



COUNTY OF LEE TRANSIT SYSTEM  
776-7201

LEE COUNTY  
Committed Today for a Better Tomorrow

**FINAL REPORT**



# Lee County

## *Community Transportation Service Plan*

**LEE COUNTY**  
NORTH CAROLINA

Committed Today for a Better Tomorrow



Kimley-Horn  
and Associates, Inc.

April 2011

# Acknowledgements & Table of Contents

## Acknowledgements

The *Lee County Community Transportation Service Plan* is a 5-year strategic plan to help system administrators and local decision-makers take a calculated approach to fulfilling the mobility needs of both targeted and general populations in the county. The end result is a product of the collaborative effort of local staff, the North Carolina Department of Transportation, the Steering Committee, and numerous stakeholders. Lee County residents also provided valuable feedback during the planning process. The efforts of everyone are greatly appreciated.



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# Chapter 1 – Introduction & Planning Process

## Introduction

To ensure community transportation systems in North Carolina make strategic responses to the future mobility needs of the general public and targeted populations in their service areas, the North Carolina Department of Transportation (NCDOT) is partnering with communities in the development of Community Transportation Service Plans (CTSPs). These plans review the current performance and organizational direction of the public transportation system and recommend alternative operational or managerial strategies that increase mobility options for passengers and improve the efficiency and effectiveness of the organization and transportation services. NCDOT has designed a planning process for CTSPs that provides consistency yet allows flexibility to assess unique systems across the state.



## Purpose of the Plan

The geography of Lee County, its changing demographics, the diversity of its economy, and its proximity to the Raleigh-Durham area provide both challenges and opportunities for creating a balanced and efficient community transportation system. The *Lee County CTSP* documents these challenges and opportunities before identifying, evaluating, and prioritizing a set of strategies to enhance the mobility of targeted populations and the general public. While the plan is for a 5-year timeframe, the long-term outcome should be a community transportation system that conveniently allows passengers to travel where and when they want and need to go.

Today, community transportation in Lee County largely is provided by the County of Lee Transit System (COLTS), a division of Lee County Senior Services. The system mainly serves a diverse set of clients, though the majority of trips are taken by the elderly, persons with disabilities, and clients of Lee County Department of Social Services. The CTSP evaluates the system’s current management and operations methodology, assesses its current direction, identifies strengths, and forwards realistic and implementable recommendations. The resulting plan will assist NCDOT’s Public Transportation Division in allocating resources to facilitate continuous improvement of the system over a 5-year planning horizon. The CTSP is intended to be a living document with a flexible framework that allows recommendations to be revisited if the community’s priorities or access to resources change.



## Community Transportation Program Overview

The purpose of NCDOT's Community Transportation Program (CTP) is "to enhance the provision of the rural human service and general public transportation in North Carolina." The CTP provides capital and administrative funds to eligible counties. Eligible counties must meet criteria in the following areas:

- Planning
- Involvement of specified community and agency stakeholders
- Appropriate service design
- Service alternatives for human service, employment, and general public transportation
- Training and conference participation for transportation coordinators
- Reporting of information and data
- Other requirements, including an approved and implemented drug and alcohol testing program, assurance of compliance with federal regulations, etc.

More details regarding these requirements can be found in the annual CTP application for funding.

## Public Involvement

The analysis and outcome of the *Lee County CTSP* is based upon a public involvement process that includes private and non-profit transportation providers, human service providers, local staff and officials, and the general public. The result of this planning effort should produce a plan with community support. Public involvement for the *Lee County CTSP* included the following elements.

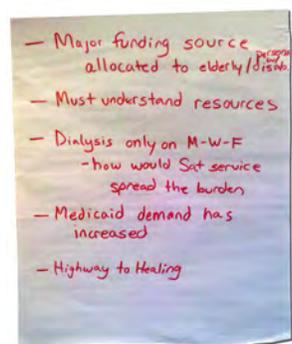
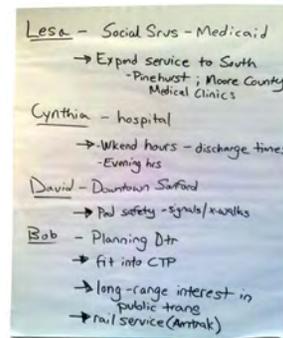
### Steering Committee

At a meeting with local staff and NCDOT prior to initiating the *Lee County CTSP*, a preliminary list of Steering Committee members was developed. From the start, it was acknowledged that the steering committee should represent the broad base of local interest, viewpoints, and concerns to develop the foundation for building consensus within the community. Members of the *Lee County CTSP* Steering Committee were selected in part based on their ability to recognize the challenges and opportunities of the county's geography, demographics, economy, and political climate. They also were selected based on their knowledge of previous planning efforts and existing services as well as their ability to identify potential obstacles to recommendations. Representation on the steering committee by the NCDOT Public Transportation Division provided a direct line of communication with the state agency directly responsible for public funding. At the conclusion of the planning process, members of the Steering Committee will have helped collect background information, identify key issues, and develop goals and objectives. The steering committee also will provide guidance during development of draft and final documents.



## Meeting #1 — Project Kick-Off Meeting

The first Steering Committee (SC) meeting served as a project kick-off meeting and occurred May 19, 2010 at the Enrichment Center in Sanford. The objective of this meeting was to (1) introduce the project team and committee members, (2) provide an overview of the planning process, roles, and responsibilities, (3) discuss the community transportation needs and desires of the county, and (4) to prepare for stakeholder interviews and Public Workshop Series One.



During introductions and the needs assessment exercise, members of the Steering Committee expressed their interests and reasons for participating in the CTSP process and outlined their expectations of the plan. The needs assessment exercise allowed the group to discuss general trends and specific concerns in a large group question-and-answer format. Identified issues and action items from this exercise included:

- Need service on Saturdays
- Need to expand hours to evening/weekends
- Perception of the system is as a service for older adults
- Need more options for employment transportation
- Geography of city/county offers an opportunity
- Need to reach out to Hispanic community
- Nursing homes rely on COLTS for transportation
- Need to provide options for college students
- Need funding participation by the City of Sanford

## Meeting #2 — Needs Assessment

The second scheduled meeting with the SC occurred July 22, 2010 at the Enrichment Center in Sanford. At this meeting, the SC discussed the outcome of the public workshops, stakeholder interviews, and questionnaires as described in *Technical Memorandum 1* (**Chapters 1 and 2** of this report). The focus of this meeting was to discuss in more detail the needs of the system during the 5-year planning horizon. The SC discussed a variety of needs within the categories of Administration and Operations. Many of these needs also were expressed through the public outreach events. The outcome of the second SC meeting informed the development of the options presented at SC Meeting #3.

## Meeting #3 — Issues and Options

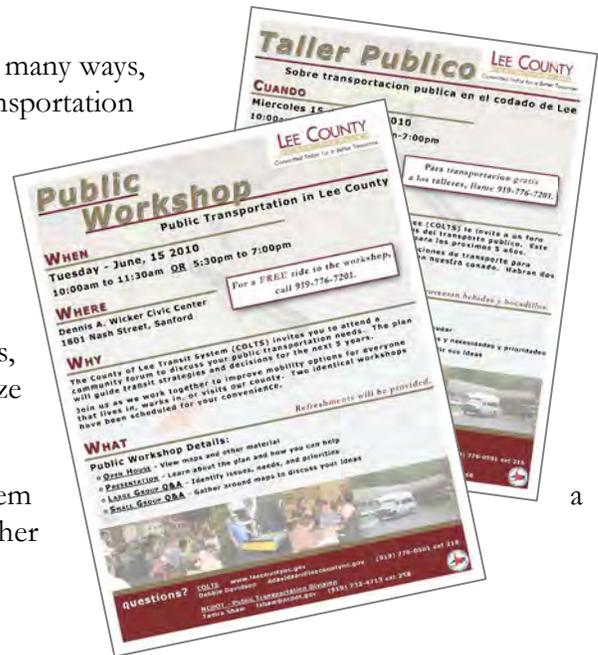
The third scheduled meeting with the SC occurred October 28, 2010 at the Enrichment Center in Sanford. At this meeting, the SC reviewed the Issues and Options Matrix (see **Chapter 4**) and discussed opportunities and obstacles associated with the larger, unsettled options. The focus of the meeting was to provide the project team with added direction prior to finalizing *Technical Memorandum 2* (**Chapters 3 and 4** of this report). The outcome helped determine the structure of the implementation plan, including prioritizing potential recommendations.

## Meeting #4 — Final Review

The fourth and final Steering Committee meeting occurred February 10, 2011 at the Enrichment Center in Sanford. At the meeting, the project team presented the Draft Plan with an emphasis on the phasing and financial elements. The Steering Committee reviewed the Financial Scenario Toolkit and over the week that followed provided final comments on the plan. Based on comments received at this meeting, a final draft of the report was developed for presentation to the Transportation Advisory Board on March 3, 2011.

## Public Outreach Events

The people of Lee County reach their daily destinations in many ways, though these trips largely can be categorized as private transportation (personal automobiles) and community transportation (COLTS, taxi service, agency-provided transportation). Residents who rely on community transportation interact with the system in various ways. Some regularly ride COLTS vans for medical trips, while others have friends or relatives that ride often. As evident in the comments from the public outreach effort, some residents, employees, and local staff do not currently use the system but recognize the benefit of providing mobility to those who need such services. Given these unique experiences and the public's understanding of the strengths and weaknesses of the system series of two public outreach events were scheduled to gather feedback during the inventory phase and examine recommendations during the feedback phase.



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## Visioning Workshops

Two workshops were conducted Tuesday June 15, 2010 at the Dennis A. Wicker Civic Center in Sanford. The workshops were scheduled in the late morning and early evening to maximize public involvement and encourage a diversity of viewpoints. To advertise the workshops, a flyer was posted in COLTS vehicles and distributed throughout the county. The meeting was advertised on three local radio stations, and the Sanford Herald listed the meetings in its Community Calendar and published an article on the day of the event. A Spanish-translated version of the flyer also was distributed. Both workshops were designed with identical formats to convey information and offer opportunities to receive feedback from participants, however the level of attendance at the workshop dictated how the meeting proceeded. Collectively, the interactive workshops helped develop project goals, identify issues and concerns within the service area, and generate preliminary ideas for potential solutions.

The public workshops provided a citizen-based needs assessment for community transportation in Lee County. The morning workshop began with an overview presentation during which the



project team outlined the planning process, introduced background information, and set the stage for the interactive sessions that formed the core of the workshop. Following the presentation, those in attendance expressed concerns and needs in a large group setting. Comments were written on large easel boards. Attendees then gathered in small groups around maps to answer three questions: (1) What are we doing well? (2) Where could we do better? (3) What are the highest priority needs for the current system? The evening session began with an open discussion of broad issues before those in attendance participated in the mapping exercise. Several overarching issues emerged from the public workshops:

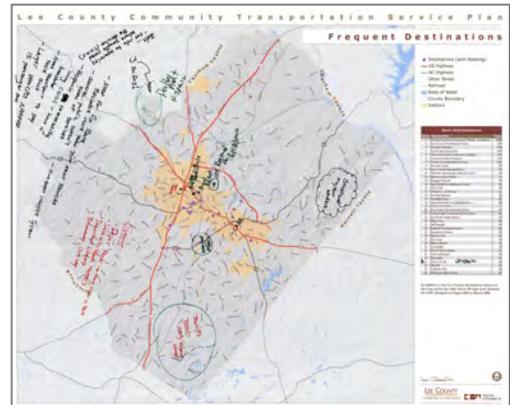
- COLTS provides a vital community service and performs well in the face of numerous administrative and fiscal constraints.
- Services could be more convenient if policies such as the 48-hour scheduling cutoff are revised.
- Additional service in the evening and on the weekend would fill a large gap in the community’s mobility needs.
- Enhanced marketing should be a priority.
- Trips for shopping, recreation, and leisure would be very helpful.
- The city and county should provide local funds to help improve service.

The purpose of the workshop series was to openly discuss strengths and opportunities for existing service and gather a preliminary list of broad recommendations for additional analysis.

The subsequent analysis and recommendations phase will be designed to compare and contrast these recommendations to develop a feasible list of proposed improvements. The outcome of the public workshops is reflected in the Guiding Principles presented later in **Chapter 1**.

### Stakeholder Symposium — Feedback

Once existing conditions were documented and the Issues and Options Matrix was drafted, the Project Team reconvened with stakeholders and invited members of the general public. The Stakeholder Symposium occurred at the Enrichment Center in Sanford following the third meeting of the Steering Committee on October 28, 2010. As at the SC Meeting, attendees reviewed the Issues and Options Matrix and participated in a large group question and answer session. This conversation honed in on opportunities and obstacles associated with the larger, unsettled options. The focus of the meeting was to provide the project team with added direction prior to finalizing *Technical Memorandum 2* (**Chapters 3 and 4** of this report). The outcome helped determine the structure of the implementation plan, including prioritizing potential recommendations.



## Stakeholder and Focus Group Interviews

The Steering Committee and general public can provide good insight into the county's community transportation issues, but for more specialized attention to specific matters affecting the development and implementation of the 5-year plan, key stakeholders had to be targeted. At the outset of the planning process, the project team in consultation with local staff and the Steering Committee identified individuals and small groups for stakeholder interviews and focus group discussions.

Stakeholders and focus groups included numerous members of the Transportation Advisory Board and the Steering Committee. The sessions provided an opportunity for a



focused conversation on the needs affecting specific agencies. The interviews included discussions with:

- COLTS staff
- Carolina Dialysis
- Center for Independent Living
- Central Carolina Hospital
- Central Carolina Community College
- Employment Security Commission
- Fleming Transportation
- Hispanic community representatives
- Lee County Department of Social Services
- Lee County Industries
- Lee County United Way
- Nursing homes
- Other community transportation providers in the region

The content of the discussions varied by stakeholder but a core objective for each interview was to determine the needs of the stakeholder or focus group in respect to community transportation services in Lee County and for trips originating in the county. Several of the interviews occurred the day of Public Workshop Series One, and other interviews occurred via telephone. The results of the interviews are reflected in the Guiding Principles presented later in **Chapter 1**.

## Transportation Advisory Board Session

COLTS has an active Transportation Advisory Board (TAB) that meets quarterly. Steering Committee Meeting #2 was scheduled to coincide with a regularly scheduled TAB meeting, during which the project team conducted a question and answer session to provide insight into the board’s composition and diversity, direction, guidance, and organization structure. Many members of the TAB also served on the Steering Committee, so the discussion from Steering Committee Meeting #1 largely reflects the needs and issues of individual TAB members. The final draft report was presented at the March 3, 2011 TAB meeting. Based on a few minor comments received at the meeting, the report was finalized. The TAB also approved the CTSP without objection at this meeting.

## Customer Survey and Public Questionnaire

In early 2010 and prior to the start of the Lee County CTSP, COLTS initiated a customer survey. In addition, a brief public questionnaire distributed to the public at Public Workshop Series One and in the weeks that followed provided valuable information to the project team. The results of the survey and questionnaire are summarized on the following pages.

The questionnaire is being distributed to you as part of the Lee County Community Transportation Service Plan. The project team will use the information collected to evaluate goals and provide additional information to you. Your input is appreciated.

1. How long have you lived in Lee County? (Select one)  
 Less than 1 year  
 1 to 5 years  
 6 to 10 years  
 11 to 15 years  
 16 to 20 years  
 21 to 25 years  
 26 to 30 years  
 31 to 35 years  
 36 to 40 years  
 41 to 45 years  
 46 to 50 years  
 51 to 55 years  
 56 to 60 years  
 61 to 65 years  
 66 to 70 years  
 71 to 75 years  
 76 to 80 years  
 81 to 85 years  
 86 to 90 years  
 91 to 95 years  
 96 to 100 years

2. How often do you ride with COLTS? (Select one)  
 Daily  
 2 to 3 times per week  
 1 to 2 times per week  
 Once per week  
 2 to 3 times per month  
 Once per month  
 Less than once per month

3. What is your age group? (Select one)  
 18 to 24 years  
 25 to 34 years  
 35 to 44 years  
 45 to 54 years  
 55 to 64 years  
 65 to 74 years  
 75 to 84 years  
 85 to 94 years  
 95 to 104 years

4. How often do you use a vehicle? (Select one)  
 Daily  
 2 to 3 times per week  
 1 to 2 times per week  
 Once per week  
 2 to 3 times per month  
 Once per month  
 Less than once per month

5. How often do you use a vehicle? (Select one)  
 Daily  
 2 to 3 times per week  
 1 to 2 times per week  
 Once per week  
 2 to 3 times per month  
 Once per month  
 Less than once per month

6. How often do you use a vehicle? (Select one)  
 Daily  
 2 to 3 times per week  
 1 to 2 times per week  
 Once per week  
 2 to 3 times per month  
 Once per month  
 Less than once per month

7. How often do you use a vehicle? (Select one)  
 Daily  
 2 to 3 times per week  
 1 to 2 times per week  
 Once per week  
 2 to 3 times per month  
 Once per month  
 Less than once per month

8. How often do you use a vehicle? (Select one)  
 Daily  
 2 to 3 times per week  
 1 to 2 times per week  
 Once per week  
 2 to 3 times per month  
 Once per month  
 Less than once per month

9. How often do you use a vehicle? (Select one)  
 Daily  
 2 to 3 times per week  
 1 to 2 times per week  
 Once per week  
 2 to 3 times per month  
 Once per month  
 Less than once per month

10. How often do you use a vehicle? (Select one)  
 Daily  
 2 to 3 times per week  
 1 to 2 times per week  
 Once per week  
 2 to 3 times per month  
 Once per month  
 Less than once per month

11. How often do you use a vehicle? (Select one)  
 Daily  
 2 to 3 times per week  
 1 to 2 times per week  
 Once per week  
 2 to 3 times per month  
 Once per month  
 Less than once per month

12. How often do you use a vehicle? (Select one)  
 Daily  
 2 to 3 times per week  
 1 to 2 times per week  
 Once per week  
 2 to 3 times per month  
 Once per month  
 Less than once per month

13. How often do you use a vehicle? (Select one)  
 Daily  
 2 to 3 times per week  
 1 to 2 times per week  
 Once per week  
 2 to 3 times per month  
 Once per month  
 Less than once per month

14. How often do you use a vehicle? (Select one)  
 Daily  
 2 to 3 times per week  
 1 to 2 times per week  
 Once per week  
 2 to 3 times per month  
 Once per month  
 Less than once per month

15. How often do you use a vehicle? (Select one)  
 Daily  
 2 to 3 times per week  
 1 to 2 times per week  
 Once per week  
 2 to 3 times per month  
 Once per month  
 Less than once per month

16. How often do you use a vehicle? (Select one)  
 Daily  
 2 to 3 times per week  
 1 to 2 times per week  
 Once per week  
 2 to 3 times per month  
 Once per month  
 Less than once per month

17. How often do you use a vehicle? (Select one)  
 Daily  
 2 to 3 times per week  
 1 to 2 times per week  
 Once per week  
 2 to 3 times per month  
 Once per month  
 Less than once per month

18. How often do you use a vehicle? (Select one)  
 Daily  
 2 to 3 times per week  
 1 to 2 times per week  
 Once per week  
 2 to 3 times per month  
 Once per month  
 Less than once per month

19. How often do you use a vehicle? (Select one)  
 Daily  
 2 to 3 times per week  
 1 to 2 times per week  
 Once per week  
 2 to 3 times per month  
 Once per month  
 Less than once per month

20. How often do you use a vehicle? (Select one)  
 Daily  
 2 to 3 times per week  
 1 to 2 times per week  
 Once per week  
 2 to 3 times per month  
 Once per month  
 Less than once per month

**COLTS Customer Survey**

Survey of Lee County Transit (COLTS) is conducting a survey of its customers to better understand how they use transit. Please help us improve our service by sharing how often you ride, how often you use transit, how often you use a vehicle, and how often you use a vehicle. Thank you for taking time to complete this survey.

**How often do you ride with COLTS?**

Daily  
 2 to 3 times per week  
 1 to 2 times per week  
 Once per week  
 2 to 3 times per month  
 Once per month  
 Less than once per month

**What is the purpose of your trip? (Please check all that apply.)**

Work  
 School  
 Shopping  
 Social/Recreational  
 Business  
 Other

**Please mark the following on a scale from 1 to 5, where one is the lowest score and five is the highest.**

How comfortable is your vehicle?	Rate	Average	FiveStar		
How safe do you feel on our vehicles?	1	2	3	4	5
How accessible are our vehicles to you?	1	2	3	4	5
How helpful and courteous are our drivers?	1	2	3	4	5
Do our drivers have good driving skills?	1	2	3	4	5
Overall, how would you rate our service?	1	2	3	4	5
How easy is the process of finding a route?	1	2	3	4	5
How helpful and courteous is our dispatcher?	1	2	3	4	5
How convenient is our customer service?	1	2	3	4	5
Does the staff seem knowledgeable about the city?	1	2	3	4	5
Are you satisfied with our staff when you call for information?	1	2	3	4	5
How well do the rules of the system meet your needs?	1	2	3	4	5

Overall how would you rate the system? 1 2 3 4 5

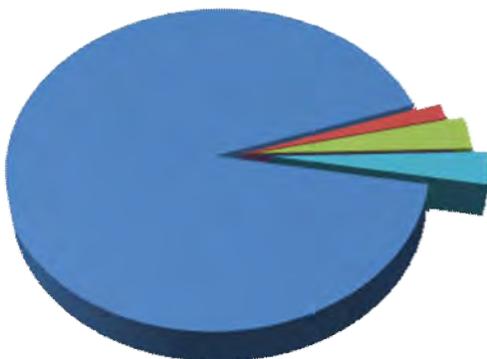
Other Comments:

Thank You! Please give this back to the driver when complete.

## COLTS Customer Survey

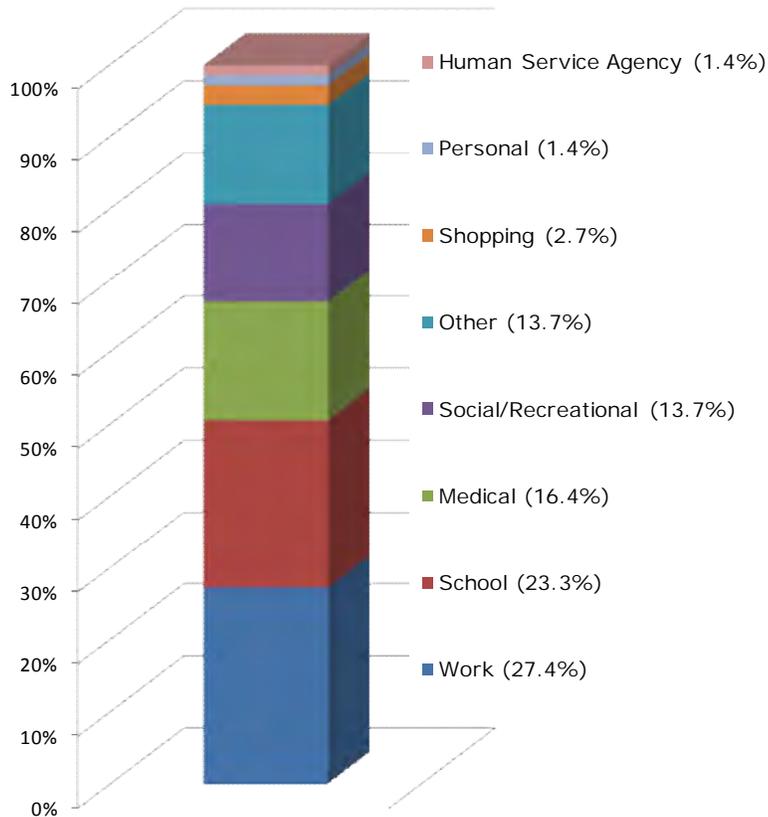
COLTS conducted its customer survey to better understand how to meet the needs of its current riders. The one-page survey included three questions and allowed participants to write additional comments.

### How often do you ride with COLTS?

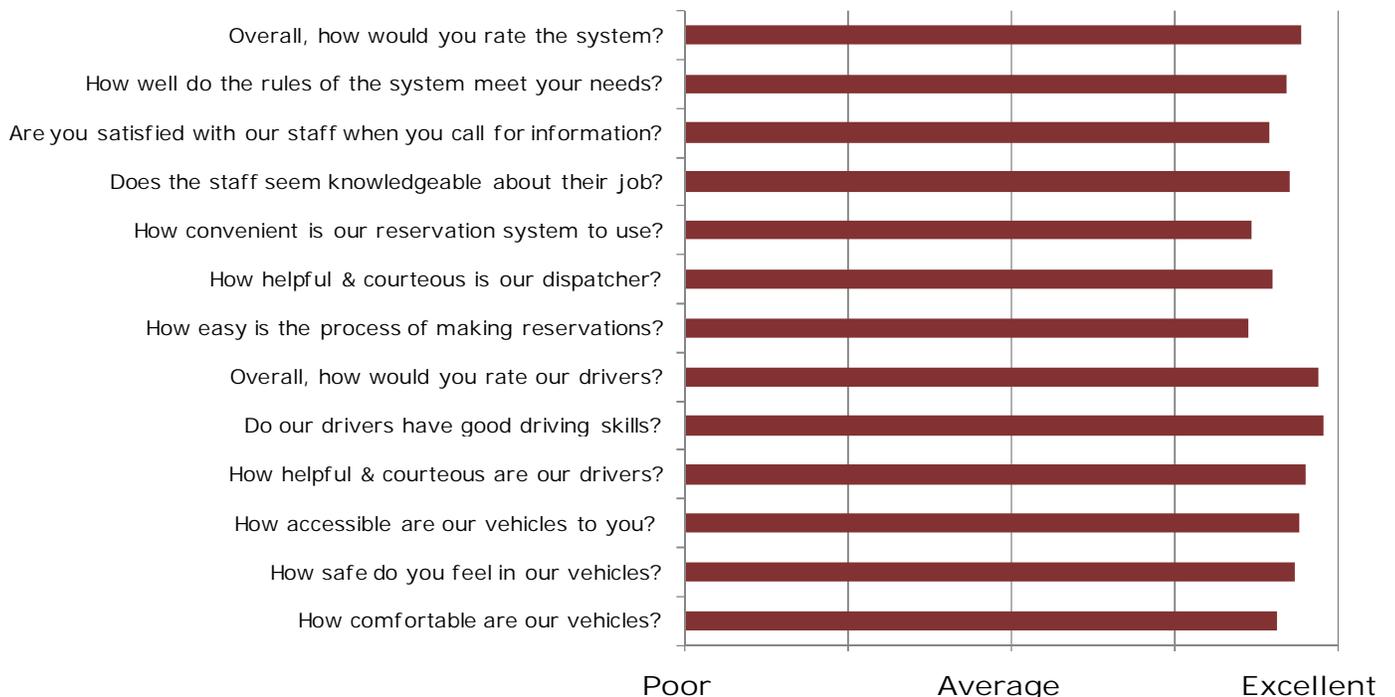


- Two to five times per week (91.9%)
- Once per week (1.6%)
- Two to five times per month (3.2%)
- Once per month (0.0%)
- Less than once per month (3.2%)

What is the purpose of your trips?



Rank the following on a scale of 1 to 5, where 1 is the lowest and 5 is the highest.



## Community Transportation Service Plan Public Questionnaire

The public questionnaire developed for the *Lee County CTSP* included a variety of questions designed to assess the needs of existing riders and explore potential enhancements to service throughout the county. The questionnaire also assessed the quality of service and reasons potential riders currently are not using the service. More than 100 questionnaires were completed.

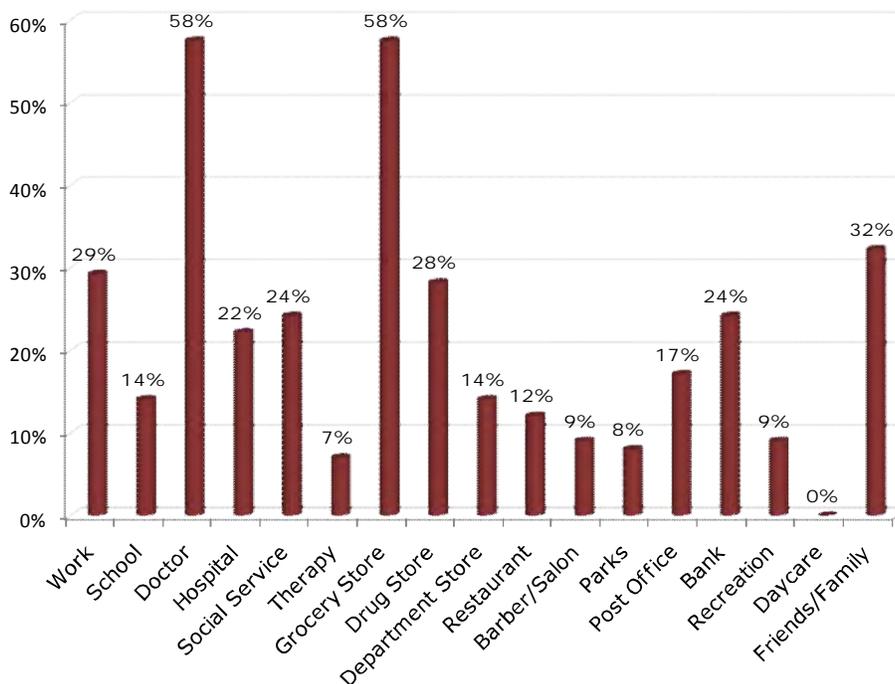
### Demographic Trends

Demographic questions not only helped to understand who is completing the questionnaires but also to understand who is participating in the overall planning process. These questions revealed the following:

- 66% have lived in Lee County for more than 10 years; Only 4% have lived in the county less than one year; No respondents lived outside the county
- 75% lived in Sanford
- 41% were 40 to 59 years old, 33% were 60 years or older
- 30% did not have access to a reliable car; 55% of those without access to a reliable car indicated they have never used COLTS
- 14% of riders completing the questionnaire cannot drive a car due to their age or disability; 43% of those that cannot drive a car due to their age or disability indicated they have never used COLTS

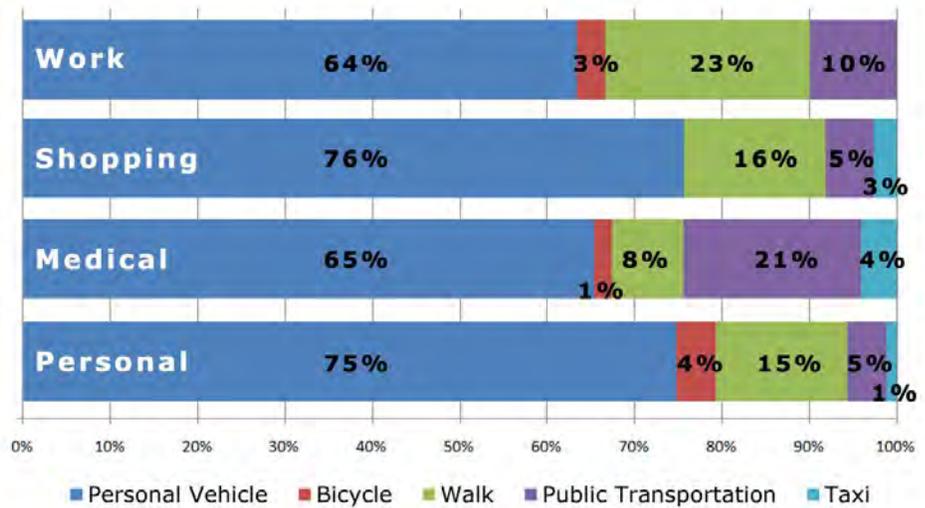
### What places do you regularly need to visit?

As shown in the graph below, when asked to identify the places they regularly need to visit, participants most frequently listed the doctor (58%), the grocery store (58%), and friends/family (32%). Other popular destinations include the work (29%), the drug store (28%), social service (24%), and the bank (24%).



What types of transportation do you use?

