survey (ACS)

Figure 7 is a map of the senior citizen population as a percentage of the total population and Figure 8 is a map showing the density of the senior citizen population group. Across the County, the senior citizen population as a percentage of the total population ranges from a low of 7.6 percent to a high of 38.9 percent; the census block groups with the highest percentages of seniors are concentrated in the cities of Shelby and Kings Mountain, with lowest percentages of seniors evident in the outskirts of Shelby, Kings Mountain, and Boiling Springs.

The census block groups exhibiting the greatest densities of seniors are also found in the cities of Shelby and Kings Mountain, with senior citizen density levels dropping off dramatically throughout the remaining portions of the County.

Figure 7 – Percent Senior Citizen Population (60+)

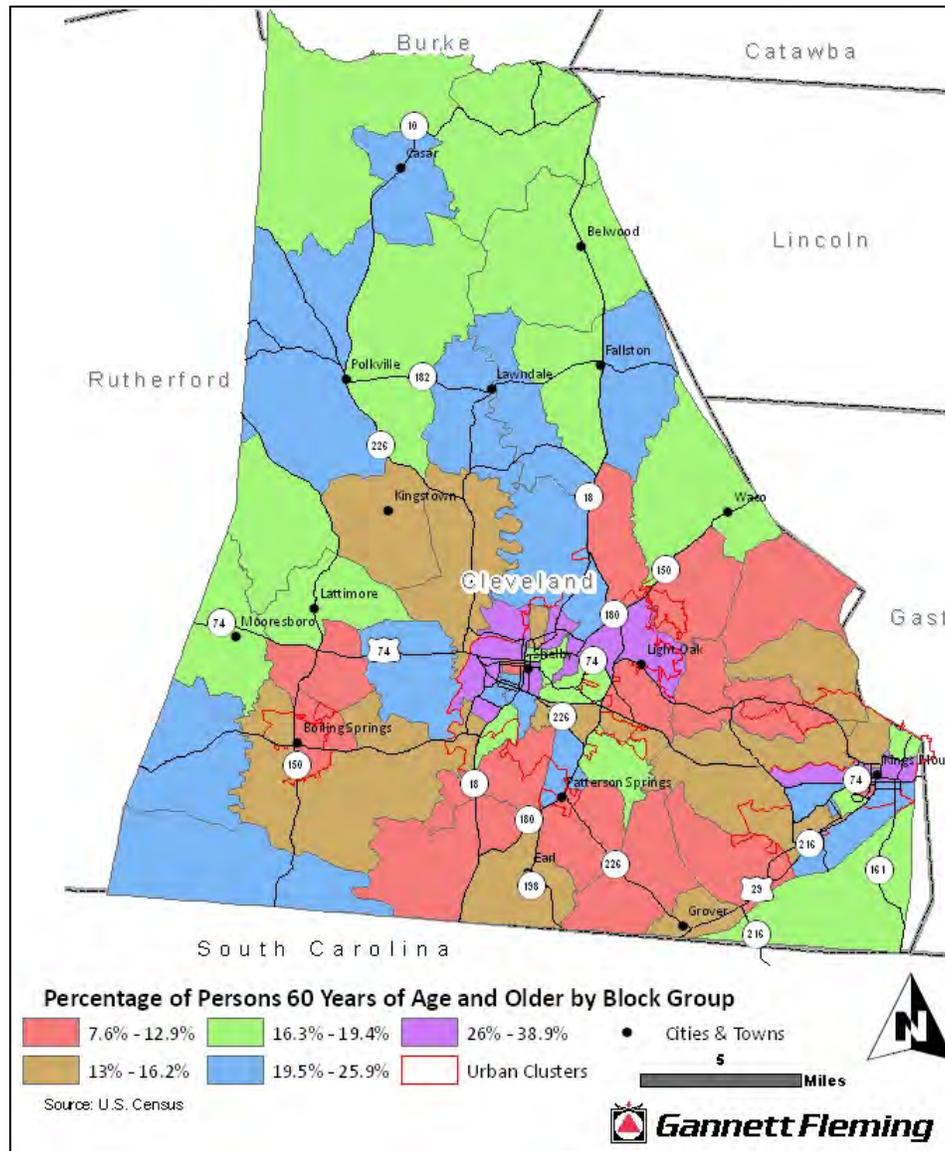
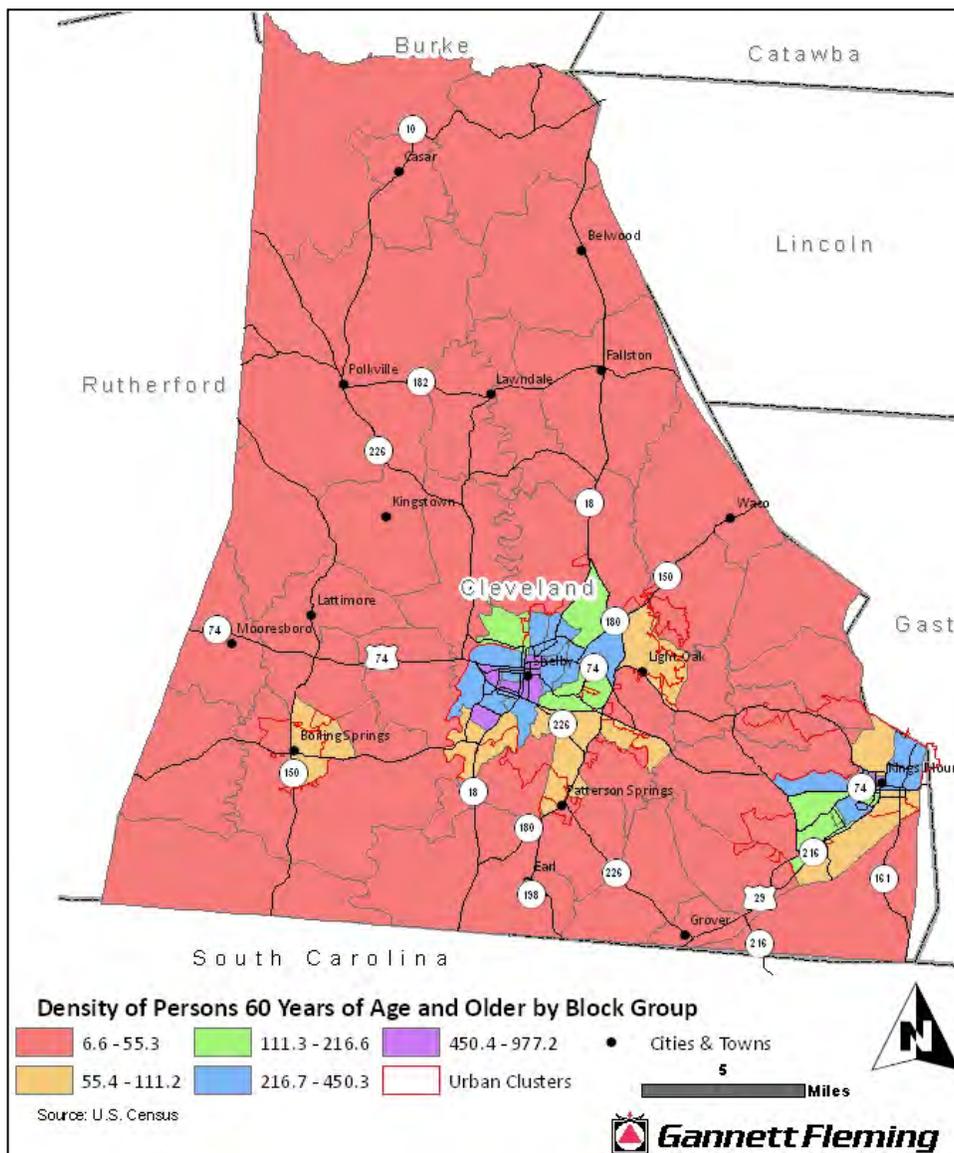


Figure 8 – Density of Senior Citizen Population (60+)



Persons with a Disability

According to the 2008 ACS, there are approximately 20,000 Cleveland County residents that have a physical, sensory, or mental disability. This comprises approximately 20 percent of the total population and exceeds the statewide average of 13 percent. Since the 2000 Census, the number of County residents with a disability has grown by 4.6 percent, which is in contrast to the 12 percent decline exhibited statewide.

Persons with a Disability

Persons with a Disability	2000		2008		Change: 2000-2008	
	Number	Percent	Number	Percent	Number	Percent
Cleveland County	18,908	19.6	19,786	20.3	878	4.6
North Carolina	1,335,239	16.6	1,174,724	13.0	-160,515	-12.0

Source: 2000 U.S. Census and the 2008 American Community Survey (ACS)

Figure 9 is a map of the disabled population as a percentage of the total population and Figure 10 is a map showing the density of the disabled population group. The disabled population is more evenly disbursed throughout the County; however, the census block groups with the highest percentages and concentrations of disabled persons are primarily located within Shelby and Kings Mountain.

Figure 9 – Percent Disabled Population

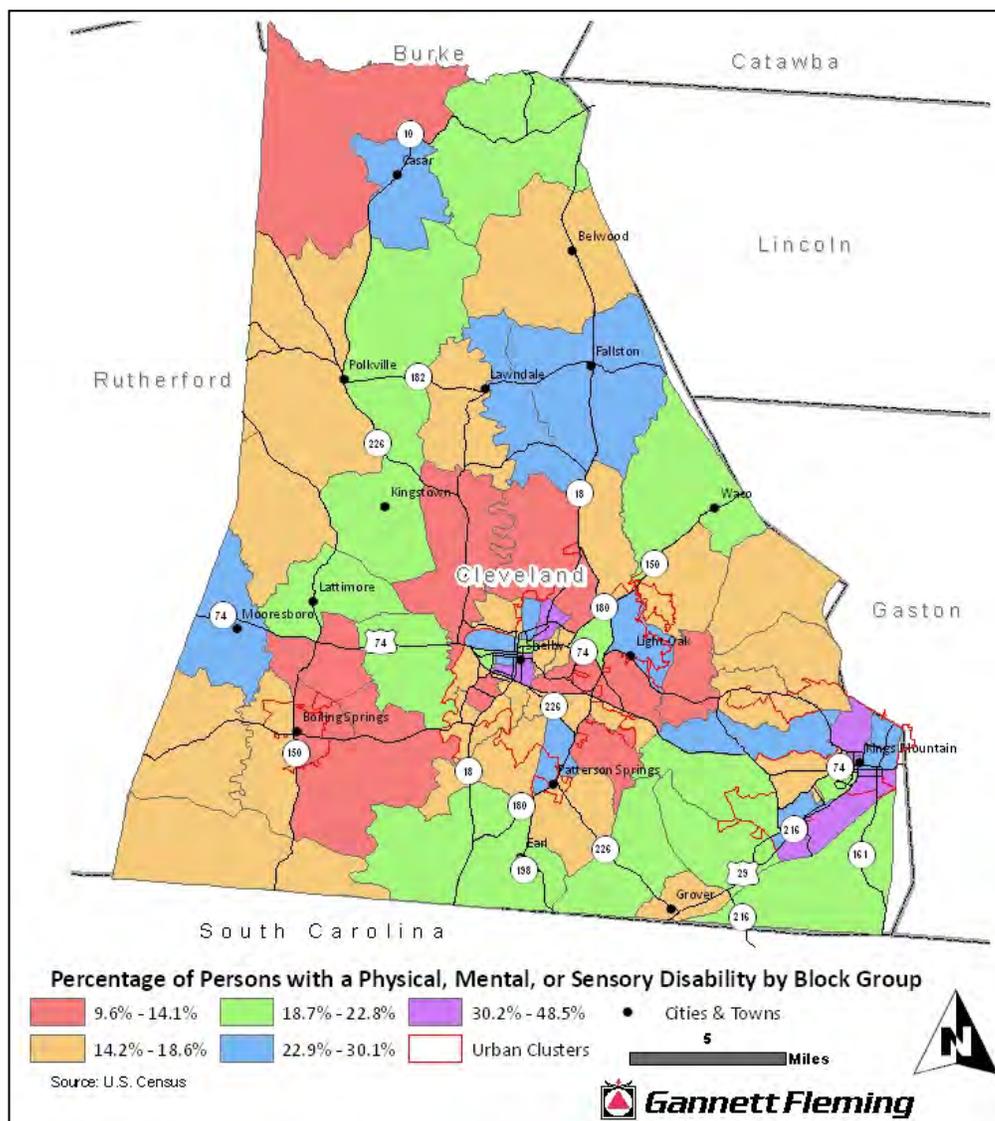
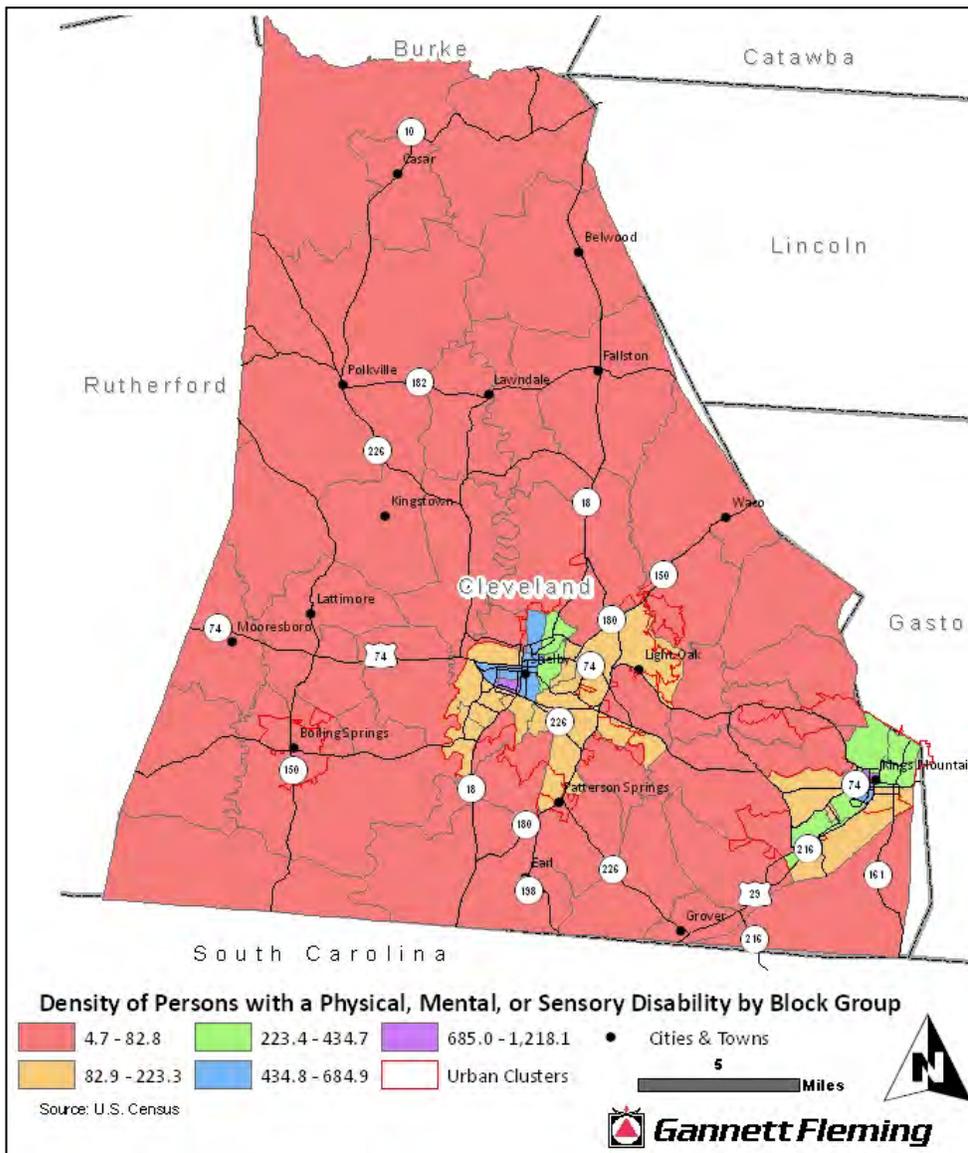


Figure 10 – Density of Disabled Population



Persons Living At or Below the Poverty Level

According to the 2008 ACS, there are nearly 17,000 Cleveland County residents living at or below the poverty level. This comprises approximately 17 percent of the total population and is slightly higher than the statewide average of 14.6 percent. Since the 2000 Census, the poverty rate in the County has increased by a third, but was below the 35.8 percent increase incurred statewide.

Persons Living At or Below the Poverty Level

Low Income Population	2000		2008		Change: 2000-2008	
	Number	Percent	Number	Percent	Number	Percent
Cleveland County	12,446	13.3	16,576	17.4	4,130	33.2
North Carolina	958,667	12.3	1,301,929	14.6	343,262	35.8

Source: 2000 U.S. Census and the 2008 American Community Survey (ACS)

Figure 11 is a map of the low income population as a percentage of the total population and Figure 12 is a map showing the density of the low income population. The cities of Shelby and Kings Mountain exhibit the highest concentrations of poverty in the County. However, poverty rates between 13.5 percent and 22.1 percent are evident in and around many of the cities and towns in the County, including Casar, Lawndale, Lattimore, Mooresboro, Patterson Springs, and Waco.

Figure 11 – Percent of Population Living At or Below the Poverty Level

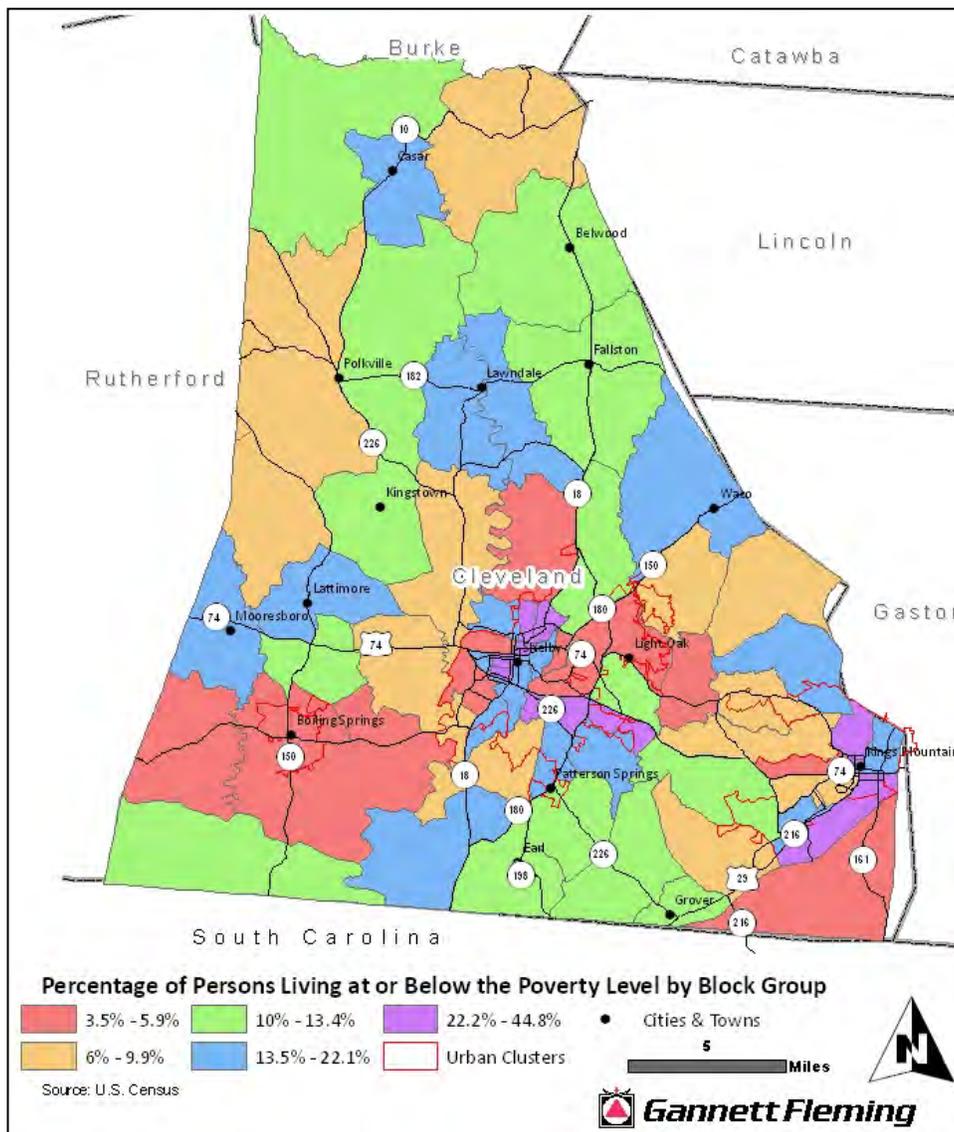
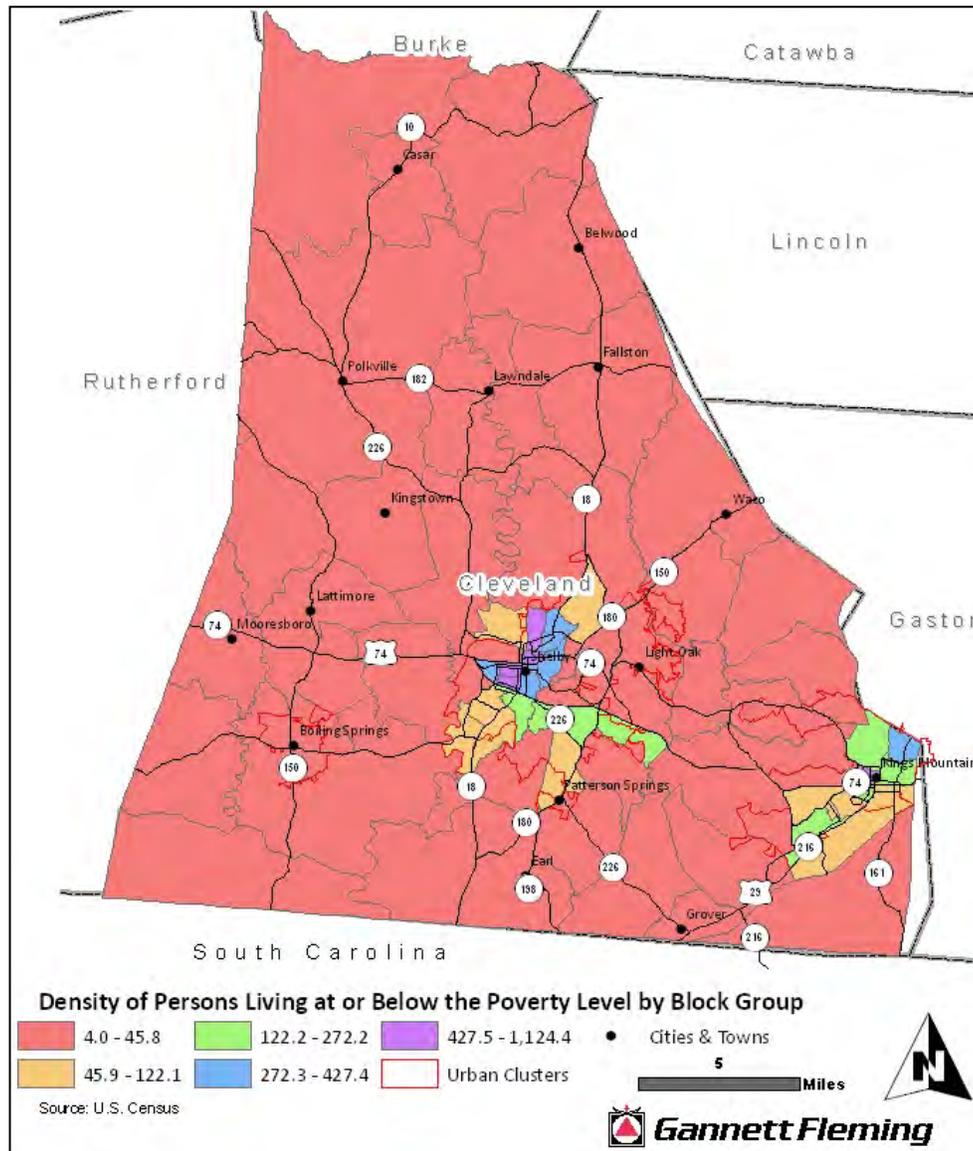


Figure 12 – Density of Population Living At or Below the Poverty Level



Carless Households

According to the 2008 ACS, there are approximately 2,000 households in Cleveland County without access to a vehicle. This comprises 5.3 percent of the population and is a third lower compared to the number of carless households at the time of the 2000 Census. Cleveland County had slightly more carless households than the statewide average in 2000; however, by 2008, the county exhibited a lower percentage of carless households compared to the state as a whole. The declining carless household rate in Cleveland County is consistent with the limited availability of general public transportation service in the county. Although the declining trend in the number of carless households in Cleveland County may seem to be at odds with the growing numbers of senior citizens and low income groups residing in the county, this statistic may be an indication that senior citizens are continuing to drive well past the age of retirement, and that county residents regardless of

income, need to have an automobile to access higher paying jobs located outside of the county, particularly in Gaston County.

Carless Households

Carless Households	2000		2008		Change: 2000-2008	
	Number	Percent	Number	Percent	Number	Percent
Cleveland County	3,047	8.2	2,030	5.3	-1,017	-33.4
North Carolina	235,339	7.5	230,132	6.4	-5,207	-2.2

Source: 2000 U.S. Census and the 2008 American Community Survey (ACS)

Figure 13 is a map of carless households as a percentage of total households and Figure 14 is a map showing the density of carless households. Not surprisingly, census block groups with the highest percentages and densities of carless households are almost entirely confined to the City of Shelby and the Shelby urban cluster; there are two census block groups in the City of Kings Mountain where the percentage of carless households is between 15.6 percent and 26.8 percent. Throughout the majority of the County, the percentage of carless households is less than 7.7 percent.

Figure 13 – Percent Zero Car Households

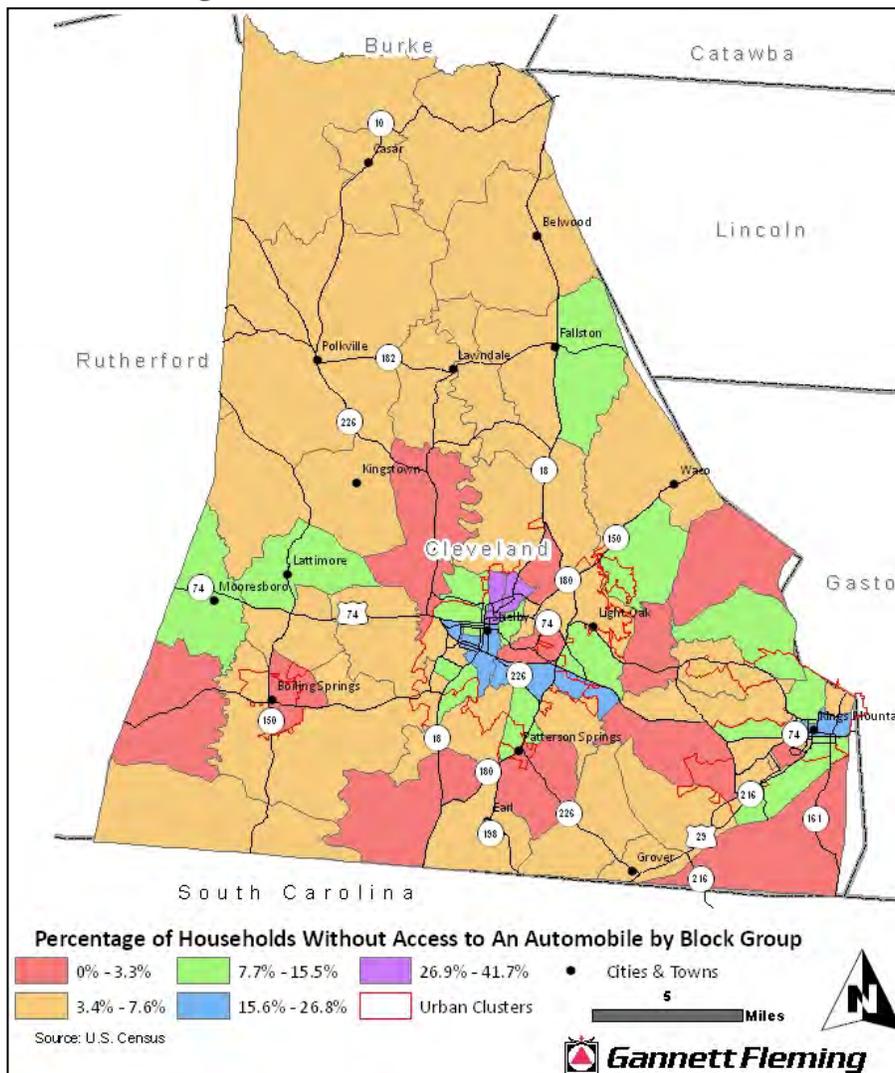
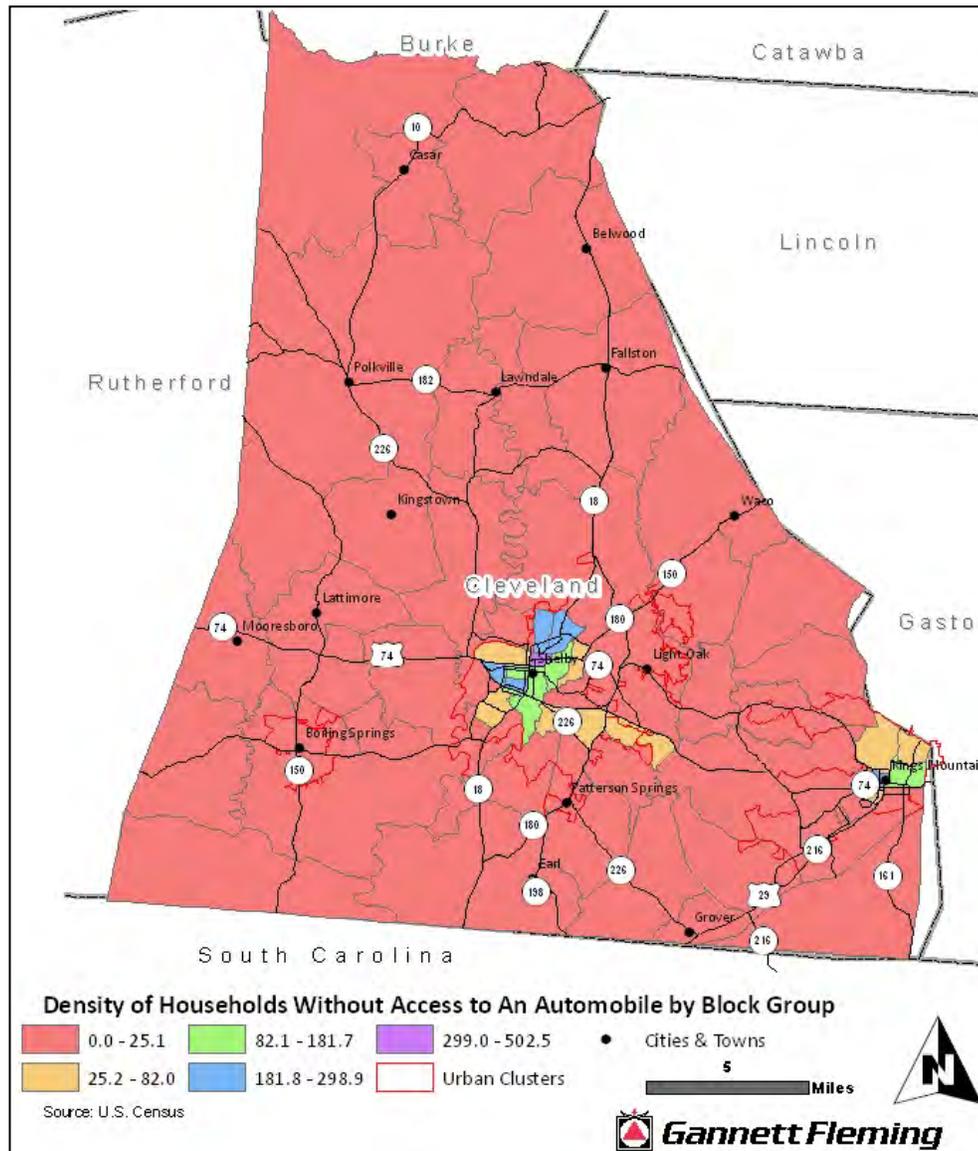


Figure 14 – Zero Car Household Density



MOBILITY NEEDS ASSESSMENT

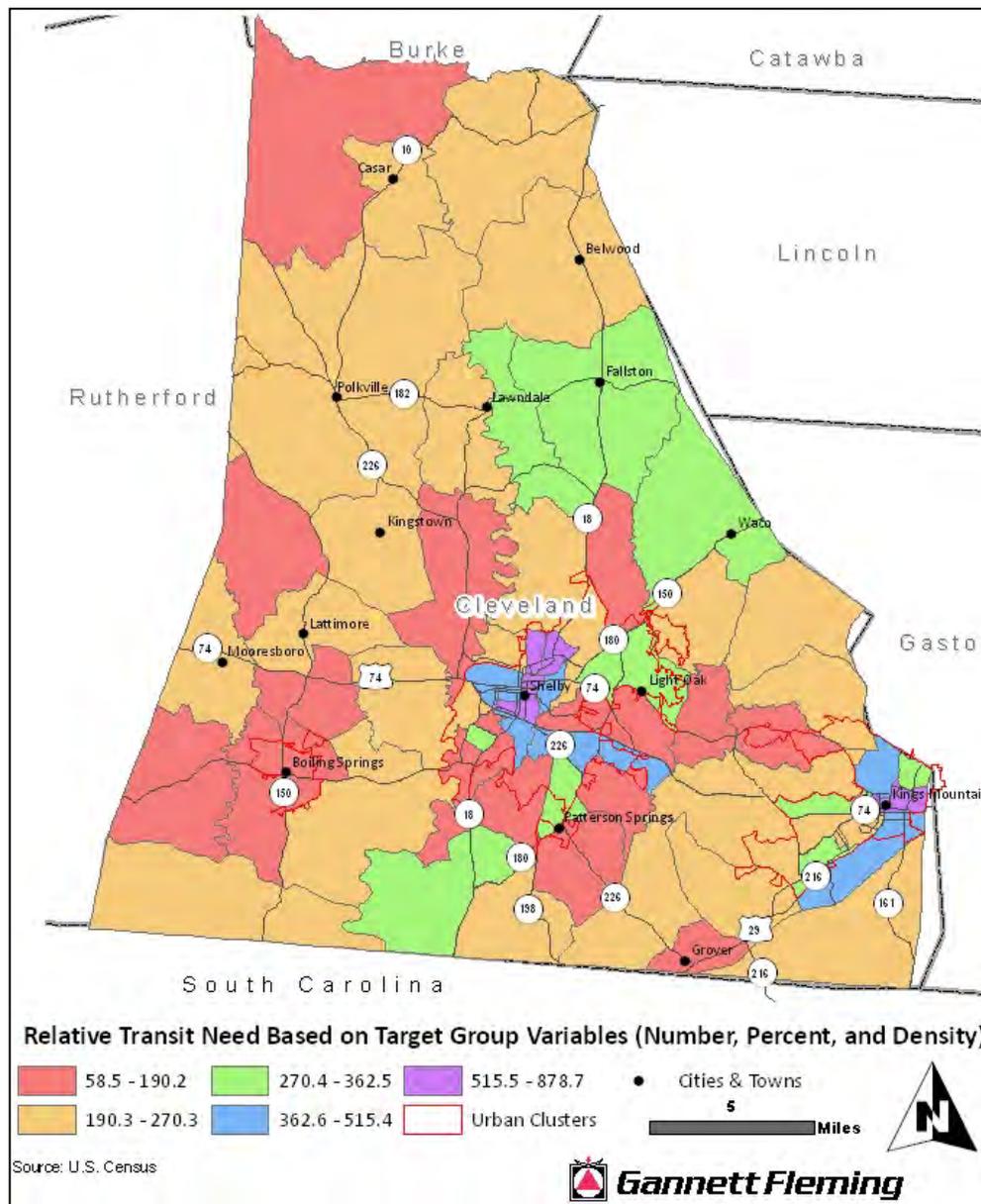
This section presents an overview of the likelihood of transit use and a composite measure of mobility need. An assessment of mobility need was performed to identify those areas with the greatest need and potential demand for public and human service transportation. A dozen variables were used to rate each census block group in terms of transit potential. These variables include both rates and aggregate measures of mobility need. Rates, such as percentage of seniors in total population and density of senior citizens, are useful in understanding the composition of an area. Aggregate measures, such as total senior citizen population, indicate the potential for travel in general, and transit trip making in particular.

Twelve variables were used to analyze mobility need for the region and were derived from the four target groups discussed in this section, including senior citizens (60 years old and above), persons with disabilities, persons at or below the poverty level, and zero car households. For each target group, three variables were utilized (number, percent, and density).

For all variables, higher values are indicative of greater need and likelihood of transit use. For example, a census block group with high senior citizen density or a high number of zero car households exhibits greater mobility need and propensity for transit use. In this analysis, a standardized score has been used to combine the different variables. With this approach for each variable, the census block group with the lowest value is assigned a score of zero while the census block group with the highest value is assigned a value of 100. The other areas are computed by interpolating between maximum and minimum values. These scores can then be added for 12 variables. Accordingly, the highest possible score would be 1,200.

Figure 15 presents the Mobility Needs Score by census block group for Cleveland County, and illustrates that the areas attaining the highest scores (515.5 to 878.7) are entirely concentrated in the cities of Shelby and Kings Mountain. In addition, there are a few census block groups located in the Shelby and Kings Mountain urban clusters that also demonstrate high mobility need. These results reflect the combined impact of the variables described above. The figure also shows that the vast majority of the County exhibits low scores and indicates a low level of mobility need.

Figure 15 – Mobility Needs Score



EMPLOYMENT AND COMMUTING

The need for and the nature of the public transportation services in an area also depends on certain economic factors such as employment and the commuting patterns of employees in a given area. It is essential to understand these factors when planning for employment related transportation services.

Employment data and commuting patterns were obtained from the U.S. Census Bureau LED Origin-Destination Database for the years 2002 to 2007.

It is important to recognize that the commuting data included in this analysis do not reflect current economic conditions, which have worsened in Cleveland County and throughout the United States since 2007. According to the Bureau of Labor Statistics, the unemployment rate in Cleveland County has risen from approximately six percent in 2007 to approximately 13 percent as of April 2010; at the same time, the unemployment rate statewide has increased from 4.7 percent in 2007 to 10.8 percent as of April 2010.

Figure 16 shows the total number of jobs located in each census block group in Cleveland County and Figure 17 shows the density of the total number of jobs. Overall, the U.S. 74 corridor between the cities of Shelby and Kings Mountain is the primary employment center in the County, with smaller pockets of employment located in and around the Town of Boiling Springs and along Polkville Road in Shelby Township. Employment density is highest in the Shelby and Kings Mountain areas.

Figure 16 – Employment Locations

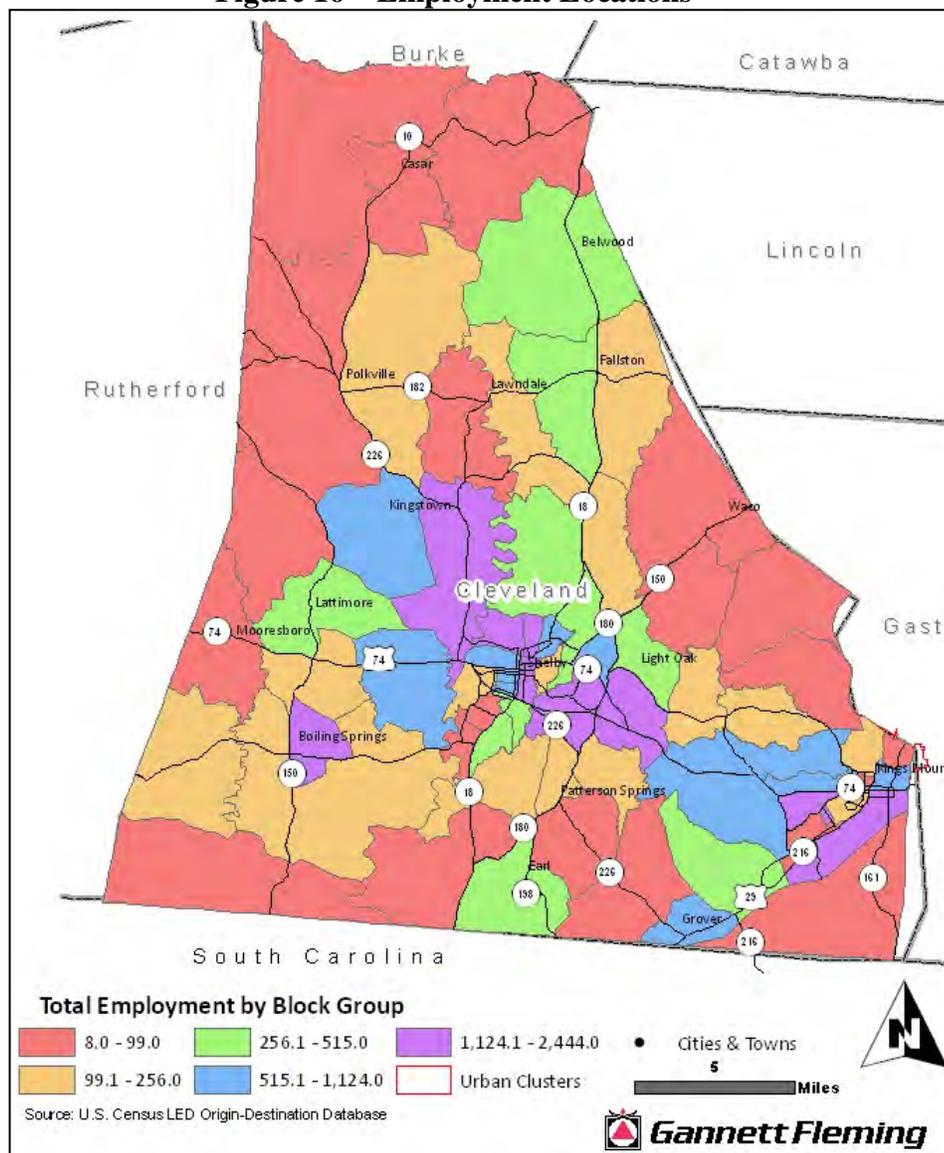
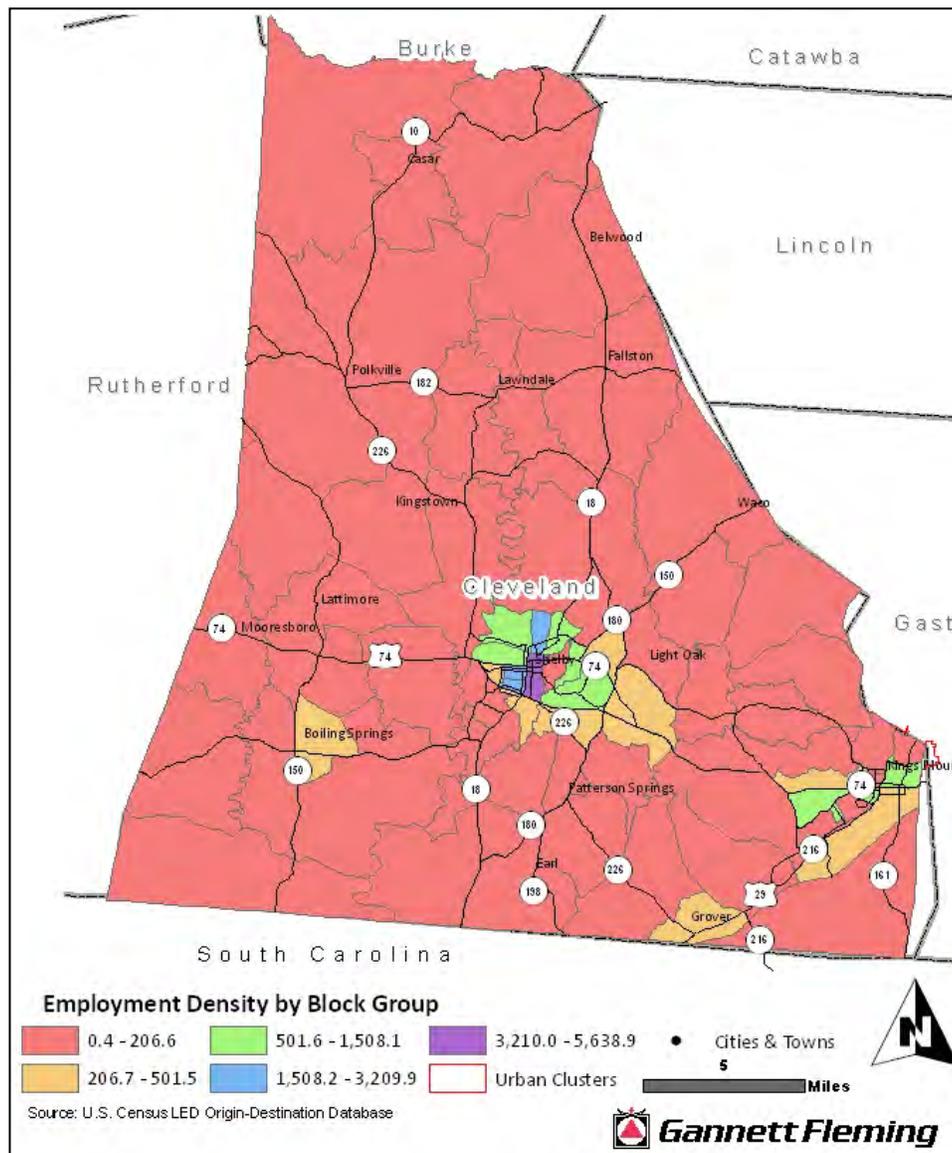


Figure 17 – Employment Density



Commuting Patterns

Table 13 describes county-to-county work flow from 2002 and 2007 for the Cleveland County resident labor force, as well as shows the top ten places where Transylvania County residents work. Table 14 provides similar information for people who work in Cleveland County.

Just over half of the workers who reside in Cleveland County are also employed within the county (55.9%), with the City of Shelby accounting for about one-quarter of the intra-county commutes, followed by Kings Mountain, and Boiling Springs. The top five out-of-county work place destinations for workers living in Cleveland County include Gaston, Rutherford, Mecklenburg, Lincoln, and Cherokee (SC) Counties. Nearly one-third of the trips into Gaston County are destined

for the City of Gastonia, while approximately three-quarters of the trips into Mecklenburg County are destined for the City of Charlotte.