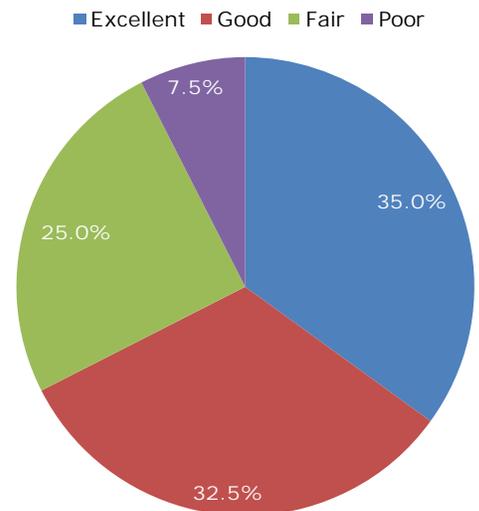
When asked what type of transportation they use for different trip types (i.e. work, shopping, medical, or personal), medical trips were listed most often for public transportation (21%). As can be expected, personal vehicles provided the highest percentage of trips for each destination. However, the high percentage of walking for work, shopping, and personal trips reveal a demand for service that COLTS may be able to meet.



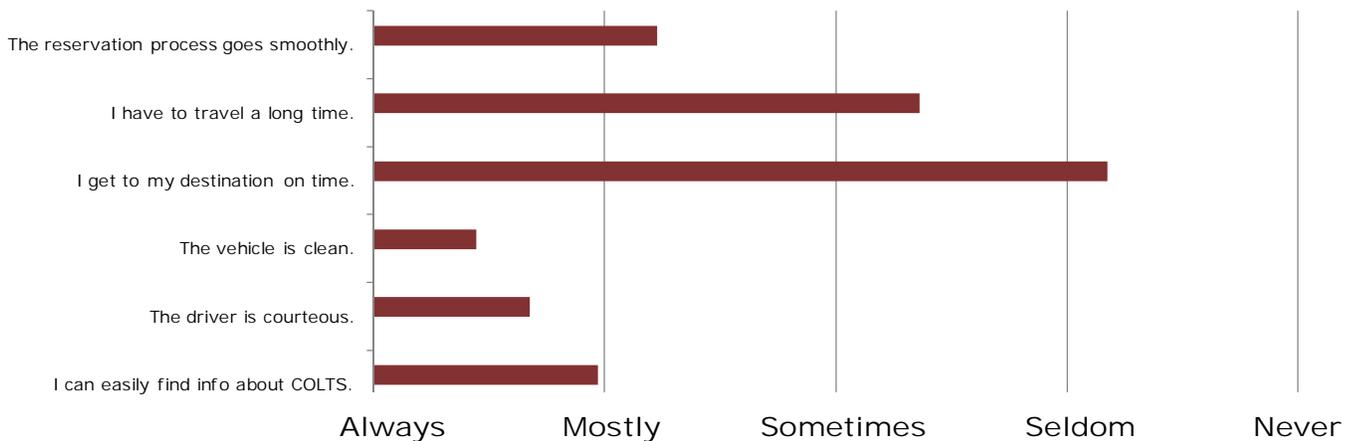
Current and Potential Riders

The questionnaire concluded with several questions to determine why the public is not using the service and how those who are using COLTS rate elements of the system. When asked if they were aware of the services offered by COLTS, one out of three respondents indicated they were not. Compared to the COLTS customer survey, the public questionnaire for the CTSP did not receive many responses from regular riders. Of the respondents who indicated they have used COLTS, more than 45% stated they rarely ride with COLTS while only slightly more than 15% rode once a week or more frequently. The final questions ask respondents to rate the overall service provided by COLTS (pie chart to the right) and to rate different elements of the system (bar chart below).

Please rate the overall service provided by COLTS.



Please indicate the following.



## Previous Planning Efforts

Several plans and programs have preceded the *Lee County CTSP*. To recognize a level of efficiency, the CTSP should be coordinated with other state, regional, county, and local plans and/or policies that impact community transportation in the county. In particular, the updated plan must recognize the analysis and recommendations of the Lee County Performance Plan and Analysis, making a special point to identify progress since this plan was created. This section summarizes a general review of plans and highlights issues, policies, and directives that may influence the recommendations and implementation of the *Lee County CTSP*.

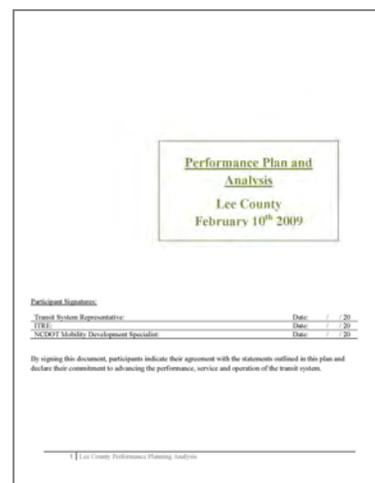
## Lee County Performance Plan and Analysis

The Institute for Transportation Research and Education (ITRE) prepared a February 10, 2009 report, “Performance Plan and Analysis - Lee County” at the request of COLTS and NCDOT. The purpose of this document is to provide the transit system with a guide to achieve higher performance measures and improve business practices.

This study used selected analytical filters to assess the current COLTS performance. Tools applied included the use of a Business Practices Questionnaire and Employee Information Worksheet as well as a site visit and meetings with the COLTS administrators to provide the necessary base information for the results and findings. Several observations relative to the current administrative, managerial, and structure were identified as well as recommended improvements. Major observations/recommendations included the following.

- Areas of Strength: wheelchair passengers carried
- COLTS needs to re-examine reservation taking policy to reduce passenger no-shows
- Poor/inconsistent Vehicle Utilization Data (VUD)
- Problems with TrIP\_Maker data entry and reporting practices
- Scheduling to drivers rather than routes
- Canceling routes in TrIP\_Maker rather than editing trips, which increases database size and reduces efficiency
- Part time drivers working near full time hours
- Not checking drivers manifests from completeness when tended
- Determine the true cost of service and a billing rate based on this true cost; Use this billing rate to draw down funds

The Performance Plan was agreed upon by COLTS and ITRE in February 2009. This mutual agreement stipulates their commitment to advancing the efficiency of service and operations and prepares the system for growth. Since February 2009, COLTS has implemented numerous recommendations from the plan. This progress will be noted as strategies for the CTSP are considered.



## Transportation Development Plan Update

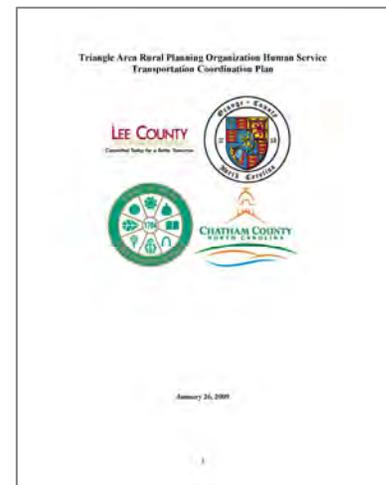
ITRE prepared and presented this document in June 1996. It is analogous to the current CTSP effort as it covers a five-year planning period, with fiscal years 1996-2000 covered by this effort.

At the time of this report, the COLTS system was relatively new although many/most of the user agencies and stakeholder organizations have remained the same. Based on the described level of services and recommended changes, the COLTS operation appears to have remained fairly static, while showing marginal growth in terms of expanded contractual services and additional medical trip destinations. However, funding constraints have clearly been a long-term obstacle to addressing many of the targeted service expansions and the desired improvement in service levels.

## Triangle Area RPO Human Service Transportation Coordination Plan

In a report titled “Rural Area Planning Organization Human Service Transportation Coordination Plan,” dated January 26, 2009, the Triangle Area Rural Planning Organization (TARPO) examined the Human Service Transportation needs for the four counties in its planning area: Moore, Orange, Chatham and Lee. This effort was consistent with the requirements of 2005 surface transportation bill, commonly referred to as SAFETEA-LU, and involved four primary steps:

1. Surveying Community Transportation Needs;
2. Inventorying existing transit services and assessing service-related attributes and metrics;
3. Developing strategies and actions to improve transit services, and
4. Preparing a short-term (three-year) regional plan document.



Twenty-nine surveys were mailed to Lee County local governmental staff, human services agency personnel and other public transportation stakeholder, with three completed surveys returned. This feedback was used to initiate transit workshop that was held January 13, 2009. Ten people attended from a pool of twenty invitees. Near the end of this meeting, a ranking exercise was held with five participants where each was asked to distribute an imaginary \$100 of funding across a shopping list of nineteen potential service enhancements/improvements. The results are shown to the right.

RANK	SHOPPING LIST	\$ TOTAL
1	Evenings service	85
2	Weekends service	80
3	Circulator	75
4	Peer Based - Increased visibility of existing program	60
5	Transit Pass program	35
6	Agency operates own vans	30
7	Vanpools program	30
8	Vouchers program	25
9	Park & Ride program - with safety features	15
10	Fixed Routes	10
11	Volunteer drivers program	10
12	Bigger or unique vehicles	10
13	Recreation/aftercare	10
14	Stops with transit amenities	10
15	Mobility Manager	10
16	Land use solution	5
17	Broker trips to others	0
18	Express Service	0
19	Door to Door	0
	5 participants =	\$500.00

As these findings indicate, expanded hours and days (evenings and weekends) were top priorities, with a circulator service close behind. Increased program visibility, ranked #4, was identified as a regional need with each transit system doing more to educate riders and the general public about service availability while improving inter-system coordination. As detailed in subsequent chapters, the validity of these 2009 findings and priorities generally have been supported by our current outreach efforts.

## Emergency Operations Plan

The Lee County Emergency Operations Plan (EOP) outlines the county’s policy of actions necessary before, during, or after a major incident that affects the county. These incidents may be natural or caused by human action and require a coordinated response to protect life and/or property. Emergency Support Function 1 of the EOP addresses transportation issues during the preparation, response, and recovery phases of a disaster. The plan identifies COLTS as the lead agency for transportation with support from the schools, the Lee County Office of Emergency Management, public safety agencies, public works departments, NCDOT, and the NC National Guard.

Responsibilities of COLTS include developing and maintaining an inventory of vehicles for emergency transportation and compiling and maintaining a fueling list and to ensure arrangements are in place to secure priority fueling of vehicles. Actions likely to be performed by COLTS during the preparation, response, and recovery phases of a disaster include:

- Ascertain the special transportation requirements for persons with special needs and coordinate the mobilization of necessary transportation resources.
- Coordinate transportation requirements for evacuation of at risk populations.
- Coordinate available manpower and equipment resources to insure continuous 24-hour operation of transportation vehicles when and if required. These resources include drivers and maintenance personnel. Additional drivers and maintenance personnel may be drawn from existing supervisory staff as required to supplement any staffing deficiencies that may arise.

## Guiding Principles and Assumptions

### Vision Statement

Within the context of the *Lee County CTSP*, COLTS, numerous stakeholders, the Steering Committee, and the general public have collaborated to establish a baseline of understanding upon which to assess needs and determine prioritized recommendations. It is here that the study vision statement for the *Lee County CTSP* was established:

#### Vision Statement

The *Lee County Community Transportation Service Plan* will identify system and organizational improvements and strategies that enhance access and mobility for all residents of Lee County, particularly those without the ability or means to use personal vehicles.

## Guiding Principles

Based on the project vision statement, several guiding principles have been developed to direct the analysis of existing conditions, the creation of recommendations, and the phasing of improvements. The principles have been developed based on NCDOT guidance and have been vetted through the public outreach process.

- **Mobility** – To maintain transportation options for the general public, low income individuals, elderly persons, and persons with disabilities to foster independence and enhance quality of life.
- **Integration** – To integrate the community transportation system with other federal, state, and local programs that support public and human service transportation.
- **Efficiency** – To enhance the efficiency and effectiveness of community transportation in Lee County.
- **Coordination** – To develop the seamless delivery of transportation services across geographies, jurisdictions, and program areas.
- **Measureable** – To create a phased implementation schedule that supports measureable results.
- **Resourcefulness** – To utilize and identify appropriate resources (personnel, funding, vehicles, and technology) to sustain a level of service that fulfills the transportation needs of individuals.

## Assumptions

The *Lee County CTSP* will include specific strategies to fulfill the project vision and adhere to the guiding principles. The planning process will proceed with an understanding of the following assumptions.

- The plan will be based on a holistic and transparent planning process that taps into the unique knowledge of COLTS management and staff, local agencies, stakeholders, and existing and potential riders.
- The plan will be a living document and will provide guidance beyond the 5-year planning horizon.
- Funding projections will be based on the realistic growth of existing funding sources but also will consider alternative funding mechanisms.
- The plan will be realistically implementable during the 5-year planning horizon.
- The public will be an active participant throughout the planning process and as strategies and recommendations are implemented.
- The plan will be presented to the Lee County Board of Commissioners, the Sanford City Council, and Broadway Town Commissioners for endorsement or adoption.
- The county and its incorporated areas will be partners that share the financial burden of providing mobility for their residents.
- Upon endorsement, NCDOT will work with COLTS to fulfill the project vision statement.

## Report Overview

The *Lee County CTSP* will consist of three parts:

- **Technical Memorandum #1:** Incorporates the introduction and inventory of existing conditions. (Chapters 1 and 2 of the Final Report)
- **Technical Memorandum #2:** Includes demographic trends as well as findings and assessment. (Chapters 3 and 4 of the Final Report)
- **Final CTSP Report:** Encompasses content of both technical memoranda as well as the financial and implementation plans. (Chapters 1 through 6)

The creation of a planning process with three interim deliverables allows a more efficient review of the final document. Likewise, the process allows a consistent planning process and understanding of the content within the final document. The findings, analysis, and recommendations for community transportation in Lee County have been created in tandem to produce a series of actions to improve mobility for residents of the county. The recommendations presented in this plan also represent the collective vision for a safe, efficient, and reliable transportation system. The final deliverable of the *Lee County CTSP* will be submitted to NCDOT and the Lee County Board of Commissioners for adoption. The *Lee County CTSP* will include the following chapters:

### Technical Memorandum 1

#### Chapter 1 – Introduction and Planning Process

Opens with a background on the CTSP process and describes the various public involvement events. Summarizes previous planning efforts and reveals the plan's guiding principles. Describes the interim deliverables and the chapters that will form the final CTSP.

#### Chapter 2 – Inventory of Existing Services

Provides a detailed look at COLTS, including its organizational structure, support systems, fleet, operating statistics, and financial management. Describes other transportation services available in Lee County such as taxi cabs, vanpools, and private transportation.

### Technical Memorandum 2

#### Chapter 3 – Demographic Trends and Analysis

Assesses the geographic distribution of transportation disadvantaged groups and identifies natural and man-made obstacles affecting transportation. Combines objective and subjective methods, resulting in a general description of the community transportation needs within the service area.

#### Chapter 4 – Findings and Assessment

Summarizes the organizational findings and assessment related to the recommended organizational structure of COLTS and the Transportation Advisory Board. Presents the service modifications and strategies to enhance marketing efforts based on the outcome of the Performance Plan as well as the public involvement and analysis conducted as part of the *Lee County CTSP*.

## Final CTSP Report

### Chapter 5 – Financial and Implementation Plan

Provides a phased implementation plan that includes immediate, short-term, and mid-term action items tied directly to the 5-year recommendations.

### Chapter 6 – Financial Plan

Highlights the financial plan, including budgetary considerations for administrative, operating, and capital expenses and revenues.

## Chapter 2 — Inventory of Existing Services

### Introduction

The inventory of existing services of the community transportation system in Lee County blends the results of the public outreach initiatives and the review of previous planning efforts (described in **Chapter 1**) with the collection of additional information related to the administration, service, capital, and funding of the county's community transportation system. This inventory provides a comprehensive understanding of existing services prior to determining improvements to achieve a more efficient and balanced system. As the primary provider of transportation services in the county, the focus of this chapter is the County of Lee Transit System. However, services offered by other transportation providers also are summarized.

### County of Lee Transit System (COLTS)

#### Mission Statement, Goals, Objectives

The County of Lee Transit System (COLTS) is the primary provider of transportation services in Lee County. The Vision Statement for the CTSP (see **Chapter 1**) echoes COLTS' mission statement:

**The mission of the County of Lee Transit System is to provide a timely, safe, efficient means of mobility to the citizens of Lee County.**

#### Organizational Structure

COLTS operates under Lee County Senior Services, which falls under the purview of the Senior Services Director. Funding for COLTS comes from federal and state grants as well as county funds and support contracts. As the lead agency for transportation services in the county, COLTS is responsible for the application for federal and state grants as well as submitting annual budget requests to the county.

#### Staffing

All full and part-time staff within COLTS are county employees. The department is led by the **Transportation Coordinator**, a position that reports to the Director of Senior Services. The Director of Senior Services reports to the County Manager. The Transportation Coordinator supervises system operations, including writing grants, creating reports, developing budgets, maintaining TAB contact, preparing client billing, and administering policies and procedures. Typical management tasks such as hiring and training also fall under the purview of the Coordinator. Because COLTS is a small department, the Coordinator also shares work responsibility and duties with other staff as required.

Two other full time county employees support the Transportation Coordinator. All full-time employees work 40 hours per week.

- **Lead Driver** — The Lead Driver assigns service requests to routes, creates driver manifests, enters post-route Vehicle Utilization Data in the TrIP\_Maker database, and manages vehicle maintenance.
- **Administrative Support Assistant 1 (Dispatcher)** — The Administrative Support Assistant handles service request calls, assigns drivers to routes, and handles pick-up and delivery problems on a real-time basis. The dispatch communicates with drivers through a combination of radio and cell phone technology.

COLTS management and administrative employees are housed in a very small area of the Enrichment Center of Lee County. For security purposes, COLTS vehicles are parked remotely from the COLTS office at the Sheriff's office, which is located approximately ¼- to ½-mile away. Drivers use a time clock located in the Sheriff's office to record work start and ending times. Because route manifests are kept at the COLTS office, drivers must pick these up separately, typically the afternoon/evening prior to their scheduled day of work. A part-time driver pool of 22 employees operates 18 vehicles (9 lift equipped and 9 regular). Each driver works less than 37 hours per week and total hours worked can be obtained using the KRONOS payroll system on an annual basis if needed. All drivers participate in safety training according to the COLTS System Safety and Security Plan, and all drivers are drug and alcohol tested according to FTA Drug and Alcohol Testing Policy. Lee County Human Resources administers and manages this testing. COLTS drivers are paid per hour, with the hourly wage set by the Lee County Board of Commissioners.

### Transportation Advisory Board (TAB)

The NCDOT Community Transportation Program requires COLTS to have a Transportation Advisory Board (TAB) appointed by the Lee County Board of Commissioners. The TAB oversees the policy direction of COLTS. The TAB is expected to ensure the system maintains a minimum level of coordinated transportation service and maintains ongoing communications as a means of seeking public involvement and ongoing administrative oversight. The board operates in a true advisory role and does not have decision making power. The TAB Bylaws, last updated in September 1992, outlines the TAB's responsibilities, composition, and meeting parameters.

#### Responsibilities

According to the Bylaws, the powers and responsibilities of the TAB include:

- Serving as a liaison between the residents of Lee County and the County Government concerning transportation issues.
- Serving as the advisory body to Lee County Senior Services as lead agency in the operation of the County of Lee Transit System.
- Recommending policy and making recommendations to COLTS and the Lee County Board of Commissioners on the transportation needs of Lee County Citizens, particularly with respect to a coordinated and cost effective approach to the delivery of transportation services to area human services agencies and the general public.
- Working to stimulate and promote needed transportation services and programs for Lee County residents.
- Assisting public, private non-profit, private and voluntary agencies in providing transportation services to their clients.
- Assisting in the development and update of the Lee County Transportation Development Plan.
- Performing other functions and responsibilities as may be requested or prescribed by the Lee County Board of Commissioners.

Composition

The TAB Bylaws specifies the following composition for the TAB:

- One representative from each COLTS contractor purchasing a minimum of \$5,000 in transportation services annually
- One member of the Lee County Board of Commissioners
- Two at-large members appointed by the Lee County Board of Commissioners
- Representation from Department of Social Services, Aging Program, Health Department, Mental Health, Vocational/Sheltered Workshops, Smart Start, Employment Security Commission, One Stop Career Centers, Civic Groups, Chamber of Commerce/Economic Development, Emergency Medical Services, Private Transportation Providers, Church Leaders

The TAB currently is composed of 27 members. At-large members serve two-year terms and are limited to no more than two consecutive terms. Each year the TAB appoints one member as the Chairperson, typically in July. The membership as of February 2011 follows.

**Rockie Dillon** — Center for Independent Living

**Tim Lawson** — Central Carolina Advanced Life Support

**Sue Tipton** — Central Carolina Community College

**Bob Joyce** — Sanford Chamber Commerce

**Jan Hayes** — Lee County United Way

**Meg Moss** — Lee County Industries

**Bob Heuts** — Economic Development

**Harold Smith** — Employment Security Commission

**Howard Surface** — Lee County Public Health Department

**Robert Reives** — Lee County Board Commissioners

**Lesa Price** — Lee County Department of Social Service

**Lyn Hankins** — Lee County Partnership for Children

**John Crumpton** — County Manager

**Bill Larrison** — Sandhills Center for Mental Health

**Susan Conclin** — NC Cooperative Extension

**Tamra Shaw** — NCDOT Public Transportation Division

**Hawkins Blondine** — Local Citizen - Passenger

**Angelina Noel** — Work First / Lee County DDS

**Robert McCarthy (Chair)** — Local Citizen

**Rev. Dale Miller** — Minister - Faith Community

**Fenton Wells** — Local Citizen

**Lois Flemming** — Fleming Transportation

**Bob Bridwell** — City of Sanford

**Sid Morgan** — The Enrichment Center / COLTS

**Debbie Davidson** — The Enrichment Center / Lee County Senior Services

Meetings

The TAB meets quarterly (January, April, July, and October), and minutes are prepared by the Transportation Coordinator and distributed to TAB members for their review. Copies also are provided to the NCDOT Public Transportation Division Mobility Development Specialist.

## Support Systems

### Administration and Management

Lee County provides additional administrative and management assistance to COLTS in terms of human resources support (personnel services, including drug and alcohol testing), accounting services (budgeting and NCDOT reporting) and grant writing support (mostly by the Lee County Senior Services Director, to whom the Transportation Coordinator reports.)

### Service and Operations

COLTS provides demand-response and subscription transportation services in Lee County, including the incorporated areas of Sanford and Broadway as well as the unincorporated areas of the county. Administration operation hours for COLTS are weekdays 6:00 a.m. to 5:00 p.m. and COLTS vans operate weekdays 6:00 a.m. to 6:00 p.m. As mentioned, full time personnel work 40 hours per week. The work schedules for van operators depend upon the required travel times to reach passengers' destinations on time. COLTS currently does not provide transportation services at night, on weekends, or on county observed holidays.

However, COLTS plans to start a new service soon that will somewhat expand these hours and days, subject to continued funding. COLTS is in the process of initiating limited, circulator-type service within the downtown area of Sanford. This additional service is funded by the Section 5310 Elderly and Disabled Transportation Grant to provide extended service hours/days for the elderly and disabled that will include a limited amount of Saturday service. While this grant pays only for transporting those clients meeting the "elderly or disabled" eligibility criteria, other clients will be able to also use these services, subject to available seating. [Note: The Dash route launched in October 2010.]

### Reservations, Scheduling, Dispatching

The COLTS dispatcher has primary responsibility for taking service request calls, with support from the Lead Driver and Transportation Coordinator. The TrIP\_Maker database is used to both confirm existing service eligibility and make service reservations for all clients but those involving Medicaid-paid trips. If the client is not an existing customer, COLTS administrative personnel solicit sufficient information to determine the caller's trip funding eligibility and the costs the client must directly bear. Calls from clients claiming Medicaid-paid trip eligibility are forwarded to Lee County Social Services for verification of eligibility. If clients and trips requests are eligible for Medicaid payment, Social Services personnel fax COLTS information on the client, trip date(s), and destination for which they are approved.

No trips are scheduled beyond two weeks in advance to reduce "no shows" (where the driver arrives but the client is not there or no longer needs the trip.) In the case of a no show, COLTS charges the individual client or agency (as appropriate) for the trip. Two client no shows within a 30-day period results in a 30-day suspension of transportation service.

All approved clients and trip schedules are entered into TrIP\_Maker. Any cancellations and/or requests to change a scheduled trip require an edit to the existing entry. For Medicaid trips, schedule or destination changes require the client to contact the Medicaid clerk at Social Services, who must fax the changes along with any new service requests.

Each day, the Lead Driver generates a report of the clients scheduled for service for two service days in the future. From this information, clients are assigned routes via a two-step process:

- 1) Clients needing wheelchair lift service are assigned to routes that have the appropriate equipment available. These routes and clients are fairly established and generally follow a form of deviated route service.
- 2) All other clients are arranged on routes according to a zone and time based priority system that primarily relies on the experience of the Lead Driver.

Using the trip manifests, the Administrative Support Assistant (Dispatcher) assigns drivers to routes. These assignments reflect efforts to keep employee hours at levels appropriate to their part-time status.

## Marketing

Several marketing strategies currently are being used to increase awareness to COLTS services and current program initiatives. Funding for marketing is provided as part of the CTP 5311 grant through NCDOT. Specific marketing efforts to date include:

- **COLTS Brochure** — An English and Spanish brochure provides basic facts about COLTS, including a description of current services, policy and procedures, and contact information.
- **Promotional Material** — A supply of pens, magnets, and notepads with the COLTS logo and phone number are provided for distribution at various community outreach events, including business and employment expos, health fairs, and church groups.
- **COLTS Website** — The COLTS website, a page on the Lee County website, provides basic information on COLTS including a description of current transit services and contact information.
- **Newspaper** — COLTS advertises its services in the *Sanford Herald* once each month. Additional print media used include articles in the Lee County Enrichment Center newsletter.
- **Radio Broadcast** — COLTS advertises all its public hearings and meetings via public service announcements on local FM stations.
- **Van Advertisement** — COLTS vans include lettering that identify COLTS and includes telephone contact information.
- **Word-of-Mouth** — An effective marketing strategy has been to rely on word-of-mouth advertising from rider to rider and from medical facility to client.

## Vehicle Fleet and Technology

Vehicles operated by COLTS are purchased with NCDOT grant funding and owned by the county. As of June 2010, COLTS owned 17 vehicles as shown in **Table 2.1**. The fleet includes one conventional van, 7 high top conversion vans, and 9 lift equipped vans. In total, the fleet has 177 seats and 18 wheelchair stations.

### Vehicle Maintenance

Maintenance of the COLTS vehicle fleet is performed by local vendors under contract to COLTS. The Lead Driver manages all maintenance recordkeeping and scheduling, including tracking preventive maintenance standards. This staff member also receives the daily pre- and post-trip inspection reports completed by the van operators at the end of their work shifts. Fuel is provided through the Lee County garage on a net-of-tax basis.

### Technology

COLTS management and administrative staff have networked computers with access to typical business applications (Internet, Email, Microsoft Word, Microsoft Excel, etc.). The COLTS telephone system is part of the telephone system for the Enrichment Center of Lee County. This system is at its cost-effective line capacity, a restriction that has prevented COLTS from adding needed phone and/or fax lines. As a result, COLTS personnel must leave their immediate work area to retrieve fax transmissions.

COLTS uses TrIP\_Maker for client service scheduling and record keeping. TrIP\_Maker is a Microsoft Access database provided at no cost by ITRE through its public transportation support program, which is funded by NCDOT. The TrIP\_Maker database is located on a central server and allows multiple users to access and update information. However, this application is limited by the constraints of the underlying Microsoft Access software. Among these constraints is a very limited ability to track the person editing the data, which makes tracing errors more difficult and limits the ability of users or IT support personnel to make enhancements to the application.

COLTS is scheduled to receive funding to replace TrIP\_Maker (which is considered Schedule Assistance software) for Advanced Scheduling Software (AD) in fiscal year (FY) 2012 (subject to funding availability) with implementation anticipated during FY 2013<sup>1</sup>. Compared to TrIP\_Maker, AD software will schedule

Table 2.1 – COLTS Vehicle Fleet (June 2010)

Model Year	Model	Vehicle Type	Seating Capacity	Wheelchair Stations
2009	Ford	Conventional Van	12	0
2009	Ford	High Top Van	12	0
2009	Ford	High Top Van	12	0
2009	Ford	Lift Van	9	2
2008	Ford	High Top Van	12	0
2008	Ford	High Top Van	12	0
2008	Ford	High Top Van	12	0
2008	Ford	Lift Van	9	2
2008	Ford	Lift Van	9	2
2008	Ford	Lift Van	9	2
2008	Ford	Lift Van	9	2
2007	Ford	High Top Van	12	0
2007	Ford	High Top Van	12	0
2007	Ford	Lift Van	9	2
2006	Ford	Lift Van	9	2
2006	Ford	Lift Van	9	2
2003	Dodge	Lift Van	9	2
Total			177	18

<sup>1</sup> “North Carolina Community Transportation System Technology Implementation Planning.” Ms. Debra Collins at ITRE, February 4, 2009.

passengers to vehicles and plan the vehicle’s daily route, functions that are currently performed manually. Examples of AD software include RouteMatch, StrataGen, and Trapeze.

Onboard communications between the driver and administration occurs via a combination of radio-frequency (RF)-based two-way radios and cellular telephones. COLTS vans are equipped with radios while a base station is located in the COLTS dispatcher’s office (Cell phones are used for trips outside the radio service area, which includes most medical trips outside Lee County.)

## Operating Statistics / Performance Measures

### Operating Statistics

Operating statistics are collected by ITRE and were reported in the Performance Plan and Analysis dated February 10, 2009. Subsequent, more up-to-date data was collected from ITRE for comparison. **Table 2.2** shows the most recent available vehicle utilization data (VUD) for COLTS. Several trends emerge from these statistics:

- Change since August 2008 in the way COLTS staff enters and edits trips using TrIP\_Maker has improved the validity of data. As a result, the rate of cancellations and no shows are more accurate in subsequent reporting periods.
- Vehicle utilization data has remained consistent between the August 2009 and April 2010.
- COLTS should expect greater service and revenue hours to account for the high percentage of wheelchair passengers.
- While service hours have declined, service miles have increased.

Daily Average	August 2008		August 2009		April 2010	
	Number	Percent	Number	Percent	Number	Percent
Passengers	309		232		262	
No Shows	34	11.0%	5	2.2%	7	2.7%
Wheelchair Passengers	30	7.7%	73	31.5%	52	19.9%
Service Hours	113		105		101	
Revenue Hours	101	89.4%	97	92.4%	92	91.1%
Deadhead Hours	12	10.6%	8	7.6%	9	8.9%
Service Miles	1,737		1,727		1,752	
Revenue Miles	1,621	93.2%	1,578	91.4%	1,603	91.5%
Deadhead Miles	116	66.8%	149	8.6%	149	8.5%

As part of the Performance Plan process and other analysis, ITRE compares VUD of single systems with data from peer groups. Lee County’s peer group (Group 2 – North) includes Stokes, Rockingham, Caswell, Randolph, Chatham, Stanley, Montgomery, Moore, and Harnett Counties. **Table 2.3** compares April 2010 VUD for Lee County and the average of the counties in its peer group. This comparison illustrates the efficiency of how community transportation is deployed in Lee County, which is a product of the county’s small geographic footprint and the efforts of COLTS staff. The comparison reveals the following trends:

Daily Average	Lee County		Group 2 – North	
	Number	Percent	Number	Percent
Passengers	262		221	
No Shows	7	2.7%	5	2.3%
Wheelchair Passengers	52	19.9%	19	8.6%
Service Hours	101		95	
Revenue Hours	92	91.1%	75	78.9%
Deadhead Hours	9	8.9%	20	21.1%
Service Miles	1,752		1,894	
Revenue Miles	1,603	91.5%	1,466	77.4%
Deadhead Miles	149	8.5%	428	22.6%

- COLTS carried 18.6% more passengers than its peer group.
- A much higher percentage of COLTS passengers were wheelchair passengers.
- Revenue hours as a percentage of service hours are 12.2% higher for COLTS than its peer group.
- COLTS had 65.1% less deadhead miles than its peer group.