Between 2002 and 2007, the Cleveland County labor force grew by 4.3 percent and became increasingly disbursed throughout the region, with significant growth rates in the number of county residents commuting into Burke (+72.0%), Lincoln (+59.7%), and Gaston Counties (+46.7%); in the aggregate, Gaston County attracted the highest number of County workers over the six year period (+1,181). At the same time, intra-county commuting declined by approximately seven percent in Cleveland County, with Mecklenburg and Cherokee (SC) Counties also attracting fewer county residents during the six year period.

Table 13 – Work Trips of Cleveland County Residents (2002 to 2007)

Work Place	2002		2007		Percent Change
	Number	Percent	Count	Percent	
County					
Cleveland County	22,069	62.9	20,466	55.9	-7.3
Gaston County	2,528	7.2	3,709	10.1	46.7
Rutherford County	1,725	4.9	1,836	5.0	6.4
Mecklenburg County	1,498	4.3	1,482	4.0	-1.1
Lincoln County	491	1.4	784	2.1	59.7
Cherokee County, SC	816	2.3	678	1.9	-16.9
Burke County	325	0.9	559	1.5	72.0
York County, SC	399	1.1	501	1.4	25.6
Catawba County	317	0.9	451	1.2	42.3
Buncombe County	350	1.0	421	1.2	20.3
All Other Locations	4,580	13.0	5,720	15.6	24.9
Total	35,098	100	36,607	100	4.3
Place					
Shelby	6,359	18.1	5,093	13.9	-19.9
Kings Mountain	1,857	5.3	1,668	4.6	-10.2
Gastonia	934	2.7	1,158	3.2	24.0
Charlotte	1,142	3.3	1,127	3.1	-1.3
Boiling Springs	803	2.3	863	2.4	7.5
Cherryville	340	1.0	402	1.1	18.2
Bessemer City	162	0.5	206	0.6	27.2
Kingstown	200	0.6	204	0.6	2.0
Forest City	184	0.5	203	0.6	10.3
Light Oak	240	0.7	190	0.5	-20.8
All Other Locations	22,877	65.2	25,493	69.6	11.4
Total	35,098	100.0	36,607	100.0	4.3

Source: U.S. Census Bureau LED Origin-Destination Database

In 2007, nearly half of the jobs in Cleveland County were held by county residents, of which, approximately half lived in the City of Shelby and another fifth lived in Kings Mountain and Boiling Springs. Of the work trips originating in other counties and destined for Cleveland County, most of

the trips came from Gaston County, followed by Mecklenburg, Rutherford, Catawba, and Buncombe Counties.

Between 2002 and 2007, the number of jobs in Cleveland County increased by 5.6 percent. During this time period, fewer workers lived in the County, with a significant increase in the number of work trips originating from throughout the region; the only decline was the number of work trips originating in Mecklenburg County (-8.0%)

Table 14 – Work Trips of Cleveland County Workers (2002 to 2007)

Residence	2002		2007		Percent Change
	Number	Percent	Number	Percent	
County					
Cleveland County	22,069	56.0	20,466	49.2	-7.3
Gaston County	4,894	12.4	5,477	13.2	11.9
Mecklenburg County	2,776	7.0	2,553	6.1	-8.0
Rutherford County	939	2.4	1,298	3.1	38.2
Catawba County	890	2.3	1,222	2.9	37.3
Buncombe County	604	1.5	1,109	2.7	83.6
Cherokee County, SC	655	1.7	969	2.3	47.9
Lincoln County	648	1.6	840	2.0	29.6
Burke County	290	0.7	531	1.3	83.1
Guilford County	380	1.0	513	1.2	35.0
Other	5,244	13.3	6,625	15.9	26.3
Total	39,389	100.0	41,603	100.0	5.6
Place					
Shelby	11,960	30.4	10,874	26.1	-9.1
Gastonia	3,042	7.7	3,333	8.0	9.6
Kings Mountain	3,179	8.1	3,231	7.8	1.6
Charlotte	2,256	5.7	2,039	4.9	-9.6
Boiling Springs	815	2.1	981	2.4	20.4
Asheville	348	0.9	693	1.7	99.1
Hickory	507	1.3	679	1.6	33.9
Forest City	466	1.2	531	1.3	13.9
Lincolnton	460	1.2	456	1.1	-0.9
Grover	131	0.3	445	1.1	239.7
All Other Locations	16,225	41.2	18,341	44.1	13.0
Total	39,389	100.0	41,603	100.0	5.6

Source: U.S. Census Bureau LED Origin-Destination Database

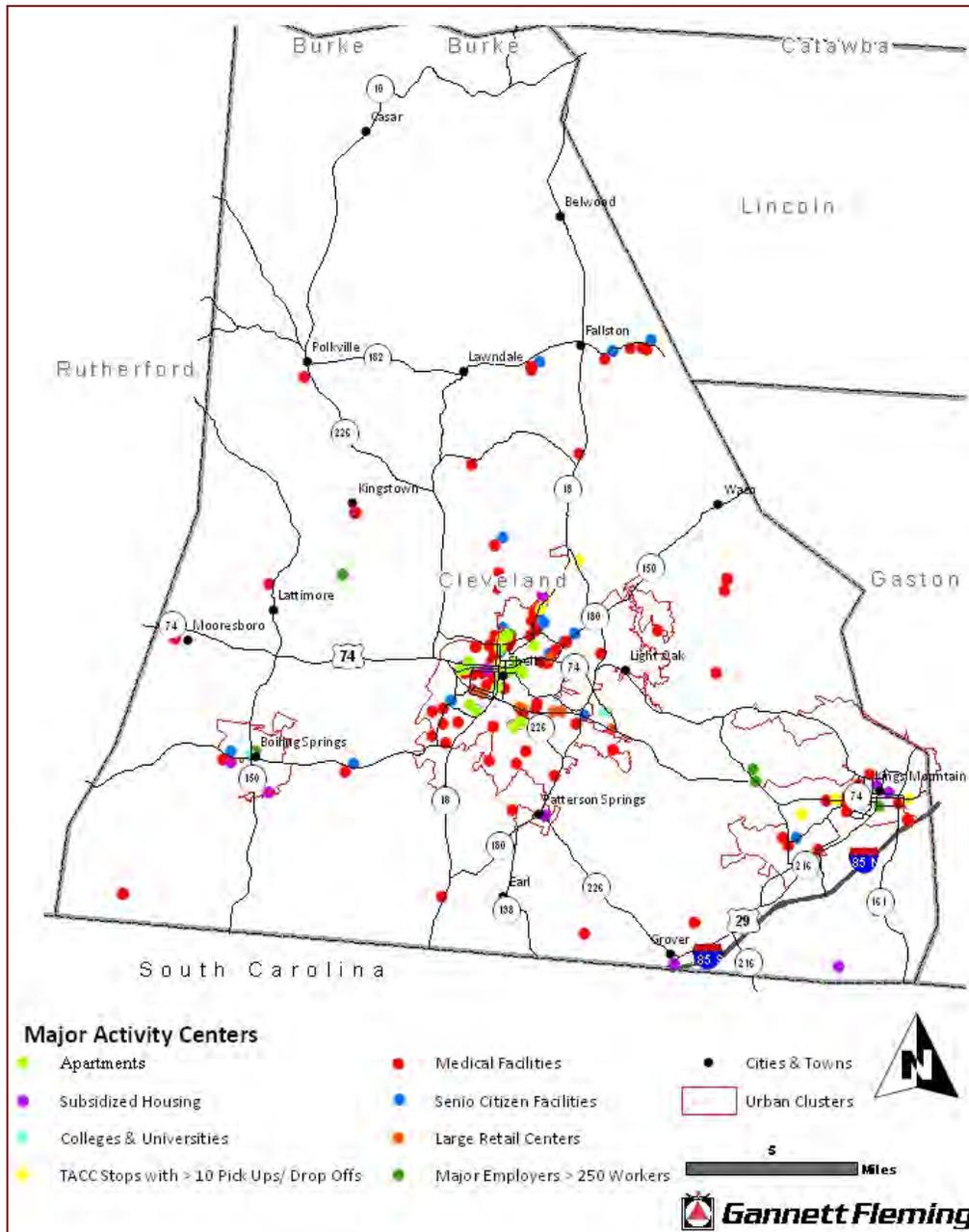
Overall, based on the origin and destination analysis compiled from the U.S. Census, significant cross-commuting is occurring between Cleveland County and the surrounding region, particularly between Cleveland and Gaston Counties.

ACTIVITY CENTERS AND KEY PUBLIC TRANSIT DESTINATIONS

This section provides an overview of activity centers and major destinations, or trip generators, in Cleveland County, as well as origin points – such as subsidized housing units and apartment complexes. The destinations include hospitals and other medical facilities, nursing and/or retirement homes, adult day care centers, human service and mental health agencies, post-secondary educational facilities, large retail areas, and major employers with more than 250 employees at a single location. Also included is a list of major pick up and drop off points that were noted during a one-day analysis of TACC driver manifests in December, 2009.

Figure 18 shows the location and distribution of these activity centers and key destinations. As is evident with population patterns, trip generators are primarily concentrated in and around the outskirts of Shelby and Kings Mountain. Additionally, there is a small grouping of medical and senior citizen facilities located along NC 182 near the Town of Fallston, as well as a major employer/college, subsidized housing, and a group of medical and senior citizen facilities located along NC 150 in and near to the Town of Boiling Springs.

Figure 18 – Activity Centers and Key Public Transit Destinations



According to the Employment Security Commission of North Carolina, there are eight employers in the County that employ at least 250 employees at a single location, including:

- Cleveland Regional Medical Center
- Gardner-Webb University
- Wal-Mart Associates, Inc.

- Hanesbrands, Inc.
- PPG Industries
- Baldor Electric Company
- Cleveland County Community College
- Eaton Corporation

The Cleveland Regional Medical Center, Cleveland County Community College, and Wal-Mart are located in the City of Shelby. Gardner-Webb University is located in the Town of Boiling Springs; the Eaton Corporation is located in Kings Mountain; Hanesbrands, Inc. and Baldor Electric Company are located in the outskirts of Kings Mountain; and PPG Industries is located north of U.S. 74 between the towns of Lattimore and Kingstown.

In some cases, a major employer is depicted on the map as a major activity center, such as Cleveland County Community College and Boiling Springs University (colleges & universities) and Wal-Mart (retail center).

The top ten origins and destinations based on a one day sample of TACC driver manifests indicated that the Adventure House in Shelby exhibited the most passenger activity, followed by Kings Mountain Aging in Kings Mountain and the Red Cross in Shelby. The other seven locations included two Life Enrichment Centers – one in Shelby Township and one in Kings Mountain; two dialysis clinics – one in Shelby and one in Kings Mountain; the McLeod Addictive Disease Center in the City of Gastonia (Gaston County); and the Cleveland Community Home Support Services in Shelby.

These destinations are not presented as an exhaustive list of all such facilities in Cleveland County. However, comparing these locations to the areas exhibiting high transit dependent characteristics gives a sense of the likely travel patterns and destinations in Cleveland County for persons utilizing public transportation to meet their mobility needs.

SUMMARY

This report has documented and analyzed public transit needs in Cleveland County using several different methods and sources. From this data, the analysis showed:

- Population in Cleveland County has increased during each of the last two Census periods and is expected to show modest growth when the next Census is completed in 2010. The majority of growth during this time period has largely occurred in the southern portion of the County and along the U.S. 74 Corridor, with the cities of Shelby and Kings Mountain and the town of Boiling Springs accounting for nearly three-quarters of the entire population growth in the County since the 1990 Census. Further, the recent adoption of the 2015 Cleveland County Land Use Plan suggests that the population in the areas north of U.S. 74 will remain modest, as the county attempts to direct future growth and development into the areas south of the U.S. 74 Corridor.

- The City of Shelby has the highest general population and population density, exhibits the highest concentration of transit dependent populations and households, and is the County's principal activity center in terms of employment and services. Overall, the City exhibits the highest transit need and appears to be the only area in the County where fixed route or deviated fixed route bus service is a viable service option.
- The City of Kings Mountain is the second largest population center in the County with moderate concentrations of transit dependent population groups and households, employment sites, and services.
- The Town of Boiling Springs is a growing area located in the southwestern portion of the County and is home to around 4,000 students attending Gardner-Webb University.
- The analysis also showed that a relatively high number of the County's rural population exhibit transit dependent characteristics, with the highest concentrations evident in and around the towns of Earl, Patterson Springs, Mooresboro, Lattimore, Fallston, and Casar. Although these areas are too rural to warrant any type of fixed route bus service, it is important for TACC to recognize the locations where transit need may exist, in order to ensure that service is equitable and available throughout the entire County.
- The percentage of the County population that is at least 60 years of age, living below the poverty level, and living with a disability has increased since the 2000 Census; conversely, the number of households without an automobile has declined. Presently, the County exceeds the state average for each transit dependent population group, but is below the state average in terms of the percentage of County households without an automobile.
- Origin and destination data prepared by the U.S. Census indicate that a growing number of Cleveland County residents are commuting out of the county for employment, particularly to destinations in Gaston County; at the same time, a growing number of work trips into the county are originating from throughout the region.

SERVICE AND OPERATIONS PROPOSALS

The previous two chapters of the Community Transportation Services Plan (CTSP) describe the county's existing transit conditions and the socioeconomic setting in which they operate, respectively. These chapters detailed the transit needs and available opportunities within the county.

This chapter illustrates a number of service and organizational proposals which could be implemented to meet the needs outlined in the previous documents, as well as to increase the overall productivity of Transportation Administration of Cleveland County (TACC). The following proposals have been developed to respond to the needs of the county and are a reflection of the analysis of the current system, several site visits and discussions with TACC staff.

The following recommendations are presented as service proposals and organizational proposals. The service proposals include recommendations for deviated fixed route services within Shelby, routes within Cleveland County, routes that offer service from Cleveland County to neighboring counties, a demand responsive service and van pool information. The organizational proposals include capital opportunities, administrative options and marketing proposals. All of the proposals presented below represent a menu of services and organizational options which should be reviewed and analyzed to determine which should be selected for implementation. In large measure, the pace of implementation will be based on available funding.

SERVICE ALTERNATIVES

The service proposals are divided among five sections depending on the areas served and the type of service provided. These sections, presented in order, are: Shelby Deviated Fixed Route Proposals; County Service Proposals; Out-of-County Route Proposals; Demand Responsive Service Proposals; and a Van Pool Proposal.

Shelby Deviated Fixed Route Proposals

The City of Shelby is the only area within Cleveland County that currently has a deviated fixed route bus service; TACC offers Cleveland County Transit (CCT), a deviated fixed route circulator, in the City of Shelby. As detailed in the service area profile chapter, Shelby has several pockets of population densities that exceed 2,000 persons per square mile. While no single socioeconomic measure exists that can determine how successful a route will perform, areas of higher population densities typically have higher transit dependency, due to any number of differing reasons.

The CCT route provides connections between many of Shelby's major generators, including the shopping locations along U.S. Route 74, the Cleveland Regional Medical Center, and various Shelby area apartment complexes. However, since the route operates in only one direction, each passenger is required to ride one full round trip in order to get to and from any desired trip destination. The rather long route length in terms of time creates a situation that is less than

desirable. The deviated fixed route service, while experiencing a modest growth in ridership over the past few years, continues to underperform. When investigating 2009 ridership data, complete round trips that carry only one or two passengers are not uncommon. (It should be noted that ridership on the TACC system has increased in 2010 and that trips with one or two passengers are now less common.)

There are several different programs which would help fund these Shelby area options, some of which are currently employed by TACC to fund its existing routes. TACC could apply for Federal Section 5310, 5316 and 5317 programs. The 5310 program provides funding for public transportation services in support of elderly people and persons with disabilities; the 5316 program, Job Access Reverse Commute (JARC), provides funding assistance to help low-income people access job opportunities; and the 5317 program (New Freedom) supports the provision of transportation for people with disabilities, going above and beyond the services provided for under the Americans with Disabilities Act (ADA). NCDOT's Rural Operating Assistance Program (ROAP) allows grant recipients to use the State ROAP funds as local match for operating assistance under the Federal Section 5310, 5316 and 5317 programs. As required for funding consideration under the FTA's formula programs for Sections 5310, 5316 and 5317, the Lake Norman RPO completed a Coordinated Public-Human Service Transportation Plan for the regional planning area. This included an outreach and stakeholder involvement process to identify unmet needs in the region and to identify priority actions needed to address those needs.

North Carolina General Statutes give the counties the following opportunities to obtain additional sources of revenue to assist with financing local public transportation systems.

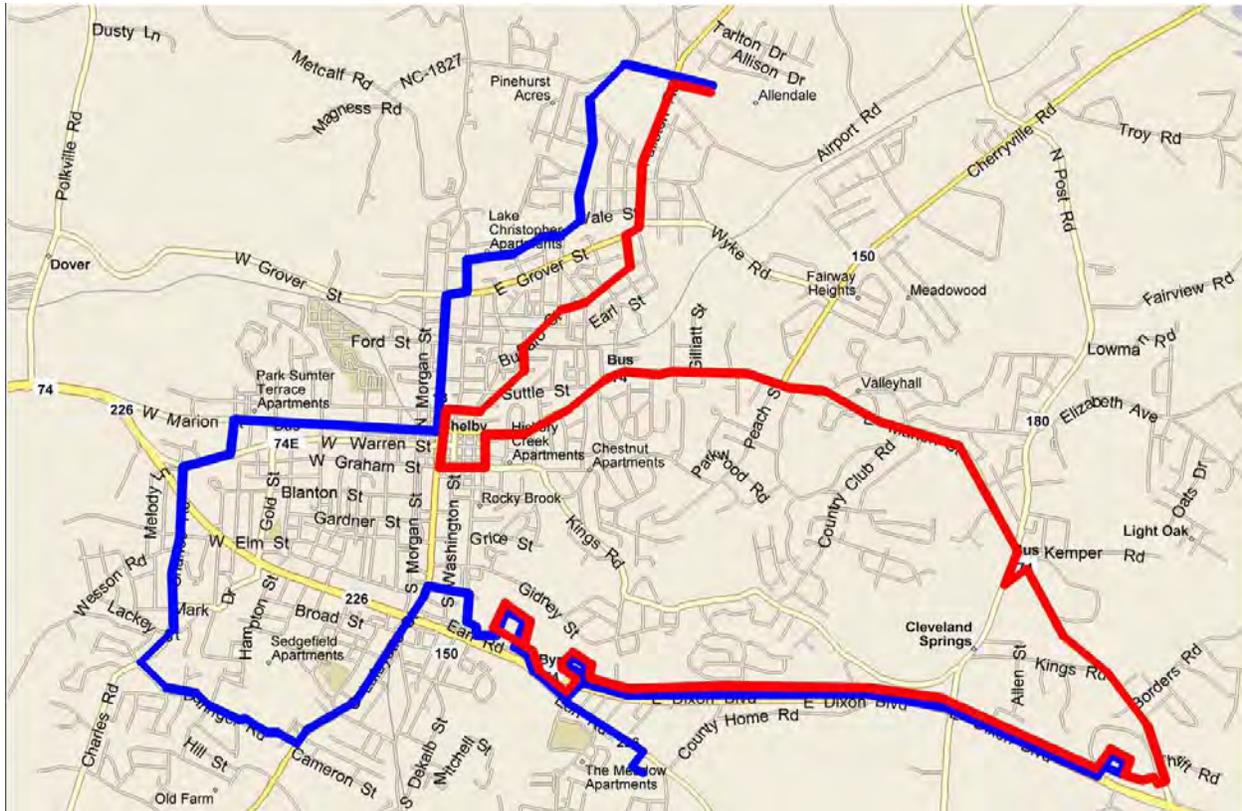
- *One-Quarter Cent Sales Tax:* For the one-quarter cent sales tax, Cleveland County is authorized to levy a sales tax with a referendum called by the County Board of Commissioners, meaning that the sales tax must pass both the commissioners and the voters.
- *Vehicle Registration Fee:* For the vehicle registration fee option, Cleveland County is authorized to levy a vehicle registration fee of up to \$7.00 per vehicle. This mechanism requires commissioners' approval, but not direct voter approval.

Two different deviated fixed route system options follow, one that is somewhat similar to the current route structure, and another that provides a new approach to fixed route transit in the Shelby area. These options should be considered as "either-or," as both proposals should not be operated congruently. Otherwise, another option would be a phased approach to these systems. Since Shelby System Option 1 is similar to the existing CCT route and also less costly than Shelby System Option 2, Option 1 could be initially installed when feasible. System Option 2 would then be put into place when additional funding is secured and demand for an expanded Shelby system increases. This option is further discussed later in this section. Ridership on both options could be monitored and routes modified as needed.

Shelby System Option 1 – The first option provides a new system that is similar to the route structure of the existing CCT, yet utilizes two vehicles along two distinct bi-directional routes, thus creating shorter total trip times and more direct service. Additionally, the two routes would cross paths at several different locations allowing for easy transfers between the two proposals. Each route would operate as deviated fixed route services, and comply with Americans with Disabilities Act

(ADA) policies, so as to not require a complimentary ADA service. Figure 19 illustrates the two routes that comprise the first Shelby deviated fixed route system option.

Figure 19 - Shelby System Option 1



Both proposals would begin their service at the Council on Aging & Senior Center off of Fallston Road in northern Shelby at the same time in order to facilitate transfers between the routes at common stops along the routes. The route illustrated by the blue line would then operate along the current services alignment to the Cleveland Regional Medical Center. From there, the route would operate on Lafayette Street and provide a transfer to the red route at a proposed Shelby transit center (which will be described in detail, later in this document), at an as yet to be determined location in uptown Shelby. The proposal would then offer service on West Marion Street (as opposed to Sumter Street on the current route), and then operate along its current routing through the western portion of Shelby and to the shopping destinations along the U.S. Route 74 Bypass. This route would turn around at the Cleveland Mall and operating back towards the Senior Center in the reverse order of the stop locations.

The red route would also depart from the Senior Center off of Fallston Road and follow the current alignment to Washington Street and Sumter Street. The route would then remain on Sumter Street to Lafayette Street, where the route would turn left and connect with the proposed Shelby transit center. The route would continue southbound on Lafayette, turn left onto Graham Street and left again onto Dekalb Street to provide service past the Cleveland Courthouse. The route would then turn left onto Marion Street and follow the current alignment through the Cleveland County Community College and to the Cleveland Mall, Big Lots, WalMart and K-Mart. The route would

then operate to the Lowe’s/Aldi shopping center, where it would turn around and operate back to its starting point in the reverse stop order. Passengers could transfer between the two routes at any of the shopping locations along the U.S. Route 74 Bypass and expect only a minimal wait time.

The blue and red proposals would meet at several locations in Shelby, and would wait for each other to facilitate transfers between the routes. The locations where the buses would meet would be the Senior Center off of Fallston Road, the proposed Shelby transit center in uptown Shelby, and the Big Lots on U.S. Route 74. These locations were selected because they represent locations where the vehicles would intersect at similar times. The other shopping locations along U.S. Route 74 could serve as transfer locations as well, but the vehicles will not wait for each other at these locations.