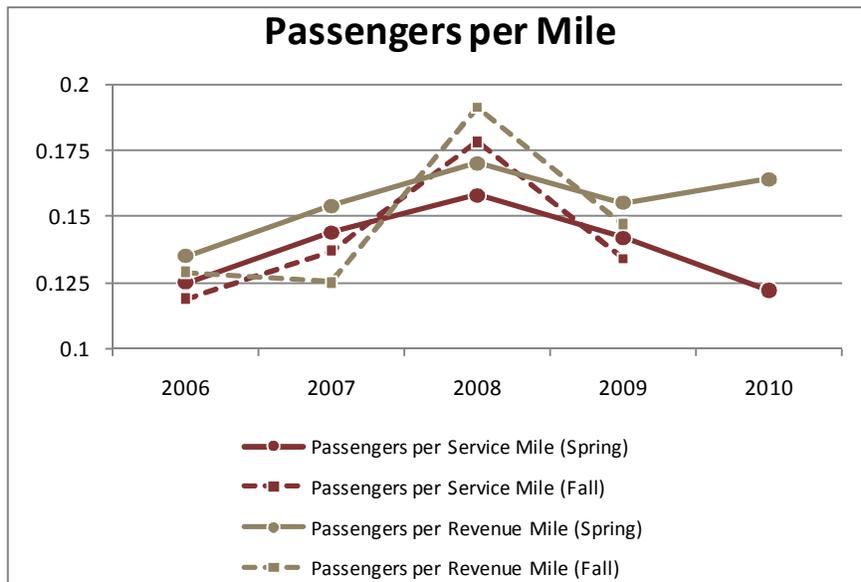
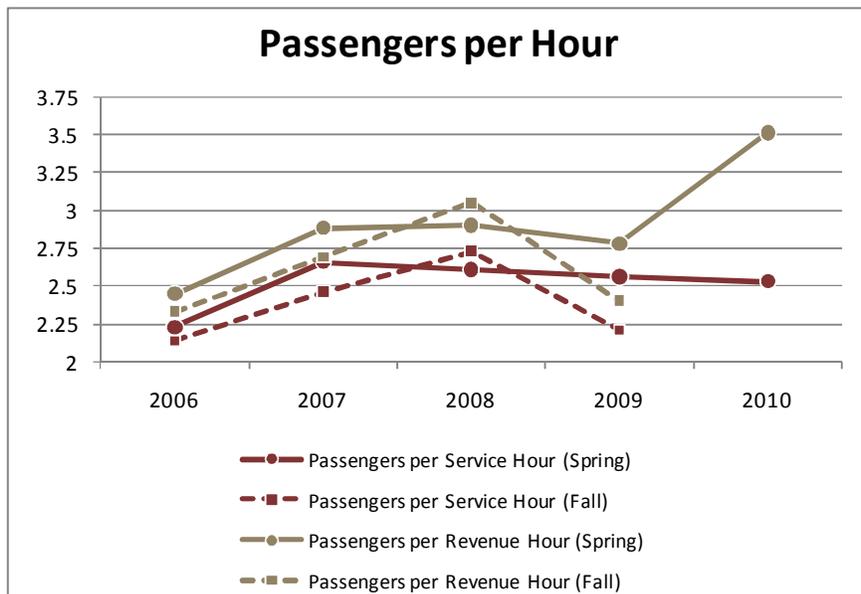
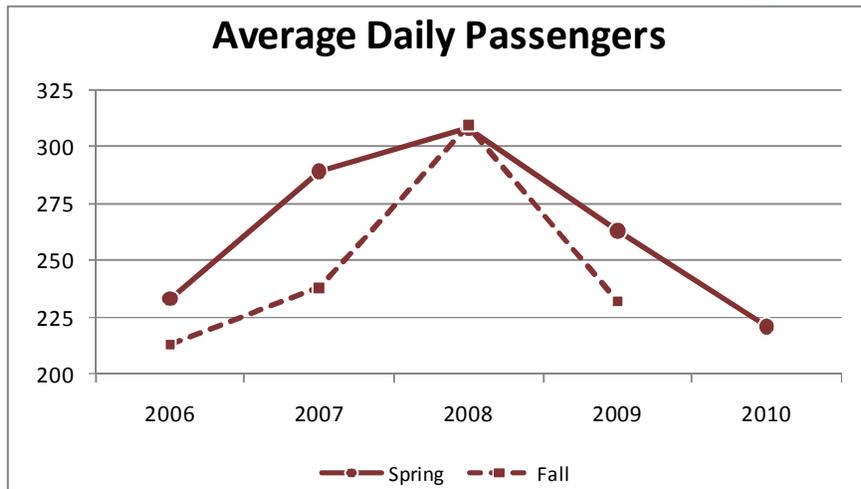
### Performance Measures

While vehicle utilization data is useful, from a performance measure standpoint, it is helpful to have a basis for comparison. **Table 2.4** shows key operating statistics from Spring 2006 to Spring 2010. The table calculates passenger statistics for revenue and service hours and miles of service. It also shows the percent change from Spring 2006 to Spring 2010. The data initially was provided in the Performance Plan and Analysis and updated by ITRE. The line charts that follow the table include separate lines for the Spring and Fall reporting periods. As shown in the table, the performance measures vary from Spring to Fall due to differences in the clientele. The table and charts illustrate the following trends:

- The number of average daily passengers is higher in the spring because COLTS transports students to the community college during this time.
- The system typically operates more efficiently in the Spring than the Fall.
- Passengers per revenue hour and passengers per revenue mile spiked in Spring 2010.

	2006		2007		2008		2009		2010	% Change
	Spring	Fall	Spring	Fall	Spring	Fall	Spring	Fall	Spring	
Average Daily Passengers	233	213	289	238	308	309	263	232	221	-5.2%
Passengers per Service Hour	2.23	2.14	2.66	2.46	2.61	2.73	2.56	2.21	2.53	13.5%
Passengers per Revenue Hour	2.45	2.33	2.88	2.69	2.90	3.05	2.78	2.40	3.51	43.3%
Passengers per Service Mile	0.125	0.119	0.144	0.137	0.158	0.178	0.142	0.134	0.122	-2.4%
Passengers per Revenue Mile	0.135	0.129	0.154	0.152	0.170	0.191	0.155	0.147	0.164	21.5%





## Funding and Financial Management

The OPSTATS report (FY2009) provides a detailed synopsis of the administrative, operating, and capital revenues and expenditures for the COLTS program. This information was used to establish a baseline of existing funding programs and expenditures. **Tables 2.5** and **2.6** show the administrative and operating expenses and revenue, respectively. **Table 2.7** shows capital revenue and expenses for COLTS. The information in the tables was reported in the FY2009 OPSTATS for COLTS. This information will be updated for the draft and final plans to incorporate the FY2010 OPSTATS and FY 2011 budget, if available.

Table 2.5 – COLTS Administrative and Operating Expenses

Revenue and Expense	FY 2008 Data	FY 2009 Data	% Changes
Expenses - Administrative - Personnel Salaries & Fringes	\$108,654	\$116,904	7.6%
Expenses - Administrative - Advertising and Promotion	\$1,361	\$3,765	176.6%
Expenses - Administrative - Employee Development	\$309	\$299	-3.2%
Expenses - Administrative - Vehicle Insurance Premiums	\$25,990	\$21,061	-19.0%
Expenses - Administrative - Indirect Services	\$9,913	\$11,409	15.1%
Expenses - Administrative	\$9,235	\$10,499	13.7%
Expenses - Administrative - Other Admin Expense	\$2,912	\$970	-66.7%
<b>Subtotal Administrative Expenses</b>	<b>\$158,374</b>	<b>\$164,907</b>	<b>4.1%</b>
Expenses - Operating - Driver Salaries & Fringes	\$336,860	\$290,683	-13.7%
Expenses - Operating - Other Operating Staff Salaries & Fringes	\$0	\$0	
Expenses - Operating - Mechanics Salaries & Fringes	\$0	\$0	
Expenses - Operating - Indirect Services	\$0	\$0	
Expenses - Operating - Fuel	\$114,709	\$89,860	-21.7%
Expenses - Operating - Vehicle Maintenance	\$46,591	\$35,343	-24.1%
Expenses - Operating - Payment of Insurance Deductible(s)	\$969	\$1,000	3.2%
Expenses - Operating - Disposal of Vehicle(s)	\$0	\$0	
Expenses - Operating - Management/Operation Services	\$0	\$0	
Expenses - Operating - Volunteer Reimbursement	\$0	\$0	
Expenses - Operating - Other Transit Provider Services	\$0	\$0	
Expenses - Operating - Other	\$9,888	\$6,020	-39.1%
<b>Subtotal Operating Expenses</b>	<b>\$509,017</b>	<b>\$422,906</b>	<b>-16.9%</b>
Credits to Expense - i.e. gas tax refunds, sales tax refunds	\$0	\$0	
<b>TOTAL EXPENSES</b>	<b>\$667,391</b>	<b>\$587,813</b>	<b>-11.9%</b>

Table 2.6 – COLTS Administrative and Operating Revenue

Revenue and Expense	FY 2008 Data	FY 2009 Data	% Changes
Federal Assistance - Section 5311 - CTP Funds - Administrative	\$124,367	\$131,148	5.5%
Federal Assistance - Section 5311 - CTP Funds - Operating	\$0	\$0	
Federal Assistance - Section 5316 - JARC Funds	\$0	\$0	
Federal Assistance - Section 5317 - New Freedom Funds	\$0	\$0	
Federal Assistance - Other	\$0	\$0	
State Assistance - CTP Funds - Administrative	\$7,772	\$8,197	5.5%
State Assistance - ROAP Funds - Suballocated to the Transit System	\$162,882	\$175,831	7.9%
State Assistance - Other	\$0	\$0	
Local Assistance - Administrative Funds	\$23,321	\$24,591	5.4%
Local Assistance - Operating Funds	\$0	\$0	
Contract Revenue	\$245,562	\$259,431	5.6%
Fares/Donations from passengers	\$38,204	\$32,762	-14.2%
Proceeds from Sale of Vehicle(s) - (used for Admin or Operating only)	\$3,802	\$8,393	120.8%
Interest Income	\$499	\$97	-80.6%
Advertising Revenue	\$0	\$1,080	
Other Revenue	\$0	\$0	
<b>Subtotal Revenue</b>	<b>\$606,409</b>	<b>\$641,530</b>	<b>5.8%</b>
Debit to Revenue - Unspent ROAP Funds (suballocated to Transit System)	\$0	\$0	
<b>TOTAL REVENUE</b>	<b>\$606,409</b>	<b>\$641,530</b>	<b>5.8%</b>

Table 2.7 – COLTS Capital Revenue and Expenses

Revenue and Expense	FY 2008 Data	FY 2009 Data	% Changes
Revenue - Capital - Vehicles & Others (Federal/State)	\$212,190	\$121,184	-42.9%
Revenue - Capital - Facility (Federal/State)	\$0	\$0	
Revenue - Capital - Advanced Technology (Federal/State)	\$0	\$0	
Revenue - Capital - Capital Funding (Local)	\$23,576	\$13,465	-42.9%
Revenue - Capital - Insurance Proceeds from Accident	\$14,404	\$1,553	-89.2%
Revenue - Capital - Proceeds from Sale of Vehicle (used for capital only)	\$0	\$0	
Revenue - Capital - Other	\$0	\$0	
<b>Capital Revenue</b>	<b>\$250,170</b>	<b>\$136,202</b>	<b>-45.6%</b>
Expense - Capital - Capital Purchases	\$235,766	\$134,649	-42.9%
Expense - Capital - Body Work on Wrecked Vehicle	\$7,151	\$2,392	-66.6%
Expense - Capital - Facility Renovation or Construction	\$0	\$0	
Expense - Capital - Advanced Technology Purchases	\$0	\$0	
Expense - Capital - Other	\$0	\$0	
<b>Capital Expense</b>	<b>\$242,917</b>	<b>\$137,041</b>	<b>-43.6%</b>



Based on the expenses and revenues over the two reporting years (FY2008 and FY2009), annual expenditures declined of 11.9%. The decline mostly resulted from savings in the cost of fuel and vehicle maintenance. COLTS experienced an overall increase of 5.8% in total revenue. Within that same timeframe, the program has seen an annual increase of 5.4% from Lee County, 7.9% from ROAP funds, and 5.6% in contract revenue. Capital revenues and expenses declined from FY2008 to FY2009, though this category is more prone to wide variations year-to-year due to the replacement schedule of the fleet.

## Other Services

Private transportation providers in Lee County fill some gaps in service by using vehicles tailored to the specific demands of the residents. Vehicles vary from four-person passenger sedans to limousines. Other transportation service providers include private taxicab and limousine companies as well as vanpools operated by independent companies.

### Private Taxicab Companies

Through a stakeholder interview, the owner and operator of Fleming Transportation provided insight into the operation of private taxi companies and how these services complement and overlap with the services provided by COLTS. Fleming Transportation contracts with numerous agencies, including Lee County Social Services for dialysis and Medicaid trips. In particular, Fleming Transportation transports patients to dialysis on Saturdays. Fleming Transportation currently operates five vehicles (sedans) under the umbrella of three taxi companies: Service Cab (2 vehicles), American Yellow Cab (2 vehicles), and Pronto Taxi (1 vehicle). Pronto Taxi, launched approximately three years ago, markets to the Hispanic community, though maintaining a bilingual driver remains difficult. No vehicles operated by Fleming Transportation have provisions for persons in wheelchairs.

### Vanpools

Vanpools form when groups of commuters ride together and share the monthly costs of operating the vanpool. Monthly passenger fares generally cover vehicle costs, maintenance, gasoline, and insurance expenses. Sometimes the cost is completely covered by the employer. Vanpools provide an attractive transportation alternative for employee groups who live near one another and who work similar and more regular hours. Vanpools also can offer flexibility to design schedules and create routes to meet the specific travel needs of the group.

2Plus, a private non-profit corporation with offices in the Raleigh area, currently coordinates one vanpool from Lee County Industries (LCI) to the Fort Bragg area, with hopes of expanding the program (as NCDOT is able to provide additional vehicles.) LCI also contracts with Chatham Transit to bring eligible workers from that area to the LCI facility for the Fort Bragg trips. In addition, Triangle Transit organizes vanpools that originate in Durham, Wake, and Orange Counties to transport employees of the Pfizer manufacturing plant. Currently, 12 vanpools are in service in Lee County.

## Chapter 3 –Demographic Trends Analysis

### Introduction

Daily life requires some level of mobility, whether commuting to work, shopping, going to the doctor, or visiting friends. As the United States suburbanized in the second half of the 20th century, people were forced to travel longer distances to reach their destination and increasingly relied on private automobiles. The City of Sanford and Lee County were not immune to the influences of the national trend. This is evident by the rings of suburbanization that encircle the heart of the city. As a result, individuals with limited access to personal transportation due to their age, disability, or income experience difficulty fulfilling critical needs such as employment, medical care, and recreation. This chapter of the *Lee County Community Transportation Service Plan (Lee County CTSP)* explains demographic trends prevalent in the county, identifies the geographic distribution of the transportation disadvantaged population, and describes attractions and generators. The assessment combines objective and subjective methods, and the result is a general description of the community transportation needs within the service area.

### Demographic Trends

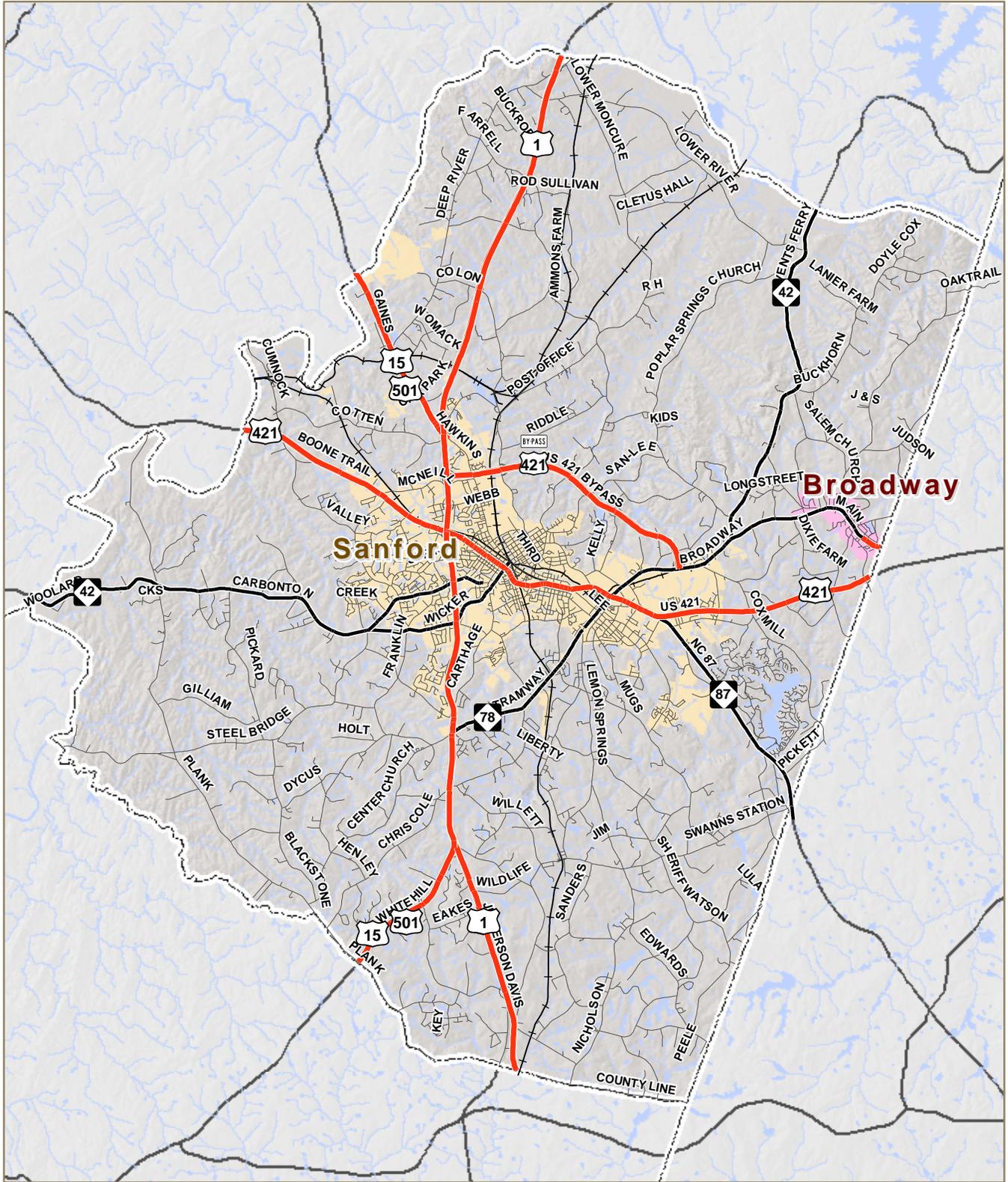
Given its purpose of reviewing the current performance and organizational direction of COLTS and recommending alternative strategies to increase mobility options for passengers and improve the efficiency of the organization, a logical preliminary step of the *Lee County CTSP* is to understand the demographic profile of the service area. The general profile that follows allows a better understanding of the county's demographics and discerns trends using historical population data when available. Given the change in the county's demographic profile since 2000 when the latest Census data was available, the data that follows was supplemented with information provided by the Lee County Department of Strategic Services.

### Service Area

The County of Lee Transit System (COLTS) service area is Lee County, North Carolina, a geographically small county in central North Carolina southeast of Raleigh. Lee County is part of the Triangle Area Rural Planning Organization region that covers all or part of four counties – Lee County (total), Chatham County (partial), Orange County (partial), and Moore County (total). The RPO portions of Chatham and Orange Counties are those areas that lie outside the Durham-Chapel Hill-Carrboro Metropolitan Planning Organization area.

Lee County covers an area of 259 square miles (257 sq. mi. of land, 2 sq. mi. of water). Adjacent counties include Chatham County (to the north), Moore County (to the west and south), and Harnett County (to the east and south). The county includes two incorporated areas – the City of Sanford and Town of Broadway – as well as numerous unincorporated communities. The City of Sanford sits at the geographic center of the county, and at 24.7 square miles, encompasses a large portion of the county's land mass. The geography of the city and county provides an opportunity to maximize the efficiency of the community transportation system. **Figure 3.1** illustrates the geography of Lee County.

Figure 3.1 - Service Area Geography



- US Highway
- Body of Water
- NC Highway
- County Boundary
- Other Street
- Sanford
- + Railroad
- Broadway



## General Population Profile

Population estimates for Lee County were provided by US Census Bureau, NC Office of State Budget and Management, and Lee County Department of Strategic Services. Comparison of these estimates show little difference between county and city population as the most current data available, the Strategic Services estimates were used for general population analysis in this report.

In 2009, Strategic Services reported 61,835 year-round permanent residents in Lee County, which represents growth of approximately 19 percent (10,066 persons) since 2000 and 49 percent (20,465 persons) since 1990. Between 1990 and 2009, the population of the county increased by nearly 50 percent. **Table 3.1** shows population change for the county and its municipalities from 2000 to 2009.

Table 3.1 – Population Change

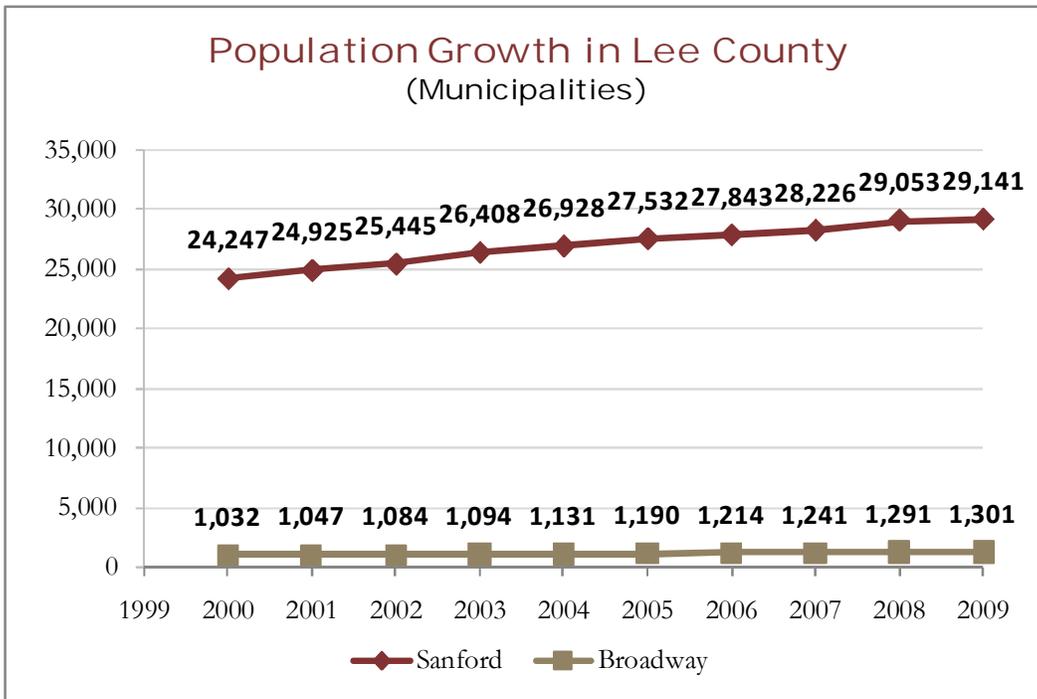
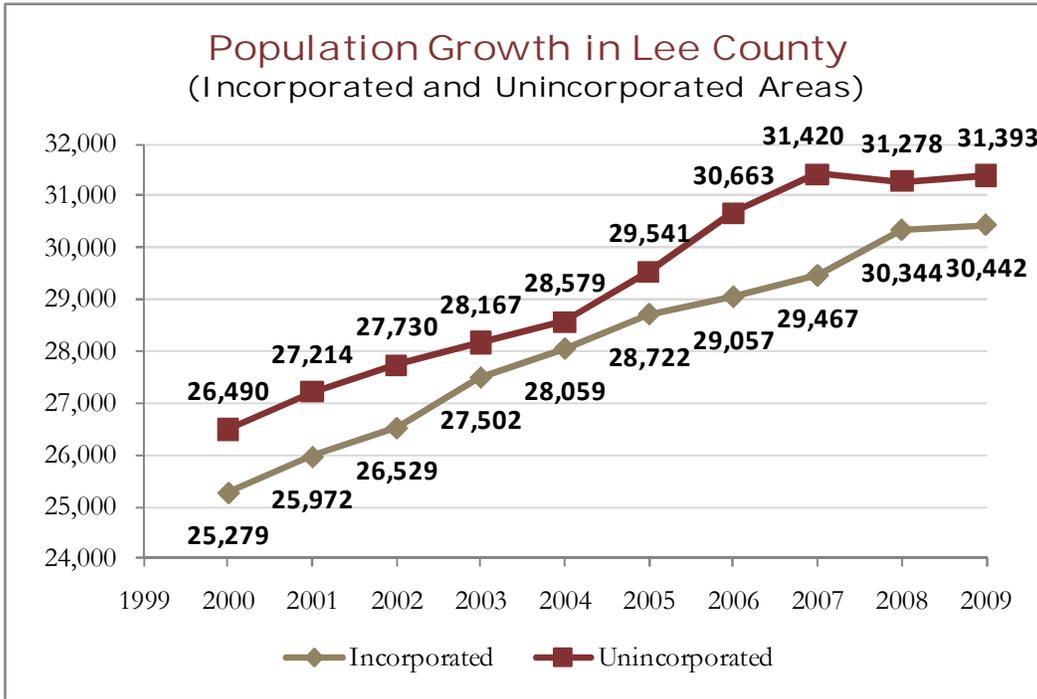
Year	Sanford		Broadway		Municipal		Lee County Non-Municipal		Total	
	Population	% Change	Population	% Change	Population	% Change	Population	% Change	Population	% Change
2000	24,247	-	1,032	-	25,279	-	26,490	-	51,769	-
2001	24,925	2.80%	1,047	1.45%	25,972	2.74%	27,214	2.73%	53,186	2.74%
2002	25,445	2.09%	1,084	3.53%	26,529	2.14%	27,730	1.90%	54,259	2.02%
2003	26,408	3.78%	1,094	0.92%	27,502	3.67%	28,167	1.58%	55,669	2.60%
2004	26,928	1.97%	1,131	3.38%	28,059	2.03%	28,579	1.46%	56,638	1.74%
2005	27,532	2.24%	1,190	5.22%	28,722	2.36%	29,541	3.37%	58,263	2.87%
2006	27,843	1.13%	1,214	2.02%	29,057	1.17%	30,663	3.80%	59,720	2.50%
2007	28,226	1.38%	1,241	2.22%	29,467	1.41%	31,420	2.47%	60,887	1.95%
2008	29,053	2.93%	1,291	4.03%	30,344	2.98%	31,278	-0.45%	61,622	1.21%
2009	29,141	0.30%	1,301	0.77%	30,442	0.32%	31,393	0.37%	61,835	0.35%
Total Change (2000-2009)	4,894	20.18%	269	26.07%	5,163	20.42%	4,903	18.51%	10,066	19.44%

### Base Realignment and Closure

Fort Bragg and the surrounding region is bracing for the influx of 40,000 military and civilian personnel and their families due to BRAC. Lee County's quality of life and its location between Fort Bragg and the Research Triangle Park offers strategic advantages to those relocating. According to the Comprehensive Regional Growth Plan for the Fort Bragg Region, the county likely will experience a population growth of more than 3,100 people by 2013. This growth will impact the delivery of community transportation and provide a new market for potential riders.

As the economic and governmental hub of Lee County, Sanford had the largest municipal growth and added 4,894 persons in the last 10 years. Sanford accounts for nearly half the population of Lee County, and therefore correlates closely with the county's percent change in population. By percentage, the greatest growth over the past 10 years has been in Broadway, which grew 26.07 percent.

The unincorporated areas of the county also have added population over the last 10 years, growing from 26,490 to 31,393. The rate of growth in the unincorporated area has been slower, due in part to the rapid annexation found in the county and throughout North Carolina. The graph at the top of the following page illustrates the population trends for the incorporated and unincorporated areas of Lee County. The second graph illustrates the population for each of the municipalities shown in **Table 3.1**.



## Transportation Dependent Population Profile

According to the 2000 census, 35.1 million people in the United States were over age 65, 44.5 million people over age 21 were disabled, 33.9 million people were living below the poverty level, and 9.8 million people have no vehicle available (see text box to right for definitions). For many of these people, mobility options available to them daily are limited and the ability to fulfill their basic needs is challenged.

The federal government identifies three subsets of the population as transportation disadvantaged groups — the elderly, persons with disabilities, and low income individuals. Though not identified by the federal government, households without access to a personal vehicle also are transportation disadvantaged.

Among these disadvantaged groups, mobility issues vary. For example, many elderly persons are used to the freedom that comes with car ownership, and consequently, their expectations for public transportation generally are much higher than other transportation disadvantaged groups. A brief discussion of national trends as well as the local impact for these groups follows. Summary statistics for Lee County, North Carolina, and the United States can be found in **Tables 3.2** and **3.3**. The text in the following sections provides more detail.

### Definitions

For purposes of the *Lee County CTSP*, transportation disadvantaged persons have been defined as follows:

**Elderly** — Age 65 and over.

**Persons with Disabilities** — Based on census definition for disability that refers to persons with a long-lasting physical, mental, or emotional condition that makes it difficult for a person to perform activities such as walking, climbing stairs, dressing, bathing, learning, or remembering. This condition also can impede a person from being able to go outside the home alone or to work at a job or business.

**Low Income** — Based on census definition for poverty status derived from answers to income questions on the 2000 census. Poverty status is determined by comparing a person’s total family income with the poverty threshold appropriate for that person’s family size and composition. Reported here by household.

**Vehicle Availability** — Occupied households with no vehicles available.

Table 3.2 – Disadvantaged Population Group Comparison  
(Percent of Total Population or Households, 1990 to 2000)

	Lee County			North Carolina			United States		
	1990	2000	Change	1990	2000	Change	1990	2000	Change
Elderly*	13.1%	13.0%	-0.1%	12.1%	12.0%	-0.1%	12.5%	12.4%	-0.1%
Persons with Disabilities*	14.5%	20.4%	5.9%	13.4%	21.1%	7.7%	12.1%	19.3%	7.2%
Low Income^	14.7%	12.8%	-1.9%	13.0%	12.3%	-0.7%	13.1%	12.4%	-0.7%
No Vehicles Available^	10.1%	7.6%	-2.5%	9.6%	7.5%	-2.1%	11.5%	10.3%	-1.2%

\* persons    ^ households

Table 3.3 – Disadvantaged Population Group Comparison  
(Total Change, 1990 to 2000)

	Lee County			North Carolina			United States		
	1990	2000	Change	1990	2000	Change	1990	2000	Change
Elderly*	5,438	6,383	17.4%	802,057	969,822	20.9%	31,195,275	34,978,972	12.1%
Low Income^	5,954	6,185	3.9%	829,858	958,667	15.5%	31,742,864	33,899,812	6.8%
No Vehicles Available^	1,586	1,412	-11.0%	241,711	235,339	-2.6%	10,602,297	10,861,067	2.4%

\* persons    ^ households



## Elderly

As baby boomer continue to age and life expectancy lengthens, the nation's elderly population will continue to grow rapidly. This trend can be expected in Lee County as well. As a result, a critical component of COLTS will be to continue to serve the elderly. According to the 1990 census, approximately 5,438 people in Lee County were over the age of 65. By 2000, the number of elderly residents in the county had increased 17.4 percent to 6,383. For comparison, the overall county growth rate was 18.5 percent. As shown in **Table 3.3**, the growth rate from 1990 to 2000 for persons over the age of 65 in Lee County was slightly less than average county and state growth rates.

A review of the geographic distribution of older adults indicates disbursement across the county. However, a significant concentration of this population group exists in the City of Sanford. As shown in **Figure 3.2**, Carolina Trace Country Club also includes higher percentages of adults over the age of 65. The elderly component of the population in Lee County is composed of individuals from varying economic classes and with varying degrees of disabilities, resulting in an assortment of mobility needs. Elderly people also are more likely than other population segments to have difficulties accessing public transit due to the many physical disabilities (including those reported in the census and those that are not) that result from aging.