The blue route is approximately 24.6 miles per each round trip, while the red proposal is 23.6 miles per round trip. Both routes would take approximately 100 minutes to complete each round trip, which includes layover time for each. Both routes would begin their service day at 7:00 AM and continue to operate until 5:00 PM, offering the same span of service as the existing CCT. One option would be to extend the span of service to later in the evening, allowing a greater number of passengers to use the service to get to and from work as the current daily ending time is somewhat limiting. One issue that an extended span of service would create is the need for dispatch to be available during the extended period, which would increase the administrative costs of TACC as a whole.

The system would continue to operate five days per week, Monday through Friday, and eventually could be extended to Saturday if ridership experiences a growth and demand for Saturday service is sufficient. However, extended weekday hours and service on the weekend would require additional funding both operating costs (operating past 5:00 PM) and administration costs (the need for an additional dispatcher). Table 15 details the projected operating statistics for this proposed system. The costs and expenses are displayed for the year of implementation for this service (2012).

Table 15 – Shelby System Option 1 Projected Operating Statistics

	Blue Proposal	Red Proposal	Total
Span of Service	7:00 AM–5:00PM	7:00 AM–5:00PM	7:00 AM–5:00PM
Annual Days of Service	252	252	252
Miles per Round Trip	24.6	23.6	--
Minutes per Round Trip	100	100	--
Daily Round Trips	6	6	--
Annual Revenue Miles	37,200	35,700	72,900
Annual Revenue Hours	2,520	2,520	5,040
Passengers	6,450	6,800	13,250
Passengers per Revenue Mile	0.17	0.19	0.18
Passengers per Revenue Hour	2.56	2.70	2.63
Annual Operating Cost	\$59,250	\$59,250	\$118,500
Cost per Passenger	\$9.19	\$8.71	\$8.95
Marketing Expenses	--	--	\$11,850
Capital Expense	--	--	\$5,100*

*Denotes cost of bus stop signs.

Since the current deviated fixed route service has three vans available for its use, the available vehicles would continue to be used for this system without having to purchase new vehicles. That being said, two of the current vehicles are not lift equipped. When the economic life of these two non-lift equipped vehicles approaches, these vehicles should be replaced with vehicles that meet ADA requirements and that are outfitted with a passenger lift. Additionally, larger light duty transit vehicles (body-on-chassis) could be used for this service if additional passenger space is needed. These vehicles would cost approximately \$65,000 each. Approximately \$5,100 would be needed to purchase and install new bus stop signs for this route. Existing bus stop signs would not need to be replaced. The start-up costs for marketing would be ten percent of the cost of the service, about \$12,000. Marketing for each subsequent year should be about three percent of the annual cost of the service, or \$3,600.

Current drivers could also be used for these two route proposals, depending on the needs of the demand responsive system. Should it be determined that the demand responsive system cannot afford the loss of one driver, a new driver would have to be hired and sufficiently trained. However, the costs for the deviated fixed route system as a whole would increase, since two vehicles would be providing service throughout each day of service (as opposed to the one vehicle operating on the current route). The passenger per revenue mile measure was derived from Institute for Transportation Research and Education's (ITRE) Performance Plan and Analysis for Cleveland County and then used to calculate the passenger estimations and the value for passengers per service hour. The annual operating cost was estimated using the current cost per hour rate of service of the Cleveland County Transit (CCT) circulator route, which is approximately \$23.51 per hour.

Shelby System Option 2 – The second option for deviated fixed route service in the City of Shelby would be a total overhaul of the current system. Instead of having one circular, single direction route, this option would offer three distinct bi-directional routes. As with the previous option, there would be several locations where a passenger could transfer between each of the bus routes, including at a proposed Shelby transit center that could be built in uptown Shelby. Figure 20 details the three routes comprising the second option for a Shelby deviated fixed route system.

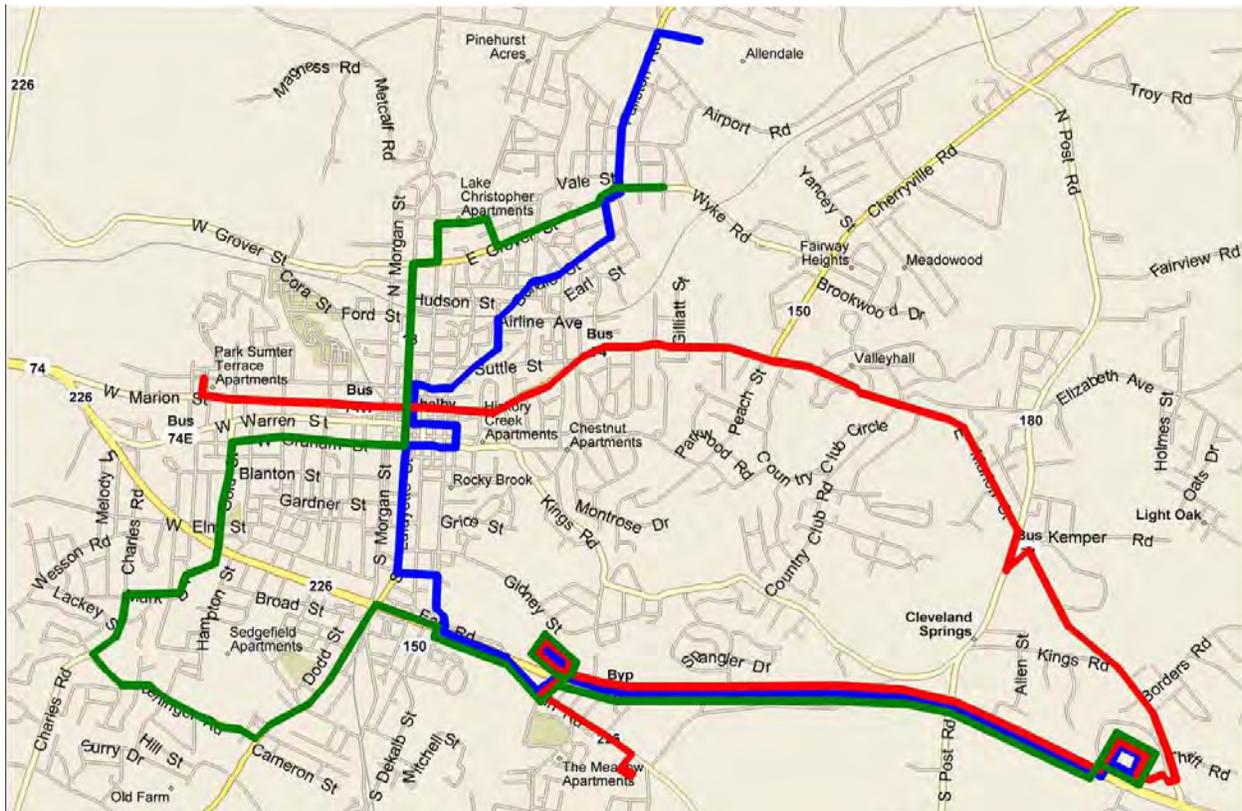
In this option, the blue route would begin its daily service at the Council on Aging and Senior Center off of Fallston Street and then operate to Lafayette Street in the same manner as the current circulator route. From Lafayette, the route would turn left onto Warren Street, followed by a right onto DeKalb Street to provide service to the Cleveland Courthouse. The route would then return to Lafayette Street, operating southbound, and turn left onto Elm Street, followed by a right onto DeKalb Street, which would allow the vehicle to access the U.S. Route 74 Bypass, providing service to the shopping destinations along this corridor. At the Cleveland Mall, the route would turn around and operate towards the Senior Center on Fallston Road in the reserve stop order.

The green route would begin its service on Wyke Road near Grover Street, and then operate on Grover Street to the Cleveland Regional Medical Center. From the hospital the route would operate on Lafayette Street through uptown Shelby before turning right onto Graham Street, followed by a left onto Gold Street and operate several of the apartment complexes to the south of the U.S. Route 74 Bypass. This proposal would return to the U.S. Route 74 Bypass via Dodd Street and then offer service to the shopping locations along this corridor. As with the blue proposal, this route

would turn around at the Cleveland Mall and operate back to its point of origin in reverse stop order.

Lastly, the red route would begin at the Park Sumter Terrace Apartments near Sumter Street and Howie Avenue. The route would operate eastbound on Marion Street through uptown Shelby and follow the current alignment of the circulator shuttle through the Cleveland County Community College and then to the Cleveland Mall and the other shopping destinations along U.S. Route 74 Bypass. The route would also provide service to the Colonial Manor Apartments. From the Colonial Manor Apartments the route would turn around and return to the Park Sumter Terrace Apartments in the reverse stop order.

Figure 20 – Shelby System Option 2



The blue route is approximately 15.5 miles per round trip and would take 60 minutes to complete each trip. The green proposal is 20.0 miles per round trip and would take approximately 80 minutes to complete one round trip. The red route is 21.5 miles per round trip and would also take 80 minutes to complete. The approximate trip times include an allotment for vehicle layover, when the bus can catch up to the scheduled time and afford the drivers a short respite. As with the previous system option, these routes would operate each for 10 hours per day, between the hours of 7:00 AM and 5:00 PM. As with the previous option, this systems daily span of service could be extended to 7:00 PM, if demand is sufficient. The system would continue to operate five days per week, Monday through Friday, and eventually could be extended to Saturday if ridership experiences a growth and demand for Saturday service is sufficient. Table 16 details the projected operating statistics for this system option. The costs and expenses are displayed in the year of implementation

for this proposal (2014).

As previously mentioned, the current deviated circulator route has three vehicles available to operate the service, although only one vehicle is used at a time. For this system option, three vehicles would be needed at all times, and an additional spare vehicle, which would need to be purchased. A new light duty transit vehicle would cost TACC approximately \$65,000. The new vehicle should have a passenger lift to accommodate disabled riders. Should the capacity demand increase, light duty transit vehicles should be purchased to replace the current vans, once their economic life has been met. The capital expense would also include \$8,260 for the purchase of 60 new bus stop signs. Additionally, the marketing expense for this service would initially be \$18,000, and then cost \$5,400 annually.

Table 16 – Shelby System 2 Projected Operation Statistics

	Blue Proposal	Green Proposal	Red Proposal	Total
Span of Service	7:00 AM–5:00PM	7:00 AM–5:00PM	7:00 AM–5:00PM	7:00 AM–5:00PM
Annual Days of Service	252	252	252	252
Miles per Round Trip	15.5	20.0	21.5	--
Minutes per Round Trip	60	80	80	--
Daily Round Trips	10	7.5	7.5	--
Annual Revenue Miles	39,100	37,800	40,600	117,500
Annual Revenue Hours	2,520	2,520	2,520	7,560
Passengers	6,300	5,290	7,050	18,740
Passengers per Revenue Mile	.16	.14	.17	.16
Passengers per Revenue Hour	2.5	2.1	2.8	2.5
Annual Operating Cost	\$59,250	\$59,250	\$59,250	\$177,750
Cost per Passenger	\$9.40	\$11.20	\$8.40	\$9.48
Marketing Expenses	--	--	--	\$17,780
Capital Expense	--	--	--	\$82,840*

*Denotes purchase of a spare vehicle (\$65,000) and cost of bus stop signs (\$8,160).

In order to maintain the current demand responsive and subscription services, additional drivers may have to be hired and properly trained to operate this route. The passenger per revenue mile measure was derived from ITRE’s Performance Plan and Analysis for Cleveland County and then used to calculate the passenger estimations and the value for passengers per service hour. The annual operating cost was estimated using CCT’s current rate for operating service, \$23.51 per hour.

Phased Approach to Service Implementation – As mentioned previously, changes to the CCT system could be implemented incrementally. For example, the service could continue to operate as it does today until the necessary funding to operate Shelby System Option 1 is approved and/or acquired. System Option 1 would then operate as CCT until ridership has grown, demand for more direct and more frequent service increases, and additional funding for growing the system is secured. Shelby System Option 2 would then be put into operation, offering three distinct bi-directional services. It should be noted that System Option 2 fills a number of service gaps within the City of Shelby, including having service along much of Lafayette Street and additional service within the uptown area of Shelby. As these services are phased into operation, the current CCT

service gaps in the City of Shelby would be eliminated.

County Service Proposals

This next set of route proposals offer potential deviated fixed route proposals that would serve some of the other populated areas within Cleveland County outside of the City of Shelby. Deviated fixed route services allow the routes to be somewhat more flexible in picking up passengers. Passengers would be allowed to call in and request a pick up or drop off that is a certain set distance away from the actual route alignment (3/4 of a mile). These types of routes are successful in smaller communities because of this flexibility. For the areas outside of Shelby, where densities are less and trip destinations have a greater variety, deviated fixed route services may help alleviate some of the stress on the Cleveland County's demand responsive system, in terms of potentially eliminating a number of single passenger trips.

As the service area profile chapter described, there are locations outside of the City of Shelby that have some populations and densities of the elderly, the disabled and of persons living in poverty. Locations like Fallston, Lawndale and Kings Mountain are just a few of these locations. Additionally, there are a several areas that have businesses or major generators that could be a draw for transit usage. For example, Boiling Springs is home to Gardner Webb University, an institute which is one of the highest employment generators, as well as housing a population of students who may be willing to use transit services.

Funding options for the County service proposals listed here are the same as those described above under the **Shelby Deviated Fixed Route Proposals**.

There are three proposals presented here for deviated fixed route services that would operate within the Cleveland County borders.

Lawndale to Fallston to Shelby Proposal – As identified in the service area profile chapter, Lawndale is one location in the county whose population has grown between 1990 and 2008. While the growth alone is not significant enough to warrant transit service, the areas surround Lawndale and near Fallston do have a fair amount of persons living in poverty (approximately between 15 and 23 percent of the total population of these areas). Additionally, the Fallston area has a relatively high population of both senior citizens and the disabled, with a grouping of medical and senior citizen facilities along State Route 182. For these reasons, this proposal is suggested for operation from Lawndale to Fallston via State Route 182, and then would operate southbound to Shelby via State Route 18. Once in Shelby, the route would offer service to the Cleveland Regional Medical Center on Grover Street before operating to uptown Shelby, ending its trip at the proposed Shelby transit center. A return trip along the same alignment, but in reverse stop order, would be offered later in the day. Figure 21 details this proposal.

This route is approximately 15 miles per one way trip; however, with its potential to deviate from the specified routing there is no way to accurately estimate the revenue miles for each trip. The route would take one hour to complete each direction, which would allow for the flexibility needed in order for the route to deviate.

There are a couple ways that this route could operate in terms of days of operation. The route could operate five days per week, with one trip in the morning and a return trip later in the day. Another option would be to have the route operate only three days a week, on a trial basis, to determine if the route could be successful. If the route is utilized and ridership grows, five day per week service could then be operated. Additionally, a second round trip could be put into service during the midday period, which would start in Shelby, then operate to Fallston and Lawndale and immediately return to Shelby. This would allow for an earlier return trip for those passengers who took the morning trip to Shelby, as well as offer additional round trip from Lawndale and Fallston to Shelby. All three situations are described in the operations statistics offered in Table 17. The costs and expenses are displayed in the year that the proposal is suggested for implementation (2015). The estimated values for passengers and passengers per service hour are based on statistics provided in the ITRE report and further outlined in the system existing conditions chapter, as well as through the consultant's experience. The Operating cost estimation is based on the current CCT cost per service hour, which is \$23.51. The marketing effort for in the year of implementation for this service would depend on the level of service that is put into operation. The three day per week service would initially cost \$700, with an annual budget thereafter of \$250. The daily service with two trips would cost \$1,200 initially, and then would cost \$360 annually. The daily service with three trips would cost approximately \$2,400 in its first year, and then approximately \$720 annually.

The system existing conditions chapter details several periods during the day when the demand responsive system has lulls in activity. In order to use available rolling stock and in an effort to minimize costs while maximizing service, trips on this route should be operated during these lull periods. The morning trip originating in Lawndale should operate in the 9:00 AM hour, while the return trip could be offered anytime after 3:00 PM. There is also a midday lull in the demand responsive system which would allow the full midday round trip described in the expanded span of service to occur. No new vehicles would have to be purchased for this service as the current CCT vehicles (or TACC vehicles rebranded as CCT) should suffice, and the current pool of drivers would be employed to operate these trips. The capital expense for this service is for the purchase of 40 new bus stop signs, which would cost approximately \$5,700 to purchase and install.

Figure 21 – Lawndale to Fallston to Shelby Proposal

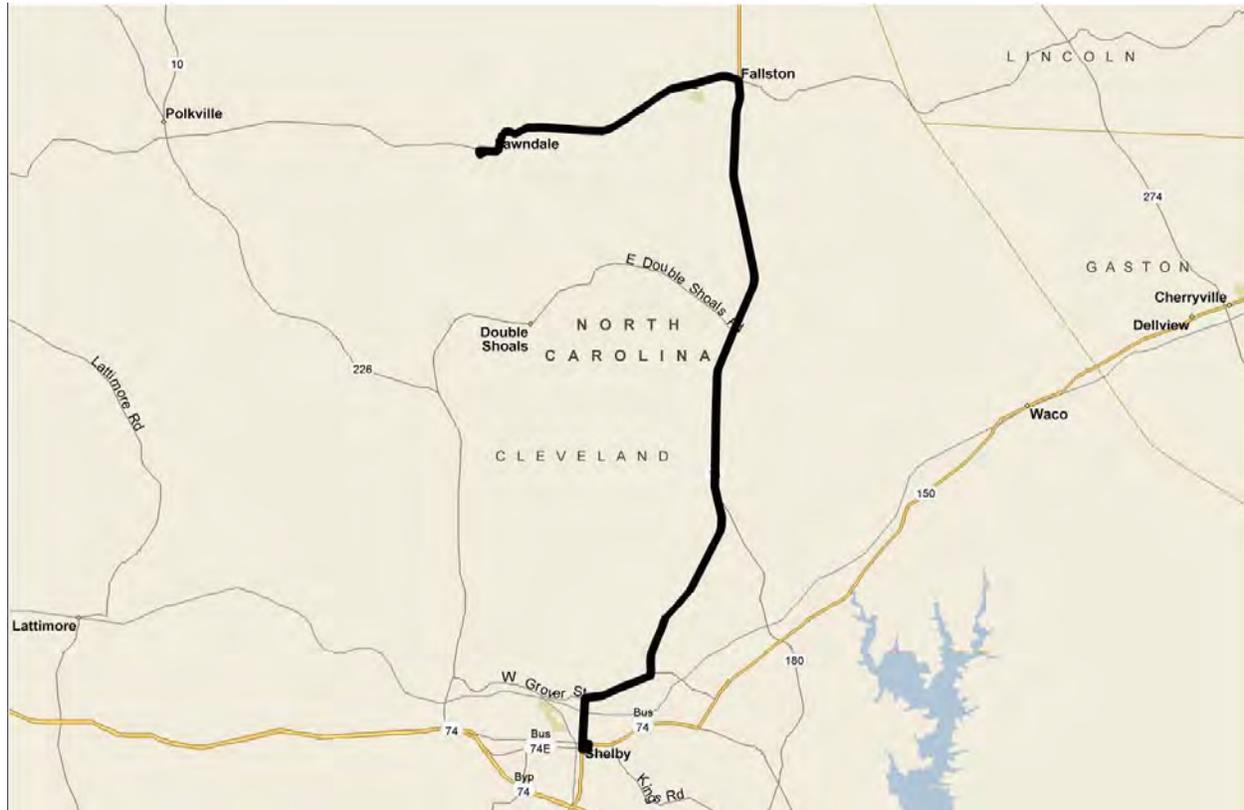


Table 17 – Lawndale to Fallston to Shelby Operation Statistics

	3 Days/Week	5 Days/Week	
Span of Service	1 AM Trip, 1 PM Return Trip	1 AM Trip, 1 PM Return Trip	1 AM Trip, 1 Midday Round Trip, 1 PM Return Trip
Annual Days of Service	150	252	252
Miles per One Way Trip	15	15	15
Minutes per One Way Trip	60	60	60
Daily One Way Trips	2	2	4
Annual Revenue Miles	4,500	7,560	15,120
Annual Revenue Hours	300	500	1,000
Passengers	500	800	1,350
Passengers per Revenue Mile	0.11	0.10	0.09
Passengers per Revenue Hour	1.65	1.50	1.35
Annual Operating Cost	\$8,420	\$14,140	\$23,700
Cost per Passenger	\$17.00	\$18.70	\$17.42
Marketing Expense	\$700	\$1,200	\$2,370
Capital Expense	--	--	\$5,730*

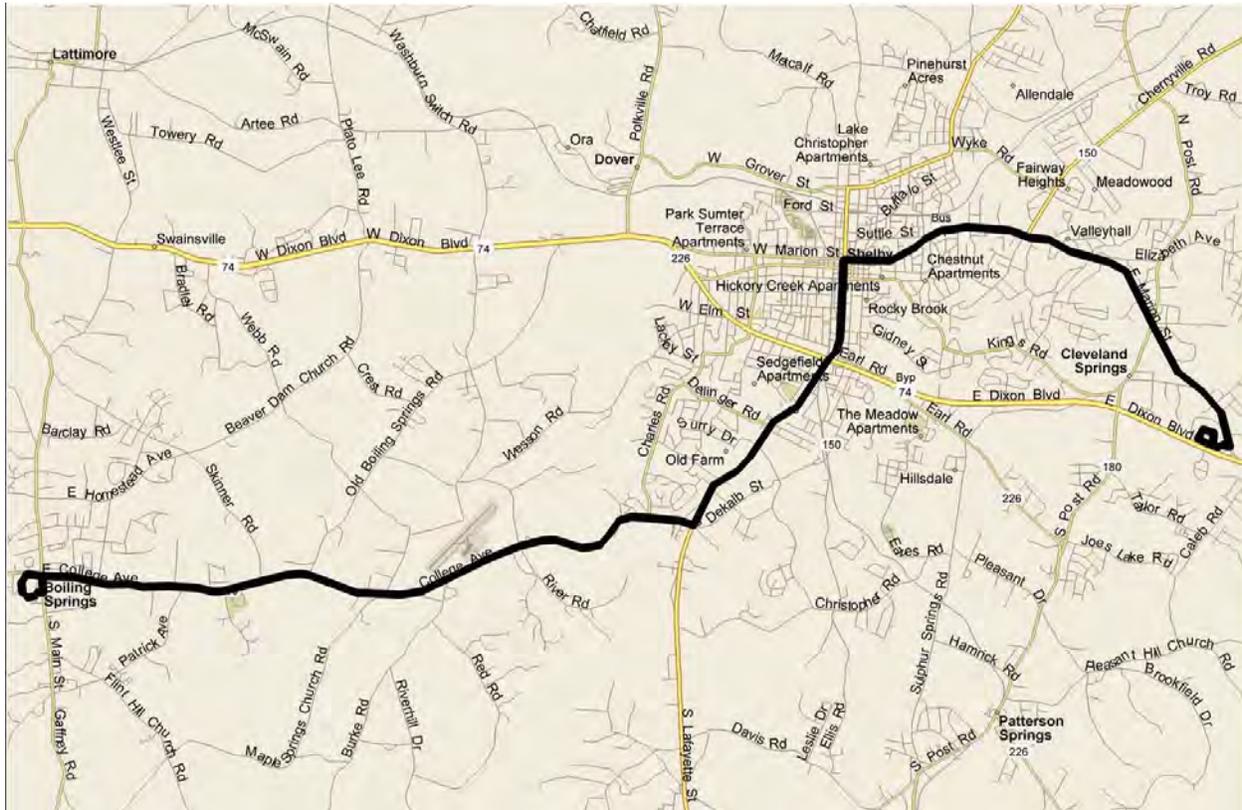
*Denotes cost of bus stop signs.

Boiling Springs to Shelby Proposal – This route proposal would offer deviated fixed route service between Boiling Springs and the City of Shelby via College Avenue and State Route 18. The route would begin at the Gardner Webb University campus and would operate to the proposed Shelby transit center in uptown Shelby, where passengers could transfer to any of the other available transit route. The route would then operate to the Cleveland Mall via Marion Street. While the route is aligned to end its service into Shelby at the Cleveland Mall, passengers could also request to be taken to WalMart or K-Mart (or any other location within three-quarters of a mile from the route in Shelby) due to the flexibility that deviated fixed route services provide. The return trip would operate along the same alignment, but in reverse stop order. This proposal is displayed in Figure 22.

This route is approximately 15 miles per one way trip, but as with all deviated fixed route services, it is hard to accurately estimate how long each individual trip will be, as it is dependent on the deviations that are requested. This proposal would offer 60 minute service between Gardner Webb University and the Cleveland Mall, which would leave sufficient time to make any deviated stops. Obviously, if no deviations are requested, the time per one way trip would be less.

As with the previous proposal, this route could operate in a number of different ways; however, since this route is envisioned more as a service to get Gardner Webb University students to and from Shelby, it is recommended that this route offer one midday trip into Shelby and then one return trip at some point later in the day. The previous proposal described the practice of utilizing current rolling stock to provide service during the lull in demand for service on the demand responsive system. This practice should be duplicated for the Boiling Springs to Shelby proposal.

Figure 22 – Boiling Springs to Shelby Proposal



The route could either operate three days per week (with potentially one of those days being Saturday), or operate every weekday. It may be best to begin this route on a trial basis by scheduling it for three days per week in order to gauge the interest of the Gardner Webb students. Regardless, both scenarios are described in the projected operating statistics in Table 18. The costs and expenses are displayed in the year that the proposal is suggested for implementation (2011). The service estimations in this table were calculated using CCT’s current cost per hour rate of \$23.51. The capital outlay for this proposal would be \$2,450, which would cover the cost of purchasing and installing bus stop signs. This cost would be the same regardless of which option is selected. The initial marketing expense for the three day per week service would be \$700, while the daily weekday service would cost \$1,200. Approximately \$200 should be spent annually for the three day service, while the daily service would cost \$360 per year.

Table 18 – Boiling Springs to Shelby Projected Operating Statistics

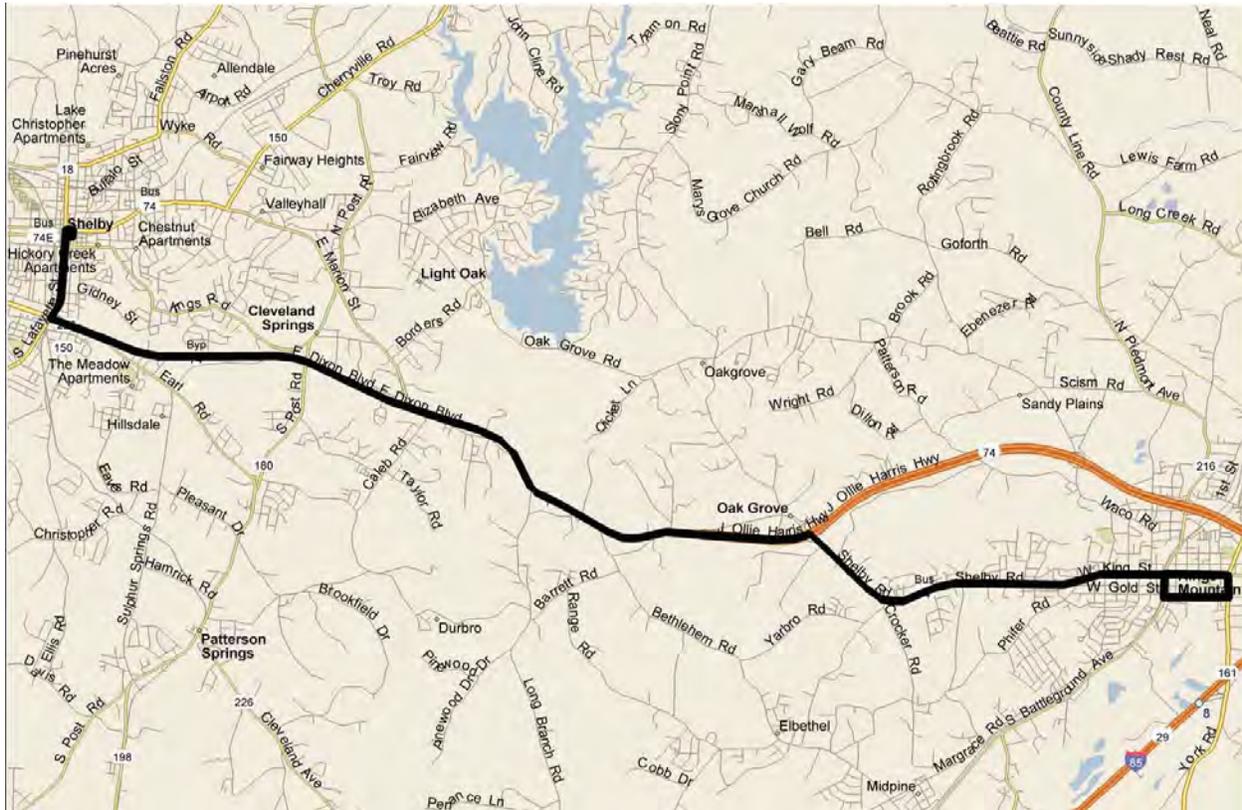
	3 Days/Week	5 Days/Week
Span of Service	1 Midday Trip, 1 PM Return Trip	1 Midday Trip, 1 PM Return Trip
Annual Days of Service	150	252
Miles per One Way Trip	15	15
Minutes per One Way Trip	60	60
Daily One Way Trips	2	2
Annual Revenue Miles	4,500	7,560
Annual Revenue Hours	300	500
Passengers	900	1,450
Passengers per Revenue Mile	0.2	0.19
Passengers per Revenue Hour	3.0	2.9
Annual Operating Cost	\$7,250	\$12,090
Cost per Passenger	\$7.99	\$8.41
Marketing Expense	\$700	\$1,200
Capital Expense	\$2,450	\$2,450

Shelby to Kings Mountain Proposal – The Shelby to Kings Mountain deviated fixed route proposal marks the last proposal being proposed for in county service. Kings Mountain is the second largest community in the County in terms of both population and population density. It also has a number of key transit generating factors, including a relatively high senior citizen and disabled persons populations, as detailed in the service area profile chapter. Additionally, the chapter describes several areas in Kings Mountain as having poverty populations between 22 and 46 percent of the total population. While a number of factors suggest that a transit service would prove popular in Kings Mountain, a fixed route transit service had previously existed within Kings Mountain, and performed rather poorly. The service was discontinued approximately three years ago.

That being said, there is enough evidence to suggest that a transit service should be successful in Kings Mountain. While the recent experience with a Kings Mountain fixed route service dictates that the service would not be successful, such a service should be considered for future implementation as the population of the area continues to grow. Additionally, if demand for a Kings Mountain service increases, this proposal could be fast tracked for implementation.

This deviated fixed route proposal would have service depart from the proposed transit center in uptown Shelby via Lafayette Street and operate to Kings Mountain via the U.S. Route 74 Bypass, U.S. Route 74, Shelby Road, King Street and York Road. The route would turn around at the Greyhound bus station on York Road near Interstate 85. The proposal would then operate back to the proposed Shelby transit center via the same alignment in reverse stop order. This proposal is detailed in Figure 23.

Figure 23 – Shelby to Kings Mountain Proposal



One full round trip, which travels approximately 30 miles, would take roughly 90 minutes. One round trip could be offered in the morning and another round trip in the afternoon. If the service becomes successful, the route could add a midday round trip or operate continuously between the hours of 7:00 AM and 5:00 PM. Table 19 details the projected operating statistics for this proposal, and illustrates these statistics for three days of service, three days of service with a midday round trip, five days of service, and five days of service with a midday round trip. The costs and expenses are displayed in the suggested year of implementation (2012). Additionally, the operating statistics for a service that is continuously offered between 7:00 AM and 5:00 PM, Monday through Friday, is displayed in the table. The service estimations in this table were calculated using the current CCT’s cost per service hour of \$23.51. The marketing expense for this service is subject to the level of service that is chosen. For the three day per week service, the start-up marketing expense would be \$1,100, which would then cost approximately \$330 annually. The five day per week service that operates one morning trip and one afternoon return trip would cost \$1,800 initially, and then around \$540 annually. The daily service that would operate between 7:00 AM and 5:00 PM would cost \$6,000 in its year of inception and then about \$1,800 annually.

A new light duty transit vehicle should be purchased for this proposal, regardless of how many days per week and trips per day are operated. The operating time of the morning round trip will determine if a new driver would be hired. If the morning round trip could be completed before the demand request service begins its daily increase in requested trips (i.e., 8:00 AM), no new drivers would need to be hired and trained. An additional \$10,180 would be spent to purchase and install 80

bus stop signs.

Table 19 – Shelby to Kings Mountain Projected Operating Statistics

	3 Days/Week		5 Days/Week	
Span of Service	1 AM Trip, 1 PM Return Trip		1 AM Trip, 1 PM Return Trip 7:00 AM – 5:00PM	
Annual Days of Service	150		252	
Miles per Round Trip	30		30	
Minutes per Round Trip	90		90	
Daily Round Trips	2		2	
Annual Revenue Miles	9,000		15,100	
Annual Revenue Hours	450		760	
Passengers	1,170		1,520	
Passengers per Revenue Mile	.13		.10	
Passengers per Revenue Hour	2.6		2.0	
Annual Operating Cost	\$11,220		\$18,850	
Cost per Passenger	\$9.60		\$12.47	
Marketing Expense	\$1,060		\$1,800	
Capital Expense	\$79,140		\$79,140	

Out-of-County Service Proposals

The following service proposals offer routes that extend to areas outside of Cleveland County. As with all of the previous proposals in this document, these proposals offer deviated fixed route service either to or from Cleveland County. The service area profile chapter points out that there are a number of Cleveland County residents who travel outside of the county for employment, with over ten percent of Cleveland County’s labor force traveling to Gaston County, five percent traveling to Rutherford County, and approximately four percent traveling to Mecklenburg County (in contrast, nearly 56 percent remain in Cleveland County). Conversely, when considering where the employees who work in Cleveland County reside, 13 percent of the Cleveland County workforce lives in Gaston County, six percent in Mecklenburg County and another three percent in Rutherford County. Between 2002 and 2007, the commuting population of persons who work outside of the county and who reside in the county has grown from 37 to 44 percent. Similarly, the percentage of residents of neighboring counties who commute into Cleveland County for employment has grown from 44 percent to 51 percent. These numbers suggest that there is an untapped transit market. Several of these proposals are proposed in an effort to accommodate these individuals.

As with the previous proposals, there are a couple different programs which TACC should apply for funding in order to operate these proposed routes. The Regional and Intercity Program’s FTA Section 5311(f) funds intercity bus service in underserved areas of North Carolina that connect to the national intercity network. Up to 50 percent of service costs are covered through this program. JARC funding should also be sought for these proposals.

There are three service proposals being suggested that would offer service outside of Cleveland County. The first would provide service from Boiling Springs, Shelby and Kings Mountain to Gastonia. The second would have service from Shelby and Boiling Springs to

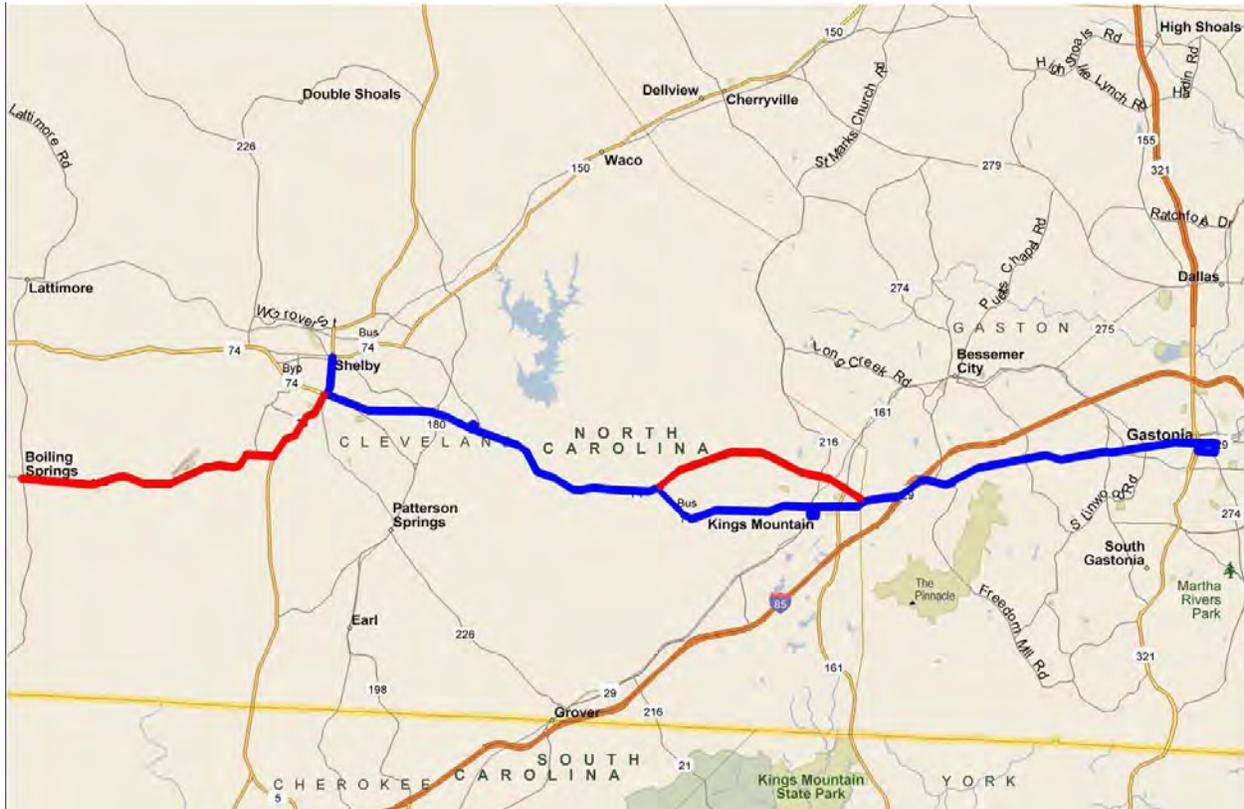
Charlotte. The final out-of-county proposal would provide service to Gaffney, South Carolina from Shelby and Boiling Springs.

Boiling Springs to Shelby to Kings Mountain to Gastonia – The percentage of Cleveland County residents who travel to Gaston County for work is over ten percent. Also, over 13 percent of Cleveland County’s employees travel from Gaston County. These numbers suggest that a transit service operating between these areas would encourage transit usage. Additionally, one of the more popular shopping locations for Gardner Webb University students is the City of Gastonia in Gaston County.

This proposal recommends a service with two variations. The first would be a daily movement between Shelby, Kings Mountain and Gastonia via U.S. Route 74, Business U.S. Route 74, Interstate 85 and U.S. Route 29 to Bradley Station, Gastonia’s main transit hub. The route would offer one morning round trip starting in Shelby, and one evening round trip also beginning in Shelby. The second variation would begin at Gardner Webb University in Boiling Springs and operate to Shelby via College Avenue and State Route 180, and then travel directly to Gastonia via U.S. Route 74, Interstate 85 and U.S. Route 29. This variation would operate two days per week, Thursday and Friday, with a one-way trip from Boiling Springs to Shelby to Gastonia. The daily return trip from Gastonia to Kings Mountain to Shelby would then be extended to Boiling Springs on Thursdays and Fridays to accommodate the return trip for those midday passengers. Additionally, transfers to Gastonia Transit could be had at Bradley Station, where all Gastonia Transit routes provide service. The alignments for both variations are presented in Figure 24, with the daily service to Gastonia shown in blue and the midday trip from Boiling Springs in red. The service shown in blue would also serve the Greyhound bus stop in Kings Mountain.

The morning trip to Gastonia and the evening return trip would both operate for 19 miles in each direction, which would take approximately 50 minutes, meaning each round trip would take approximately 100 minutes. The midday trip from Boiling Springs would operate for 31.5 miles and take an estimated 70 minutes to complete (all trip times in this document include time for possible route deviations).

Figure 24 – Boiling Springs to Shelby to Kings Mountain to Gastonia Proposal



Because of the distance traveled and time needed to operate this service a new vehicle would need to be purchased, and a light duty transit vehicle that could seat 12 to 15 passengers with one wheelchair should suffice. Since both round trips begin in Shelby, a current driver could be used to operate this route; however, if the midday service option is put into service on Thursdays and Fridays, a new driver would most likely be needed since this trip would operate during the peak period of the demand responsive service. Table 20 displays the projected operating statistics for both variations of this proposal. The costs and expenses displayed in the table are shown for the suggested year of implementation (2013). The service estimations in this table were calculated using the \$23.51 cost per hour service rate of the current CCT service. The capital expense for this service would include the cost of a new vehicle (\$71,710) and an additional \$2,650 to purchase and install 20 bus stop signs. The start-up marketing costs for the daily service would be \$2,000, and then \$600 per year. The two day per week option would cost \$300 initially, and then approximately \$100 per year.

**Table 20 – Boiling Springs to Shelby to Kings Mountain to Gastonia
Projected Operating Statistics**

	Daily Service	2 Days/Week
Span of Service	1 AM Round Trip, 1 PM Return Round Trip	1 Midday One-Way Trip
Annual Days of Service	252	104
Miles per Round/One-Way Trip	38	31.5
Minutes per Round/One-Way Trip	100	70
Daily Round/One-Way Trips	2	1
Annual Revenue Miles	19,150	3,280
Annual Service Hours	840	120
Passengers	1,530	200
Passengers per Revenue Mile	0.08	0.06
Passengers per Service Hour	1.8	1.6
Annual Operating Cost	\$21,790	\$3,150
Cost per Passenger	\$14.22	\$16.01
Marketing Expense	\$2,000	\$300
Capital Expense	\$74,360	\$74,360

Shelby to Kings Mountain to Charlotte – As mentioned previously, six percent of Cleveland County’s employee population is traveling from Mecklenburg County (the county containing the City of Charlotte) for employment. Also, four percent of Cleveland County’s residential employed population travels to Mecklenburg County for work. The City of Charlotte also has a significantly greater number of shopping and medical generators. This proposal recommends service between Shelby and Kings Mountain to Charlotte beginning at the proposed Shelby transit center and traveling to Kings Mountain via State Route 18, U.S. Route 74, and Business U.S. Route 74. The route would travel from Kings Mountain to Charlotte via Business U.S. Route 74 and Interstate 85. The route would turn around at the Charlotte Transportation Center and operate in the reverse stop order. Connections with the Charlotte Area Transit System would be facilitated at the Charlotte Transportation Center. Figure 25 details this proposal.

Each round trip would operate for 90 miles, which would take approximately three hours. There would be one early morning round trip, followed by an evening round trip, both starting in Shelby. If there is a demand for more of this service, additional trips could be scheduled throughout the day.

Because of the distance traveled and the demand on transit vehicles caused by highway and city driving, it is recommended that a light duty transit vehicle be purchased for this proposal. The capital expenses would also include the purchase and installation of 70 new bus stop signs, at a cost of \$9,520. Additionally, a new driver should be hired for this route since each round trip would take three hours. The projected operating statistics for this route are displayed in Table 21. Cost and expense estimates are presented for the suggested year of implementation. The service estimations in this table were calculated using the CCT’s current cost per hour rate of \$23.51. The initially marketing effort for this route should be approximately \$3,600, and then \$1,100 should be spent annually in an ongoing marketing effort.

Figure 25 – Shelby to Kings Mountain to Charlotte Proposal

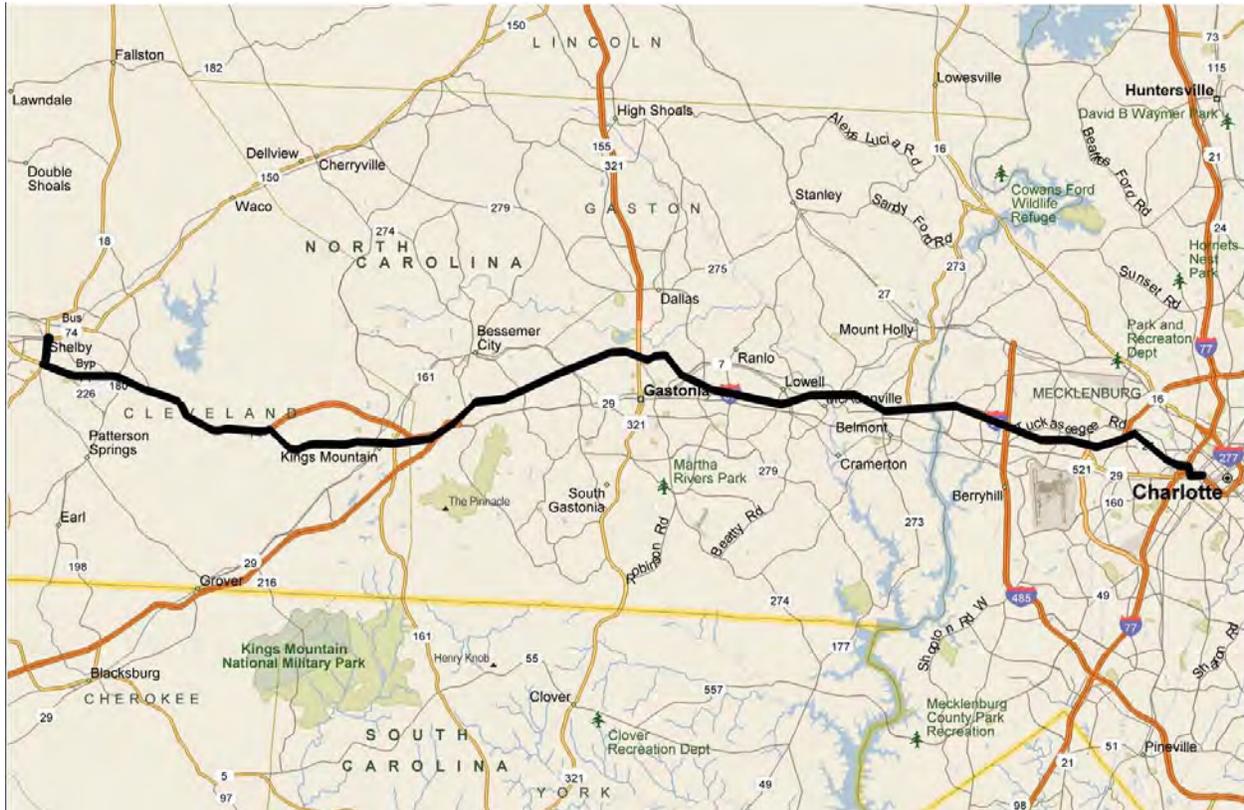


Table 21 – Shelby to Kings Mountain to Charlotte Projected Operating Statistics

	Daily Service
Span of Service	1 AM Round Trip, 1 PM Return Round Trip
Annual Days of Service	252
Miles per Round Trip	90
Minutes per Round Trip	180
Daily Round Trips	2
Annual Revenue Miles	45,400
Annual Service Hours	1,510
Passengers	2,270
Passengers per Revenue Mile	0.05
Passengers per Service Hour	1.5
Annual Operating Cost	\$40,790
Cost per Passenger	\$17.98
Marketing Expense	\$3,600
Capital Expense	\$84,220

All figures 2009 dollars

Shelby to Boiling Springs to Gaffney – The final proposal being presented for service to neighboring counties is a service between Shelby and Gaffney, South Carolina, with a variation that travels through Boiling Springs. It should be noted that TACC may need to secure additional licensing in order to operate outside of North Carolina. The first variation would offer a morning and evening round trip between Shelby and Gaffney via State Route 18, Interstate 85 and U.S. Route 29. This proposal’s intention is to meet the needs of the daily commuter traveling between these two cities. The midday service would offer a one-way trip from Shelby to Gaffney through Boiling Springs via State Route 18, College Avenue and State Route 150, and then a late afternoon return trip via the reverse stop order. This second variation, intended to take Shelby residents and Gardner Webb Students into Gaffney for shopping purposes, would operate two days per week. This variation could be offered on a daily basis if demand is present. The route alignment for this proposal is presented in Figure 26. The blue represents the daily peak period service, while the red indicates the midday service between Shelby, Boiling Springs and Gaffney.