## Persons with Disabilities

According to a National Organization on Disabilities survey conducted in 2000, 30 percent of respondents with disabilities reported difficulty accessing transportation, compared to 10 percent of respondents without disabilities. This trend reflects the main concern for persons with disabilities – the availability of transportation options that accommodates specific disabilities while fulfilling their need for independence. According to the 2000 census, approximately 9,116 people aged 5 and over in Lee County reported at least one disability according to the census definition (“The existence of a long-lasting physical, mental, or emotional condition that makes it difficult for a person to perform activities such as walking, climbing stairs, dressing, bathing, learning, or remembering. The existence of a long-lasting physical, mental, or emotional condition that makes it difficult for a person to perform activities such as walking, climbing stairs, dressing, bathing, learning, or remembering.”). Based on these figures, the disabled population in the county was 20.4 percent in 2000. This rate is on par with the state average (21.0 percent) and is slightly above the national average (19.3 percent). Differences in how the census gathered information on persons with disabilities from 1990 to 2000 limits the practical ability to discern trends among this disadvantaged transportation group.

Within Lee County, some areas exhibit a higher overall percentage of disabled persons (see **Figure 3.3**). Areas exhibiting percentages of disabled persons exceeding 20 percent include the City of Sanford, the NC 42 area in western Lee County, the US 15-501 and US 1 area in northern Lee County, and various parts of eastern Lee County.

## Low Income

The transportation disadvantaged group that may require the most flexibility in community transportation are families in poverty. This need for flexibility stems from their need for employment transportation (many of which are second or third shifts) as well as the likelihood these families also face cultural/language obstacles. Compared to state and national averages, the share of low income households in Lee County is higher. In 2000, 12.8 percent of households were below poverty in Lee County, down 1.9 percent from 1990. The state and national averages in 2000 were 12.3 percent and 12.4 percent, respectively. However, this segment of the population is growing more slowly in Lee County than in the state and nation as a whole. As shown in **Table 3.3**, the overall growth rate of low income families in the county is much lower than at the state or national levels. Simply considering how many households reported being below poverty in 1990 compared

to 2000 reveals an increase of 3.9 percent. This rate is quite smaller than the state (15.5 percent) and national (6.8 percent) averages. This trend indicates that while the county has a slightly higher percentage of low income households compared with the state and country, growth in low income population is much lower than the state and national rates.

Unlike the elderly and disabled population groups, low-income populations tend to reside in specific communities within the region. As shown in **Figure 3.4**, the largest concentrations of households in poverty are located in the northern and southern portions of Sanford and along NC 42 and US 421 in northeastern Sanford. These areas contain percentages of population below poverty that are greater than 20 percent. The poor likely will account for an increasing share of COLTS riders. Based on discussions with the Steering Committee, stakeholders, and the public their current use is not as high as other transportation disadvantaged groups. The limited flexibility of service and not knowing what services are available are two reasons cited for a lack of low income ridership at COLTS. As a result, low income families remain more auto-dependent and incur the expense of car ownership to have the necessary mobility.

### Vehicle Availability

The most noticeable group in need of alternative transportation are those households without access to a personal automobile. The census reports the occupied housing units by block group with no vehicles available for use by household members. Vehicles refer to passenger cars, vans, and pickup trucks kept at home and available for use by members of the household. In 1990, 10.1 percent of households in Lee County did not have access to a personal vehicle. The percentage dropped by 2.5 percent in 2000, to 7.6 percent. The county’s percentage was almost equal to the state average (7.5 percent), significantly less than the national average (10.3 percent), and is declining at a faster pace than the comparative groups. The total change as shown in **Table 3.3** indicates a drop of 11.0 percent from 1990 to 2000 (1,586 households in 1990, 1,412 households in 2000). As shown in **Figure 3.5**, the City of Sanford and areas northeast show elevated percentages of the population without access to a vehicle. The percentage in this section exceeds the county and statewide average.

### Ethnicity Considerations for Transit

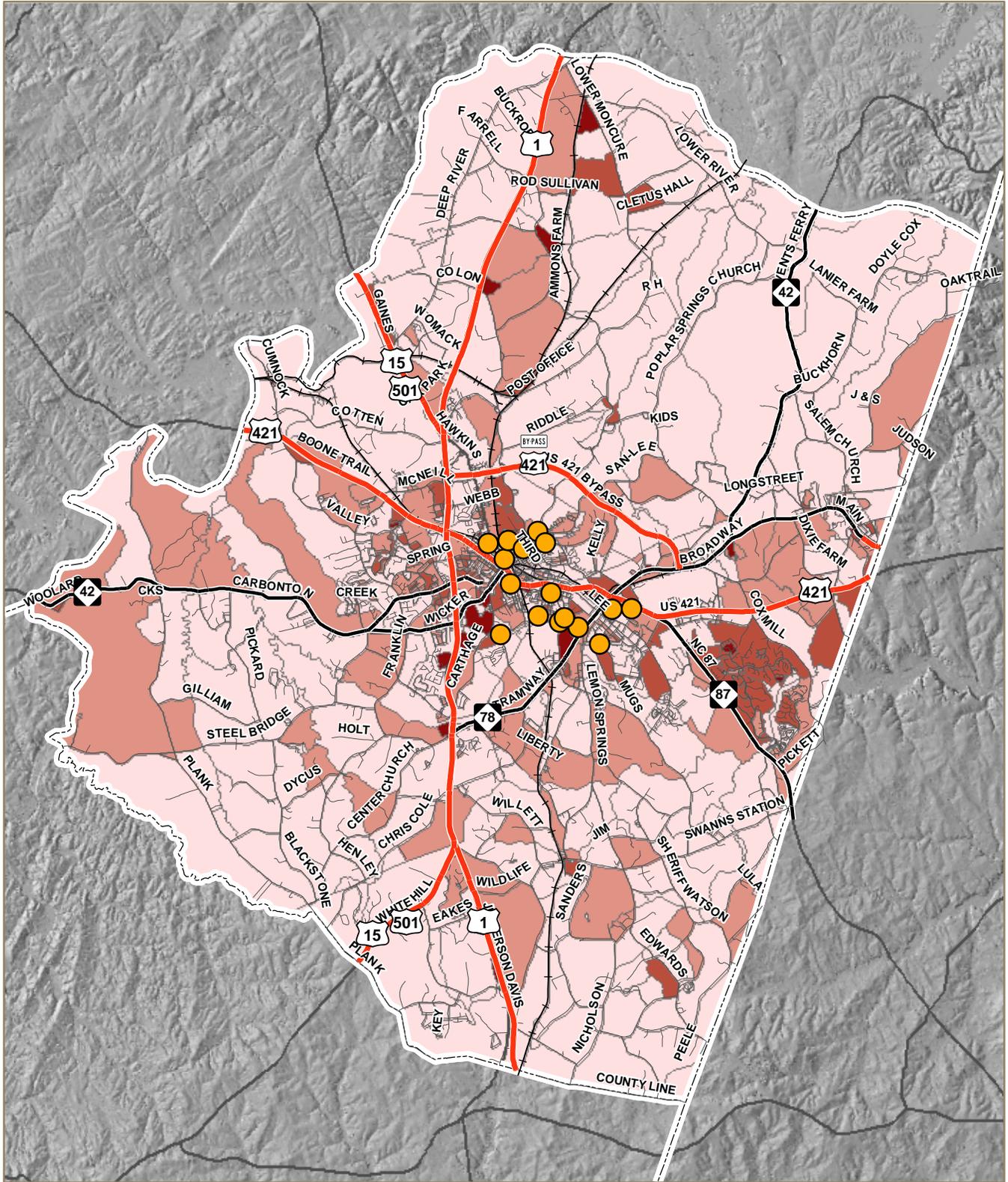
Lee County has seen enormous growth in Hispanic residents in the past ten years. Population estimates provided by Strategic Services show persons of Hispanic ethnicity accounted for 12.5 percent of the Lee County population in 2000, while estimates for 2009 point to 20.9 percent of the population being of Hispanic ethnicity. **Table 3.4** compares Hispanic population growth as part of the total population growth. Hispanic growth will be important to transit planning in the future as Hispanic ridership grows, especially since ridership among persons of Hispanic ethnicity currently is disproportional according to population numbers. **Figure 3.6** displays Hispanic concentrations within Lee County.

Table 3.4 – Hispanic Population Change

Year	Total Population	Total Population Growth	Hispanic Population	Hispanic Population Growth	Hispanic Percent of Total Population
2000	51,769	-	6,459	-	12.5%
2001	53,186	2.74%	7,375	13.9%	13.9%
2002	54,259	2.02%	8,206	15.1%	15.1%
2003	55,669	2.60%	8,886	16.0%	16.0%
2004	56,638	1.74%	9,543	16.8%	16.8%
2005	58,263	2.87%	10,505	18.0%	18.0%
2006	59,720	2.50%	no data	no data	0.0%
2007	60,887	1.95%	11,287	18.9%	18.5%
2008	61,622	1.21%	12,360	20.3%	20.1%
2009	61,835	0.35%	12,879	20.9%	20.8%
Total Change (2000-2009)	10,066	19.4%	13,233	99.4%	



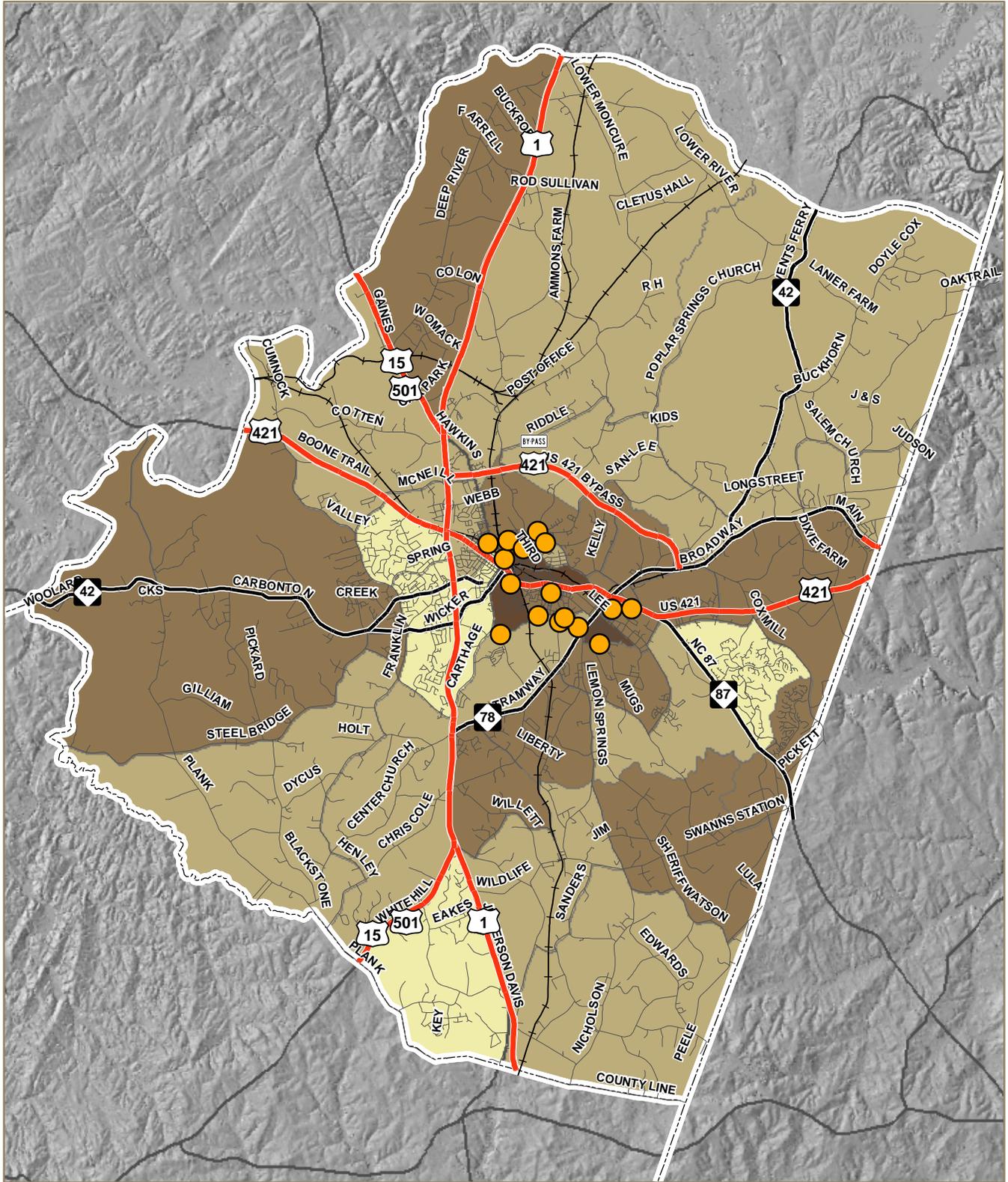
Figure 3.2 - Percent Over 65



- US Highway
  - NC Highway
  - Other Street
  - + Railroad
  - County Boundary
- | Percent Over 65 |             |
|-----------------|-------------|
|                 | 0% to 15%   |
|                 | 15% to 30%  |
|                 | 30% to 60%  |
|                 | 60% to 100% |
- Top Residential Origins/Destinations



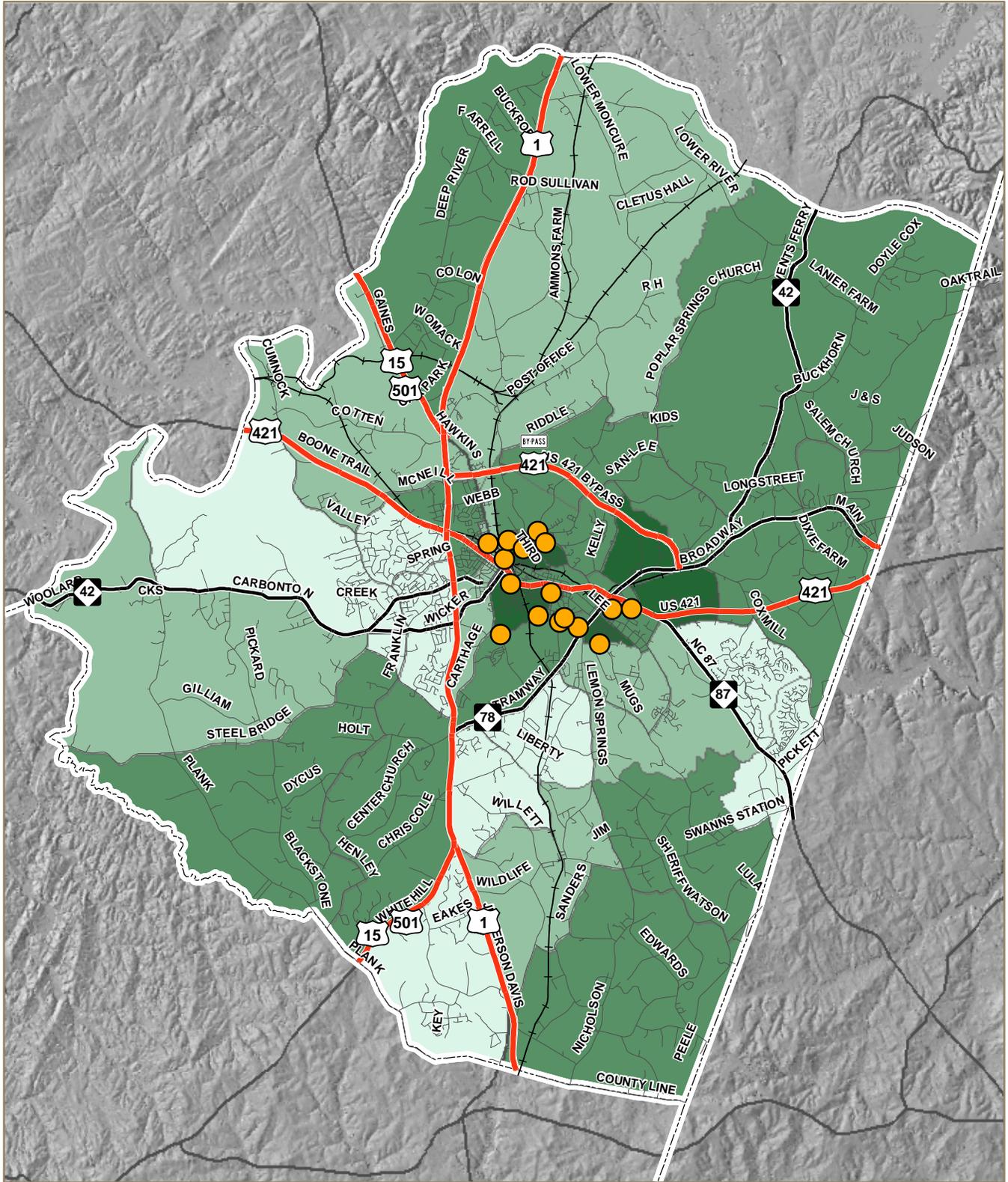
Figure 3.3 - Percent Disabled



- |                 |                         |                                      |
|-----------------|-------------------------|--------------------------------------|
| US Highway      | <b>Percent Disabled</b> | Top Residential Origins/Destinations |
| NC Highway      | 0% to 15%               |                                      |
| Other Street    | 15% to 20%              |                                      |
| Railroad        | 20% to 30%              |                                      |
| County Boundary | Over 30%                |                                      |



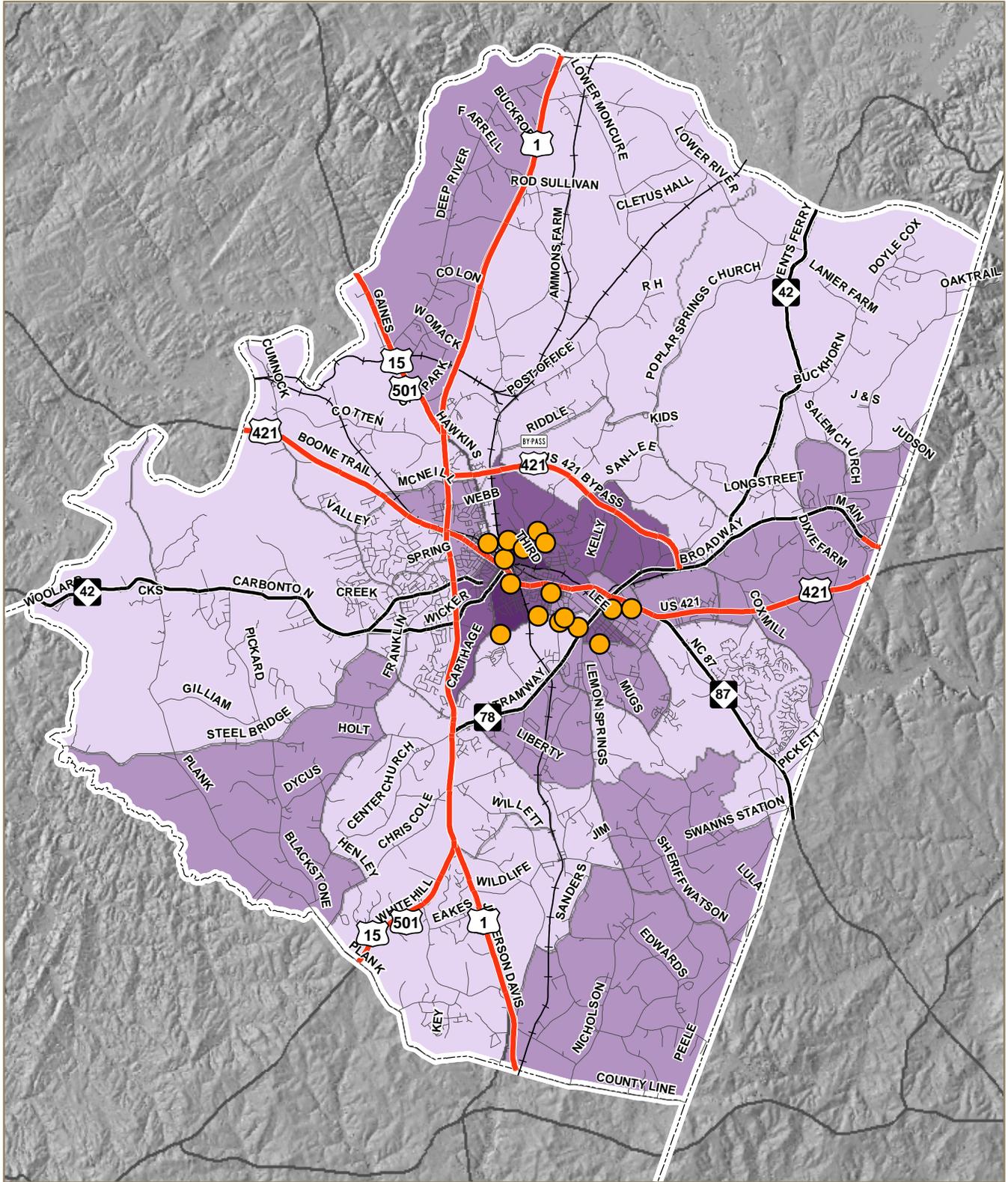
Figure 3.4 - Percent Below Poverty



US Highway	<b>Percent Below Poverty</b>	Top Residential Origins/Destinations
NC Highway	0% to 5%	
Other Street	5% to 10%	
Railroad	10% to 20%	
County Boundary	20% to 40%	



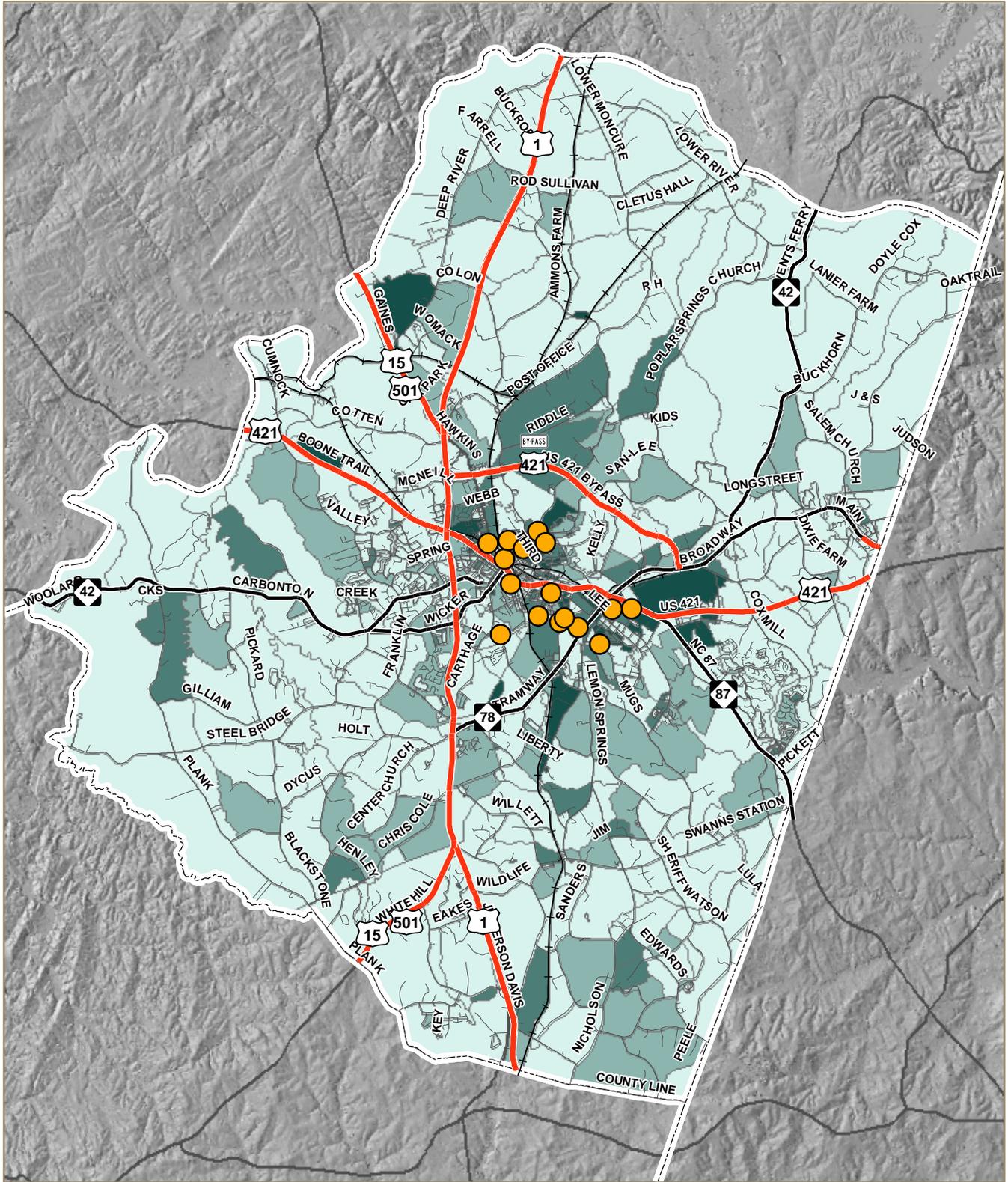
Figure 3.5 - Percent With No Vehicle Access



- US Highway
  - NC Highway
  - Other Street
  - + Railroad
  - County Boundary
- | Percent With No Vehicle Access |            |
|--------------------------------|------------|
|                                | 0% to 5%   |
|                                | 5% to 10%  |
|                                | 10% to 25% |
|                                | 25% to 50% |
- Top Residential Origins/Destinations



Figure 3.6 - Percent Hispanic



- |   |   |  |
|---|---|--|
|  US Highway      | <b>Percent Hispanic</b>   |  Top Residential Origins/Destinations |
|  NC Highway      |  0% to 5%    |  |
|  Other Street    |  5% to 15%   |  |
|  Railroad        |  15% to 30%  |  |
|  County Boundary |  30% to 100% |  |



## Commuting Patterns

The Steering Committee, stakeholders, and general public mentioned the need for enhanced transportation for employment-related trips. A review of commuting patterns can help document the current demand for these trips. Commuting patterns are described in terms of where people travel from, what form of transportation they use, and the length of their commute. **Table 3.5** details where Lee County residents travel to work according to 2000 Census data. The table shows 71.6% of Lee County residents work in the county, 9.1% travel to Wake County to work, and 6.0% travel to Chatham County to work. **Table 3.6** details where Lee County employees live. As shown in the table, 60.9% of employees in the county also reside in the county. The second largest share of the employment base travels into Lee County from Harnett County.

## Employment Trends

Before Lee County formed from portions of Moore and Chatham Counties, the economy centered on agriculture, naval stores, and an iron works. When Lee County formed in 1907, local officials began to capitalize on the railroad network and diversified the economy by introducing tobacco harvesting, brownstone quarrying, furniture making, brick works, and eventually textiles. Today, the economy relies less on agriculture and more on manufacturing. The health of the economy can be stated in numerous ways, though unemployment rates are the method reported in the CTSP.

**Table 3.7** and the subsequent graph compare employment statistics for Lee County, North Carolina, and the nation. The county’s unemployment rate in 2009 of 13.7 percent outpaced the state (10.6%) and national (9.3%) rates. Historically since 1991, the county’s unemployment rate has slightly exceeded the state’s average. Based on available data for the City of Sanford (2002 to 2009), the city’s unemployment rate has been prone to wider swings. The city’s rate was 1.5 percent higher than the county rate and 2.5 percent higher than the state average in 2002 but dipped below both rates by 2005. In the last few years of reporting, the county and city’s unemployment rate have grown at similar rates with the county unemployment percentage remaining slightly higher than the urban area. Overall, the downturn in the economy since 2006/2007 has affected the city, county, state, and nation in similar ways. The most recent data available (July 2010) indicates improvement in the employment base across the board, with the city (10.5 percent) 2 and county (11.6 percent) improving at a faster rate than the state and nation.

Table 3.5 – Employee Travel Flows From Lee County  
“Where Lee County residents work”

County of Employment	Number	Percent
Lee County	16,382	71.6%
Wake County	2,094	9.1%
Chatham County	1,383	6.0%
Moore County	828	3.6%
Cumberland County	609	2.7%
Durham County	384	1.7%
Harnett County	313	1.4%
Orange County	236	1.0%
Other	664	2.9%

Source: Missouri Census Data Center

Table 3.6 – Employee Travel Flows Into Lee County  
“Where Lee County employees live”

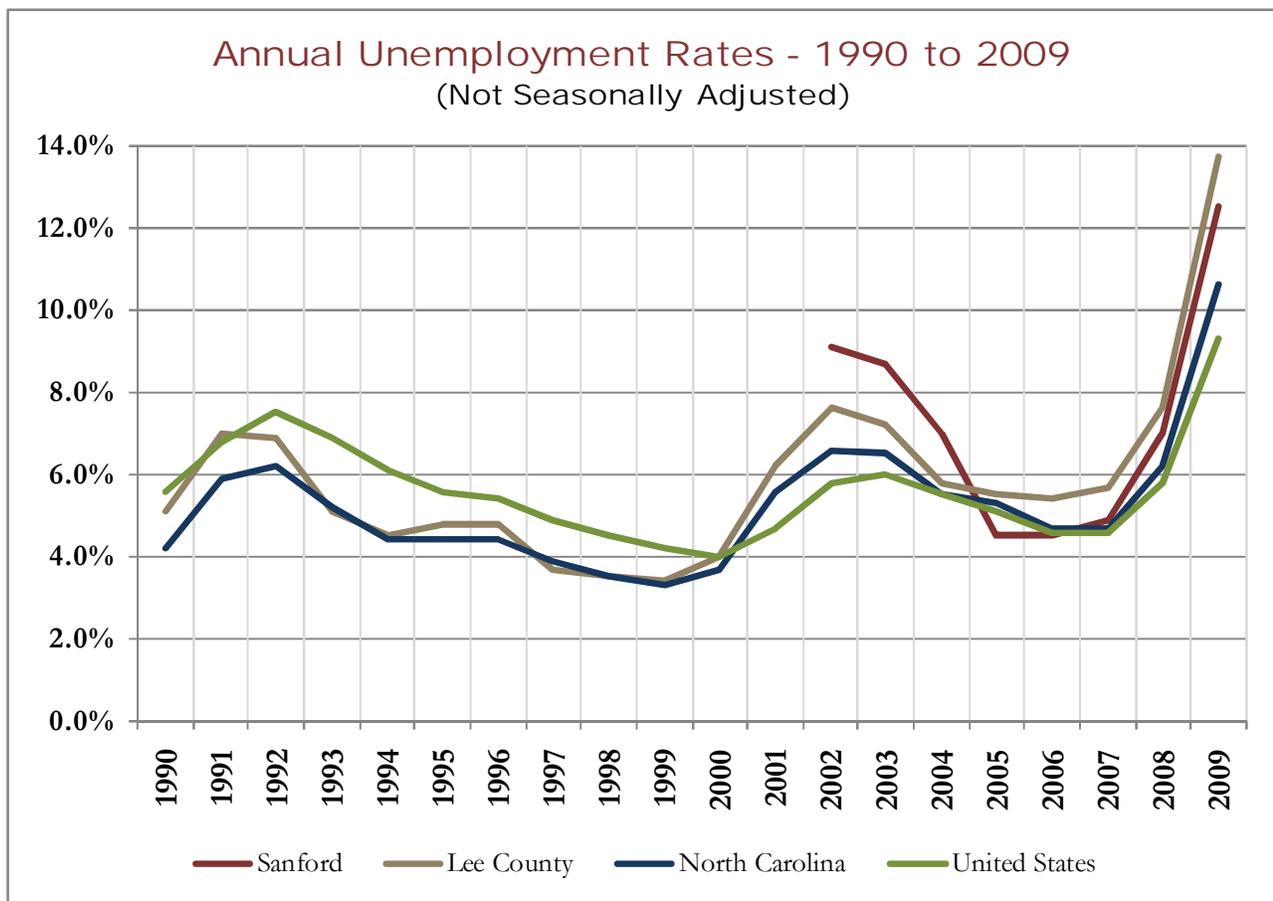
County of Residence	Number	Percent
Lee County	16,382	60.9%
Harnett County	4,530	16.9%
Moore County	1,441	5.4%
Chatham County	1,413	5.3%
Wake County	1,167	4.3%
Cumberland County	751	2.8%
Johnston County	187	0.7%
Durham County	178	0.7%
Other	831	3.1%

Source: Missouri Census Data Center

Table 3.7 – Employment Data Comparison  
(Percent Unemployed)

	1991	1993	1995	1997	1999	2001	2003	2005	2007	2009
Sanford	No Data	8.7%	7.0%	4.9%	12.5%					
Lee County	7.0%	5.1%	4.8%	3.7%	3.4%	6.2%	7.2%	5.5%	5.7%	13.7%
North Carolina	5.9%	5.2%	4.4%	4.9%	3.3%	5.6%	6.5%	5.3%	4.7%	10.6%
United States	6.8%	6.9%	5.6%	4.9%	4.2%	4.7%	6.0%	5.1%	4.6%	9.3%

Source: Employment Security Commission of North Carolina



## Evaluation of Transit Need

Transit dependent populations in Lee County include the elderly, disabled, low income households, and households with no vehicles available, as displayed separately in **Figures 3.2 to 3.5**. High percentages of elderly and disabled persons are displayed with respect to population while high percentages of low income and persons with no vehicle availability are displayed with respect to households. Each of these is shown according to census block group data received from the 2000 US Census. To determine the geographic areas of highest transit need, a census block group ranking process was implemented for each transit dependent population. For example, the census block group with the largest population of persons over 65 years of age was ranked 1, while the block group with the second highest population was ranked 2, and so on. These rankings summed and an overall ranking was given to each census block group.