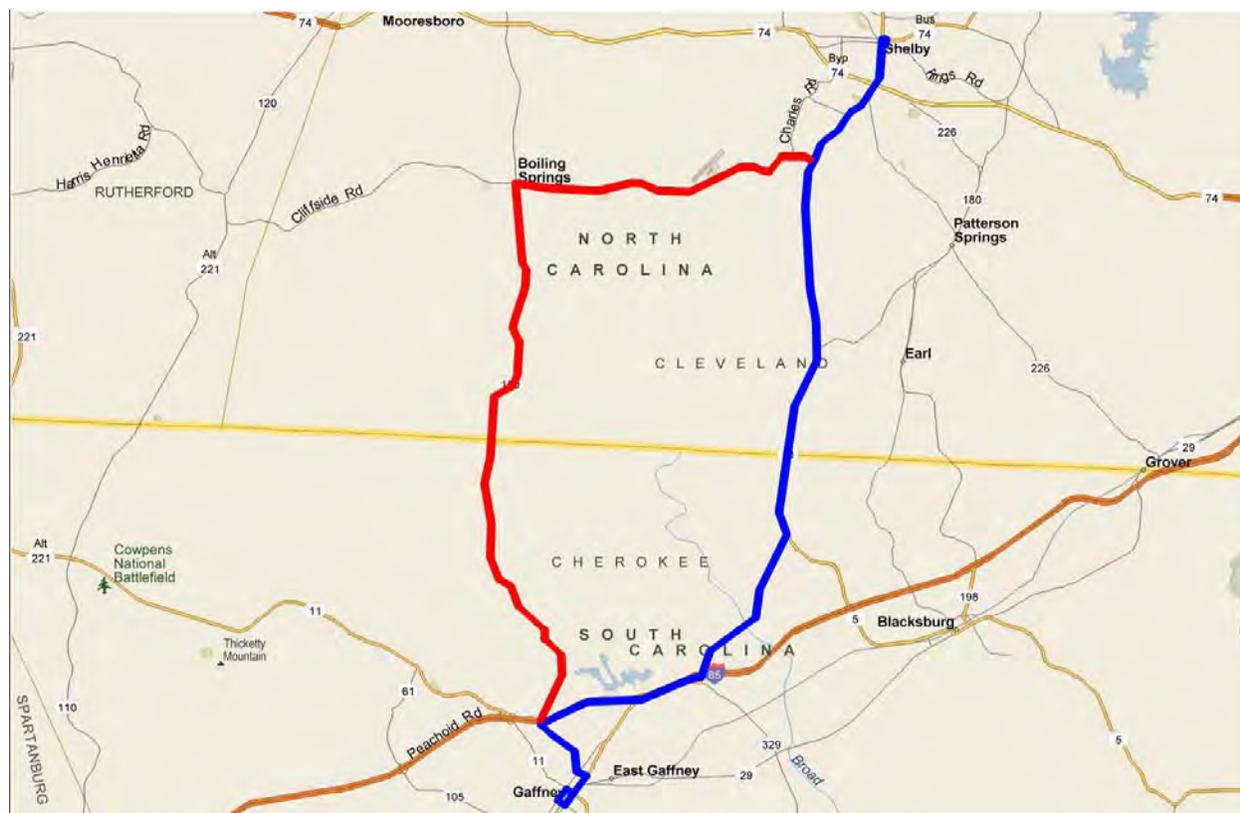
The Shelby to Gaffney variation would operate for 42 miles for each round trip, which would take 90 minutes to complete. The variation traveling through Boiling Springs is 22.3 miles in each direction, with each trip taking 50 minutes to complete. The projected operating statistics for both variations are presented in Table 22. Cost and expense estimates are displayed for the suggested year of implementation for this proposal (2014). A light duty transit vehicle should be purchased for this proposal since the morning and afternoon round trips would conflict with the demand responsive service’s peak activity period and because a slightly larger vehicle may be needed in order to handle the passenger demand. An additional \$5,510 would be needed in order to purchase and install 40 new bus stop signs. A new driver may be needed to handle the hours necessary to operate this route, especially if the two day per week midday variation through Boiling Springs is offered. The initially marketing cost for the daily service would be \$1,800, with \$540 being spent each subsequent year. The two day per week service would cost \$400 initially, and then approximately \$120 annually.

Table 22 – Shelby to Boiling Springs to Gaffney Projected Operating Statistics

	Daily Service	2 Days/Week
Span of Service	1 AM Round Trip, 1 PM Return Round Trip	1 Midday One-Way Trip, 1 PM Return One-Way Trip
Annual Days of Service	252	104
Miles per Round/One-Way Trip	42	22.3
Minutes per Round/One-Way Trip	90	50
Daily Round/One-Way Trips	2	2
Annual Revenue Miles	21,170	4,640
Annual Service Hours	760	170
Passengers	1,480	280
Passengers per Revenue Mile	0.07	0.06
Passengers per Service Hour	2.0	1.6
Annual Operating Cost	\$21,210	\$4,860
Cost per Passenger	\$14.31	\$17.47
Marketing Expense	\$1,800	\$400
Capital Expense	\$83,290	--

All figures 2009 dollars

Figure 26 – Shelby to Boiling Springs to Gaffney Proposal



Demand Responsive System Proposals

The current demand responsive system in Cleveland County is used by approximately 400 persons per day. While this is a fairly significant number, there are periods of the day when there is little demand and drivers are left with no trips to make. There are a couple proposals that follow which will attempt to address this issue.

One option would be to offer the Shelby to Kings Mountain route – as described previously in the County Service Proposals – and have the vehicle operate throughout Kings Mountain on a demand responsive basis when the vehicle is not operating as the deviated fixed route service. This option would maximize the bus and driver usage, while providing improved demand responsive service in the Kings Mountain area.

Another option for the demand responsive system would be to offer incentive fares during the periods of the day when service usage is minimal. According to the system existing conditions chapter, the demand responsive system carries a majority of its passengers between the hours of 8:00 AM and 10:00 AM, and between 2:00 PM and 4:00 PM. As an incentive to draw passengers to ride during the periods of the day when ridership is minimal, (i.e., between 10:00 AM and 2:00 PM), a lesser fare could be charged. This would require an adjustment to the current fare structure, where each ride, regardless of time of day, is dependent on the miles driven and passengers on the vehicle.

The current cost per vehicle mile is \$1.63. As an incentive, the cost per vehicle mile could be \$1.13 during this period of the day, or \$0.50 cents cheaper.

Van Pool Proposal

TACC should consider becoming the local coordinator for van pools in Cleveland County. This would require TACC to promote the van pool program, maintain a database of current and interested van pool clients, and conduct employer outreach to encourage additional van pool usage. Once the vanpool is established, however, some of the data collection and outreach could be done by a private contractor (described below) It is worth noting that van pools are more successful with employees who are above entry level, with positions such as nurses or other hospital staff commuting to their respective medical facility, or staff and faculty commuting to their institution of learning. TACC should approach the hospitals, colleges and large employers in Charlotte, Gastonia and Greenville-Spartanburg to identify employees living in Cleveland County who commute to these areas in the effort to form a number of van pools. TACC would also have to receive permission to communicate to these workers through their respective employer.

If TACC is able to find an interested group of people or an interested area employer, they would then contact 2Plus, a private van pooling company that has a contract with NCDOT to provide van pool service. 2Plus would set up the van pool service and provide the vehicle. Each van pool that is set up would be paid for by the people who use the service. However, North Carolina subsidizes the fares for low-income employees who use the 2Plus van pool program through a Job Access Reverse Commute (JARC) grant. TACC could monitor 2Plus' current NCDOT activity and decide if employing 2Plus would meet their van pooling needs.

The idea of providing van pool services for Cleveland County is supported by both the TACC Board of Directors and Cleveland County human service agency stakeholders, provided that the costs and administration for such services are not the responsibility of TACC.

IMPLEMENTATION PLAN & FINANCIAL FORECASTS

The implementation of new services, and changes to the existing CCT service, should happen when funding becomes available and when demand is sufficient. That being said, a number of the proposals would logically be put into service before others. Table 23 presents a phased implementation schedule for all of the proposals that exist in this document over a five year period. Each "X" indicates the year that the proposal should be implemented. It is expected that some of the services may never be implemented, while others would be implemented after the initial five years. This table merely demonstrates one potential phased implementation plan, which could also be used in determining the priority of each proposal.

Table 23 – Phased Implementation Plan

Proposal	2011	2012	2013	2014	2015
Shelby Deviated Fixed Route Options					
System Option 1		X			
System Option 2				X	
County Service Proposals					
Lawndale to Fallston to Shelby					X
Boiling Springs to Shelby	X				
Shelby to Kings Mountain		X			
Out-of-County Service Proposals					
Boiling Springs to Shelby to Kings Mountain to Gastonia			X		
Shelby to Kings Mountain to Charlotte				X	
Shelby to Boiling Springs to Gaffney					X
Demand Responsive System Proposals					
Demand Responsive Service	X				
Van Pool Proposal					
Van Pool Service	X				

The table details implementation through a phased approach. For example, service between Boiling Springs and Shelby could begin on a trial basis in 2011. This service would be given some time to build a ridership base before potentially offering new service between the two areas and to other areas. In 2013 the Boiling Springs to Shelby to Kings Mountain to Gastonia service could begin and then given time to build its ridership. Finally, in 2015 the Shelby to Boiling Springs to Gaffney service could be implemented, providing Boiling Springs with a full menu of transit options. A similar approach can be seen when considering service to Kings Mountain. The CCT system could be phased in as previously discussed, as Table 24 details. Additionally, the services to the lesser populated areas of Shelby, and to the out-of-county locations, have been reserved for the out years in this scheme.

Lastly, it is suggested that the demand responsive proposals and van pool initiative be implemented as soon as possible as they would fill current service gaps with only a minimal need for additional funding.

Operating Forecasts - Estimates were prepared for a number of values associated with the phased implementation of the service plan. These values include the estimates per year for vehicle hours, revenue vehicles and ridership. The values were based on current statistics provided by ITRE. The values increase as each additional deviated fixed route is added.

It is expected that the demand responsive system will require fewer vehicles as the new services begin to attract additional riders. In this plan, it is predicted that the demand responsive vehicles will decrease in 2014, from the current stock of 21 vehicles to 19. All of these values are shown in Table 24.

Table 24 – Forecasted Vehicle Hours, Peak Vehicles and Passengers

	2010	2011	2012	2013	2014	2015
Vehicle Service Hours						
Demand Responsive	25,649	25,649	25,649	25,649	23,309	23,309
Deviated Fixed Route	2,375	2,675	6,096	6,936	10,968	12,732
Total	28,024	28,324	31,745	32,585	34,277	36,041
Peak Vehicles						
Demand Responsive	21	21	21	21	19	19
Deviated Fixed Route	1	2	4	5	7	9
Total	22	23	25	26	26	28
Passengers						
Demand Responsive	70,022	70,022	70,022	70,022	63,634	63,634
Deviated Fixed Route	4,225	5,125	15,515	17,047	24,662	27,504
Total	74,247	75,147	85,537	87,069	88,295	91,138

As the table details, this plan presents a very ambitious schedule to grow the TACC transit system. The numbers for 2010 are based on the values for 2009, while estimates for the subsequent years are based on the routes that are put into service that year. Over the course of the implementation plan, the number of peak vehicles will increase by more than a third, and the vehicle service hours will experience a similar growth. Overall, ridership will increase by over 17,000 passengers, which includes a much greater reliance on the deviated fixed route services.

The next step in the process was to prepare estimates for operating costs, revenue and deficits. Table 25 details the operating forecasts in current (i.e., year of implementation) dollars. The values for 2010 are the same costs that TACC experienced in 2009 and are based on the total number of vehicle hours operated. The inflation rate for the cost estimates were provided by NCDOT. The cost for the demand responsive service was based on \$44.50 per vehicle hour, while operating costs for the deviated fixed route proposals were based on \$23.51 per vehicle hour, which are both based on current TACC and CCT expenditures.

Table 25 – Projected Operating Costs

Cost	2010	2011	2012	2013	2014	2015
Demand Responsive	1,141,381	1,164,208	1,210,776	1,259,171	1,190,141	1,237,751
Deviated Fixed Route	99,330	120,489	364,757	400,779	579,797	646,625
Total	1,240,710	1,284,697	1,575,534	1,659,950	1,769,938	1,884,376

As previously stated, this implementation plan is very ambitious and details the consequences of operating all of the proposed routes in a five year period. Actual implementation of the proposed services would be subject to funding availability. It is expected that some of these routes might be initiated past the five years of this implementation plan.

In order to get an idea of the exact amount of funding necessary to operate these new routes, funding forecasts have been calculated. Table 26 details the expected funding from all funding sources over the course of the implementation plan.

The contract payments detail the funding from the demand responsive system. These dollars were escalated at the same rate as the operating costs. It should be noted that the contract payment revenue decreases in 2014, which is a reflection of the decrease in the number of demand responsive vehicles and an expected increase in usage of the new deviated fixed routes.

The farebox revenue will increase as each new route is implemented, as outlined in Table 26. Farebox revenue was calculated by multiplying the estimated passengers by TACC's current CCT average fare (average of total fares and donations within the last 3 fiscal years), which yields \$1.40 per passenger¹. The farebox return for each route remained constant from year to year (i.e., not adjusted for inflation, as the fare is expected to remain the same and ridership per route would only change minimally). The current federal, state and local government funding would increase as additional services are implemented. ROAP funding would increase as needed to support the marketing and administration of the services.

An increase in contract payments from additional service subscribers could also help fund the new services. A fare increase could be investigated; however, such an increase would only provide a nominal increase in revenue.

¹ The CCT fare in 2009 was \$1.25 per passenger; the \$1.40 is based upon the total annual fares and donations divided by the annual fixed route ridership, which is an industry standard for determining *average* fares per passenger.

Table 26 – Financial Forecasts (Current Year Dollars)

	2010	2011	2012	2013	2014	2015
Operating Costs	\$1,240,710	\$1,284,697	\$1,575,534	\$1,659,950	\$1,769,938	\$1,884,376
Marketing Costs	\$0	\$719	\$13,959	\$6,555	\$26,941	\$16,704
Capital Costs	\$680,000	\$451,248	\$84,228	\$74,356	\$855,501	\$518,608
Total Costs	\$1,920,710	\$1,736,664	\$1,673,720	\$1,740,860	\$2,652,381	\$2,419,688
Revenue						
Contract Payments (DR)	\$852,865	\$869,922	\$904,719	\$940,881	\$889,300	\$924,875
Farebox (FR)	\$5,915	\$7,185	\$21,721	\$23,866	\$34,506	\$38,506
5311 – CTP Admin						
Federal	\$197,963	\$208,499	\$277,064	\$283,657	\$318,233	\$321,824
State	\$12,373	\$13,031	\$17,317	\$17,729	\$19,890	\$20,114
Local	\$37,118	\$39,094	\$51,950	\$53,186	\$59,669	\$60,342
<i>Subtotal</i>	<i>\$247,454</i>	<i>\$260,624</i>	<i>\$346,330</i>	<i>\$354,572</i>	<i>\$397,791</i>	<i>\$402,280</i>
5316 – JARC (Federal)	\$0	\$5,934	\$22,959	\$43,653	\$83,235	\$106,047
5317 – New Freedom (Federal)	\$0	\$0	\$107,350	\$112,374	\$178,104	\$212,636
ROAP – EDTAP (State)	\$59,989	\$63,182	\$83,959	\$85,957	\$96,434	\$97,522
ROAP – RGP						
State	\$60,739	\$63,971	\$85,008	\$87,031	\$97,640	\$98,741
Local	\$6,749	\$7,108	\$9,445	\$9,670	\$10,849	\$10,971
<i>Subtotal</i>	<i>\$67,487</i>	<i>\$71,079</i>	<i>\$94,454</i>	<i>\$96,701</i>	<i>\$108,488</i>	<i>\$109,713</i>
Capital Funding						
Federal	\$544,000	\$360,998	\$67,382	\$59,485	\$684,401	\$414,887
State	\$68,000	\$45,125	\$8,423	\$7,436	\$85,550	\$51,861
Local	\$68,000	\$45,125	\$8,423	\$7,436	\$85,550	\$51,861
<i>Subtotal</i>	<i>\$680,000</i>	<i>\$451,248</i>	<i>\$84,228</i>	<i>\$74,356</i>	<i>\$855,501</i>	<i>\$518,608</i>
Interest	\$7,000	\$7,500	\$8,000	\$8,500	\$9,000	\$9,500
Total Revenue	\$1,920,710	\$1,736,664	\$1,673,720	\$1,740,860	\$2,652,381	\$2,419,688

Capital Needs – In addition to money needed for the operation and administration of the current and proposed services, TACC will need to replace their current vehicle stock, as well as purchase new vehicles and bus stop signs over the next five year period. Table 27 details the capital requirements for the current and proposed TACC system and reflects the yearly cost of inflation at three percent. The table shows the vans that need replacement in the year that they need to be replaced, and also approximates the cost of the vehicle replacement. The table also details the new buses that would need to be purchased to meet the needs of the phased implementation plan of the proposed services, as well as the additional bus stop signs that would also need to be purchased.

While it is recognized that TACC is in the process of replacing several of their vans, there are a number of other service vehicles that have met their four year economic life and need to be replaced. There are 17 vehicles total that met or exceeded their economic life in 2010. All of these

vehicles should be replaced immediately. Additionally, 11 other vehicles will meet their economic life in 2011, necessitating the purchase of even more additional vehicles. In years 2014 and 2015, fewer van vehicles would need to be purchased in accordance with the proposed system plan. These vehicles should be purchased through NCDOT’s statewide vehicle purchasing contract, which covers 90 percent of each vehicle. Vans similar to the TACC’s current rolling stock cost approximately \$40,000 in the current year. As mentioned, this capital cost was escalated at three percent annually.

Table 27 – Projected Capital Requirements

Year	Replacement Vans			New Buses			Bus Stop Signs			Total (\$)
	#	Unit Cost (\$)	Total (\$)	#	Unit Cost (\$)	Total (\$)	#	Unit Cost (\$)	Total (\$)	
2010	17	40,000	680,000	0	65,000	0	0	120	0	680,000
2011	11	40,800	448,800	0	66,300	0	20	122	2,448	451,248
2012	0	42,432	0	1	68,952	68,952	120	127	15,276	84,228
2013	0	44,128	0	1	71,708	71,708	20	132	2,648	74,356
2014	15	45,896	688,440	2	74,581	149,162	100	138	13,769	851,371
2015	9	47,732	429,588	1	77,565	77,565	80	143	11,456	518,608

New bus purchases are expected to occur in 2012, when Shelby System Option 1 and the deviated fixed route service between Shelby and Kings Mountain are suggested for implementation, in 2013 when a new vehicle will be needed, in 2014, when the Shelby System Option 2 is suggested for implementation, and in 2015, when all of the remaining proposed services are suggested to be implemented. These vehicles should be procured through the state’s vehicle procurement contract. It is estimated that a new light transit vehicle (body-on-chassis) would cost \$65,000 in the current year.

Bus stop signs will be needed when new routes are put into place, in Shelby, where service currently exists, and elsewhere where there currently is no service. The cost of these signs is estimated at \$120 per unit for the current year, which includes the cost of installation. The unit cost could be less if existing structures (i.e., telephone poles, etc) are used. In total, an additional 340 bus stop signs would need to be purchased during the five year implementation period.

Performance Standards - In terms of how these proposals should be monitored for effectiveness, TACC should rely on the previously published ITRE report and determine route efficiency and effectiveness through a comparison with the ITRE values for passengers per revenue hour and passengers per revenue mile. . It should be noted that the ITRE report is predicated on a snapshot of data and a comparison of somewhat unlike systems. However, there are a number of other measurements that the ITRE report provides which could be used to evaluate current and future TACC routes.

OPERATIONS ALTERNATIVES

As opposed to the previous section, the following proposals do not focus on specific services, but instead on how TACC can save money and better serve the community through initiatives and policy changes. There recommendations include the suggestion of a Shelby transit center, marketing

policies and procedures, the purchase of software and administrative suggestions.

Shelby Transit Center

This report has mentioned a Shelby transit center in a number of the proposals. Such a center would permit connectivity between services, as well as provide transit information to any persons interested in taking transit. Previously, there have been discussions about the creation of an uptown Shelby transit center. This facility was never built, to the detriment of the city and its people. Such a facility would allow transfers between TACC routes, and also could attract a regional bus carrier (i.e., Greyhound) to stop within the city limits. Currently, Greyhound only operates to Kings Mountain on a trial basis to a location on York Road, right off of Interstate 85. Additionally, Greyhound has expressed no imminent desire to offer service to Shelby; however, with the passing of time, this lack of interest may change.

While no specific location is being recommended, it is suggested that the facility be built on Lafayette Street, in the vicinity of Marion Street, as these are the two main corridors that travel through uptown Shelby. A new transit center could cost about of \$400,000 (a recent transit center built in Hickory, North Carolina was under contract for \$427,000), but an additional study should be performed to better understand the transit needs, location and design of the facility. Shelby, Cleveland County and TACC should perhaps consider the possibility of leasing a building and/or parking lot as a transit center because of the land lock at the intersections of Lafayette and Marion Streets. If the leased or temporary transit center proves to be productive, this may indicate that a permanent transit center would be needed and a good use of public funds. If needed, TACC could also establish a temporary site in Shelby with some bus shelters to allow passengers to connect between routes and services while before acquiring a leased or permanent facility.

The study should outline where to locate the transit center to best attract potential passengers and also provide easy access for transit vehicles. A number of different sites should be looked at to determine preference. Additionally, the study should focus on the design of the facility, including how to best allow access for the vehicles, how to have the vehicles line up for passenger boarding and alighting (i.e., saw-tooth, in-line, etc.). The facility should have a ticketing counter, an information center, and bathroom facilities. Any other amenities would also be considered through this additional study.

The study could be funded by the Rural Planning Program, which provides 90 percent of the cost of local planning study. Additionally, the Community Transportation Program would cover 90 percent of the land acquisition, design and construction costs through the Rural Capital Program.