Each census block group was then classified, depending on its overall ranking, as having a low, medium or high relative need for transit dependent populations. With 39 census block groups in Lee County, those ranked 1 to 13 were considered as having a high relative need; those ranked 14 to 26 were considered as having a medium relative need, and those ranked 27 to 39 were classified as having a low relative need. The census block groups were geographically mapped to display areas of transit need in Lee County.

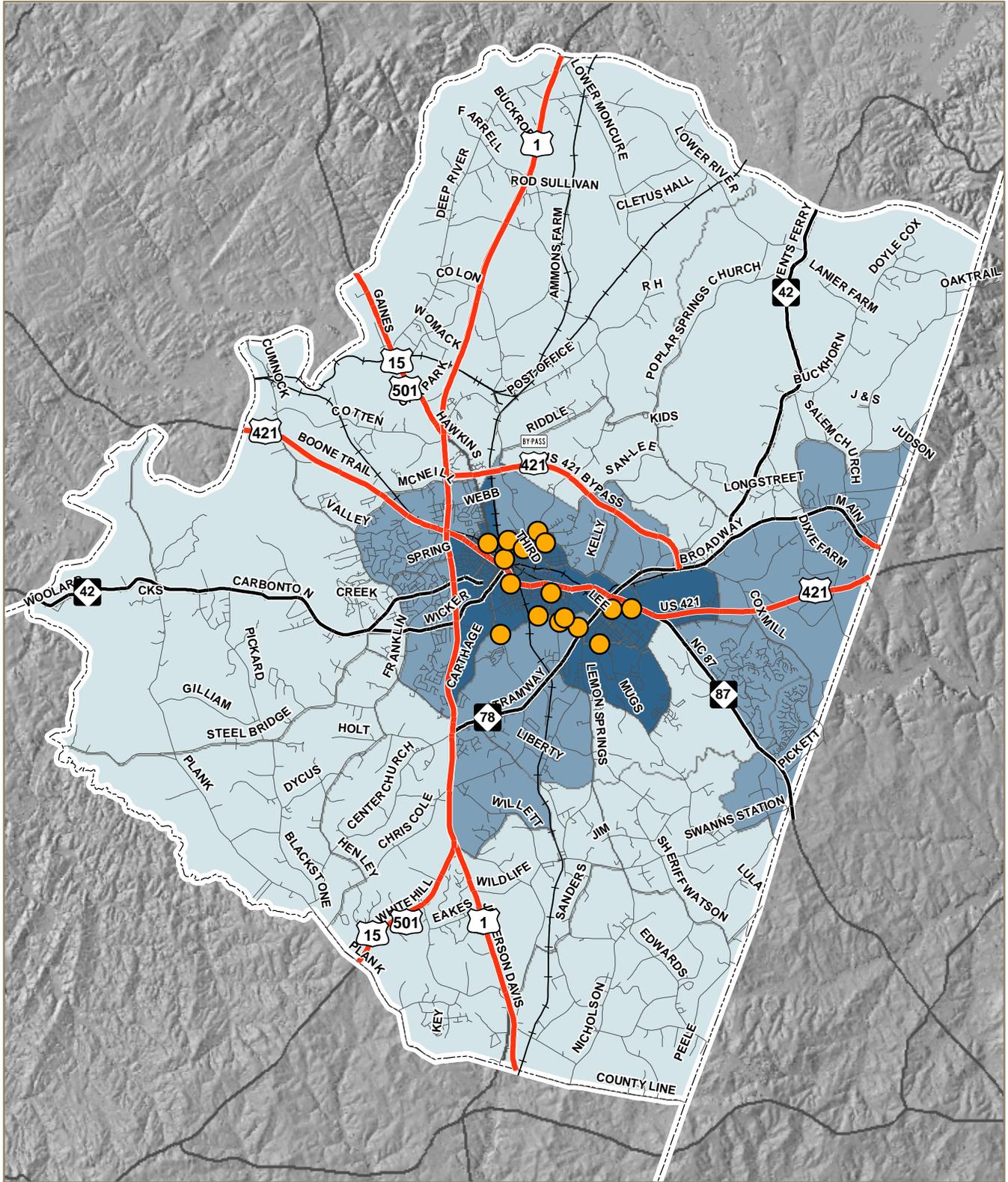
The transit need ranking and mapping process listed above was performed twice, to display the relative need based on transit dependent population density as well as relative need based on transit dependent population percentage. These two maps will aid in determining service needs for transit dependent populations in different locations.

## Transit Need by Dependent Population Density

As mentioned in the previous section, the density of transit dependent persons were mapped by census block to display high, medium, and low relative transit needs based on an overall ranking. Please refer to **Figure 3.7** for the transit need by population density map. The census blocks displaying a high relative need in this figure have large concentrations of transit dependent persons. Most of these high concentrations can be found in one of two areas, including central Sanford, bordered by Bragg Street to the north, Jefferson Davis Highway to the west, Garden Street to the south, and NC 78 to the east. East Sanford also has a large concentration of transit dependent populations that are encircled by NC 78 to the northwest, Cox Maddox Road to the east, Lee Avenue to the east, and St. Andrews Church Road to the south.

Not surprisingly, many of the areas with high transit need based on this ranking are located in more densely populated areas and around major highways. Areas displayed as having moderate transit need are mostly adjacent to and surrounding areas of high transit need, while low transit need based on density is shown in mostly rural areas.

Figure 3.7 - Transit Need by Dependent Population Density



- US Highway
  - NC Highway
  - Other Street
  - + Railroad
  - County Boundary
- 
- |   |  |
|---|--|
| <b>Relative Transit Need</b>  | <span style="color: yellow;">●</span> Top Residential Origins/Destinations |
| <span style="background-color: lightblue; width: 15px; height: 10px; display: inline-block;"></span> Low          |  |
| <span style="background-color: mediumslateblue; width: 15px; height: 10px; display: inline-block;"></span> Medium |  |
| <span style="background-color: darkslateblue; width: 15px; height: 10px; display: inline-block;"></span> High     |  |



## Transit Need by Dependent Population Percentage

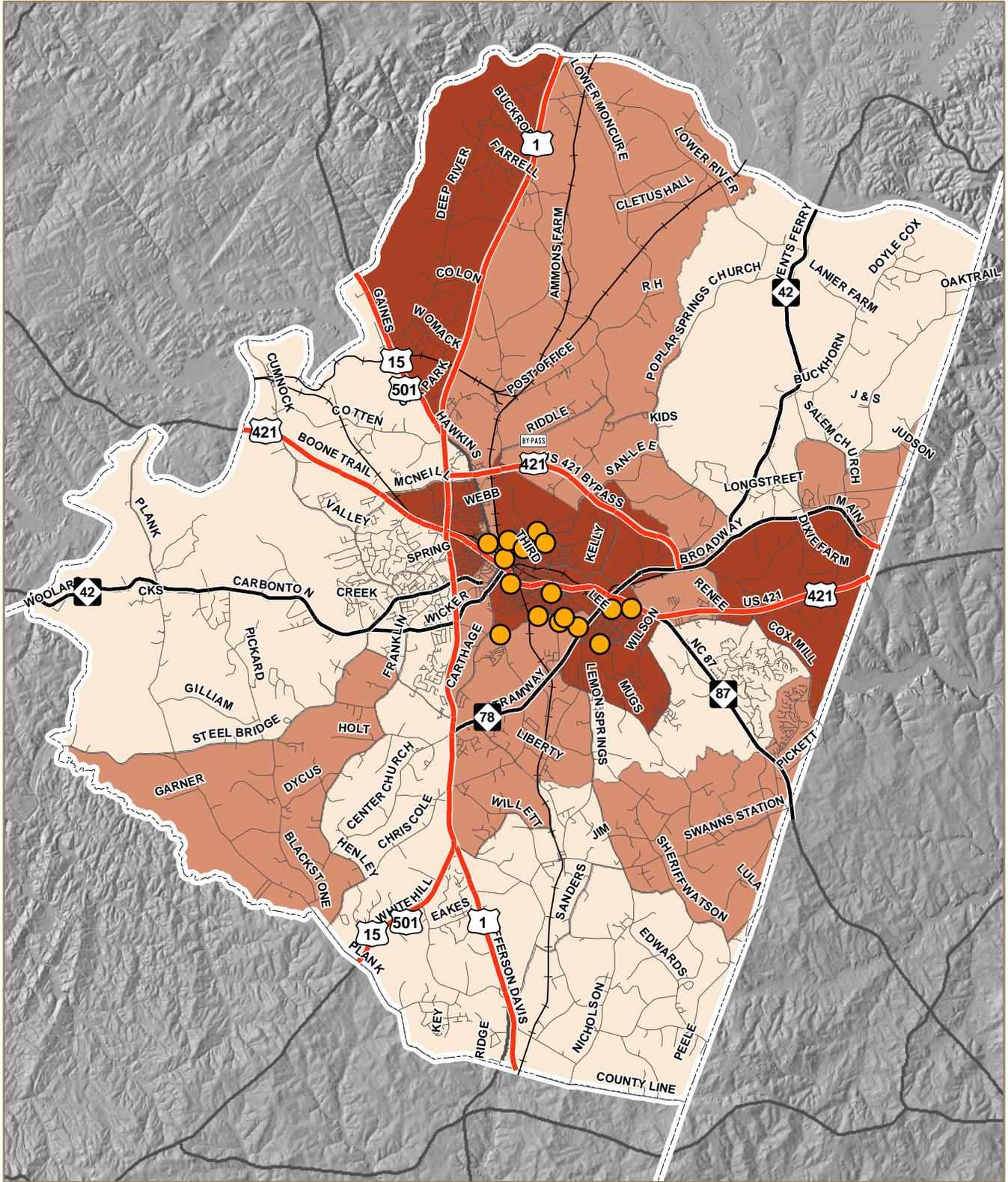
Transit need also was ranked and mapped by percentage of transit dependent persons in each census block group. Each census block was mapped as having a high, medium or low relative transit need based on its overall ranking. **Figure 3.8** exhibits transit need by dependent population percentage. Areas shown with a high transit need have an overall larger proportion of transit dependent persons than other census block groups. However, these persons may be spread out over a much wider area, where the density map displayed high concentrations in small areas. Some areas displaying high transit need overlap with high density transit needs; these include areas of central and eastern Sanford. Other areas displaying a higher percentage of transit dependent populations include:

- Northern Sanford: the area bordered by US 421 Bypass to the north, NC 78 to the east and the railroad tracks to the west and south.
- Western Sanford: the area bordered by McNeill Road to the north, Hawkins Avenue to the east and US 421 to the south and west.

A high percentage of transit dependent populations also were found in two rural areas of Lee County, where the opportunity for fixed route transit service is much less feasible. The first of these include the area bordered by US 1 on the east, US 15-501 on the south and west, and the county line on the north and west. The second area is bordered by Broadway Road and the town of Broadway to the north, Mill Road and Mt. Pisgah Church Road to the south and west, and the county line to the east.

Moderate transit need is also displayed throughout north central Lee County as well as areas in southeast and southwest Lee County, while most of the low proportions of transit dependent populations are included in other rural census blocks throughout the county.

Figure 3.8 - Transit Need by Dependent Population Percentage



 US Highway	<b>Relative Transit Need</b>	 Top Residential Origins/Destinations
 NC Highway	 Low	
 Other Street	 Medium	
 Railroad	 High	
 County Boundary		



## Attractions and Generators

Determining locations where groups of people in need of community transportation reside is an important step in assessing the transportation needs in Lee County. However, the distribution of attractions and generators in Sanford and throughout the County also may indicate gaps in the transportation system or locations where routing efficiencies may exist. The attractions and generators include major employers as well as major activity centers.

## Major Employers

**Table 3.8** details the 25 largest employers as of the 4<sup>th</sup> Quarter of 2009 according to data supplied by the Employment Security Commission of North Carolina. These employers cover a range of industries, including public education, manufacturing, retail, healthcare, public administration, professional business, and hospitality. It should be noted that some of the employers listed in the table and shown on the map are spread across multiple locations. For example, employees of Lee County Schools are located in the administrative office

and at schools throughout the county. Several of the largest employers also appear on the COLTS origin/destination snapshot survey discussed in more detail later in this chapter. Also, several of the county's largest employers also represent major activity centers.

Table 3.8 – Largest Employers in Lee County

Rank	Company	Industry	Employees
1	Lee County Schools	Education and Health Services	1,000+
2	Coty LLC	Manufacturing	1,000+
3	American Cyanamid Co	Manufacturing	1,000+
4	Pilgrims Pride Corporation	Manufacturing	1,000+
5	Static Control Components Inc	Manufacturing	500 to 999
6	The Pantry Inc	Trade, Transportation, Utilities	500 to 999
7	Amisub of North Carolina Inc	Education and Health Services	500 to 999
8	Central Carolina Community College	Education and Health Services	500 to 999
9	Lee County	Public Administration	500 to 999
10	Pentair Pool Products Inc	Manufacturing	500 to 999
11	Tyson Mexican Original Inc	Manufacturing	250 to 499
12	Caterpillar Inc	Manufacturing	250 to 499
13	Frontier Spinning Mills Inc	Manufacturing	250 to 499
14	Walmart Associates, Inc	Trade, Transportation, Utilities	250 to 499
15	Moen Incorporated	Manufacturing	250 to 499
16	Arden Companies	Manufacturing	250 to 499
17	City of Sanford	Public Administration	250 to 499
18	JT Davenport & Sons Inc	Trade, Transportation, Utilities	250 to 499
19	Food Lion LLC	Trade, Transportation, Utilities	100 to 249
20	Magneti Marelli USA Inc	Manufacturing	100 to 249
21	McDonald Restaurants of NC Inc	Leisure and Hospitality	100 to 249
22	Sanford Contractors Inc	Construction	100 to 249
23	Liberty Healthcare Group LLC	Education and Health Services	100 to 249
24	The Mega Force Staffing Group Inc	Professional and Business Services	100 to 249
25	Minnesota Mining & Manufacturing Co	Trade, Transportation, Utilities	100 to 249

Source: Employment Security Commission of North Carolina



## Major Activity Centers

Often as residential, commercial, and industrial growth occurs and more people require mobility to increasingly more dispersed destinations, transportation improvements fail to keep pace. This statement is true for public transportation initiatives as well as roadway improvements and bicycle and pedestrian enhancements. Throughout Lee County these destinations can be described as major activity centers. As destinations that the general public needs to access regularly, these activity centers become major trip generators. For the purpose of the *Lee County CTSP*, the identification of major activity centers includes high density housing, medical and social services, civic, recreational, educational, and shopping/retail. These locations are detailed in **Table 3.9**.

Table 3.9 – Major Activity Centers

Name	Address
<b>High Density Housing</b>	
Apartments and Condominiums	Various Locations
Rest Homes and Assisted Living Facilities	Various Locations
Older Adult Housing	Various Locations
Affordable Housing	Various Locations
Mobile Home Parks	Various Locations
<b>Medical and Social Services</b>	
Central Carolina Hospital – Sanford	1135 Carthage St, Sanford
Lee County Department of Social Services	530 Carthage St, Sanford
Lee County Health Department	106 Hillcrest Dr, Sanford
Carolina Dialysis	1922 KM Wicker St, Sanford
Moncure Community Health Center	7228 Moncure Pittsboro Rd, Moncure
Sandhills Center	130 Carbonton Rd, Sanford
<b>Civic</b>	
Lee County Government Center	106 Hillcrest Dr, Sanford
Sanford City Hall	225 E Weatherspoon St, Sanford
Broadway Town Hall	117 S Main St, Broadway
Lee County Courthouse	1400 S Homer Blvd, Sanford
Dennis A. Wicker Civic Center	1801 Nash St, Sanford
Lee County Library – Suzanne Reeves Library	107 Hawkins Ave, Sanford
Lee County Library – Broadway Branch	206 S Main St, Broadway
Lee County Library – Jonesboro Branch	309 W Main St, Sanford
US Post Office	Various Locations
<b>Recreational</b>	
Enrichment Center	1615 S Third St, Sanford
Parks	Various Locations
<b>Educational</b>	
Central Carolina Community College - Main Campus	1105 Kelly Dr, Sanford
Lifelong Learning Center at W.B. Wicker	900 South Vance St, Sanford
NC School of Telecommunications	5910 Clyde Rhyne Dr, Sanford
Emergency Services Training Center	3000 Airport Rd, Sanford
Lee County Schools	Various Locations
<b>Shopping/Retail</b>	
Walmart Supercenter	3310 NC 87 S, Sanford
Sanford Shopping Center	1065 Spring Ln, Sanford

## Conclusion

Individuals with limited access to personal transportation due to their age, disability, or income must overcome significant obstacles to fulfill fulfilling critical needs such as employment, medical care, and recreation. This chapter of the *Lee County CTSP* has described demographic trends in Lee County and identified where this transportation disadvantaged population resides and the destinations to which they seek access. The assessment results in a general description of the community transportation needs within the service area. It also sets the stage for the next steps in the CTSP process — to identify, evaluate, and prioritize strategies to enhance the mobility of targeted populations and the general public. The next chapter lays the groundwork for selecting and prioritizing recommendations by presenting a series of issues and options according to three overlapping categories — Administration, Operations, and Capital.

## Chapter 4 — Issues & Options

### Introduction

Lee County's geography, changing demographics, diverse economy, and proximity to the Raleigh-Durham area create challenges and provide opportunities for establishing a balanced and efficient community transportation system. **Chapter 1** through **3** have provided an overview of the system and discussed challenges and opportunities it faces. The next steps are to identify, evaluate, and prioritize strategies to enhance the mobility of targeted populations and the general public. This chapter sets the stage for the selection and prioritization of preferred recommendations through a descriptive presentation of issues and options.



### Chapter Structure

As discussed in **Chapter 1**, numerous groups and individuals collaborated to establish a baseline of understanding upon which to assess needs and determine prioritized recommendations. In the process, the project vision statement for the *Lee County CTSP* was established:

*The Lee County Community Transportation Service Plan will identify system and organizational improvements and strategies that enhance access and mobility for all residents of Lee County, particularly those without the ability or means to use personal vehicles.*

Based on the project vision statement, several guiding principles steered the analysis of existing conditions and informed the creation of the preliminary options presented in this chapter. The guiding principles of the *Lee County CTSP* are:

- **Mobility** — To maintain transportation options for the general public, low income individuals, elderly persons, and persons with disabilities to foster independence and enhance quality of life.
- **Integration** — To integrate the community transportation system with other federal, state, and local programs that support public and human service transportation.
- **Efficiency** — To enhance the efficiency and effectiveness of community transportation in Lee County.
- **Coordination** — To develop the seamless delivery of transportation services across geographies, jurisdictions, and program areas.
- **Measureable** — To create a phased implementation schedule that supports measureable results.
- **Resourcefulness** — To utilize and identify appropriate resources (personnel, funding, vehicles, and technology) to sustain a level of service that fulfills the transportation needs of individuals.

## Issues & Options

The core of this chapter is presented as a series of three elements (Administration, Operations, Capital) for which general issues and various options are presented. This process lays the groundwork for the recommendations and financial and implementation plans that will be presented in the draft plan. The relationships between issues and options may create repetition, but it is in this repetition that overarching themes emerge. Likewise, the elements and/or issues and recommendations may address multiple guiding principles. Issues and options are presented in a consistent format throughout the elements and include the following categories (if necessary):

- **Issue** — States the issue concisely
- **Observation** — Identifies potential causal factors and other considerations
- **Options** — Puts forth one or more options to address the issue
- **Best Practice** — Explains an industry standard or best practice for which most systems should strive in the short- or long-term
- **Discussion** — Summarizes the discussion from SC Meeting # 3 and the Stakeholder Symposium

It is emphasized that the options presented in the chapter are preliminary and at times may contradict one another. These contradictions were intentional to cultivate discussion at Steering Committee Meeting #3 and the Stakeholder Symposium. Where uncertainty existed regarding a course of action, a preferred recommendation was finalized following these meetings and additional work by the project team. The preferred recommendations (included in **Chapter 5**) are specific directives and are tied to the financial and implementation plan. The *Draft Lee County CTSP* describes the preferred recommendations, financial strategy, and implementation framework. A review of the draft plan will provide a final opportunity to adjust recommendations before the plan is presented for endorsement and/or adoption. As mentioned on the following page, the numbers shown below are for identification purposes and do not reflect a prioritization.

### Administration

1. Perception of system as an older adult service
2. Office space
3. Coordination with adjacent systems
4. Staffing
5. Branding
6. Funding
7. Telecommunications
8. Transportation Advisory Board (TAB) composition
9. Marketing/public awareness
10. Hispanic outreach
11. Subscription service

### Operations

12. Route efficiency
13. 48-hour scheduling cutoff
14. Employment transportation
15. Fixed-route service
16. Transporting discharged hospital patients
17. Wait time for return trips (time from when riders call for pick-up after an appointment until the driver arrives)
18. Transportation for college students
19. Evening service
20. Weekend service
21. Convenience trips (shopping, recreation, leisure, etc.)
22. Fare structure
23. BRAC

### Capital

24. Fleet mix
25. Office space and telecommunications equipment
26. Vehicle tracking devices for COLTS vehicles

### Steering Committee Meeting #3 / Stakeholder Symposium

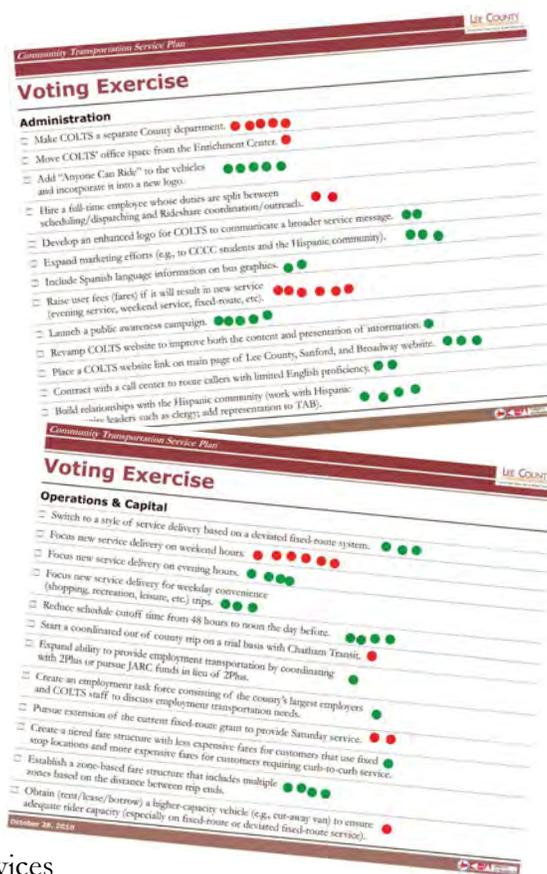
On October 28, 2010, the Steering Committee and project stakeholders convened to review the issues and options matrix. Both sessions focused on critical issues, particularly those that have a trickledown effect on other potential recommendations or the direction of future administrative and operational direction of COLTS. Issues and associated options that require major cost or effort also were singled out. Based on discussions at the meeting, several options were refined. The major outcomes of the meeting included:

- The perception of COLTS as a service for older adults is real and several actions will be necessary to curb this perception.
- COLTS should investigate options for providing additional space for its administrative offices.
- Reducing the 48-hour schedule requirement will require changes to administrative practices and potentially advanced scheduling software.
- Merging COLTS with neighboring systems provides some benefits but likely will not be feasible (nor preferable) during the 5-year planning horizon of the CTSP.
- Coordination opportunities are present, but it may be difficult to overcome obstacles to implement.
- Switching some service to deviated fixed route is worth further consideration.
- The mix of vehicles in COLTS' fleet will be important over the next several years.

Other items of note are presented in the "Discussion" column of **Table 4.1**.

The Stakeholder Symposium, which included representatives from the Department of Social Services, the Christians United Outreach Center of Lee County, the Coalition for Families of Lee County, and Lee County administration as well as members of the general public, was conducted following the Steering Committee meeting to guide *Technical Memorandum 2* and the development of CTSP recommendations. The session was designed to inform those in attendance about the plan and its recommendations and offer an opportunity to comment on the plan. The symposium included an overview of what we heard at the first series of workshops and learned through analysis, a discussion of the findings and recommendations, and a question and answer session. The symposium concluded with a voting exercise designed to gauge support for recommendations. After describing the benefits, costs, and time associated with major recommendations, attendees were given red and green dots to place on a poster that listed the recommendations. The green dots signified high priority initiatives while the red dots represented lower priority options.

Key results of the Stakeholder Symposium also are described in the "Discussion" column of **Table 4.1**. In general, those in attendance favored options that expanded service to more residents, provided more visibility to COLTS, expanded the services offered, and set the stage for future growth.



## Issues & Options Matrix

The Issues and Options Matrix was created to systematically introduce issues, factors for consideration, and potential options related to the administration, operations, and capital needs of COLTS. It is emphasized that no recommendations are finalized in the matrix. Instead, a series of options were provided and presented at Steering Committee Meeting #3 as well as the Stakeholder Symposium. These meetings were structured to vet the issues and

options and provide feedback ahead of the project team developing a list of recommendations. The Issues and Options Matrix categorizes the issues based on three categories — Administration, Operations, and Capital — and several issues overlap and/or span more than one category. While the issues are numbered 1 through 26, these numbers are provided for reference only and do not represent priority levels.

### Administration

Table 4.1 – Issues & Options Matrix (Administration)

Issue	Observation	Options	Best Practice (if applicable)	Discussion
1. Perception of system as an older adult service	<ul style="list-style-type: none"> <li>Office location and demographics of clients support this perception.</li> <li>Senior Services provides significant administrative and facilities support to COLTS.</li> <li>Relocating COLTS (both organizationally and physically) would require support by another entity to replace the support provided by Senior Services or additional COLTS resources.</li> </ul>	<ul style="list-style-type: none"> <li>Move COLTS organizationally and/or physically from the umbrella of Senior Services to another agency/entity.</li> <li>Make COLTS a separate County department.</li> <li>Make COLTS a free-standing entity (501c3 or otherwise).</li> <li>Move COLTS' office space from the Enrichment Center.</li> <li>Add "Anyone Can Ride" or a similar message to the vehicles and incorporate it into a new logo.</li> </ul>	<ul style="list-style-type: none"> <li>Operating as a stand-alone entity generally is considered 'best practice' but is a significant undertaking and would require substantial planning and additional resources.</li> <li>Becoming an independent entity likely would require new, long-term funding and support from other entities (such as the City of Sanford or Central Carolina Community College) and/or having COLTS become eligible for additional NCDOT transit funding by teaming with other community transportation providers for service.</li> </ul>	<ul style="list-style-type: none"> <li>The perception of the COLTS system as a service for older adults can be alleviated through a series of targeted actions without moving COLTS organizationally from the umbrella of Senior Services. The size of the system through the 5-year planning horizon of the CTSP is not expected to warrant making COLTS a separate County department or a free-standing entity. However, these options should not be permanently shelved and the system should continue to weigh the pros and cons as it grows and matures.</li> <li>The perception of the system also will improve as the Dash fixed-route service launched by COLTS in October 2010 grows. However, current funding of this service requires priority for the elderly and persons with disabilities.</li> <li>Moving COLTS offices from the Enrichment Center is supported by staff and the Steering Committee. The physical separation of COLTS and Senior Services would expand the perception of COLTS as a service for all residents of Lee County. This action also could lead to additional office space, as discussed in Issue 2.</li> <li>Adding "Anyone Can Ride" or a similar message to the vehicles should be a part of broader strategy to encourage additional riders of various age and demographic backgrounds.</li> </ul>

Issue	Observation	Options	Best Practice (if applicable)	Discussion
<p>2. Office space</p>	<ul style="list-style-type: none"> <li>▪ COLTS offices are too small for existing staff and operations and are a complicating obstacle for future growth.</li> <li>▪ COLTS offices are located remotely from the vehicles and driver reporting location, complicating routine administrative and operational functions.</li> </ul>	<ul style="list-style-type: none"> <li>▪ Expand office space within the Enrichment Center. [Note: Security and space concerns currently preclude locating vehicles at the Enrichment Center.]</li> <li>▪ Move COLTS offices into a location adjacent to the vehicles (via an office trailer, constructing a building, or relocating to a different facility.)</li> <li>▪ Move COLTS offices and vehicles to another County-owned location.</li> <li>▪ Move offices and vehicles to a facility owned by another entity (such as the City of Sanford or Central Carolina Community College).</li> </ul>	<ul style="list-style-type: none"> <li>▪ It is administrative and operationally preferable to have vehicles, drivers and dispatch operations be co-located. Though a best practice, this is not a necessity as current operations demonstrate.</li> </ul>	<ul style="list-style-type: none"> <li>▪ The lack of space and limits on telecommunication equipment make relocating COLTS offices an important need within the 5-year planning horizon of the CTSP. Expanding the space allocated to COLTS at the Enrichment Center is not feasible, and the Steering Committee and stakeholders expressed interest in other options. Several options were discussed, but the focus was on county- or city-owned space. Two potential locations include the EMS facility and the space formerly occupied by the economic development department. It was agreed that it is preferable to have vehicles domiciled at the administrative offices of COLTS, though the security of the vehicles remains the top priority.</li> </ul>
<p>3. Coordination with adjacent systems</p>	<ul style="list-style-type: none"> <li>▪ Lee County is a geographically small county with the population concentrated within Sanford. This makes Lee County significantly different than most of its neighboring counties, which tend to be larger and more rural.</li> <li>▪ It remains unclear which community transportation providers in adjacent counties are willing and/or better positioned to assume a lead role in pursuing transportation coordination opportunities.</li> <li>▪ Transportation services currently provided by COLTS and surrounding systems have limited logistical synergies.</li> </ul>	<ul style="list-style-type: none"> <li>▪ Moore County currently has a vacancy for the position of transit director, which may provide an opportunity for exploring joint service opportunities.</li> <li>▪ Start a coordinated out of county trip on a trial basis with Chatham Transit.</li> <li>▪ Provide a scheduled connection to Chatham Transit Network's public route.</li> </ul>	<ul style="list-style-type: none"> <li>▪ Coordinating service with other systems provides additional transportation options for all parties.</li> <li>▪ Reducing duplicative trips/services benefits the public in general through more efficient use of tax dollars.</li> <li>▪ Multi-county service coordination is an important first step to creating a regional transit system. Regional transit systems have access to additional NCDOT/FTA transit funding for new services that single county systems (such as Lee) are not eligible.</li> </ul>	<ul style="list-style-type: none"> <li>▪ Within the 5-year planning horizon, it is not feasible for the system to clear the political and administrative hurdles necessary to merge COLTS with neighboring systems to create a multi-county regional transit system. Staff and stakeholders also agreed that regionalization likely is not in the best interest of COLTS and its clients due to significant differences in service, geography, and demographics</li> <li>▪ In the short-term it was agreed that COLTS should continue to explore coordination opportunities with neighboring systems. Within the CTSP implementation phase, coordination with neighboring systems is likely to occur provided the logistics such as capacity constraints, insurance and liability, and scheduling and dispatching are clarified. Potential coordination opportunities include partnering with Central Carolina Community College and Harnett Area Rural Transit System to connect with the Dash route.</li> </ul>