Vehicles

While it is recognized that lift equipped vehicles lessen the capacity for non-wheelchair passengers, having each vehicle fit with a wheelchair lift and being compliant with ADA regulations will allow each vehicle to be interchangeable with any of the other vehicles. This will allow for greater flexibility with the vehicle fleet as all vehicles could conceivably operate any of the TACC routes. For example, the Cleveland County Transit route, the deviated fixed route circulator service

in the City of Shelby, operates with two non-lift equipped vehicles and one lift equipped vehicle. When either of the non-lift equipped vehicle are in service, provisions for wheelchair passengers have to be made on another vehicle that is lift equipped. Both of these non-lift equipped vehicles are in the process of being replaced with vehicles that are lift equipped. The delivery of these two new lift equipped vehicles is expected in July, 2010. All other non-lift equipped vehicles should be similarly replaced upon reaching the end of their economic life. (As of late 2010, all such vehicles had been replaced.)

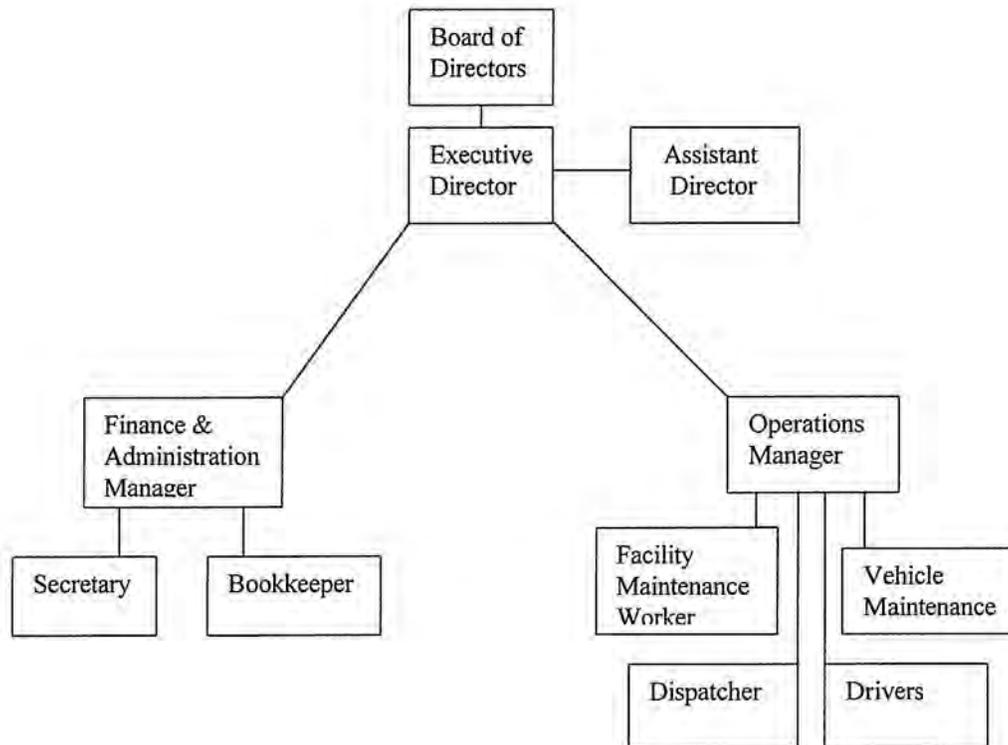
The TACC Executive Director noted that all new lift equipped vehicles are required to have internal lifts, which limit the capacity of the transit vehicle, as opposed to a number of TACC vehicles that have external lift apparatuses. There are slightly larger non-CDL vehicles with internal lift equipment; however, these vehicles do not meet the Buy America provisions, which TACC must follow in its procurement process. TACC should apply for a waiver through NCDOT in order to purchase a vehicle that would suit its needs.

Executive Director Succession Plan and Organization Structure

As the current Executive Director nears retirement, a clear line of succession should be established. Recently, the Board has established a new job at TACC: Assistant Director. This position should be filled as soon as possible, as the TACC service has recently experienced growth, while the administrative staff level has remained unchanged. This person hired to fill this position should be sufficiently trained and also be prepared to take over a number of responsibilities from the Executive Director, at the Executive Director's behest.

Additionally, the Executive Director recently revised TACC's organization chart in an effort to better divide the responsibilities among TACC staff. This chart is displayed in Figure 27.

Figure 27 – TACC Organization Chart (2010)



Source: TACC

Subscription Services

According to the ITRE Performance Plan and Analysis report, subscription service account for approximately 60 percent of TACC’s business. While this number is significant, it is recommended that TACC increase their effort to attract additional subscription agreements with various generators throughout the Cleveland County. Potential clients include Gardner Webb University, Cleveland County Community College and Cleveland Vocational Industries Incorporated.

Gardner Webb University and the Cleveland County Community College should be encouraged to enter into a transit service agreement with TACC, where students, faculty and staff should be allowed to ride any of the TACC services for free. In turn, the University and Community College would pay TACC for the services provided. The University and Community College could then install a “transit fee” in the tuition bills of each student, a fee to be determined by each institution and TACC. This type of agreement is quite common on college campuses across the country and routinely identified as a “U-Pass” (University Pass) system.

Other potential clients include any of the major employers outlined in the service area profile chapter, such as Hanesbrands, Inc and Baldor Electric in Kings Mountain, or PPG Industries located along U.S. Route 74 between Lattimore and Kingstown. The Cleveland County Chamber of Commerce should be approached to identify additional potential subscription clients.

RouteMatch Software

Currently, TACC is in the process of acquiring RouteMatch software to replace its current CTS-Software, through approved funding from ARRA. RouteMatch will allow for greater efficiencies in the scheduling process by combining trips with similar origins and/or destinations. It will also allow for schedulers to adjust the alignments and orders of passenger pick-ups, something that is not possible through CTS. This will help to minimize dead-head time and miles, which would address a current TACC deficiency described in the ITRE report, as approximately one-third of TACC's daily mileage are dead-head miles. At the same time, matching of common origins and destinations will improve the passenger per mile measure, as more people will be on each vehicle at any given time. Transportation of a single individual is the greatest source of deadhead miles, and RouteMatch should help minimize this occurrence. It is recognized that not all trips will be able to be teamed with other trips, due to any number of reasons, such as the remoteness of a destination, passenger appointment time, or available vehicles; however, the software will be able to maximize efficiencies within the system where ever possible.

Additionally, the proper pairing of trips would allow for current resources (i.e., vehicles and drivers) to be reallocated to any of the proposed proposals presented in this document, thus limiting new capital expenditures. It is recommended that TACC move to acquire this software as soon as possible, not only to assist with current trips, but also in the effort to assist with the implementation of the proposals presented in this document.

TACC/Cleveland County Government

While determining whether or not TACC should become part of Cleveland County's government structure goes beyond the scope of this project – due to the necessity of investigating costing issues at a more finite level – it is recommended that an additional study be performed that could help make this decision. A cost/benefit analysis should be conducted in order to determine the benefits and drawbacks of such an arrangement.

Marketing

An aggressive marketing program is essential for the success of any transit system. The initial outlay for a marketing strategy would be fairly significant; however, each following year, that amount would be approximately half of this initial outlay, which would then increase each successive year to reflect inflation. The branding of the system is a key aspect of the marketing program, as it will create an impression with potential passengers and area residents alike. The implementation of any of the recommendations can also be employed to re-launch the current TACC services under a new branding scheme. In support of the marketing objectives of increasing ridership, a number of marketing elements are suggested for TACC, as highlighted below:

Framework – The planning of the marketing effort should be detailed, thorough and comprehensive. Emphasis should be placed on setting objectives, project design and evaluation. Coordination should be maintained with other area marketing efforts, such as the Cleveland County

Chamber of Commerce. A consistent design theme should be maintained for all marketing materials so that the brand can be easily identified.

Logo – The current logo for TACC should remain the same, as residents have come to know the services offered by TACC and identify those services through its logo. Conversely, a new logo for the CCT should be prepared which identifies the CCT system as something different than the demand responsive services offered by TACC. The logo should reflect some identifying qualities of Cleveland County and incorporates them with a transit theme. The logo would provide a standard item to be used in all marketing efforts. The logo and design theme could be designed by students of Gardner Webb University or Cleveland County Community College through an agreement with either institute. Students would receive relevant credit, while TACC would realize a monetary savings.

Unique Vehicle Appearance – Short of a green or blue line and “TACC” written on the side of each vehicle, the current TACC rolling stock has very few identifying qualities that help distinguish it from any other area transit vehicle. While the appearance of the TACC demand responsive vehicles should remain as they are, the CCT vehicles should have a new attractive look and feel which reflects a new CCT logo. Vehicles could be painted or wrapped with graphics that portray the overall theme of CCT and Cleveland County; however, each vehicle should have some similar designs themes as TACC’s demand responsive vehicles so that passengers and residents can identify each vehicle as part of the overall Cleveland County transit (TACC) system.

Bus Stop Signs – Currently, TACC does have bus stop signs along its current CCT route. New signs should be installed at any new stop locations, and along any new route that is implemented. Each bus stop sign which would include the logo, and a telephone number and website address where people can obtain additional information about the service. Similar to the service vehicles, bus stop signs should be a visual reminder of the shuttle service and the overall brand. A bus stop sign and pole costs approximately \$120, a price that includes installation of the pole and sign. The bus stop sign needs were previously addressed in the capital requirements portion of this document.

Brochure/Timetable – A user ride guide describing the TACC services should be prepared and distributed that would reflect the overall marketing theme of TACC. It would include a map, timetable of the TACC routes and a description of any connecting service. A brochure could also be developed for each individual route and offered at generators along the route and on-board the vehicle that serves that route. The user ride guide and brochures should also be designed to be included in any

housing, healthcare and education facility information package, to be placed in “take one” racks at various locations, and to be used as self-mailers. The current brochures for TACC services are adequate, but new brochures would have to be developed once any of the proposals listed in this document are implemented. Brochure cost can fluctuate depending on the color and paper type used, and the size of the brochure.

Website – The TACC website should updated to reflect the new marketing theme and regularly updated and maintained. The site would describes the current services and explain riders

can utilize the system. The site should share a design theme with the logo and will contain the schedule, a map of the services, as well as information on, and links to, the connecting transit routes (i.e., Greyhound). Links to other area generators, such as the Cleveland Regional Medical Center and the Department of Social Services, should be included on the website. The website will help create awareness for the system and would be advertised on the brochures, bus stop signs and the vehicles themselves.

Information Kiosks – Information Kiosks should be installed at locations such as the Cleveland Mall, the housing and apartment locations throughout the service area, the Cleveland Regional Medical Center, and any other location where service is frequent or usage is high. Each kiosk should include a system and route information and have brochures available that describe the system and each route. Information kiosks can range in type from the minimal to the technologically advanced. A minimal type information kiosk would only have brochure racks, while the technologically advanced kiosk could have a computer which offers interactive information. Kiosks can range in price from a couple hundred to several thousand dollars. Price is determined by the amenities that are included.

An ambitious marketing plan is essential for achieving a successful transit program within Cleveland County. Each of the items listed above should be implemented and coordination maintained between the marketing efforts of Cleveland County and TACC.

Expense – The cost of the marketing plan has previously been described in each service proposal. Table 28 below details the required cost per year of a marketing plan in accordance to when new services would be initiated as detailed earlier in this chapter. Money would be needed for an initial push for new services, as well as the on-going costs of the already implemented services.

Table 28 – Marketing Expenses

Year	Initial Costs	On-Going Expenses	Total
2011	\$720	\$0	\$720
2012	\$14,460	\$220	14,680
2013	\$2,180	\$4,740	\$6,920
2014	\$24,470	\$5,610	\$30,080
2015	\$4,850	\$13,470	\$18,420

SUMMARY

This chapter has detailed a number of service and operational proposals, which offer solutions to current TACC issues. The service proposals are intended to expand the current system where possible, as well as to maximize the productivity of the system. While this report presents an aggressive approach to service expansion, it should once again be noted that not all of these services might be feasible to implement within a five year period. The proposals should be put into service when TACC has the necessary funding to support service expansion. It is possible that some of these routes would never be initiated, while others may begin operation sometime after 2015.

APPENDIX A



HAPPY HOLIDAYS!

Thank you for participating in the

**CLEVELAND COUNTY
COMMUNITY TRANSPORTATION SERVICE PLAN**

Cleveland County is currently preparing a plan to guide and improve the public transportation services currently provided in the county, the Transportation Administration of Cleveland County (TACC) and Cleveland County Transit (CCT).

Please take this opportunity to provide your input into this process by completing this brief questionnaire. Your time and suggestions are much appreciated.

- 1. Are you aware of what transportation services are provided by TACC or CCT? Yes No
- 2. Have you or a member of your household used TACC or CCT services in the past year?
 Yes No If yes, which service TACC CCT
- 3. How important do you think public transportation is to the residents of Cleveland County?
 Not Important Important Very Important
- 4. Are you aware of any unmet public transportation needs in your community?
 Yes No If yes, please explain (use back of sheet if necessary)

- 5. Do you have any suggestions for how TACC or CCT service could be improved?
 Yes No If yes, please provide your suggestions (use back of sheet if necessary):

***** Detach Here *****

Thank you for your time! Please feel free to enter our **free drawing for a \$25 gift card**

Name: _____

Address: _____

Phone: _____ Email: _____

APPENDIX B



TRANSPORTATION ADMINISTRATION OF CLEVELAND COUNTY (TACC) - RIDER SURVEY - 2009

Dear Customers: We would like to learn more about you and your travel needs to help Cleveland County plan the future services for **Transportation Administration of Cleveland County (TACC)**. Please read each question and mark your answer. Please complete only one survey form during this survey period. After you finish answering all questions, please return the completed survey to the driver on this or a future trip.

- How long have you been riding TACC?**
 Less than a year 1-2 years 3-4 years 5+ years
- What program are you using for this trip?**
 Senior Services Work First General Public
 Medicaid United Way Other _____
- What is the purpose of your trip today?** Shopping
 Senior Center Medical/dental Work
 Other _____ (please specify)
- Do you use TACC for other reasons?**
 No Yes (If yes, check all that apply) Shopping
 Senior Center Medical/dental Workshop
 Other _____ (please specify)
- During a week (Monday through Friday), how often do you use TACC?** 5 Days 4 Days 3 Days 2 Days 1 Day
- Please answer the following regarding how the telephone process is typically conducted for scheduling your trips:**
 Busy signal or no answer? Yes No Sometimes
 Hold time is too long? Yes No Sometimes
 Person answering phone is polite? Yes No Sometimes
 Person answering phone is rude? Yes No Sometimes
- How convenient was the scheduled pick-up time that you were given for this trip to the time that you wanted to travel?**
 Convenient Acceptable Inconvenient Very Inconvenient
- How close was your pick up time on this trip to the scheduled pick-up time?** On time Not on time (please complete below)

Early	Late
<input type="checkbox"/> 1 to 10 Minutes	<input type="checkbox"/> 1 to 10 Minutes
<input type="checkbox"/> 11 to 20 Minutes	<input type="checkbox"/> 11 to 20 Minutes
<input type="checkbox"/> More than 20 Minutes	<input type="checkbox"/> More than 20 Minutes

- How would you describe the amount of time you will be on TACC vehicle to make this trip?**
 Too long About right Don't know

- How do you rate TACC for the following:**

	Very				
	Excellent	Good	Good	Fair	Poor
Cleanliness of vehicle	<input type="checkbox"/>				
Driver courtesy	<input type="checkbox"/>				
Driver skills/Safety	<input type="checkbox"/>				
Comfort of ride	<input type="checkbox"/>				
Fare charged	<input type="checkbox"/>				
Service information <input type="checkbox"/>	<input type="checkbox"/>				
Picking-up on time	<input type="checkbox"/>				
Places served	<input type="checkbox"/>				

- Compared to last year, how is TACC?** Better now
 Better last year About the same Did not ride last year
- Compared to last year, are you riding:**
 More Less About the same Did not ride last year
- Could you have made this trip if TACC service was not available?**
 No Yes Yes, but with inconvenience
- Your sex:** Male Female
- Your age:** Under 18 18 to 29 30 to 44 45 to 64 65+
- What are the most important improvements that you would suggest for TACC? (use back of form if needed)**

After completing this card, please return it to the driver or to the driver on your next TACC trip. Thank you for your help.

CLEVELAND COUNTY TRANSIT - Rider Survey - 2009



Dear Customers: We would like to learn more about you and your travel needs to help Cleveland County Transit (CCT) plan its future services. Please read each question and mark your answer. Please complete only one survey card during this survey period. Thank you!

1. How did you get to the CCT bus? Walked _____ block(s) Bike
 Drove car Dropped off in car Other _____

2. After leaving this bus, how will you complete your trip to your final destination? Walk _____ block(s) Bike Drive car
 Will be picked up in car Other _____

3. Where do you live? (street, town, zip)

4. If you work or go to school, where do you work or go to school? (company/school, street, town) – if you don't work, skip to #8.

5. Do you work: Weekdays Saturdays Sundays

6. What hours do you typically work?

	Start (Please Circle)	End (Please Circle)
Weekdays	_____ AM/PM	_____ AM/PM
Saturday	_____ AM/PM	_____ AM/PM
Sunday	_____ AM/PM	_____ AM/PM

7. Where do you grocery shop? (store, street)

8. Where do you shop for clothes and other personal items? (store/shopping center, street – feel free to list more than one)

9. How long have you been riding CCT service?

Less than a year 1-2 years 3-4 years 5-8 years 9-11 years

10. How many one way bus trips do you make each week using CCT? (Count a round trip as two trips.) _____ trips

11. What is the purpose of your trip today? School Work Shopping
 Personal Business Medical/Dental Social/Recreation
 Other _____

12. How do you rate CCT service for each of the following:

	Excellent	Very Good	Good	Fair	Poor
Bus running on time	<input type="checkbox"/>				
Vehicle cleanliness	<input type="checkbox"/>				
Value received for fare charged	<input type="checkbox"/>				
Driver courtesy	<input type="checkbox"/>				
Service information	<input type="checkbox"/>				
Overall satisfaction	<input type="checkbox"/>				

13. Compared to a year ago, CCT service is:

Getting better Getting worse Staying about the same

14. Which sources of information about CCT service do you most often use?

Select top 2: Bus schedules/maps Drivers Calling office

Word-of-mouth Notices on buses Internet Other _____

15. Do you have access to the internet? Yes No

16. Have you visited the www.tacc.cc website? Yes No

17. Could you have made this trip if CCT service were not available?

No Yes Yes, but with inconvenience

18. Your sex: Male Female 19. Your age: _____ years

20. What is your occupation? Student Manager/Professional

Technical/Skilled Clerical Service Industry Homemaker

Retired Unemployed Other _____

21. What one improvement would you suggest for CCT service? (Feel free to use the back of the card for more space)

After completing this card, return it to the driver. You can also take it with you and return it to the driver on your next CCT trip. Thank you!