Issue	Observation	Options	Best Practice (if applicable)	Discussion
4. Staffing	<ul style="list-style-type: none"> <li>▪ Expanding hours and/or days of service will require additional personnel to manage and operate vehicles.</li> <li>▪ Many current COLTS drivers are scheduled to work at levels in excess of typical guidelines for part-time workers (1,000 hours annually).</li> <li>▪ Lee County may need to either hire more part-time drivers (reducing total annual hours worked for all part-time personnel) or convert some part-time personnel to full-time. The transition to full-time status will require additional expenses in the form of providing benefits.</li> </ul>	<ul style="list-style-type: none"> <li>▪ Hire a part-time scheduler/dispatcher.</li> <li>▪ Have one or more drivers cross-trained to work as schedule/dispatcher.</li> <li>▪ Hire a full-time employee whose duties are split between scheduling/dispatching and Rideshare coordination/outreach.</li> <li>▪ Hire additional part-time drivers.</li> <li>▪ Convert some part-time drivers into full-time personnel, consistent with their work schedules.</li> <li>▪ Transition one or more part-time drivers to full-time (in part to provide staffing options for extended or weekend service hours).</li> <li>▪ Utilize part-time drivers from neighboring systems. [Note: These drivers effectively would be part-time employees for both systems and would be able to increase the number of hours they work each week.]</li> </ul>	<ul style="list-style-type: none"> <li>▪ As a best practice, part-time personnel should not work schedules approaching full-time without receiving benefits.</li> </ul>	<ul style="list-style-type: none"> <li>▪ It was agreed that staffing will be a limiting factor as new service (especially expanding hours and/or days of service) is considered. Initial staffing needs will focus on the need for additional part-time drivers. Transitioning to more full-time staff likely will be cost prohibitive. However, additional staffing needs in the future will include scheduling/dispatching help. If part-time drivers request additional hours, the option to have part-time drivers serve multiple systems should be explored.</li> </ul>
5. Branding	<ul style="list-style-type: none"> <li>▪ COLTS is a ‘County of Lee’ system, and its image is closely linked with both Lee County and human services transportation.</li> <li>▪ Expanding the perception of COLTS to a broader audience will require additional marketing efforts, including outreach and accommodations for Hispanics.</li> </ul>	<ul style="list-style-type: none"> <li>▪ Develop an enhanced logo for COLTS to communicate a broader service message.</li> <li>▪ Expand marketing efforts (e.g., to CCCC students and the Hispanic community).</li> <li>▪ If a regional system is formed, change the system name (COLTS) to represent a broader connotation with respect to transportation options.</li> <li>▪ Include Spanish language information on bus graphics.</li> </ul>	<ul style="list-style-type: none"> <li>▪ Organizational “brand” should be consistent with the organization’s mission, goals, and target audience.</li> </ul>	<ul style="list-style-type: none"> <li>▪ The lack of branding for COLTS is closely related to the issues and opportunities surrounding the perception of the system as a service for older adults (Issue 1). Marketing efforts have been expanding in the last few years, and the addition of the Dash service has provided additional opportunities to reach potential riders.</li> </ul>

Issue	Observation	Options	Best Practice (if applicable)	Discussion
<p>6. Funding [Note: the discussion as presented here is not intended to identify all funding sources. The financial plan assigns existing and potential funding sources to specific recommendations where appropriate.]</p>	<ul style="list-style-type: none"> <li>▪ 2Plus is the current recipient for area JARC funding. With that exception, COLTS receives all the funding assistance from NCDOT for which it is eligible.</li> <li>▪ Additional transit funding may be available to regional systems should COLTS pursue teaming in some fashion with surrounding systems.</li> <li>▪ City residents account for 80% of ridership but local match is provided through County taxes (which City residents also pay.)</li> <li>▪ Sanford residents are perceived as receiving a disproportionate benefit of the services COLTS provides.</li> </ul>	<ul style="list-style-type: none"> <li>▪ Pursue JARC funding.</li> <li>▪ Consider raising user fees. [Note: A rider/market survey may be one part of a larger planning effort needed prior to fare adjustments.]</li> <li>▪ Explore teaming with adjoining community transportation systems to pursue regional transit funding opportunities.</li> <li>▪ The City of Sanford indicated some willingness to explore providing support for transit. However, significant, additional vetting is needed to understand what kinds of support may be possible. [Note: City support could be monetary or non-monetary resources, such as office space or parking. Understanding the level of support the city may provide and establishing that support will be an ongoing process.]</li> </ul>	<ul style="list-style-type: none"> <li>▪ Having transit coordinated at a regional level provides clear long-term benefits to the public in terms of service options. Coordinating basic services with neighboring systems is clearly the first step to such a goal.</li> </ul>	<ul style="list-style-type: none"> <li>▪ The discussion about adding service or increasing capacity often reverts back to funding, both what currently is available and what realistically could be expected. Steering Committee Meeting #3 and the Stakeholder Symposium both yielded this result. Agreement was reached regarding several funding strategies.</li> <li>▪ While the application process and administration of JARC funding can be a burden on staff, the potential to extend service for those seeking employment-based transportation suggest COLTS should pursue these funds (see Issue 14).</li> <li>▪ Stakeholders and the general public ranked raising user fees among the least popular options even if it resulted in more services. While raising user fees rarely is a recommendation championed by those who bear the cost, the lack of support suggests the success raising user fees would hinge on a marketing campaign that presents the ways service has been enhanced.</li> <li>▪ A zone-based fee structure also was discussed (Issue 22). Such an arrangement likely would more equally assign fees based on the cost of service and may provide additional revenue.</li> <li>▪ As mentioned in the discussion of Issue 3, it is not feasible for the system to clear the political and administrative hurdles necessary to merge COLTS with neighboring systems to create a consolidated system that gains eligibility for restricted funds.</li> <li>▪ The City of Sanford has expressed a willingness to provide resources to COLTS through in kind services. While the City's support of COLTS will continue to evolve throughout the 5-year planning horizon of the CTSP, it is acknowledged that the City should provide support (financial or otherwise) for a service that is disproportionately utilized by its residents compared to residents in unincorporated Lee County.</li> </ul>

Issue	Observation	Options	Best Practice (if applicable)	Discussion
7. Telecommunications	<ul style="list-style-type: none"> <li>▪ The telephone system at the Enrichment Center currently is at capacity. Adding additional phone or fax lines would require replacing the entire senior services phone system.</li> <li>▪ COLTS personnel indicate a strong need for additional phone and fax capacity as well as a location for the fax machines that is more convenient to COLTS personnel.</li> </ul>	<ul style="list-style-type: none"> <li>▪ Have Senior Services replace its phone system with one with greater capacity and add the requested phone and fax lines/machines.</li> <li>▪ Relocate COLTS operations to facility that has the necessary telecommunication capacity.</li> <li>▪ Look at Internet-based options for faxing and/or Voice over IP (VOIP) options for telecommunications services.</li> </ul>	<ul style="list-style-type: none"> <li>▪ Transportation operations must have adequate telecommunications capacity to allow clients and customers to efficiently coordinate.</li> </ul>	<ul style="list-style-type: none"> <li>▪ An enhanced telecommunications system has been a frequent budget request by COLTS in previous budget cycles, but the request has been denied. COLTS should continue to seek budget provisions that will allow their current system to be expanded. Telecommunications also should be a consideration as new office space is evaluated.</li> </ul> <p>[January 2011 update: A new Voice over IP (VoIP) phone system is in the FY2012 Lee County Information Technology budget. Though COLTS is not expect to incur a direct cost for the VoIP system, it will be able to add Automatic Call Distribution software if grant funding is received.]</p>
8. Transportation Advisory Board (TAB) composition	<ul style="list-style-type: none"> <li>▪ The Hispanic community in Lee County statistically is underserved by COLTS. Some additional TAB representation by representative of the Hispanic community may encourage ridership by providing a link between the system and the Hispanic community.</li> <li>▪ NCDOT provides guidance on TAB size and composition. These guidelines tend to emphasize diversity of groups represented (resulting in a large number of TAB members) over effective or efficient board operations.</li> <li>▪ NCDOT recommendations for TAB composition tend to emphasize client organizations and users that have specific needs at the expense of general public interest.</li> </ul>	<ul style="list-style-type: none"> <li>▪ Increase diversity of TAB by adding a member of the Hispanic community. If possible, identify and recruit Hispanics to serve on the TAB that also can represent other interests (as mandated by NCDOT or the COLTS TAB bylaws).</li> </ul>	<ul style="list-style-type: none"> <li>▪ Smaller advisory/oversight boards tend to be more efficient and encourage greater interest by members, factors that encourage smaller board size. However, the converse is also true (i.e. larger board size supports increased diversity but with the typical result of a less-engaged and less-efficient board).</li> </ul>	<ul style="list-style-type: none"> <li>▪ The size and composition of the TAB is the result of the number of contract agencies required to participate on the committee. COLTS staff continues to strive for diversity by having cross-representation where possible.</li> <li>▪ A representative from the Hispanic Task Force of Lee County has served on the TAB, but the non-profit organization recently ceased operating. As the most visible link on the TAB to the Hispanic community, COLTS leadership has recognized the need to fill this slot with a new Hispanic community leader.</li> <li>▪ As with any committee or board, an important consideration is to get active participation by establishing a vision and creating interactive session that outline incremental steps to fulfilling that vision.</li> </ul>

Issue	Observation	Options	Best Practice (if applicable)	Discussion
<p>9. Marketing/public awareness</p>	<ul style="list-style-type: none"> <li>▪ As described in Issue 1, the general public perceives COLTS to be limited to providing human services transportation.</li> <li>▪ While COLTS clearly is not limited to providing human services transportation, the reality is that such services do comprise the majority of services currently provided.</li> <li>▪ The current process and policies related to scheduling trips (48-hour cut-off) encourage this perception and makes it difficult for COLTS to be a preferred transportation alternative.</li> </ul>	<ul style="list-style-type: none"> <li>▪ Launch a public awareness campaign.</li> <li>▪ Revamp COLTS website to improve both the content and presentation of information. Tie the re-launch of the website with the system's enhanced brand and a public awareness campaign.</li> <li>▪ Place a COLTS website link on main page of Lee County, Sanford, and Broadway websites.</li> <li>▪ Physically and organizationally relocate COLTS outside of Senior Services.</li> <li>▪ Utilize local access television statement for marketing program.</li> </ul>		<ul style="list-style-type: none"> <li>▪ The Steering Committee and stakeholders/public acknowledged that many of the options presented here would occur as part of a coordinated approach to marketing and public awareness. It also was discussed that the revamped website should occur following a peer review of other systems' websites to learn their approach to content and organization.</li> <li>▪ Marketing and public outreach should be tied to changes in existing service or the launching of new service.</li> <li>▪ Regarding the location of COLTS, the focus will be on the physical location administrative offices rather than moving it organizationally under another Lee County department or making it a standalone entity. While the relocation of the office will help with the perception of the system, the main purpose of the relocation will be to expand the office space and make administrative functions more efficient. (See Issues 1 and 2)</li> <li>▪ Options presented here were highly rated during the voting exercise with stakeholders and the general public. The most favored option was to enhance the vehicles with text and color, though the general option of launching a public awareness campaign also received high marks.</li> </ul>

Issue	Observation	Options	Best Practice (if applicable)	Discussion
<p>10. Hispanic outreach</p>	<ul style="list-style-type: none"> <li>▪ COLTS has recognized the need to reach out to the Hispanic community, but a lack of existing relationships between COLTS and the Hispanic community has made it difficult.</li> <li>▪ To a degree, the Hispanic community has a distrust of governmental entities.</li> </ul>	<ul style="list-style-type: none"> <li>▪ Contract with a call center to route callers with limited English proficiency.</li> <li>▪ Build relationships with the Hispanic community (work with Hispanic community leaders such as clergy; add representation to TAB).</li> </ul>		<ul style="list-style-type: none"> <li>▪ It was agreed that effectively reaching out to the Hispanic community requires a targeted relationship-building effort. During the stakeholder interviews, a Hispanic community leader emphasized the role trust plays in developing this relationship.</li> <li>▪ This issue will be mitigated in part by continuing to have representation from the Hispanic community on the TAB (see Issue 8), and allocating resources in the public awareness campaign to the Hispanic community (see Issue 9).</li> <li>▪ A critical obstacle in providing quality service to the Hispanic community is the communication gap between staff and customers. It was determined that staff can communicate on a very basic level with Spanish-speaking callers, but the communication gap persists. In the past, COLTS has tried to utilize a bilingual vehicle operator to translate when necessary. Existing resources are available in other county departments to assist with translation. However, a longer term solution likely will require the allocation of additional resources such as routing calls that require Spanish interpreters to a call center.</li> </ul>
<p>11. Subscription service</p>	<ul style="list-style-type: none"> <li>▪ COLTS has a high percentage of subscription service.</li> <li>▪ Service schedule cut-off limits ability of users to schedule other transportation trips.</li> </ul>	<ul style="list-style-type: none"> <li>▪ Monitor subscription routes for improved efficiency of administration and service delivery.</li> <li>▪ Evaluate switching to a style of service delivery based on a deviated fixed-route system.</li> <li>▪ Reduce schedule cut-off times, increase telecommunications capacity, and revise scheduling and dispatch practices to support a more dynamic service delivery approach.</li> </ul>		<ul style="list-style-type: none"> <li>▪ The high percentage of subscription service provided by COLTS offers opportunities for recognized efficiency. The potential for deviated fixed-route service in Lee County was a key discussion item at Steering Committee Meeting #3 and the Stakeholder Symposium. The groups supported this service delivery format. (See Issue 12)</li> <li>▪ Several options aimed at improving the efficiency of service delivery will allow more flexibility in scheduling trips.</li> </ul>

Operations

Table 4.2 – Issues & Options Matrix  
 (Operations)

Issue	Observation	Options	Best Practice (if applicable)	Discussion
12. Route efficiency	<ul style="list-style-type: none"> <li>▪ Small geographic footprint of the county and the urban core of Sanford provide a great opportunity for route efficiency.</li> <li>▪ High population density lends the system to easier implementation of deviated fixed route service.</li> <li>▪ Improved route efficiency will increase capacity without adding cost.</li> <li>▪ Route efficiency may be best achieved by utilizing advanced scheduling software.</li> </ul>	<ul style="list-style-type: none"> <li>▪ Evaluate trips to determine options for establishing deviated fixed-route service (based on having stops at clients/facilities such as CCCC, Enrichment Center, Carolina Dialysis, Lee County Industries, Moncure Clinic, etc.).</li> <li>▪ Implement vehicle tracking software (automatic vehicle location or AVL) for greater driver and route efficiency.</li> <li>▪ Consider teaming with other systems to support quicker eligibility for routing technology assistance. (e.g., Moore County already has <i>RouteMatch</i> software in place).</li> </ul>	<ul style="list-style-type: none"> <li>▪ Deviated fixed route effectively encourages client/customers to schedule appointment/trip needs around transportation service schedules. This clearly provides significantly higher potential for efficiency and supports adding riders to runs with very short notice.</li> </ul>	<ul style="list-style-type: none"> <li>▪ Establishing some level of deviated fixed-route service was a popular option provided it was understood this service delivery style would not apply to all service provided by COLTS. Demand response would remain a core delivery strategy for COLTS. However, where route redundancy exists, deviated fixed-route service could be employed and as a result would free resources (vehicles, drivers, schedulers/dispatchers) that could be concentrated on additional demand response trips.</li> <li>▪ The Dash route should be one of the first routes for consideration as a deviated fixed-route. The recently launched fixed route serves several of the Sanford’s major activity centers and popular COLTS destinations (including the hospital and community college). Ridership numbers from the route are low, though it only began operation in October 2010 and COLTS is still getting the word out. Adding a deviated component to the route likely would fill seats and increase revenue, and the current headways may not require much adjustment to allow vehicles time to deviate from the fixed route.</li> <li>▪ COLTS likely will have to work directly with partner agencies to identify potential deviated fixed routes and to establish a delivery schedule. At Steering Committee Meeting #3 and the Stakeholder Symposium, it was discussed that Human Services could move some trips to a deviated fixed route. Many of these trips currently are subscription-based trips.</li> </ul>

Issue	Observation	Options	Best Practice (if applicable)	Discussion
13. 48-hour scheduling cutoff	<ul style="list-style-type: none"> <li>▪ A shorter scheduling window would be more convenient and likely could make the system perform more efficiently by filling more seats of the vehicles.</li> <li>▪ Reducing the scheduling window likely would require changing the scheduler's and dispatcher's work schedules.</li> <li>▪ Reducing the scheduling window likely would require revising the practices of how drivers get their dispatch manifests.</li> </ul>	<ul style="list-style-type: none"> <li>▪ Reduce scheduling cutoff to noon the day before the trip (or even later).</li> <li>▪ Reduce the trip cancellation policy time period to encourage a more dynamic dispatch environment.</li> </ul>	<ul style="list-style-type: none"> <li>▪ Reducing scheduling and trip cancellation time windows create significant demands on office personnel. However, such practices also significantly increase potential passenger load factors, which allow high trip volumes without adding drivers (or cost). The potential of increasing rider-derived trip revenues may be realized.</li> </ul>	<ul style="list-style-type: none"> <li>▪ Several factors, including opportunities and obstacles, related to the 48-hour scheduling cutoff were discussed as part of the Steering Committee meeting and Stakeholder Symposium. It was agreed that reducing the scheduling window from 48 hours to noon the day before the trip would enhance customer service and likely fill seats on vehicles that otherwise would be empty.</li> <li>▪ A review of the cutoff time for other systems did not reveal a consensus practice. HARTS (Harnett County) also requires trips to be scheduled 48 hours in advance, while both Chatham Transit (noon the day before) and Hoke Area Transit Service (11:00 a.m. the day before) have later scheduling cutoff times.</li> <li>▪ Reducing the scheduling cutoff time will require additional staff or a change in administrative procedures. The current scheduling and dispatching process takes two days, including 4 to 5 hours the day before to finalize the manifest. In lieu of incurring the expense of additional staff in the short-term, procedures related to scheduling and dispatching could be changed. Other issues such as the administration of contract trips may need to be addressed.</li> </ul>

Issue	Observation	Options	Best Practice (if applicable)	Discussion
<p>14. Employment transportation</p>	<ul style="list-style-type: none"> <li>▪ 2Plus is a current JARC grant recipient.</li> </ul>	<ul style="list-style-type: none"> <li>▪ Transition to at least some level of deviated fixed routing service delivery (see Item 12). This transition would provide additional opportunities for COLTS to support employment trips because of improved service predictability.</li> <li>▪ Pursue JARC funding.</li> <li>▪ Hire a full-time employee whose duties are split between scheduling/dispatching and rideshare coordination/outreach.</li> <li>▪ Create an employment task force consisting of the county’s largest employers that will meet with COLTS staff quarterly to discuss employment transportation needs.</li> </ul>	<ul style="list-style-type: none"> <li>▪ Deviated fixed route inherently is more efficient than subscription or dial-a-ride services. While transitioning clients/customers to this style of service delivery is a multi-step process that requires significant time, education, and outreach to successfully accomplish, it will offer significant advantages.</li> </ul>	<ul style="list-style-type: none"> <li>▪ A strategic deployment of deviated fixed-route service will allow some employees to use COLTS for work-based transportation. However, other methods to provide employment transportation will need to be explored. The discussion at the meetings revealed that pursuing JARC funding should be a priority despite the administrative burden of the application process.</li> <li>▪ Voting by stakeholders and the general public showed support for expanded employment transportation but stressed the importance of properly allocating existing and future resources. In particular, funding and service levels should dictate whether a full-time dispatcher/rideshare coordinator is necessary.</li> <li>▪ The creation of an employment task force was supported, though the roles and responsibilities of the group need to be clearly defined.</li> </ul>
<p>15. Fixed-route service</p>	<ul style="list-style-type: none"> <li>▪ FTA funding for new, start-up, fixed route urban systems is effectively non-existent.</li> <li>▪ New fixed-route service essentially must be funded through a combination of local taxes and/or user fees.</li> <li>▪ Dash, the fixed-route service launched by COLTS in October 2010, is granted funded and targeted toward the elderly and persons with disabilities. While other riders can use this service, such usage is limited to available vehicle capacity.</li> <li>▪ It is unclear whether COLTS will be successful in extending the current grant.</li> </ul>	<ul style="list-style-type: none"> <li>▪ Monitor efficiency of new service and establish performance measures for the fixed-route launched in October 2010. Regularly evaluate success of the service compared to performance measures (every six months).</li> <li>▪ Market the availability of the new transportation service in an attempt to increase ridership to levels warranting grant extension.</li> <li>▪ Explore options for obtaining (renting / leasing / borrowing) a higher-capacity vehicle (e.g., cut-away van) to provide the new service so as to ensure adequate rider capacity. [Note: This option also is listed for Issues 19, 20, and 24.]</li> </ul>		<ul style="list-style-type: none"> <li>▪ Staff and local officials are excited about Dash and optimistic about its potential for success. However, no performance measures are in place upon which to judge success. It was acknowledged that performance measures need to be established and the Dash route needs to be monitored.</li> <li>▪ Other options presented here were supported by the Steering Committee and those attending the Stakeholder Symposium. However, it was emphasized by the group that the demand for a larger vehicle needs be established prior to allocating resources.</li> </ul>

Issue	Observation	Options	Best Practice (if applicable)	Discussion
16. Transporting discharged hospital patients	<ul style="list-style-type: none"> <li>▪ Primary demand for this transportation is late Friday afternoons.</li> <li>▪ Central Carolina Hospital (CCH) discharges are controlled by individual doctors, making predicting service demands very difficult.</li> <li>▪ This is a profitable service for COLTS, supporting the provision of trips COLTS would otherwise not have funds to cover.</li> <li>▪ CCH recently purchased a van to accommodate demand.</li> </ul>	<ul style="list-style-type: none"> <li>▪ Schedule trips to CCH at defined intervals (e.g., hourly, from 2 p.m. to 4 p.m.).</li> </ul>	<ul style="list-style-type: none"> <li>▪ Providing services for which revenues exceed cost of providing the service is effectively the same as securing additional funding for services.</li> </ul>	<ul style="list-style-type: none"> <li>▪ Discussion at the meetings revealed some gaps in communication between CCH and COLTS, but both agreed that they benefit from one another. In the future, it was understood that COLTS and hospital staff should continue to work together and better understand the unique demands inherent to serving their respective customers/clients.</li> <li>▪ Support for scheduled trips was muted and may best be executed on a trial basis following more detailed discussion with the hospital.</li> </ul>
17. Wait time for return trips (from time riders call for pick-up after an appointment until the driver arrives)	<ul style="list-style-type: none"> <li>▪ Clients waiting for return trips are an inherent problem with demand responsive service because these trips must be scheduled around other appointments.</li> </ul>	<ul style="list-style-type: none"> <li>▪ Providing some level of deviated fixed route service provides additional opportunities to address this issue.</li> <li>▪ Utilize automatic vehicle location (AVL) to reroute trips as appropriate.</li> </ul>		<ul style="list-style-type: none"> <li>▪ The issue with wait times for return trips is inherent to the demand response service delivery format employed by COLTS. However, the issue may not be as prevalent as initially indicated. Improvements to operations and efficiencies recognized through other initiatives likely will have a positive impact on wait times.</li> <li>▪ Depending on routes and schedules, deviated fixed routes also could help with wait times.</li> <li>▪ As the system matures, AVL may be an option. (See Issue 26)</li> </ul>

Issue	Observation	Options	Best Practice (if applicable)	Discussion
<p>18. Transportation for college students</p>	<ul style="list-style-type: none"> <li>▪ Central Carolina Community College (CCCC) has shown a willingness to help students that otherwise lack transportation options attend college by subsidizing the cost of having COLTS provide these trips.</li> <li>▪ Providing college student transportation is an opportunity for COLTS to expand its services as the majority of the cost of these trips will be fully borne by some combination of college support and user fees.</li> </ul>	<ul style="list-style-type: none"> <li>▪ Provide scheduled service to meet the needs of college students. [Note: deviated fixed-route service meets this need much more effectively than demand responsive service.]</li> </ul>		<ul style="list-style-type: none"> <li>▪ Central Carolina Community College is an important institution for the City of Sanford, Lee County, and Harnett County. CCCC also is an important COLTS client. Demand for evening service likely will be driven by a combination of college students seeking transportation to/from CCCC and convenience trips (shopping, recreation, leisure, etc.) for general public riders. The demand from CCCC riders could be leverage to offer service to other groups with differing demographics and trip needs. In essence, COLTS could target a certain audience (CCCC students), then pull in additional trips to fill out the demand.</li> <li>▪ Scheduled service would be an important service for CCCC students. Participants at Steering Committee #3 indentified an early morning route to CCCC for future consideration.</li> </ul>
<p>19. Evening service</p>	<ul style="list-style-type: none"> <li>▪ Stakeholder discussions indicate a desire for expanded service hours.</li> <li>▪ CCCC has a particular desire for such service as a means of meeting transportation needs for evening class students.</li> <li>▪ Unless specific, additional funding is available (such as that available for CCCC students), providing evening service simply displaces resources from daytime service.</li> <li>▪ Providing evening service creates challenges for COLTS in terms of providing staffing support (in terms of both drivers and dispatchers).</li> </ul>	<ul style="list-style-type: none"> <li>▪ Consider providing some form of deviated fixed route service during evenings, based on a core service demand of meeting CCCC student transportation needs with funding covered by a combination of CCCC and user fee funds. [Note: As with Dash, other user types would be able to use this service subject to available capacity.]</li> <li>▪ Explore options for obtaining (renting / leasing / borrowing) a higher capacity vehicle (e.g., cut-away van) to provide the new service to ensure adequate rider capacity. [Note: This option also is listed for Issues 15, 20, and 24.]</li> </ul>		<ul style="list-style-type: none"> <li>▪ If service hours are expanded, initial support is for focusing on evening hours. Expanding hours into the evening rather than adding weekend service (see Issue 20) likely would be more cost effective. The Enrichment Center currently operates until 8:00 p.m. (Monday through Thursday) and staff could be cross-trained to handle calls, but the scheduling/dispatching hours likely will remain limited to regular business hours.</li> <li>▪ If staff at the Enrichment Center are cross-trained to handle calls, their role would need to be re-evaluated as plans to relocate COLTS administrative offices are considered.</li> <li>▪ As discussed in Issue 15, demand must dictate the timing for obtaining (through renting, leasing, or borrowing) a high capacity vehicle.</li> <li>▪ As discussed in Issue 18, a deviated fixed route based on demand from CCCC may be an initial option for expanded evening hours.</li> </ul>

Issue	Observation	Options	Best Practice (if applicable)	Discussion
20. Weekend service	<ul style="list-style-type: none"> <li>▪ A two-year grant funds the Dash circulator route, with service focused on the elderly but available to others as capacity allows. However, it is not known whether COLTS will be successful in its attempt to extend this grant.</li> <li>▪ The current circulator service is very similar to deviated fixed route service. However, it is unclear to what extent this service has been marketed and how the route(s) was planned.</li> <li>▪ Without an extension of this grant or finding a source of substitute funding, providing weekend service simply displaces resources from weekday service.</li> <li>▪ Providing weekend service creates challenges for COLTS in terms of providing staffing support (in terms of both drivers and dispatchers).</li> <li>▪ Stakeholder outreach suggests a significant demand for this service.</li> <li>▪ Demand from dialysis trips is significantly higher on M-W-F than Tu-Th. Saturday service could help reduce daily service demand swings but clients are identified as being reluctant to have dialysis on Saturdays due to family considerations.</li> </ul>	<ul style="list-style-type: none"> <li>▪ Pursue extension of the current fixed-route grant to provide Saturday service.</li> <li>▪ Explore options for obtaining (renting / leasing / borrowing) a higher-capacity vehicle (e.g., cut-away van) to provide the new service so as to ensure adequate rider capacity. [Note: This option also is listed for Issues 15, 19, and 24.]</li> <li>▪ Actively market this service and have additional vehicles on stand-by should demand exceed capacity.</li> <li>▪ Pursue discussions with the City of Sanford, CCCC, and other entities that have an interest in supporting some form of scheduled transportation service.</li> </ul>		<ul style="list-style-type: none"> <li>▪ In voting by stakeholders and through discussions with the Steering Committee, it was determined more emphasis should be placed on evening service rather than weekend service.</li> <li>▪ The perceived demand for weekend service was based on differing factors depending upon the source. For example, for some stakeholders it was based primarily on the need for dialysis trips on Saturday. For others, it was based on the need for convenience trips. Follow up by COLTS staff regarding the demand for dialysis trips on Saturday showed few existing dialysis patients would switch from a Monday-Wednesday-Friday schedule to Tuesday-Thursday-Saturday even if transportation was provided. In effect, the perception that the Monday-Wednesday-Friday peaks (high trip demand) would be leveled appears to be unfounded.</li> <li>▪ The current funding structure for the Dash route limits COLTS ability to extend service hours. However, the success of Dash in its current operating environment will go a long way in providing a foundation for future service expansion (both delivery type and hours of service). This statement is particularly true where the system will rely on partners (public, private, and non-profit) for matching funds.</li> <li>▪ Though support from Sanford, CCCC, and other entities may not be for weekend service, it is advisable for COLTS to seek ways to match service gaps with entities most likely to benefit from filling these gaps and lean on those partners to provide some form of resources (e.g. time, money, in-kind).</li> </ul>

Issue	Observation	Options	Best Practice (if applicable)	Discussion
21. Convenience trips (shopping, recreation, leisure, etc.)	<ul style="list-style-type: none"> <li>▪ Similar considerations and concerns as with the ‘weekend’ and ‘evening’ service issues.</li> <li>▪ Limited options for funding such trips unless they are performed in conjunction with other, fully-funded trips.</li> <li>▪ Difficult to meet this need via a demand responsive service delivery model.</li> <li>▪ Clear customer demand for such service.</li> <li>▪ As with the ‘weekend’ and ‘evening’ service options, deviated fixed route service may provide the most cost-effective solution.</li> <li>▪ Sufficient vehicle capacity would be needed to support such a service (demand likely would vary significantly and drivers/dispatch would have limited knowledge of passenger needs).</li> </ul>	<ul style="list-style-type: none"> <li>▪ See options for Evening Service (Issue 19) and Weekend Service (Issue 20).</li> </ul>		<ul style="list-style-type: none"> <li>▪ Difficulties in providing convenience trips are inherent in the demand-response service delivery model employed by COLTS and other similar community transportation systems.</li> <li>▪ The discussion of convenience trips mirrored that of evening and weekend service hours. A combination of Dash and future deviated fixed-route service will go a long way in providing service to those who seek it and are will to adjust their travel pattern (e.g. choose a particular store or to time their trip accordingly). It was hypothesized that people would be willing to use new evening service for convenience trips.</li> </ul>
22. Fare structure	<ul style="list-style-type: none"> <li>▪ Current fare structure is based on providing demand responsive service.</li> <li>▪ User fees for non-Medicare/Medicaid funded trips currently are \$2 for trips within the City and \$4 for trips where one end point is outside Sanford.</li> </ul>	<ul style="list-style-type: none"> <li>▪ Create a tiered fare structure with less expensive fares for customers that use fixed stop locations (in support of the fixed route aspect of the deviated fixed route service option) and more expensive fares for customers requiring curb-to-curb service (either via the ‘deviated’ aspect of the fixed route options or by existing demand responsive service).</li> <li>▪ Establish an enhanced zone-based structure that better captures the true cost of service (i.e. develop multiple zones based on the distance between trip ends).</li> </ul>		<ul style="list-style-type: none"> <li>▪ As discussed in Issue 6, stakeholders and the general public show little support for increased fares even if it would result in more services. Any change in fare structure would require a coordinated public awareness campaign that ties the additional cost to enhanced service.</li> <li>▪ A tiered fare structure was well received by the Steering Committee and those who attended the symposium. However, the current scheduling software used by COLTS limits the ability of administrators to execute a tiered fare structure based on a deviated fixed route service.</li> <li>▪ COLTS currently operates with a basic zone-based fare structure (two fares depending on whether a trip end is in the county). The voting exercised revealed support for enhancing this basic system with a true zone-based fare structure based on the actual distance between trip ends. As with the tiered fare structure, more advanced scheduling software would be necessary to implement this option.</li> </ul>