APPENDIX C

Mobility Needs Score

Tract	BG	Area	2000 Pop	2000 Pop Den	Senior Pop (60+)	Sen (60+) Pop Pct	Sen (60+) Density	Disabled Pop	Disabled Pop Pct	Disabled Density	Total HHLDs	Zero Car Hlds	Zero Car Pct	Zero Car Density	Low Income Pop	Low Income Pct	Low Income Density
9501	1	18.99457	1636	86.1	291	17.8	15.3	361	22.1	19.0	652	34	5.2	1.8	156	9.5	8.2
9501	2	7.6064	688	90.5	137	19.9	18.0	191	27.8	25.1	292	16	5.5	2.1	142	20.6	18.7
9501	3	27.66236	1055	38.1	183	17.3	6.6	130	12.3	4.7	418	16	3.8	0.6	117	11.1	4.2
9501	4	25.81615	1391	53.9	283	20.3	11.0	238	17.1	9.2	558	28	5.0	1.1	104	7.5	4.0
9501	5	20.62202	1621	78.6	293	18.1	14.2	315	19.4	15.3	649	27	4.2	1.3	205	12.6	9.9
9501	6	18.71776	1406	75.1	256	18.2	13.7	220	15.6	11.8	549	20	3.6	1.1	168	11.9	9.0
9502	1	10.14608	1058	104.3	240	22.7	23.7	318	30.1	31.3	404	35	8.7	3.4	131	12.4	12.9
9502	2	8.65963	1424	164.4	258	18.1	29.8	390	27.4	45.0	489	37	7.6	4.3	180	12.6	20.8
9502	3	8.23902	1313	159.4	271	20.6	32.9	319	24.3	38.7	474	32	6.8	3.9	290	22.1	35.2
9502	4	9.12419	1392	152.6	284	20.4	31.1	256	18.4	28.1	555	37	6.7	4.1	210	15.1	23.0
9503	1	14.95334	1888	126.3	318	16.8	21.3	391	20.7	26.1	713	44	6.2	2.9	289	15.3	19.3
9503	2	7.03175	1634	232.4	211	12.9	30.0	256	15.7	36.4	661	76	11.5	10.8	119	7.3	16.9
9503	3	9.85499	2279	231.3	212	9.3	21.5	353	15.5	35.8	764	23	3.0	2.3	202	8.9	20.5
9503	4	7.10892	1460	205.4	221	15.1	31.1	224	15.3	31.5	538	51	9.5	7.2	235	16.1	33.1
9503	5	4.4535	1424	319.7	182	12.8	40.9	265	18.6	59.5	555	22	4.0	4.9	94	6.6	21.1
9503	6	4.36528	1263	289.3	141	11.2	32.3	126	10.0	28.9	467	0	0.0	0.0	60	4.8	13.7
9504	1	1.70266	1175	690.1	185	15.7	108.7	428	36.4	251.4	440	47	10.7	27.6	321	27.3	188.5
9504	2	0.22412	563	2,512.0	219	38.9	977.2	273	48.5	1,218.1	296	67	22.6	298.9	252	44.8	1,124.4
9504	3	1.55094	1339	863.3	409	30.5	263.7	213	15.9	137.3	468	39	8.3	25.1	71	5.3	45.8
9504	4	0.3186	749	2,350.9	69	9.2	216.6	170	22.7	533.6	315	20	6.3	62.8	68	9.1	213.4
9504	5	0.60608	898	1,481.7	174	19.4	287.1	195	21.7	321.7	334	11	3.3	18.1	74	8.2	122.1
9504	6	1.413	985	697.1	202	20.5	143.0	163	16.5	115.4	332	19	5.7	13.4	89	9.0	63.0
9504	7	1.27725	1104	864.4	168	15.2	131.5	309	28.0	241.9	406	21	5.2	16.4	201	18.2	157.4
9505	1	0.7991	1091	1,365.3	208	19.1	260.3	263	24.1	329.1	459	34	7.4	42.5	238	21.8	297.8
9505	2	0.90386	1392	1,540.1	407	29.2	450.3	358	25.7	396.1	590	133	22.5	147.1	246	17.7	272.2
9505	3	4.15925	1501	360.9	312	20.8	75.0	497	33.1	119.5	613	81	13.2	19.5	451	30.0	108.4
9506	1	6.04811	1174	194.1	171	14.6	28.3	349	29.7	57.7	463	19	4.1	3.1	100	8.5	16.5
9506	2	7.75727	2035	262.3	275	13.5	35.5	391	19.2	50.4	741	8	1.1	1.0	207	10.2	26.7
9506	3	7.52266	2003	266.3	258	12.9	34.3	397	19.8	52.8	691	25	3.6	3.3	146	7.3	19.4
9506	4	9.66893	1455	150.5	154	10.6	15.9	316	21.7	32.7	556	39	7.0	4.0	195	13.4	20.2
9506	5	2.96642	1081	364.4	164	15.2	55.3	168	15.5	56.6	410	18	4.4	6.1	121	11.2	40.8
9506	6	14.28704	1718	120.2	300	17.5	21.0	348	20.3	24.4	646	16	2.5	1.1	77	4.5	5.4
9507	1	3.86637	1355	367.6	383	28.3	103.9	345	25.5	93.6	537	40	7.4	10.9	75	5.5	20.3
9507	2	1.44086	1102	764.8	419	38.0	290.8	239	21.7	165.9	442	17	3.8	5.8	58	5.3	40.3
9507	3	3.16037	989	312.9	126	12.7	39.9	107	10.8	33.9	326	32	9.8	10.1	116	11.7	36.7
9507	4	2.04422	1591	778.3	301	18.9	147.2	214	13.5	104.7	603	10	1.7	4.9	70	4.4	34.2
9507	5	3.37523	1996	591.4	263	13.2	77.9	340	17.0	100.7	832	138	16.6	40.9	607	30.4	179.8
9508	1	6.01887	1213	201.5	156	12.9	19.1	191	15.7	31.7	455	27	5.9	4.5	139	11.5	23.1
9508	2	9.02084	1610	178.5	336	20.9	37.2	214	13.3	23.7	583	39	6.7	4.3	66	4.1	7.3
9508	3	2.19754	1393	633.9	361	25.9	164.3	182	13.1	82.8	580	13	2.2	5.9	152	10.9	69.2
9509	1	0.86948	1168	1,343.3	320	27.4	368.0	378	32.4	434.7	477	175	36.7	201.3	327	28.0	376.1
9509	2	0.67945	1422	2,092.9	231	16.2	340.0	389	27.4	572.5	550	182	33.1	267.9	484	34.0	712.3
9509	3	1.66394	815	489.8	230	28.2	138.2	137	16.8	82.3	337	31	9.2	18.6	123	15.1	73.9
9510	1	0.62232	802	1,288.7	266	33.2	427.4	117	14.6	188.0	308	19	6.2	30.5	28	3.5	45.0
9510	2	0.72597	1495	2,059.3	284	19.0	391.2	272	18.2	374.7	598	82	13.7	113.0	279	18.7	384.3
9510	3	0.26867	806	3,000.0	139	17.2	517.4	184	22.8	684.9	324	135	41.7	502.5	284	35.2	1,057.1
9510	4	0.56137	1065	1,897.1	301	28.3	536.2	362	34.0	644.9	460	102	22.2	181.7	178	16.7	317.1
9511	1	0.98532	909	922.5	349	38.4	354.2	220	24.2	223.3	380	59	15.5	59.9	32	3.5	32.5
9511	2	0.33694	797	2,365.4	234	29.4	694.5	178	22.3	528.3	382	74	19.4	219.6	144	18.1	427.4
9511	3	0.30631	749	2,445.2	81	10.8	264.4	189	25.2	617.0	296	44	14.9	143.6	235	31.4	767.2
9511	4	0.27515	634	2,304.2	136	21.5	494.3	252	39.7	915.9	250	67	26.8	243.5	190	30.0	690.5
9512	1	1.18711	920	775.0	311	33.8	252.0	152	16.5	128.0	406	15	3.7	12.6	48	5.2	40.4
9512	2	0.4284	759	1,771.7	183	24.1	427.2	78	10.3	182.1	348	13	3.7	30.3	36	4.7	84.0
9512	3	0.91166	1157	1,269.1	236	20.4	258.9	201	17.4	220.5	460	111	24.1	121.8	214	18.5	234.7
9512	4	1.35546	617	455.2	112	18.2	82.6	89	14.4	65.7	247	28	11.3	20.7	118	19.1	87.1
9512	5	0.47565	730	1,534.7	267	36.6	561.3	99	13.6	208.1	318	39	12.3	82.0	40	5.5	84.1
9512	6	1.38535	980	707.4	154	15.7	111.2	156	15.9	112.6	402	20	5.0	14.4	80	8.2	57.7
9513	1	12.7464	1167	91.6	176	15.1	13.8	138	11.8	10.8	451	6	1.3	0.5	115	9.9	9.0
9513	2	8.56771	1261	147.2	275	21.8	32.1	248	19.7	28.9	528	24	4.5	2.8	120	9.5	14.0
9514	1	10.1514	1575	155.2	245	15.6	24.1	336	21.3	33.1	549	40	7.3	3.9	177	11.2	17.4
9514	2	10.65677	930	87.3	169	18.2	15.9	161	17.3	15.1	376	15	4.0	1.4	73	7.8	6.9
9514	3	8.07372	1255	155.4	208	16.6	25.8	255	20.3	31.6	449	37	8.2	4.6	209	16.7	25.9
9514	4	5.9796	1270	212.4	139	10.9	23.2	178	14.0	29.8	516	30	5.8	5.0	155	12.2	25.9
9514	5	8.94303	1015	113.5	182	17.9	20.4	289	28.5	32.3	394	39	9.9	4.4	166	16.4	18.6
9515	1	16.12945	2311	143.3	355	15.4	22.0	277	12.0	17.2	875	38	4.3	2.4	137	5.9	8.5
9515	2	3.38884	2742	809.1	208	7.6	61.4	263	9.6	77.6	695	22	3.2	6.5	96	3.5	28.3
9515	3	7.44503	1377	185.0	213	15.5	28.6	227	16.5	30.5	530	26	4.9	3.5	80	5.8	10.7
9515	4	12.20281	1097	89.9	235	21.4	19.3	193	17.6	15.8	452	7	1.5	0.6	57	5.2	4.7
9515	5	17.62632	1041	59.1	229	22.0	13.0	191	18.3	10.8	391	17	4.3	1.0	112	10.8	6.4
9516	1	3.56329	938	263.2	163	17.4	45.7	132	14.1	37.0	378	16	4.2	4.5	151	16.1	42.4
9516	2	6.74609	1740	257.9	147	8.4	21.8	273	15.7	40.5	639	14	2.2	2.1	220	12.6	32.6
9516	3	2.23591	1098	491.1	237	21.6	106.0	267	24.3	119.4	479	47	9.8	21.0	220	20.0	98.4
9516	4	6.30422	1793	284.4	195	10.9	30.9	286	16.0	45.4	693	30	4.3	4.8	122	6.8	19.4
9516	5	11.68054	2048	175.3	243	11.9	20.8	408	19.9	34.9	732	11	1.5	0.9	377	18.4	32.3
9516	6	7.61163	1360	178.7	190	14.0	25.0	310	22.8	40.7	520	21	4.0	2.8	177	13.0	23.0
		468.60	96,287	20													

Tract	BG	Area	2000 Pop	2000 Pop Den	Senior Pop (60+)	Sen (60+) Pop Pct	Sen (60+) Density	Disabled Pop	Disabled Pop Pct	Disabled Density	Total HH/LDS	Zero Car Hlds	Zero Car Pct	Zero Car Density	Low Income Pop	Low Income Pct	Low Income Density	Sum of Scores	Rank of Scores
9501	1				63.4	32.6	0.9	67.5	32.1	1.2		18.7	12.5	0.4	22.1	14.6	0.4	266.4	30
9501	2				19.4	39.4	1.2	27.0	46.7	1.7		8.8	13.2	0.4	19.7	41.6	1.3	220.2	45
9501	3				32.6	31.2	0.0	12.4	7.0	0.0		8.8	9.2	0.1	15.4	18.4	0.0	135.1	71
9501	4				61.1	40.7	0.4	38.2	19.3	0.4		15.4	12.0	0.2	13.1	9.7	0.0	210.7	51
9501	5				64.0	33.5	0.8	56.6	25.3	0.9		14.8	10.0	0.3	30.6	22.2	0.5	259.4	31
9501	6				53.4	33.9	0.7	33.9	15.6	0.6		11.0	8.7	0.2	24.2	20.5	0.4	203.2	53
9502	1				48.9	48.2	1.8	57.3	52.6	2.2		19.2	20.8	0.7	17.8	21.5	0.8	291.8	26
9502	2				54.0	33.6	2.4	74.5	45.7	3.3		20.3	18.2	0.9	26.3	22.2	1.5	302.8	24
9502	3				57.7	41.7	2.7	57.5	37.8	2.8		17.6	16.2	0.8	45.3	45.1	2.8	327.9	20
9502	4				61.4	40.9	2.5	42.5	22.6	1.9		20.3	16.0	0.8	31.4	28.1	1.7	270.3	28
9503	1				71.1	29.6	1.5	74.7	28.6	1.8		24.2	14.8	0.6	45.1	28.6	1.4	321.9	21
9503	2				40.6	17.0	2.4	42.5	15.6	2.6		41.8	27.6	2.2	15.7	9.2	1.2	218.3	49
9503	3				40.9	5.5	1.5	65.6	15.2	2.6		12.6	7.2	0.5	30.1	13.0	1.5	196.1	55
9503	4				43.4	24.1	2.5	34.8	14.8	2.2		28.0	22.8	1.4	35.8	30.5	2.6	243.0	38
9503	5				32.3	16.6	3.5	44.6	23.2	4.5		12.1	9.5	1.0	11.4	7.5	1.5	167.8	61
9503	6				20.6	11.4	2.6	11.5	1.0	2.0		0.0	0.0	0.0	5.5	3.1	0.9	58.5	75
9504	1				33.1	26.1	10.5	83.5	69.0	20.3		25.8	25.6	5.5	50.6	57.7	16.5	424.3	12
9504	2				42.9	100.0	100.0	46.5	100.0	100.0		36.8	54.3	59.5	38.7	100.0	100.0	878.7	1
9504	3				97.1	73.3	26.5	32.2	16.2	10.9		21.4	20.0	5.0	7.4	4.4	3.7	318.3	23
9504	4				0.0	5.2	21.6	22.0	33.7	43.6		11.0	15.2	12.5	6.9	13.5	18.7	203.9	52
9504	5				30.0	37.7	28.9	27.9	31.2	26.1		6.0	7.9	3.6	7.9	11.5	10.5	229.3	42
9504	6				38.0	41.3	14.0	20.3	17.9	9.1		10.4	13.7	2.7	10.5	13.4	5.3	196.7	54
9504	7				28.3	24.4	12.9	55.1	47.3	19.6		11.5	12.4	3.3	29.9	35.7	13.7	294.0	25
9505	1				39.7	36.7	26.1	44.2	37.3	26.7		18.7	17.8	8.5	36.3	44.4	26.2	362.5	16
9505	2				96.6	69.1	45.7	66.8	41.5	32.3		73.1	54.1	29.3	37.7	34.4	23.9	604.4	6
9505	3				69.4	42.2	7.0	100.0	60.5	9.5		44.5	31.7	3.9	73.1	64.3	9.3	515.4	8
9506	1				29.1	22.3	2.2	64.7	51.8	4.4		10.4	9.8	0.6	12.4	12.2	1.1	221.1	44
9506	2				58.9	18.9	3.0	74.7	24.7	3.8		4.4	2.6	0.2	30.9	16.2	2.0	240.3	39
9506	3				54.0	16.9	2.9	76.1	26.3	4.0		13.7	8.7	0.7	20.4	9.2	1.4	234.2	40
9506	4				24.3	9.6	1.0	56.8	31.2	2.3		21.4	16.8	0.8	28.8	24.0	1.4	218.5	47
9506	5				27.1	24.2	5.0	21.5	15.3	4.3		9.9	10.5	1.2	16.1	18.7	3.3	157.1	67
9506	6				66.0	31.5	1.5	64.4	27.4	1.6		8.8	5.9	0.2	8.5	2.4	0.1	218.4	48
9507	1				89.7	66.0	10.0	63.7	40.8	7.3		22.0	17.9	2.2	8.1	5.0	1.5	334.2	18
9507	2				100.0	97.2	29.3	38.4	31.1	13.3		9.3	9.2	2.3	5.2	4.3	3.2	342.9	17
9507	3				16.3	16.5	3.4	6.9	3.2	2.4		17.6	23.6	2.0	15.2	20.0	2.9	129.9	73
9507	4				66.3	36.2	14.5	32.5	9.9	8.2		5.5	4.0	1.0	7.3	2.2	2.7	190.2	57
9507	5				55.4	17.9	7.3	62.5	19.1	7.9		75.8	39.8	8.1	100.0	65.2	15.7	474.9	10
9508	1				24.9	16.8	2.0	27.0	15.8	2.2		14.8	14.2	0.9	19.2	19.3	1.7	158.9	65
9508	2				76.3	42.4	3.2	32.5	9.5	1.6		21.4	16.1	0.9	6.6	1.5	0.3	212.1	50
9508	3				83.4	58.5	16.2	24.8	8.9	6.4		7.1	5.4	1.2	21.4	18.0	5.8	257.3	34
9509	1				71.7	63.3	37.2	71.6	58.5	35.4		96.2	88.1	40.1	51.6	59.4	33.2	706.3	4
9509	2				46.3	27.7	34.3	74.2	45.7	46.8		100.0	79.4	53.3	78.8	74.0	63.2	723.7	2
9509	3				46.0	65.9	13.6	14.1	18.6	6.4		17.0	22.1	3.7	16.4	28.1	6.2	258.1	32
9510	1				56.3	81.7	43.4	9.3	12.8	15.1		10.4	14.8	6.1	0.0	0.0	3.7	253.6	36
9510	2				61.4	36.4	39.6	46.3	22.1	30.5		45.1	32.9	22.5	43.4	36.8	33.9	450.9	11
9510	3				20.0	30.8	52.6	25.3	34.0	56.1		74.2	100.0	100.0	44.2	76.9	94.0	708.2	3
9510	4				66.3	66.0	54.6	67.8	62.7	52.8		56.0	53.2	36.2	25.9	32.0	27.9	601.5	7
9511	1				80.0	98.4	35.8	33.9	37.6	18.0		32.4	37.3	11.9	0.7	0.1	2.5	388.6	15
9511	2				47.1	69.5	70.9	23.9	32.8	43.2		40.7	46.5	43.7	20.0	35.3	37.8	511.3	9
9511	3				3.4	10.3	26.6	26.5	40.2	50.5		24.2	35.7	28.6	35.8	67.6	68.1	417.3	13
9511	4				19.1	44.3	50.2	41.5	77.5	75.1		36.8	64.3	48.5	28.0	64.2	61.3	610.8	5
9512	1				69.1	83.7	26.3	17.7	17.8	10.2		8.2	8.9	2.5	3.5	4.2	3.2	255.3	35
9512	2				32.6	52.8	43.3	0.0	1.8	14.6		7.1	9.0	6.0	1.4	3.0	7.1	178.8	59
9512	3				47.7	40.9	26.0	29.4	20.0	17.8		61.0	57.9	24.2	32.1	36.4	20.6	414.0	14
9512	4				12.3	33.7	7.8	2.6	12.4	5.0		15.4	27.2	4.1	15.5	37.9	7.4	181.5	58
9512	5				56.6	92.6	57.2	5.0	10.2	16.8		21.4	29.4	16.3	2.1	4.8	7.1	319.5	22
9512	6				24.3	26.0	10.8	18.6	16.3	8.9		11.0	11.9	2.9	9.0	11.3	4.8	155.7	68
9513	1				30.6	23.9	0.7	14.3	5.7	0.5		3.3	3.2	0.1	15.0	15.4	0.4	113.3	74
9513	2				58.9	45.4	2.6	40.6	25.9	2.0		13.2	10.9	0.6	15.9	14.6	0.9	231.4	41
9514	1				50.3	25.5	1.8	61.6	30.2	2.3		22.0	17.5	0.8	25.7	18.8	1.2	257.6	33
9514	2				28.6	33.8	1.0	19.8	19.8	0.9		8.2	9.6	0.3	7.8	10.6	0.3	140.5	70
9514	3				39.7	28.7	2.0	42.2	27.6	2.2		20.3	19.8	0.9	31.3	31.9	2.0	248.6	37
9514	4				20.0	10.7	1.7	23.9	11.4	2.1		16.5	14.0	1.0	21.9	21.1	2.0	146.2	69
9514	5				32.3	33.0	1.4	50.4	48.5	2.3		21.4	23.8	0.9	23.8	31.2	1.3	270.3	29
9515	1				81.7	24.8	1.6	47.5	6.2	1.0		20.9	10.4	0.5	18.8	5.9	0.4	219.7	46
9515	2				39.7	0.0	5.6	44.2	0.0	6.0		12.1	7.6	1.3	11.7	0.0	2.2	130.4	72
9515	3				41.1	25.2	2.3	35.6	17.7	2.1		14.3	11.8	0.7	9.0	5.6	0.6	165.9	62
9515	4				47.4	44.2	1.3	27.4	20.6	0.9		3.8	3.7	0.1	5.0	4.1	0.1	158.7	66
9515	5				45.7	46.0	0.7	27.0	22.5	0.5		9.3	10.4	0.2	14.5	17.6	0.2	194.7	56
9516	1				26.9	31.3	4.0	12.9	11.5	2.7		8.8	10.2	0.9	21.2	30.5	3.4	164.3	63
9516	2				22.3	2.8	1.6	46.5	15.7	2.9		7.7	5.3	0.4	33.2	22.2	2.6	163.0	64
9516	3				48.0	44.7	10.2	45.1	37.9	9.5		25.8	23.5	4.2	33.2	40.1	8.4	330.6	19
9516	4				36.0	10.5	2.5	49.6	16.3	3.4		16.5	10.4	0.9	16.2	8.0	1.4	171.8	60
9516	5				49.7	13.7	1.5	78.8	26.6	2.5		6.0	3.6	0.2	60.3	36.1	2.5	281.4	27
9516	6				34.6	20.4	1.9	55.4	33.9	3.0		11.5	9.7	0.5	25.7	23.1	1.7	221.4	43

APPENDIX D

Public Hearing Notice

This is to inform the public of the opportunity to attend a public hearing and adoption on the proposed Community Transportation Service Plan (CTSP) to be submitted to the North Carolina Department of Transportation by the county of **Cleveland**. The public hearing will be held on **April 19, 2011** at **6:00 pm** at the **Cleveland County** Commissioners meeting in the **County Commission Chambers** located at **311 East Marion Street, Shelby, NC 28150**. **Cleveland County** will provide auxiliary aids and services under the ADA for disabled persons who wish to participate in the hearing. Anyone requiring special services should contact **Bob Davis** as soon as possible so that arrangements can be made.

The programs included in the CTSP are:

1. Promotion of transit options and connectivity for the public.
2. Integration and coordination of transportation programs.
3. Improve efficiency and effectiveness of transportation services.
4. Promote dependability of services to the public.

The required elements of the CTSP are:

1. Assessment and guidance for future resources.
2. Assessment and guidance for expanding public transportation services and mobility options.
3. Public involvement in the planning process.
4. Determine service priorities.

Geographical service area will be the same as currently utilized by Transportation Administration of Cleveland County, Inc.

This plan may be inspected at the **Office of Cleveland County Clerk, 311 East Marion Street, Shelby, NC, from 8:00 am to 5:00 pm, Monday through Friday**. Written comments should be directed to **Transportation Administration of Cleveland County, Inc., Attn: Bob Davis, PO BOX 3210, Shelby, NC 28151**, before **April 15, 2011**.

AFFIDAVIT OF INSERTION OF ADVERTISEMENT
The Star

PUBLIC HEARING NOTICE

This is to inform the public of the opportunity to attend a public hearing and adoption on the proposed Community Transportation Service Plan (CTSP) to be submitted to the North Carolina Department of Transportation by the county of Cleveland. The public hearing will be held on April 9, 2011 at 8:00 pm at the Cleveland County Commissioners meeting in the County Commission Chambers located at 311 East Marion Street, Shelby, NC 28150. Cleveland County will provide auxiliary aids and services under the ADA for disabled persons who wish to participate in the hearing. Anyone requiring special services should contact Bob Davis as soon as possible so that arrangements can be made.

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April 9, 2011, 11c

Shelby, N.C.
Cleveland County

The Star does certify that the advertisement for:

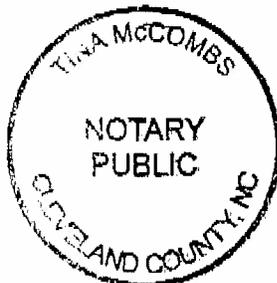
PUBLIC HEARING NOTICE This is to inform the public of the opportunity to attend a public hearing

Measuring 9.07 inches appeared in The Star, a newspaper published in Cleveland County, Shelby, N.C., in Issue(s):

04/09/2011.

Name of Account: Transportation Administration
Order Number: 54486826
Ad Number: 54542386

Sworn to, and subscribed before me this 11 th day of April, 2011.



Tina McCombs

Tina McCombs, Notary Public

My Commission Expires July 4, 2012



Resolution

COMMUNITY TRANSPORTATION SERVICE PLAN FOR CLEVELAND COUNTY

WHEREAS, the Federal Transit Administration (FTA), on the behalf of the Secretary of Transportation, apportions appropriated Federal Section 5311 (Community Transportation Program) funds annually to the Governor of each state for public transportation projects in nonurbanized areas; and

WHEREAS, Article 2B of Chapter 136 of the North Carolina General Statutes and the Governor of North Carolina have designated the North Carolina Department of Transportation (NCDOT) as the agency responsible for administering Federal and State public transportation funds; and

WHEREAS, the NCDOT has adopted a coordinated approach to service delivery that allows only a single applicant (subrecipient) for Community Transportation Program funding within a county or group of counties as identified by an approved Community Transportation Service Plan; and

WHEREAS, every county in the State must have a NCDOT approved, Authority Board and/or Board of County Commissioners adopted and locally implemented five-year Community Transportation Service Plan to receive funding under the Community Transportation Program and all other public transportation funding programs administered by NCDOT; and

WHEREAS, **Cleveland County** has designated **Transportation Administration of Cleveland County, Inc.** (a nonprofit agency) as the lead transportation agency for the county, authorized to apply for and receive public transportation funding and provide public transportation services in the **County of Cleveland**; and

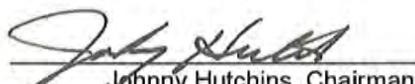
WHEREAS, **Transportation Administration of Cleveland County, Inc.**, in partnership with NCDOT, and public and private stakeholders, passengers, advocates, and members of the public, developed a Community Transportation Service Plan to:

- Promote the development and availability of transportation services throughout the State, in partnership with local officials, public and private nonprofit agencies, operators of transportation services, and members of the public;
- Improve the efficiency and effectiveness of Federal/State funded transportation programs;
- Support and promote the coordination of public transportation services across jurisdictions and program areas;
- Provide dependable transportation 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;
- Enhance the coordination of existing services for the development of a seamless transportation network;
- Build upon the coordination efforts that exist within North Carolina's public transportation system; and
- Serve as a basis for funding requests.

NOW, THEREFORE, be it resolved that the **Cleveland County Board of Commissioners** formally adopts the **Community Transportation Service Plan for Cleveland County** and agrees to work with **Transportation Administration of Cleveland County, Inc.** to implement the plan's recommendations in accordance with the implementation schedule and timelines delineated in the plan, provided funding is available at the Local, State and Federal levels.

Adopted this 19th day of April, 2011.


Kejri Melton, Clerk


Johnny Hutchins, Chairman