Issue	Observation	Options	Best Practice (if applicable)	Discussion
23. BRAC	<ul style="list-style-type: none"> <li>Currently, the impact of BRAC mostly would be resolved using vanpools for employment trips to Fort Bragg (as coordinated by 2Plus.)</li> <li>Long-term impact likely will be continued growth in retirement community populations and associate transportation service demands.</li> </ul>	<ul style="list-style-type: none"> <li>Pursue having COLTS team with other community transportation systems in some form of regional transit entity to provide the greatest range of possible options/alternatives associated with this issue.</li> <li>Pursue JARC funding for additional vanpooling opportunities.</li> <li>Work with the Planning and Community Development Department to anticipate growth areas, particularly those targeted to retirement-age households.</li> </ul>		<ul style="list-style-type: none"> <li>As discussed in Issue 3, while it is unfeasible (and undesirable) for COLTS to merge with neighboring systems to form a regional transit entity within the 5-year planning horizon of the CTSP, coordination opportunities should continue to be explored. While the greatest initial impact to coordination could center on connections to the Dash fixed route, some opportunities may be recognized to fulfill potential transportation needs associated with BRAC. COLTS and its partners with the county and the City of Sanford should work together to anticipate where growth will occur in order to be in a position to take a proactive approach.</li> </ul>

Capital

Table 4.3 – Issues & Options Matrix (Capital)

Issue	Observation	Options	Best Practice (if applicable)	Discussion
24. Fleet mix	<ul style="list-style-type: none"> <li>High percentage of clients in wheelchairs limits capacity and increases pick-up/drop-off time.</li> <li>Higher passenger capacity vehicles are needed to attempt deviated-fixed service.</li> </ul>	<ul style="list-style-type: none"> <li>Request wheel-chair lift equipped vehicles as COLTS replaces vehicles without such lifts. [Note: An anticipated schedule for replacement vehicles and vehicle type is included in <b>Chapter 6</b>.]</li> <li>Explore options for obtaining (renting / leasing / borrowing) a higher-capacity vehicle(s) (e.g., cut-away van) to provide the new service so as to ensure adequate rider capacity. [Note: This option also is listed for Issues 15, 19, and 20.]</li> </ul>		<ul style="list-style-type: none"> <li>COLTS will be replacing four vehicles next year, all of which will be lift-equipped. While the need exists for additional lift-equipped vehicles, COLTS also needs vehicles that have more than two wheelchair stations. Current demand, especially for dialysis trips, often requires COLTS to dispatch two vehicles across the county at the same time and to the same destination. The need for a vehicle floor plan that accommodates up to four wheelchair passengers is even more important given the recent expansion at Carolina Dialysis.</li> <li>As discussed in Issues 15 and 19, demand must dictate the timing for obtaining a high capacity (non-lift equipped) vehicle.</li> </ul>

Issue	Observation	Options	Best Practice (if applicable)	Discussion
25. Office space and telecommunications equipment	<ul style="list-style-type: none"> <li>▪ As described above, the COLTS office space and telecommunications capabilities are constraints to COLTS efficiency and effectiveness.</li> <li>▪ COLTS ability to change service delivery modes, support a more dynamic dispatching environment (to increase load factors), and increase administrative efficiency (associated with having COLTS collocated with drivers and vehicles) require addressing issues of space, location, and telecommunications infrastructure.</li> </ul>	<ul style="list-style-type: none"> <li>▪ Seek funding for expanding COLTS existing space or find a different facility that meets the desired space and location needs of COLTS.</li> <li>▪ Expand the COLTS office telecommunications capability by whatever means necessary (e.g., upgrade the existing Senior Service phone system, procure a separate phone system for COLTS, move COLTS to a location that has adequate telecommunications capacity, etc.)</li> </ul>		<ul style="list-style-type: none"> <li>▪ The Steering Committee and attendees at the symposium agreed that many of the initiatives for the 5-year planning horizon of the CTSP (e.g. adding new service delivery modes and increasing administrative efficiency) will require — or will be expedited by — addressing issues of space, location, and telecommunications infrastructure. See Issues 1 and 2 for a detailed discussion on the office space needs for COLTS.</li> </ul>
26. Vehicle tracking devices for COLTS vehicles	<ul style="list-style-type: none"> <li>▪ Low cost options exist for having vehicle activities tracked by GPS-enabled devices and having manifests printed upon driver return to dispatch location.</li> <li>▪ Having vehicle tracking technology in place is a proven means of improving manifest accuracy, streamlining administrative processes related to driver and vehicle reporting, improving routing accuracy and increasing driver productivity.</li> </ul>	<ul style="list-style-type: none"> <li>▪ Determine an appropriate technology to track COLTS vehicles. [Note: A variety of commercial vendors provide tracking technology with range of capabilities and costs. The lowest cost options include magnetic-mounted, portable devices that are downloaded via cable (less than \$300 per unit with no ongoing data costs). Other systems are permanently installed devices that wirelessly download data on return to the vehicle domiciling location (\$500 to \$1,000 per unit with some additional costs for a local WiFi base station). High-end options include Mobile Data Terminals (MDT), though this option tends to be cost prohibitive until the system size warrants additional NCDOT technology funding support.]</li> </ul>		<ul style="list-style-type: none"> <li>▪ The current operating environment of COLTS may not necessitate technology to track vehicles. However, as the service delivery evolves (e.g. adding deviated fixed routes) and administrative policies are adjusted (e.g. reducing the schedule cutoff time from 48 hours), such technology would be advantageous.</li> </ul>

## Conclusion

The Steering Committee received a digital copy of *Technical Memorandum 2* (**Chapters 3 and 4**) for review, and the memorandum was revised based on comments and feedback received at from the committee and local staff. Based on recommendations developed through the Issues & Options Matrix, a phased action plan and financial plan was created based on the 5-year planning horizon. The Final Report combines the information presented in *Technical Memorandums 1 and 2* (**Chapters 1 through 4**) with the implementation and financial plans presented in **Chapters 5 and 6**.



## Chapter 5 — Recommendations & Action Plan

### Introduction

NCDOT initiated development of Community Transportation Service Plans across the state to ensure local systems make calculated responses to the mobility needs of both targeted and general populations in their service areas. For Lee County, the planning process outlined by NCDOT allowed flexibility to assess the county's changing demographics, diversity of its economy, and the proximity to the Raleigh-Durham area. These elements present unique constraints and opportunities to the daily operating environment faced by the leadership of the County of Lee Transit System (COLTS). As described in the previous chapter, this planning process has resulted in a list of options designed to foster continuous improvement of the system through the 5-year planning horizon of the CTSP. This chapter reveals the recommendations that emerged from the Issues and Options Matrix (see **Table 4.1** in **Chapter 4**) and provides a phased implementation plan that includes immediate, short-term, and mid-term action items tied directly to these recommendations.

### Overview

The analysis and formulation of recommendations in the *Lee County CTSP* represents an important milestone in creating an accessible transportation system for all residents of the county. However, the true success of the plan will depend on a robust implementation plan. Acting on the recommendations in the CTSP requires coordination with various stakeholders who hold differing priorities. To implement the plan, the leadership of COLTS must work proactively with stakeholders such as:

- Residents
- Employers
- Other Lee County departments and agencies
- North Carolina Department of Transportation
- Elected officials
- City of Sanford
- Town of Broadway
- Neighboring counties within the region

During the course of this study, it became clear COLTS has made numerous improvements at a variety of scales over the last few years that have improved service delivery and increased exposure to the system. A sample of these improvements include upgraded computer systems, stricter and more consistent policies for no shows, improved data entry with ITRE for more accurate results, and the launch of a limited fixed-route service. The result has been an increase in revenue miles while maintaining low costs per trip, growth in contract passengers, and improved efficiency and increased passengers carried per mile. COLTS also has worked hard to meet all NCDOT and FTA compliance requirements.

The planning process for the CTSP also revealed additional transportation-related issues. These concerns were raised by stakeholders and citizens, including the perception of COLTS as a service for older adults, the need for expanded office space, the desire for additional evening and/or weekend service, the need to reach out to the Hispanic community, and the limited funds available for service expansion. The recommendations that follow tackle these issues within the time and funding constraints of the CTSP. The plan acknowledges local, state, and private partnerships offer strategic advantages to implementing improvements on a timely basis within the 5-year planning horizon. The action plan recognizes the challenges facing COLTS and suggests strategies to address those challenges within the context of NCDOT's Community Transportation Program. Attention also is given to the system's ability to secure funding, particularly from sources not currently utilized. See **Chapter 6** for the financial plan.

## Recommendations

The Issues and Options Matrix described in **Chapter 4** was the focus of Steering Committee Meeting #3 and the Stakeholder Symposium. The discussions at these sessions centered on critical options, particularly those that have a trickledown effect on other recommendations or the direction of COLTS moving forward. Recommendations with the potential to need major cost or effort also were singled out. Based on discussions at the sessions, several options were refined and the recommendations that follow emerged.

## Action Plan Matrix

The Action Plan Matrix presented in **Tables 5.1, 5.2, and 5.3** lists the recommendations of the *Lee County CTSP* according to a phased implementation schedule for each of the next five fiscal years. Recommendations are based on the Issues and Options Matrix and the feedback provided at Steering Committee Meeting #3 and the Stakeholder Symposium. Each recommendation includes the relative effort/cost, the party (or parties) responsible for implementing the recommendation, and notable procedures. It is emphasized that the cost estimate reflects the cost beyond reasonable expectations for funding through existing sources.

**Table 5.1** lists the action items to be repeated annually, and **Table 5.2** lists tasks for which the timing will be determined at a later date based on ridership trends and availability of funding. **Table 5.3** lists action items to be completed in Fiscal Year 2011 or in one of the five fiscal years that follow. While the items listed may not be completed within the specified fiscal year, the process should be initiated during that year. It is not unusual for a plan such as the *Lee County CTSP* to have more recommendations at the beginning of the planning horizon. This phasing results from the number of higher priority, low-cost initiatives that will make an immediate impact on ridership and efficiency. For example, numerous marketing strategies are recommended for the initial years of the action plan schedule. In the later years of the planning horizon, COLTS and its partners will shift some focus on monitoring improvements implemented to date and identifying new strategic investments of time and resources.

Beyond the tasks listed in the Action Plan Matrix, the long-term growth and success of COLTS hinges on whether staff and NCDOT-Public Transportation Division continue to work with and educate elected officials and local citizens and businesses about the benefits of community transportation. Public support will encourage implementation of the strategies that follow.

Table 5.1 — Action Plan Matrix (Annual Actions)

Action Item	Effort/ Cost	Responsible Party	Notable Procedures
<b>Annual</b>			
Apply for grants to increase mobility with limited cost to Lee County.	Minor	COLTS Lee County	Review application process/requirements.
Monitor the true cost of providing Rural General Public trips in relation to fare.	Minor	COLTS	Determine if a change in fare is warranted.
Expand ability to provide employment transportation by pursuing JARC funds.  [Note: Options can originate from private nonprofit organizations, operators of public transportation services (include private for-profit entities), and public bodies. Options include 2Plus expanding their current efforts in Lee County or having Flemming Transportation apply for these funds.]	Moderate	Applicant	Initiate application process.
Work with the Planning and Community Development Department to anticipate growth areas, particularly those targeted to retirement-age households.	Minor	COLTS Lee County Sanford	Schedule meetings at regular intervals.

Table 5.2 — Action Plan Matrix (Undetermined Timing)

Action Item	Effort/ Cost	Responsible Party	Notable Procedures
<b>Timing to be Determined</b>			
Move COLTS' office space from the Enrichment Center (preferably to a county- or city-owned space that allows vehicles, drivers, and dispatch operators to be co-located).	Major	COLTS Lee County Sanford	Identify location through discussions with city and county.
Hire a part-time scheduler/dispatcher (coincide with office move).	Moderate	COLTS Lee County Sanford	Establish sustainable funding for salary and benefits of new hire.
Obtain (renting/leasing/borrowing) a higher-capacity vehicle (e.g. cut-away van) to provide additional capacity when demand warrants.	Major	COLTS NCDOT	Determine demand for vehicle and identify cost-effective source.
Request more advanced scheduling and tracking software.  [Note: Current trip projections indicate COLTS may exceed 300 trips per day in FY2016. The request for more advanced software would require the system to meet this benchmark established by ITRE. See <b>Chapter 6</b> for more information.]	Major  \$75,000 software \$15,000 annual maintenance	COLTS NCDOT	Research products.  Request additional funding.
Reduce schedule cutoff times from 48 hours once vehicle tracking software is fully implemented.	Moderate	COLTS	Market policy change.  Train desk staff at Enrichment Center.



Table 5.3 — Action Plan Matrix (Fiscal Years)

Action Item	Effort/ Cost	Responsible Party	Notable Procedures
<b>Fiscal Year 2011 — Ending June 30, 2011</b>			
Add a member of the Hispanic community to the TAB.	<i>Initiated</i>	COLTS	Integrate new member.
Create a new logo for COLTS.	<i>Initiated</i>	COLTS	Incorporate new logo in correspondence and marketing materials.
Install a digital radio system. [Note: A digital radio system was put out to bid with funds expected in FY2011 to cover the cost.]	<i>Initiated</i>	COLTS	Request additional funding.
Rebrand Dash with a service-specific logo.	Minor	COLTS	Incorporate new logo in correspondence and marketing materials.
Add “Anyone Can Ride” or a similar message to the vehicles.	Minor	COLTS	Complete task for vehicles that will not be replaced in FY2011.
Place a link to the COLTS website on the main page of Lee County, Sanford, and Broadway websites.	Minor	COLTS Lee County Sanford Broadway	Coordinate with webmasters.
Conduct a meeting with the city manager and county manager to discuss opportunities to relocate COLTS offices.	Minor	COLTS Lee County Sanford	Schedule meeting and determine next steps.
Initiate regularly scheduled discussions with neighboring systems to evaluate coordination opportunities (discussion should clarify logistics such as capacity constraints, insurance and liability, transfers, and scheduling and dispatching).	Minor	COLTS	Schedule meeting and determine next steps.
Establish performance measures for the Dash route and assess its performance against those measures every six months.	Minor	COLTS	Discuss with ITRE and NCDOT.
<b>Year 1 — FY 2012</b>			
Replace the phone system at Senior Services with one that has a greater capacity. [Note: A new Voice over IP (VoIP) phone system is in the FY2012 Lee County Information Technology budget, so COLTS is not expect to incur a direct cost. However, contingent upon receiving grant fund, COLTS may be able to use the new system to implement Automatic Call Distribution software for the COLTS office. This cost (approximately \$6,000) is reflected in FY2014, though the software can be added at any time once funds are secured.]	Minor	COLTS Lee County	Request additional funding.



Action Item	Effort/ Cost	Responsible Party	Notable Procedures
<b>Year 1 — FY 2012</b>			<b>(Continued)</b>
Expand service hours to 8:00 p.m. (Monday through Thursday) by cross-training Enrichment Center staff to handle calls.  [Note: Scheduling/dispatching would continue to be limited to regular business hours (7:30 a.m. to 5:00 p.m.).]	Moderate	COLTS	Train desk staff at Enrichment Center.  Advertise expanded service hours.
Contract with a third-party translation call center (such as Pacific Interpreters) to assist callers with limited English proficiency.  [Note: Greenway Public Transportation (Western Piedmont Regional Transit Authority) uses Pacific Interpreters as a third-party translation service and is charged per minute. This service provides translation in more than 180 languages for the same per minute rate.]	Moderate  \$1,200 per year	COLTS	Research vendors.  Request additional funding.
Expand digital radio system to be purchased in FY2011 with GPS tracking.	Moderate  \$6,000 software	COLTS	Request additional funding.
Reach out to CCCC students and the Hispanic community through expanded marketing efforts.	Minor	COLTS Stakeholders	Initiate process through current TAB members.
Conduct a peer review (content and organization) of other community transportation systems' websites and revamp current COLTS website.	Minor	COLTS	Establish new website content and design and coordinate with webmaster.
Partner with the business program at CCCC to enhance marketing techniques (i.e. incorporate marketing for COLTS as a curriculum-based activity for students in the business program).	Moderate	COLTS Stakeholders	Initiate process through current TAB members.
Launch a coordinated public awareness campaign. <ul style="list-style-type: none"> <li>▪ Enhance printed material about COLTS services and increase distribution locations for material.</li> <li>▪ Advertise services on government access channel.</li> <li>▪ Collaborate with Sanford, Broadway, and Lee County to initiate a publicity campaign (utility bills, newsletters, etc.).</li> <li>▪ Utilize local access television statement for marketing program.</li> </ul>	Minor	COLTS	Establish parameters of campaign and determine probable costs.  Request additional funding.
Establish a resolution that acknowledges tangible support (financial or otherwise) by the City of Sanford moving forward.	Moderate	COLTS Sanford	Draft resolution and discuss with city management.
Complete a facilitated visioning work session with the TAB and COLTS leadership to create clearly defined mission, goals, and objectives and identify roles and responsibilities.	Minor	COLTS	Identify facilitator and schedule work session.



Action Item	Effort/ Cost	Responsible Party	Notable Procedures
<b>Year 1 — FY 2012</b>			<b>(Continued)</b>
Enhance COLTS vehicles with text and color. <ul style="list-style-type: none"> <li>▪ Include Spanish language information on bus graphics.</li> </ul> [Note: One-half of fleet will be enhanced in FY2012 with the other half enhanced in FY2013 at a cost of \$500 per vehicle.]	Moderate \$500 per vehicle	COLTS	Request additional funding.
Introduce a deviated fixed route component to the existing Dash route.	Moderate	COLTS ITRE	Coordinate with ITRE.
Conduct scheduled trips to Central Carolina Hospital at defined intervals during peak demand (e.g. hourly from 2:00 p.m. to 4:00 p.m.) on trail basis.  [Note: Trips originating from CCH have declined in the months leading up to this report due to the hospital operating its own transportation service for discharged patients.]	Moderate	COLTS Stakeholders	Establish performance measures.  Initiate discussion with CCH.
Cross-train a driver to provide back-up as a scheduler/dispatcher.	Moderate	COLTS	Revise job description if necessary.  Adjust salary of driver accordingly.
Establish deviated fixed routes utilizing existing subscription-based human service trips as a precursor to improving schedule cutoff time.	Moderate	COLTS ITRE	Coordinate with ITRE.
<b>Year 2 — FY 2013</b>			
Request a wheelchair equipped vehicle that provides four wheelchair stations.  [Note: Cost shown is for a 25' light transit vehicle with four wheelchair stations and a fully automatic side lift. As shown in the <b>Chapter 6</b> , these vehicles will be requested as the current lift equipped vehicles are replaced. ]	Major \$68,500 per vehicle	COLTS NCDOT	Research products.  Request additional funding.
Revise the scheduling and dispatching process to support a more dynamic service delivery approach.	Moderate	COLTS	Revise job description if necessary.
Establish an employment transportation task force consisting of the county's largest employers and COLTS staff to meet quarterly to discuss employment transportation needs.	Minor	COLTS Stakeholders	Initiate task force development through current TAB members.  Conduct a visioning session at first meeting.
Evaluate policies and procedures (scheduling, dispatching, fleet utilization, etc.) to determine need and feasibility of reducing schedule cutoff times from 48 hours.	Moderate	COLTS	Evaluate following implementation of advanced vehicle tracking.



Action Item	Effort/ Cost	Responsible Party	Notable Procedures
<b>Year 3 — FY 2014</b>			
Implement Automatic Call Distribution software utilizing the VoIP system deployed in FY2012.	Moderate \$6,000	COLTS Lee County	Request additional funding.
Partner with Central Carolina Community College and Harnett Area Rural Transit System (HARTS), to connect HARTS with Dash.	Moderate	COLTS Stakeholders Peer Systems	Initiate through current TAB members and the regularly scheduled coordination meetings with HARTS.
Provide a scheduled connection to Chatham Transit Network's public route.	Moderate	COLTS Peer Systems	Initiate through current TAB members and the regularly scheduled coordination meetings with Chatham Transit.
Expand deviated fixed routes established in FY2012.	Moderate	COLTS ITRE	Coordinate with ITRE.
<b>Year 4 — FY 2015</b>			
Start a coordinated out of county trip (e.g. to Chapel Hill) on a trial basis with Chatham Transit.	Moderate	COLTS Peer Systems	Initiate through current TAB members and the regularly scheduled coordination meetings with Chatham Transit.
Establish a deviated fixed route to Central Carolina Community College (early morning or evening).	Moderate	COLTS Stakeholders	Establish performance measures. Market new service.
Explore the option of having part-time drivers serve multiple systems.	Minor	COLTS Peer Systems	Initiate discussion through the regularly scheduled coordination meetings with Chatham Transit.
Implement vehicle tracking software for greater driver and route efficiency.	Major \$500 per vehicle	COLTS	Research products. Request additional funding.



Action Item	Effort/ Cost	Responsible Party	Notable Procedures
<b>Year 5 — FY 2016</b>			
Implement a tiered fare structure on deviated fixed routes that provides lower fares for riders that utilize fixed routes and higher fares for riders that require curb-to-curb service.	Major	COLTS	Coordinate with ITRE. Conduct a public awareness campaign.
Transition part-time scheduler/dispatcher to a full-time position with Rideshare coordination/outreach responsibilities if supported by funding and ridership levels.	Major	COLTS Lee County Sanford	Establish sustainable funding for salary and benefits of new hire.

## Conclusion

The development of a Community Transportation Service Plan in Lee County signals the county understands public transportation’s role in helping citizens meet their daily needs. The overwhelming majority of existing COLTS riders board the system’s vehicles because they lack other options to reach their medical appointments, work site, community center, or other destination. The collaborative process utilized for the *Lee County CTSP* has revealed the expectations of local and state officials, community leaders, business owners, and citizens. With federal and state dollars becoming more limited and competition to secure money more fierce, COLTS has reached a tipping point. Do we rely on the status-quo for addressing community transportation needs, or do we proactively move forward and address those needs through other funding measures that support the growth of the system?

The most critical steps toward implementing and funding the recommendations will be carried by champions or leaders within the community. These champions may be part of the TAB, current riders, or citizens interested in community transportation. Ultimately, continued collaboration between NCDOT, local agencies, and the general public will provide more opportunities to foster a well-balanced transportation system.

## Chapter 6 — Financial Plan

### Introduction

The majority of COLTS administrative and capital revenue is provided through the Community Transportation Program grant administered by NCDOT. Operating revenue is provided through the Rural Operating Assistance Program (ROAP), contract revenue, and fares. As systems across the state began to develop their FY2011 budgets in early 2010, NCDOT announced a funding cap that limited increases beyond the funding levels provided in FY2010. This announcement came on the heels of several years in which systems received only small increases in the amount of funds from federal and state sources.

As COLTS leadership, the TAB, and advocates on the *Lee County CTSP* Steering Committee look to fulfill unmet demand and expand service, appropriate levels of funding must be in place for the highest priority projects. Given the lack of federal and state dollars coming to the system through traditional sources and the desired growth, now is the time to critically assess what can be accomplished with existing revenue streams and to identify additional funding sources. This chapter describes a series of financial considerations tied to the recommendations presented in the Action Plan Matrix (**Chapter 5**). The chapter concludes with a brief description of additional funding options.

### Financial Plan Development

The financial plan shows recommendations in the context of reasonably anticipated revenues over the 5-year life of the *Lee County CTSP*. In crafting the statewide CTSP process, NCDOT has mandated recommendations meet community transportation needs over the next 5 years while being consistent with revenue forecasts. These forecasts were developed after a review of local expenditures, current funding trends, and likely future funding levels. The revenue forecasts are based on prior year performance with extra emphasis placed on FY2010 actual numbers and the FY2011 budget. All future dollar figures initially were inflated to reflect the projected year of funding. Based on current national standards and applicable local forecasts, an annual inflation rate of 3 percent was used to forecast expenses and revenues. Because this is a planning level funding exercise, all funding programs, assumptions, and recommendations should be re-evaluated annually.

### Financial Scenario Toolkit

The financial plan was developed using the ***Financial Scenario Toolkit***. The toolkit, developed specifically for the *Lee County CTSP*, is an Excel-based spreadsheet that systematically compares various financial scenarios. The Toolkit is based on information available on the existing system, and its design allows administrators to update the Toolkit as new data become available. For ease of use, cells in the workbook shaded in blue can be updated as necessary to accurately reflect actual and projected revenues and expenses. The Toolkit also is designed to automatically highlight errors or imbalances (e.g. when proposed expenses exceed revenues). Information in the Toolkit is organized into the following worksheets:

- **Funding Overview** — Summarizes assumptions used when estimations were developed.
- **Historical Trends** — Provides a snapshot of financial performance for FY2006 through FY2010. [Note: The FY2011 budget and year-to-date data was used a reference. However, the financial plan is built on FY2010 actual data because it provides a more definitive reflection of fiscal activity.]
- **Summary** — Provides an overview of the financial projections for FY2012 through FY2016.

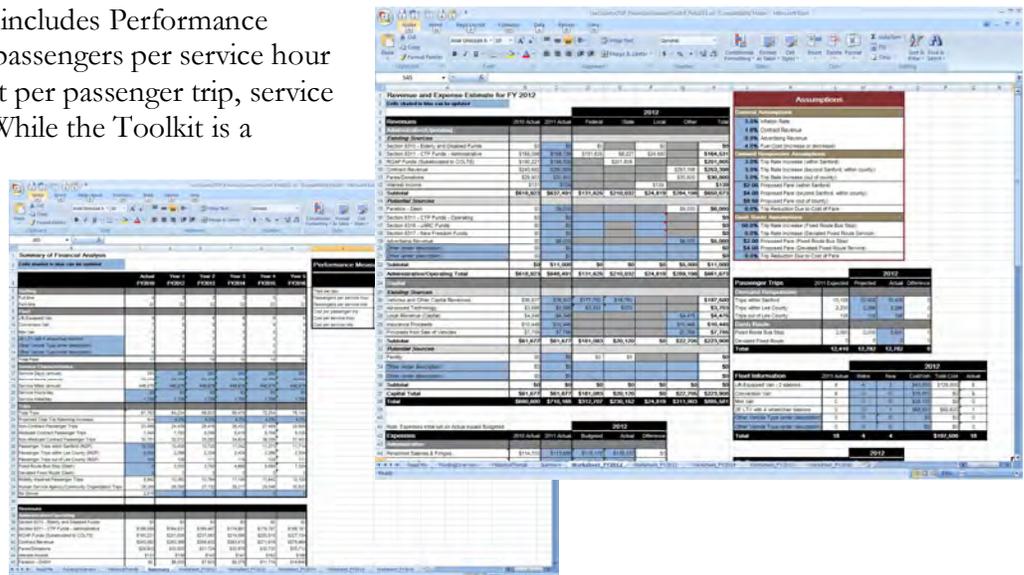
- **OPSTATS** — Allows user to input current year financial information in OPSTATS format to build base scenario.
- **Fiscal Year Worksheets** (5 worksheets) — Estimates expenses and revenues for each fiscal year.

Each Fiscal Year during the CTSP planning horizon (FY2012 to FY2016) is represented in the Toolkit as a standalone worksheet. Projections for the fiscal year are based on actual numbers from the previous year for revenues and expenses. Growth projections for revenues and expenses are based on a variety of assumptions. These assumptions have been tailored to the current operating environment of COLTS as well as the recommendations of the CTSP. Assumptions include:

- Inflation rate
- Contract revenue
- Advertising revenue (funds received from advertisements on vehicles)
- Fuel cost
- Demand responsive trip increase, fare, and trip reduction due to cost of fare (for three categories: within Sanford, beyond Sanford but within Lee County, out of Lee County)
- Dash route trip increase, fare, and trip reduction due to cost of fare (for two categories: fixed route bus stop, deviated fixed route service)
- Farebox assumptions for demand responsive service (fare based on trip category; trip reduction due to cost of fare)
- Farebox assumptions for DASH route (fare based on fixed route or deviated fixed route category; trip reduction due to cost of fare)

The core of each Fiscal Year Worksheet is the projected revenues and expenses. The categories shown here are based on the organization of OPSTATS and include categories typically used in the Community Transportation Program (CTP). The CTP is a combination of federal and state funds that accounts for the majority of funding for COLTS and rural transportation systems across the state. Each Fiscal Year Worksheet also includes projections for passenger trips (demand response and Dash), fleet information, and staffing.

The Summary sheet also includes Performance Measures (trips per day; passengers per service hour and service mile; and cost per passenger trip, service hour, and service mile). While the Toolkit is a dynamic tool capable of creating numerous scenarios of revenue and expenses, the Financial Plan that follows is based on a business-as-usual scenario that assumes the continuation of existing sources with moderate growth.



## Financial Plan

### System Revenues and Expenses

The following series of tables and explanatory text summarizes the 5-year financial considerations (revenues and expenses) for COLTS. These considerations are based on standard categories used throughout the public transportation industry, including the NCDOT Public Transportation Division. Funding is shown for FY2010 and each fiscal year in the 5-year plan (as projected). The basis of future year projections is based on final year numbers for FY2010 rather than FY2011 budget to better reflect the fiscal performance upon which the 5 years of the CTSP financial plan can be staged.

### Administrative and Operating Summary

**Tables 6.1** summarizes the administrative/operating revenue and expenses for COLTS during the 5-year horizon of the CTSP. **Table 6.2** and **6.3** summarize fleet changes and capital revenue and expenses, respectively. The summary tables are an output of the Financial Scenario Toolkit and are based on a business-as-usual scenario favored by staff. The financial considerations for CTSP recommendations are summarized in **Table 6.4** and described in more detail based on phasing beginning on page 6-8. Numerous assumptions and points of emphasis were required to develop the scenario presented below. A brief explanation of capital revenue and expense considerations follows the tables.

#### Revenue Assumptions/Points of Emphasis

- The rate of growth for revenues in general is based on an inflation rate of 3 percent. This rate is applied to each fiscal year, though the Financial Scenario Toolkit allows administrators to adjust this rate accordingly to test different scenarios.
- Contract revenue grows at 1percent initially but increases to 3 percent in FY2014 as COLTS begins to offer expanded service and more advanced routing.
- Revenue from advertisements on vehicles will first be recognized in FY2012 (estimated to be \$5,000). Revenue is projected to increase 10 percent each year, though the Toolkit will allow staff to adjust this rate accordingly.
- Ridership data accounting for trips by fare category (within Sanford, beyond Sanford but within Lee County, and out of Lee County) for demand response trips in FY2010 was adjusted to accurately reflect the total fare. This adjustment was necessary to allow future trips to be projected by fiscal year. Though no changes in the standard fare are anticipated during the 5-year planning horizon of the CTSP, the Toolkit allows administrators to consider scenarios where the fare structure is changed. The financial plan assumes a 3 percent growth in ridership in demand response trips and more aggressive growth for Dash ridership.
- The Financial Scenario Toolkit allows administrators to reflect changes in revenue if the tiered fare structure for deviated fixed route trips associated with Dash is implemented. The infancy of the Dash route and lack of passenger counts for this service makes it impossible to project future trip counts and revenue at this time.
- A reserve fund captures revenue surplus and is tracked annually.

Expenses Assumptions/Points of Emphasis

- Expenses are projected to increase 3 percent per year (the rate of inflation).
- Fuel costs are projected to rise 4 percent in FY2012 and 1 percent in subsequent fiscal years based in part on U.S. Energy Information Administration analysis.
- The summary table does not include CTSP recommendations for which timing cannot be determined at this time. These recommendations will be contingent upon budget approval by both NCDOT and local sources.

Table 6.1 — Administrative/Operating Revenues and Expenses Summary Table

	FY 2010 Actual	Year 1 FY 2012	Year 2 FY 2013	Year 3 FY 2014	Year 4 FY 2015	Year 5 FY 2016
<b>Revenue</b>						
<b>Administrative/Operating Revenues</b>						
Section 5310 - Elderly and Disabled Funds	\$0	\$0	\$0	\$0	\$0	\$0
Section 5311 - CTP Funds - Admin	\$155,086	\$164,531	\$169,467	\$174,551	\$179,787	\$185,181
ROAP Funds (Suballocated to COLTS)	\$190,221	\$201,805	\$207,860	\$214,095	\$220,518	\$227,134
Contract Revenue	\$243,582	\$253,398	\$255,932	\$263,610	\$271,519	\$279,664
Fares/Donations	\$29,903	\$30,800	\$31,724	\$32,675	\$32,730	\$33,712
Interest Income	\$131	\$139	\$143	\$147	\$152	\$156
Farebox – DASH	\$0	\$6,000	\$7,500	\$9,375	\$11,719	\$14,648
Section 5311 - CTP Funds - Operating	\$0	\$0	\$0	\$0	\$0	\$0
Section 5316 - JARC Funds	\$0	\$0	\$0	\$0	\$0	\$0
Section 5317 - New Freedom Funds	\$0	\$0	\$0	\$0	\$0	\$0
Advertising Revenue	\$0	\$5,000	\$5,500	\$6,050	\$6,655	\$7,321
Other	\$0	\$0	\$0	\$0	\$0	\$0
<b>Revenue Total</b>	<b>\$618,923</b>	<b>\$661,673</b>	<b>\$678,125</b>	<b>\$700,504</b>	<b>\$723,079</b>	<b>\$747,816</b>
<b>Expenses</b>						
<b>Administrative Expenses</b>						
Personnel Salaries & Fringes	\$114,730	\$118,172	\$121,717	\$125,369	\$129,130	\$133,004
Advertising & Promotion	\$3,460	\$3,564	\$3,671	\$3,781	\$3,894	\$4,011
Employee Development	\$364	\$375	\$386	\$398	\$410	\$422
Vehicle Insurance Premiums	\$15,186	\$15,642	\$16,111	\$16,594	\$17,092	\$17,605
Indirect Services	\$10,296	\$10,605	\$10,923	\$11,251	\$11,588	\$11,936
Miscellaneous	\$11,051	\$11,383	\$11,724	\$12,076	\$12,438	\$12,811
Other Admin Expense	\$0	\$0	\$0	\$0	\$0	\$0
<b>SUBTOTAL</b>	<b>\$155,087</b>	<b>\$159,740</b>	<b>\$164,532</b>	<b>\$169,468</b>	<b>\$174,552</b>	<b>\$179,788</b>



Operating Expenses						
Driver Salaries & Fringes	\$245,286	\$252,645	\$260,224	\$268,031	\$276,072	\$284,354
Other Operating Staff Salaries & Fringes	\$57,754	\$59,487	\$61,271	\$63,109	\$65,003	\$66,953
Mechanics Salaries & Fringes	\$0	\$0	\$0	\$0	\$0	\$0
Indirect Services	\$0	\$0	\$0	\$0	\$0	\$0
Fuel	\$90,841	\$94,475	\$95,419	\$96,374	\$97,337	\$98,311
Vehicle Maintenance	\$37,714	\$38,845	\$40,011	\$41,211	\$42,447	\$43,721
Payment of Insurance Deductible(s)	\$0	\$0	\$0	\$0	\$0	\$0
Disposal of Vehicle(s)	\$0	\$0	\$0	\$0	\$0	\$0
Management/Operation Services	\$0	\$0	\$0	\$0	\$0	\$0
Volunteer Reimbursement	\$0	\$0	\$0	\$0	\$0	\$0
Other Transit Provider Services	\$0	\$0	\$0	\$0	\$0	\$0
Other Operating Expense	\$13,340	\$13,740	\$14,152	\$14,577	\$15,014	\$15,465
<b>SUBTOTAL</b>	<b>\$444,935</b>	<b>\$459,191</b>	<b>\$471,078</b>	<b>\$483,302</b>	<b>\$495,873</b>	<b>\$508,803</b>
<b>Expenses Total</b>	<b>\$600,022</b>	<b>\$618,931</b>	<b>\$635,610</b>	<b>\$652,769</b>	<b>\$670,425</b>	<b>\$688,591</b>

### Capital Summary

The COLTS fleet currently includes a total of 18 vehicles (9 lift equipped vans and 9 conversion vans). In FY2012, four vehicles are scheduled for replacement with lift-equipped vehicles. The budget for these vehicles submitted for approval by NCDOT should include funds to cover the cost of replacement. Section 5311 Capital funds (federal, state, and local match) will meet these replacement needs. Based on the mileage of the remaining fleet, COLTS likely will request additional replacement vehicles each year. Additional fleet expansion will require alternative funds, including supplemental grants from NCDOT or other sources. **Table 6.2** shows how the fleet changes during the five years of the CTSP. Beginning with FY2011 as a baseline, the table shows the number of vehicles to be retired or purchased new for each fiscal year. The table also provides the total cost for each year. **Table 6.3** summarizes the revenues and expenses for the capital budget. In this table, Capital Purchases (expenses) and Vehicles and Other Capital Revenue (revenues) match the anticipated fleet costs.

Table 6.2 — Fleet Summary Table

	FY 2011 Existing	Year 1 FY 2012		Year 2 FY 2013		Year 3 FY 2014		Year 4 FY 2015		Year 5 FY 2016	
		Retire	New	Retire	New	Retire	New	Retire	New	Retire	New
Lift-Equipped Van - 2 stations	9	4	3	2	0	1	1	2	2	2	2
Conversion Van	9	0	0	4	4	0	0	0	0	0	0
Mini Van	0	0	0	0	0	0	0	0	0	0	0
25' LTV with 4 wheelchair stations	0	0	1	0	2	0	0	0	0	0	0
<b>Total Cost</b>	<b>n/a</b>	<b>\$197,500</b>		<b>\$295,800</b>		<b>\$43,000</b>		<b>\$86,000</b>		<b>\$86,000</b>	



Table 6.3 — Capital Revenues and Expenses Summary Table

	FY 2010 Actual	Year 1 FY 2012	Year 2 FY 2013	Year 3 FY 2014	Year 4 FY 2015	Year 5 FY 2016
<b>Revenues</b>						
Vehicles and Other Capital Revenue	\$35,507	\$197,500	\$295,800	\$43,000	\$86,000	\$86,000
Advanced Technology	\$3,595	\$3,703	\$3,814	\$3,928	\$4,046	\$4,168
Local Revenue (Capital)	\$4,345	\$4,475	\$4,610	\$4,748	\$4,890	\$5,037
Insurance Proceeds	\$10,445	\$10,445	\$10,758	\$11,081	\$11,414	\$11,756
Proceeds from Sale of Vehicles	\$7,785	\$7,785	\$8,019	\$8,259	\$8,507	\$8,762
Facility	\$0	\$0	\$0	\$0	\$0	\$0
Other	\$0	\$0	\$0	\$0	\$0	\$0
<b>Revenues Total</b>	<b>\$61,677</b>	<b>\$223,908</b>	<b>\$323,000</b>	<b>\$71,016</b>	<b>\$114,857</b>	<b>\$115,723</b>
<b>Expenses</b>						
Capital Purchases	\$39,452	\$197,500	\$295,800	\$43,000	\$86,000	\$86,000
Body Work on Wrecked Vehicles	\$7,871	\$8,107	\$8,350	\$8,601	\$8,859	\$9,125
Facility Renovation or Construction	\$0	\$0	\$0	\$0	\$0	\$0
Advanced Technology Purchases	\$3,995	\$4,115	\$4,238	\$4,365	\$4,496	\$4,631
Other Capital Expense	\$0	\$0	\$0	\$0	\$0	\$0
<b>Expenses Total</b>	<b>\$51,318</b>	<b>\$209,722</b>	<b>\$308,389</b>	<b>\$55,966</b>	<b>\$99,355</b>	<b>\$99,756</b>

Capital Revenues and Expenses Considerations

Considerations for the capital budget include:

**Digital Radio System**

COLTS will be applying for funds through its FY2011 capital budget. This system will allow the dispatcher to have immediate contact with driver and make on-the-fly adjustments to operations. The system can be expanded to include GPS tracking with funding in FY2012.

**Vehicle Maintenance Software**

In the Fall of 2010, NCDOT announced a maintenance software project funded through American Reinvestment and Recovery Act (ARRA) funds. While NCDOT has agreed to pay year 1 and 2 of the annual maintenance and hosting costs, Year 3 must be built into COLTS’ fully allocated cost model. The projected costs for COLTS are \$213 per month for hosting and \$24.82 per vehicle (a total cost of approximately \$2,853 per year). This cost is reflected in FY2014 of the CTSP.



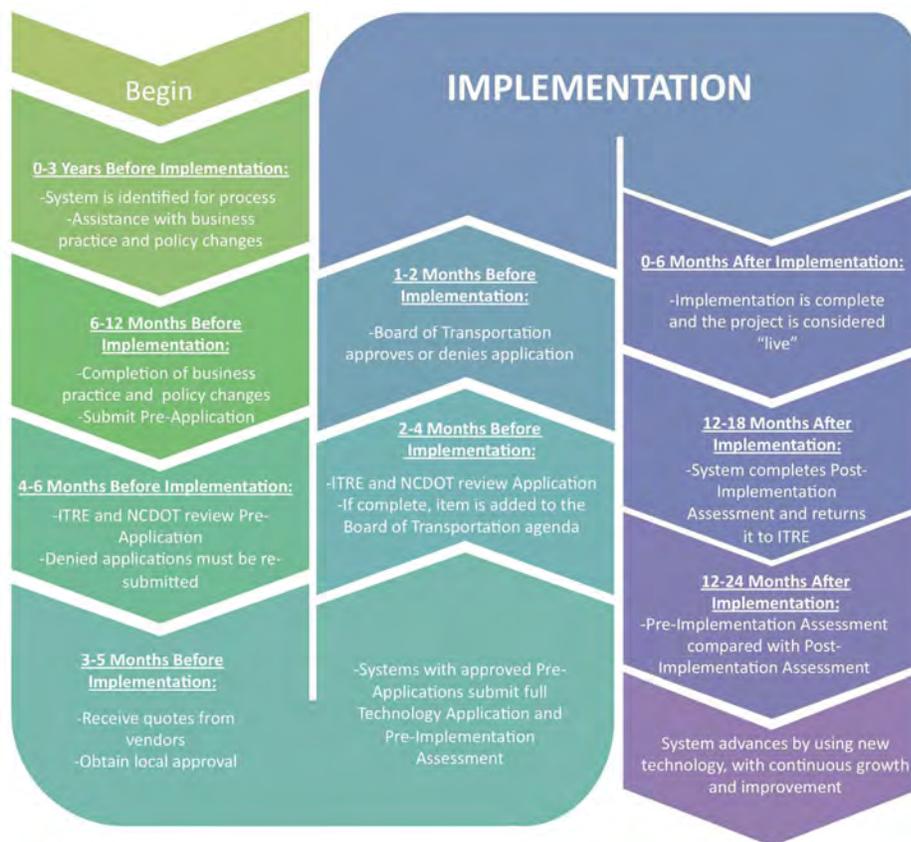
### Vehicle with Wheelchair Stations

COLTS administrators and stakeholders recognized the need for vehicles with more than two wheelchair stations. As discussed in previous chapters, current demand — especially for dialysis trips — often requires COLTS to dispatch two vehicles across the county at the same time to Carolina Dialysis. The need for a vehicle floor plan that accommodates up to four wheelchair passengers is even more important given the expected growth at dialysis center in the near future. The timing of expanding the fleet with this vehicle is discussed in the sections that follow.

### Advanced Scheduling Software

COLTS would benefit from advanced software that incorporates interactive routing and trip optimization features (among other advanced technologies), especially as it begins to implement more sophisticated routing and billing procedures. The NCDOT Public Transportation Division encourages the use of advanced technologies to foster increased efficiencies in the state. Support is provided in the form of grants for qualifying transportation systems. Technologies include advanced scheduling software and mobile data computers/automatic vehicle locators. Funding for these programs is contingent on the system meeting predetermined benchmarks, which includes systems exceeding 300 trips per day. Growth projections provided in the CTSP indicate COLTS could reach this benchmark in FY2016. However, changes since August 2008 in the way COLTS staff enters and edits trips using TrIP\_Maker has improved the validity of data but resulted in negative growth (on paper) in the number of daily trips. During the next couple years, the number of trips documented by COLTS in its vehicle utilization data will provide a better gauge of system growth. With anticipated cost of \$75,000 for the software and an annual maintenance fee of 20 percent, COLTS will not be able to afford advanced software without grant funding from NCDOT or significant support from local resources.

To allow systems to make changes to business practices and policies in anticipation of launching new technology, NCDOT and ITRE partnered in the creation of the Technology Implementation Plan. This document outlines the next series of technology implementations as well as the steps leading up to implementation and in the months that follow. The diagram below was developed by ITRE and illustrates the requirements and other tasks to be completed before and after implementing advanced technology.



## Annual CTSP Revenue and Expense Considerations

The Action Plan Matrix in **Chapter 5** details the recommendations of the *Lee County CTSP* for each fiscal year according to the phased implementation schedule. The recommendations include the relative effort/ cost (beyond reasonable expectations for funding through existing sources), the party (or parties) responsible for implementation, and notable procedures. Some recommendations will have a greater impact on the financial considerations for the system, whether by requiring more funds to plan, implement, and/or maintain or by increasing revenue for future years. These recommendations are discussed in the pages that follow. It should be emphasized that the following list does not constitute all recommendations in the plan (see **Table 5.1** for a complete list). The list below also includes some recommendations that did not have a cost associated with them in the Action Plan Matrix, though they will impact the expenses and/or revenues for the system. Action items with an associated cost can be found in **Table 6.4**. It is emphasized that the table does not include CTSP recommendations for which timing cannot be determined at this time. These recommendations will be contingent upon budget approval by both NCDOT and local sources.

Table 6.4 — CTSP Recommendations Expense Summary Table

	FY 2010 Actual	Year 1 FY 2012	Year 2 FY 2013	Year 3 FY 2014	Year 4 FY 2015	Year 5 FY 2016
<b>CTSP Recommendations</b>						
Contract with a third-part translation call center	n/a	\$1,200	\$1,260	\$1,323	\$1,389	\$1,459
Install GPS tracking software	n/a	\$6,000	\$0	\$0	\$0	\$0
Enhance COLTS vehicles with text and color	n/a	\$4,000	\$4,000	\$0	\$0	\$0
Implement Automatic Call Distribution software	n/a	\$0	\$0	\$6,000	\$0	\$0
Annual cost for vehicle maintenance software	n/a	\$0	\$0	\$2,853	\$2,853	\$2,853
<b>TOTAL</b>	n/a	<b>\$11,200</b>	<b>\$5,260</b>	<b>\$10,176</b>	<b>\$13,242</b>	<b>\$4,312</b>

### General Notes

Throughout the development of the *Lee County CTSP* emphasis was placed on recommendations that were financially feasible and impactful to the plan’s vision to enhance access and mobility for County residents. Given the uncertainty of future revenue streams, financial considerations for recommendations lean toward strategies that leverage emerging funding streams and funding streams of partner agencies. These include:

- **Contract with a third-part translation call center** — Funded using advertising revenue. No additional state or federal funds necessary.
- **Install GPS tracking software** — Funded through a grant initiated by Lee County Office of Emergency Management. No cost to COLTS.
- **Enhance COLTS vehicles with text and color** — Funded through a combination of CTP and advertising revenues.
- **Implement Automatic Call Distribution software** — Funded through the Lee County Information Technology department. No cost to COLTS.
- **Annual cost for vehicle maintenance software** — Funded using contract revenue. No additional state or federal funds necessary.



## Annual

Several annual action items will impact the fiscal performance of the system. These items include:

- **Apply for grants to increase mobility with limited cost to Lee County.** The ability to secure grants and the necessary local match is an important component to new service (the new Dash route providing one example).
- **Monitor the true cost of providing Rural General Public trips in relation to fare.** Raising fares was among the least popular options to stakeholders and the general public even the additional revenue was used to provide additional service. While a change in fare is not recommended as part of the CTSP, the Financial Scenario Toolkit allows administrators to calculate how a change in fares and growth in trips can impact the financial performance of the system. Understanding the true cost of providing rural general public trips (i.e. demand responsive service) and comparing that cost to the fare charge provides evidence to support fare structure, whether left unchanged or increased.
- **Expand ability to provide employment transportation by pursuing JARC funds.** As discussed in **Chapter 4**, the potential to expand employment-based transportation opportunities legitimizes the pursuit of JARC funds despite the application process. Options for this action item include working with 2Plus to expand their current efforts in Lee County or having Flemming Transportation (or other private transportation entities) apply for these funds.

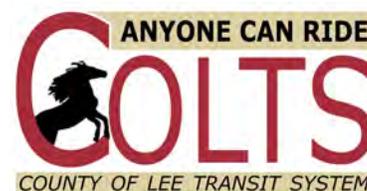
## Timing to be Determined

Numerous parameters impact the deployment of action items requiring a moderate or major level of effort or cost. For some action items, the timing of implementation cannot be determined at this time but is expected within the 5-year planning horizon of the CTSP. The timing of these items will be determined at a later date based on ridership trends and availability of funding.

- **Move COLTS' office space from the Enrichment Center.** Relocating the office space will have numerous impacts on the annual budget, but the timing of the move and the selected site make it impossible to determine these impacts within the constraints of the financial plan for the CTSP.
- **Obtain (renting/leasing/borrowing) a higher-capacity vehicle (e.g. cut-away van) to provide additional capacity when demand warrants.** The demand of such a vehicle will result from successfully implementing deviated fixed routes or enhancing the existing Dash route. Whether the vehicle is purchased, borrowed, or rented/leased also will affect the financial impact.
- **Request more advanced scheduling and tracking software.** See the Capital Expenses and Revenues section earlier in this chapter.

## Current Year — FY2011

COLTS has initiated numerous policy changes and service opportunities in the years leading up to the CTSP. Several of these initiatives began after the inception of the CTSP planning process in May 2010. As mentioned in **Chapter 5**, these improvements include upgraded computer systems, stricter and more consistent policies for no shows, improved data entry with ITRE for more accurate results, and the launch of a limited fixed-route service. While these policies may not directly impact the financial performance of the CTSP, the increase in revenue miles while maintaining low costs per trip, growth in contract passengers, and improved efficiency and increased passengers carried per mile have set the stage for successful implementation of the CTSP.



*Example of an enhanced logo for COLTS that emphasizes anyone can use the service.*

Recommendations to be initiated prior to the end of FY2011 (June 30, 2011) will help the system overcome the perception of its service being limited to older adults or persons with disabilities. Actions during this fiscal year also will help establish performance measures upon which future service milestones are judged.

### Year 1 — FY2012

The first full year of the CTSP will focus on expanding service hours into the evening, reaching out to the Hispanic community, and marketing existing services. Impacts for this fiscal year will include:

- **Replace the phone system at Senior Services with one that has a greater capacity.** The new Voice over IP (VoIP) phone system will be paid for through the Information Technology department budget, so COLTS is not expect to incur a direct cost. See Year 3 — FY2014 for information on Automatic Call Distribution software.
- **Expand service hours to 8:00 p.m. by cross-training Enrichment Center staff to handle calls.** With scheduling and dispatching procedures continuing to be limited to regular business hours, the cost of this recommendation is minor.
- **Contract with a third-party translation call center (such as Pacific Interpreters) to assist callers with limited English proficiency.** The cost of this service typically is billed per minute (approximately \$1.50 per minute) with no upfront fees or equipment to buy. The call times will vary (shorter calls for repeat callers but longer calls for the initial ride request). For the purposes of the CTSP, this cost is estimated to be \$1,200 per year in FY2012 and grow at a rate of 3 percent per year.
- **Expand digital radio system to be purchased in FY2011 with GPS tracking.** As an add on to the digital radio system, GPS tracking will be an initial step to improving efficiency through the use of advance technology. The cost is expected to be approximately \$6,000 for the package and software.
- **Partner with the business program at CCCC to enhance marketing techniques (i.e. incorporate marketing for COLTS as a curriculum-based activity for students in the business program).** Many recommendations can be provided with little actual cost by identifying partnership opportunities.
- **Enhance COLTS vehicles with text and color.** As one component of a large coordinated approach to public awareness, the COLTS vehicles are recommended to be enhanced with color and graphics. The Steering Committee recognized the vehicles as the most identifiable aspect of the system. Once the third-party translation service is implemented, the vehicles should indicate that the system is capable of taking calls in Spanish. One-half of fleet will be enhanced in FY2012 with the other half enhanced in FY2013 at a cost of \$500 per vehicle.
- **Establish a resolution that acknowledges tangible support (financial or otherwise) by the City of Sanford moving forward.** City residents account for 80 percent of ridership but local match is provided through County taxes (which City residents also pay.) The City has expressed a willingness to provide resources to COLTS, though these resources initially may not be financial. Support could include rent-free office space, support services, or other in-kind contributions.



Example of a vehicle enhanced with color and graphics. Source: C-Tran.

- **Introduce a deviated fixed route component to the existing Dash route.** Allowing vehicles serving the Dash route to deviate may be feasible due to the routes current headways and may be advisable due to initial ridership levels. The fiscal impact of this recommendation likely will be limited, and a follow up action item in FY2016 would adjust the fare structure.
- **Conduct scheduled trips to Central Carolina Hospital at defined intervals during peak demand (e.g. hourly from 2:00 p.m. to 4:00 p.m.) on trial basis.** As a major source of contract revenue, trips to and from Central Carolina Hospital provide both a critical service to hospital patients and an important source of revenue for COLTS. If successful, having scheduled trips could simplify the process for both parties and maintain (or expand) this source of revenue. [Note: Trips originating from CCH have declined in the months leading up to this report due to the hospital operating its own transportation service for discharged patients.]
- **Cross-train a driver to provide back-up as a scheduler/dispatcher.** Cross-training a driver to provide back-up support as a scheduler and/or dispatcher could allow COLTS to expand administrative functions without burdening the system with additional staff salaries and benefits.
- **Establish deviated fixed routes utilizing existing subscription-based human service trips.** As the system gains familiarity with operating deviate fixed routes and clients adjust their trip habits accordingly, additional fixed routes are recommended to be introduced. These routes should improve the operational efficiency of the system and provide additional capacity within the constraints of the operating environment at the time of deployment.

### Year 2 — FY2013

Many of the recommendations for Year 1 will set the stage for continued growth and development of the system in the years that follow. The second fiscal year of the CTSP will build on these improvements with an added focus on efficiency. Considerations for FY2013 include:

- **Request a wheelchair equipped vehicle that provides four wheelchair stations.** The purpose of this request is described in more detail in the Capital Expenses and Revenues section earlier in this chapter. Other funds would be necessary to fulfill the purchase price. A series of these vehicles will be requested as vehicles in the current fleet are replaced.

### Year 3 — FY2014

The focus of FY2014 will be to expand coordination opportunities with neighboring systems and add deviated fixed routes to the system’s catalog of services. Considerations for FY2014 include:

- **Partner with Central Carolina Community College and Harnett Area Rural Transit System (HARTS), to connect HARTS with Dash.** Coordination is favored by NCDOT and COLTS, provided no single community transportation systems involved bears excessive responsibility (in terms of funding or resource allocation) without receiving appropriate benefits.



**Provide a scheduled connection to Chatham Transit Network’s public route.** Chatham Transit currently offers a Cross County Route between the Walmart in Siler City and several locations in Chapel Hill (including UNC Hospital and UNC Student Union). The Chatham Transit route also connects to Chapel Hill Transit. Providing a consistent connection to the service offered by Chatham Transit would extend opportunities to Lee County residents and perhaps lessen the burden on out of county trips provided by COLTS.



## Year 4 — FY2015

The fourth fiscal year of the CTSP will continue with the changes made during previous years. The focus of this year will be continued coordination, service expansion, and improving the efficiency of the system.

Considerations for FY2015 include:

- **Start a coordinated out of county trip (e.g. to Chapel Hill) on a trial basis with Chatham Transit.** As the relationship between COLTS and Chatham Transit matures, a coordinated trip to Chapel Hill should be explored. The trial basis of this recommendation limits risks while exploring whether cost savings can be recognized without added stress to office and operation staff.
- **Establish a deviated fixed route to Central Carolina Community College (early morning or evening).** A deviated fixed route serving CCCC likely would have the dual benefit of making the college accessible to more students and increasing overall ridership.
- **Explore the option of having part-time drivers serve multiple systems.** At the meetings in which the Issues & Options Matrix was presented, it was agreed that launching new service may be limited due to staffing requirements. Other stakeholders noted the need for hourly-paid drivers to maximize their work hours without exceeding typical guidelines for part-time workers (1,000 hours per year). To implement this recommendation, administrative constraints will need to be considered.
- **Implement vehicle tracking software for greater driver and route efficiency.** Vehicle tracking technology has proven to improve manifest accuracy, streamline administrative processes related to driver and vehicle reporting, improve routing accuracy, and increase driver productivity. With numerous types of technology currently on the market, COLTS administrators will need to determine an appropriate technology to track COLTS vehicles. Technology options include a range of capabilities and costs. The estimated cost for the purposes of the CTSP is a mid-level system that includes permanently installed devices that wirelessly download data on return to the vehicle domiciling location.



## Year 5 — FY2016

By FY2016, COLTS likely will have multiple deviated fixed routes and will have explored coordination opportunities with neighboring systems. The final fiscal year of the CTSP will continue with the changes made during previous years and focus will shift to a more advanced fare structure to encourage riders to shift to fixed bus route stops where possible. Considerations for FY2016 include:

- **Implement a tiered fare structure on deviated fixed routes that provides lower fares for riders that utilize fixed routes and higher fares for riders that require curb-to-curb service.** While a tiered fare structure received support by the Steering Committee and attendees at the Stakeholder Symposium, the current scheduling software used by COLTS limits the ability of administrators to execute this recommendation for a deviated fixed route service. Riderships levels leading up to implementing this action should be considered in determining a fare structure. The lack of existing reliable ridership data for Dash limits the ability to project this funding as part of the CTSP.
- **Transition part-time scheduler/dispatcher to a full-time position with Rideshare coordination/outreach responsibilities if supported by funding and ridership levels.** The addition of a full-time staff member will require additional funds to be allocated for salary and benefits. However, the employee recommended here would split his or her time between typical office functions and employment transportation outreach.

## Funding Opportunities

The funding scenario presented in the previous tables represents a business-as-usual scenario. To expedite the phasing of recommendations or to increase the reach of the system beyond what is proposed in the CTSP, COLTS and its local partners (many of whom participated in the planning process as members of the Steering Committee or during stakeholder interviews) must tap into alternative funding opportunities. Through the 5310-funded fixed route, COLTS has shown an ability to put this practice into action. A proactive approach to funding likely will provide the highest level of benefits with the least burden on the county and its taxpayers. **Table 6.5** shows these funding sources and the state and local match.

Table 6.5 — Funding Program Overview

	Type of Assistance	Federal Grant	State Match	Local Match	Target Population
ROAP - Workfirst	All		100%		Low Income
ROAP - EDTAP	All		100%		Elderly; Disabled
ROAP - RGP	All		90%	10%	Rural General Public
CTP/5311 - Admin	All	80%	5%	15%	
Elderly Person and Persons with Disabilities (Section 5310)	Capital	80%		20%	Elderly; Disabled
Rural and Small Urban Area (Section 5311)	Capital	80%	10%	10%	Rural General Public
	Operating	50%	0%	50%	
Job Access and Reverse Commute (Section 5316)	Capital	80%		20%	Low Income
	Operating	50%		50%	
New Freedom (Section 5317)	Capital	80%		20%	Disabled
	Operating	50%		50%	
Rural Planning Program	Planning Studies	90%		10%	
Rural Transit Assistance Program (Section 5311-B-2)	Training & Technical Assistance	100%			

## Federal Funding Eligibility

**Table 6.6** identifies the types of transportation expenses eligible for funding under various federal programs. It should be noted that the state and locality administering the funds may impose additional limitations on items eligible for funding (especially for block grants). The information provided in the Federal Funding Eligibility Matrix is derived from information provided by United We Ride, a federal interagency initiative to improve transportation options for transportation-dependant populations.

Table 6.6 — Federal Funding Eligibility Matrix

	Reimbursed Costs	Mobility Management	Operate Vehicles	Purchase Vehicles
<b>Health and Human Services</b>				
<b>Administration for Children and Families</b>				
Social Service Block Grant	X		X	X
Child Care and Development Block Grant	X			
Head Start			X	X
Refugee and Entrant Asst. State Administered Programs	X			
Refugee and Entrant Targeted Assistance	X			
Refugee and Entrant Asst. Voluntary Agency Programs	X			
State Developmental Disabilities Council and Protection & Advocacy	X	X	X	
Temporary Assist to Needy Families	X			
Community Services Block Grant			X	
Promoting Safe and Stable Families			X	

	Reimbursed Costs	Mobility Management	Operate Vehicles	Purchase Vehicles
<b>Health and Human Services (continued)</b>				
<b>Administration on Aging</b>				
Grants for Supportive Services and Senior Centers			X	
Programs for American Indian, Alaskan Native and Native Hawaiian			X	
<b>Centers for Medicaid and Medicare</b>				
Medicaid	X			
State Health Insurance Program	X			
Home and Community Based Waiver	X	X		
<b>Health Resources and Services Administration</b>				
Community Health Centers	X		X	
Healthy Communities Program	X		X	
HIV Care Formula	X		X	
Maternal and Child Health Block Grant	X			
Rural Health Care Network	X		X	X
Rural Health Care Outreach Program			X	
Healthy Start Initiative			X	
<b>Substance Abuse and Mental Health Services Administration</b>				
Community Mental Health Services Block Grant	X	X		
Prevention and Texas Block Grant	X	X		
<b>Department of Education</b>				
Voluntary Public School Choice	X	X		
IDEA		X		
Centers for Independent Living		X		
Independent Living for Older Individuals Who are Blind		X		
Independent Living State Grants		X		
Vocational Rehab Grants		X		

	Reimbursed Costs	Mobility Management	Operate Vehicles	Purchase Vehicles
<b>Department of Labor</b>				
<b>Bureau of Indian Affairs</b>				
Indian Employment Training and Related Services	X	X		
Indian Employment Services	X	X		
<b>Employment and Training Administration</b>				
Job Corps	X	X		
Migrant and Seasonal Farm Worker	X	X		
Native American Employment and Training	X	X		
Trade Adjustment Assistance for Workers	X	X		
Welfare to Work Grants for Tribes	X	X		
Welfare to Work for States and Locals	X	X		
Work Incentive Grants	X	X		
Workforce Investment Act Adult Services Program		X		
Workforce Investment Act Adult Dislocated Worker Program		X		
Workforce Investment Act Youth Activities		X		
<b>Veterans Programs</b>				
Veterans Employment Program		X		
<b>Department of Transportation</b>				
Elderly and Persons with Disability				X
Job Access Reverse Commute			X	X
Non-Urbanized Formula (rural)			X	X
Urbanized Formula				X
New Freedom Program			X	X
Capital Discretionary Program			X	X



	Reimbursed Costs	Mobility Management	Operate Vehicles	Purchase Vehicles
<b>Housing and Urban Development</b>				
<b>Community Planning and Development</b>				
Community Development Block Grant			X	X
Housing for Individuals with AIDS	X		X	X
Supportive Housing Programs			X	
Revitalization of Severely Distressed Housing	X			
Homeless Provider Grants			X	X
Medical Care Benefits	X		X	X
Ticket to Work Program	X			
Food Stamp and Employment Training Program	X			

## Conclusion

COLTS administrators, numerous stakeholders, the Steering Committee, and the general public collaborated within the context of the *Lee County CTSP* to establish a baseline of understanding upon which to assess needs and determine prioritized recommendations. The umbrella upon which the plan took shape was the plan’s vision statement:

The *Lee County Community Transportation Service Plan* will identify system and organizational improvements and strategies that enhance access and mobility for all residents of Lee County, particularly those without the ability or means to use personal vehicles.

The geography of Lee County, its changing demographics, the diversity of its economy, and its proximity to the Raleigh-Durham area provide both challenges and opportunities for creating the balanced and efficient community transportation system staff, elected officials, stakeholders, and the public desire. The *Lee County CTSP* has documented these challenges and opportunities and outlined a set of strategies to enhance the mobility of targeted populations and the general public. Within the 5-year planning horizon mandated by NCDOT, the actionable recommendations of the plan should meet the immediate challenges of the county. Beyond the planning window of this report, the plan should set the stage for more advanced public transportation options that allow passengers of all abilities to travel where and when they want and need to go. While the plan’s timeframe is limited to five years, its toolkit approach and development as a livable document helps equip administrators to address unforeseen changes and to capitalize on opportunities as they present themselves.

COUNTY OF LEE TRANSIT SYSTEM  
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