



Mobility Greensboro Public Transportation Master Plan *Final Report*

Prepared for:

City of Greensboro/
Greensboro Transit Authority

Prepared by:

Tindale-Oliver &
Associates, Inc.

In Cooperation with:

Dan Boyle and Associates
Hopper Communications
NuStats

June 2004



Mobility Greensboro Public Transportation Master Plan

Final Report



Prepared for:

City of Greensboro/Greensboro Transit Authority

P.O. Box 3136

Greensboro, NC 27402-3136

Phone: 336-373-2634

www.ci.greensboro.nc.us/gdot/public_trans/

June 2004

Tindale-Oliver & Associates (TOA)

1000 N. Ashley Drive, Suite 100

Tampa, Florida 33602

ph 813-224-8862, fax 813-226-2106

E-mail: bball@tindaleoliver.com

In cooperation with:

Dan Boyle and Associates

Hopper Communications

NuStats





Table of Contents

EXECUTIVE SUMMARY	ES-1
SECTION 1 - INTRODUCTION	1-1
A Vision for Greensboro.....	1-1
Background.....	1-1
Overview of Mobility Greensboro	1-2
Greensboro Connections 2025 Comprehensive Plan	1-3
Organization of the Plan	1-3
SECTION 2 - APPROACH TO MOBILITY GREENSBORO	2-1
Project Goal	2-1
Public Involvement Process.....	2-2
Transit Planning Process.....	2-4
SECTION 3 - THE PRESENT	3-1
Summary of Where We are Today	3-1
Current User Profile.....	3-7
Community Perspective of GTA.....	3-8
Overview of Existing Conditions.....	3-9
SECTION 4 - THE FUTURE	4-1
Mobility Greensboro Goal	4-1
Summary of Where We Want to Be	4-2
Transit Improvement Priorities	4-5
A Vision for Greensboro.....	4-6
Summary.....	4-7
SECTION 5 - MOBILITY GREENSBORO PLAN	5-1
Service Plan	5-1
Illustrating the Service Plan.....	5-8
Marketing Plan.....	5-9
Proposed Marketing Actions.....	5-11
Security Plan.....	5-16
Capital Plan.....	5-23
Staffing Plan	5-27
Technology Implementation Plan	5-27
Mobility Greensboro Phase 2.....	5-32



Table of Contents (continued)

SECTION 6 - THE FINANCIAL PLAN.....	6-1
Summary of Costs	6-1
Potential Revenue Sources	6-4
A Challenge for Greensboro.....	6-6
Mobility Greensboro Phase 2	6-6
Summary	6-8

Appendices

Appendix A - Final Public Involvement Plan

Appendix B - Project Brochure and Newsletters

Appendix C - Transit Services in the Greensboro Area

Appendix D - Strengths, Weaknesses, Opportunities, and Threats, GTA

Appendix E - Summary of Stakeholder Interviews

Appendix F - Consensus-Building Workshop #1

Appendix G - Consensus-Building Workshop #2

Appendix H - Greensboro Non-User Telephone Survey

Appendix I - Summary of Public Meetings

Appendix J - Supporting Information for Security Plan



List of Tables, Figures, and Maps

TABLES

Table 5-1 - Cost Estimate for Holden Road Crosstown Route	5-2
Table 5-2 - Cost Estimate for Frequency Improvements	5-3
Table 5-3 - Cost Estimate for New Express or Limited-Stop Services.....	5-4
Table 5-4 - Cost Estimate for New Connector Routes & Improvements to Lawndale Connector....	5-5
Table 5-5 - Cost Estimate for Converting Extended Evening Service to Regular Routes	5-6
Table 5-6 - Cost Estimate for Five-Year Plan.....	5-7
Table 5-7 - Fixed-Route Fleet Inventory and Procurement Schedule.....	5-24
Table 5-8 - Demand-Response Fleet Inventory and Procurement Schedule.....	5-24
Table 5-9 - Planned Capital Expenditures	5-25
Table 5-10-GTA Vehicle Needs Versus Scheduled Procurement	5-26
Table 5-11-Planned and Additional Capital Expenditures.....	5-26
Table 6-1 - Mobility Greensboro Financial Plan	6-3
Table 6-2 - Potential Revenue Sources for Mobility Greensboro	6-7

FIGURES

Figure 2-1 - Existing & Potential Future GTA Ridership.....	2-2
Figure 2-2 - Public Involvement Process.....	2-3
Figure 3-1 - Overall User Ratings of GTA Service Characteristics.....	3-8
Figure 6-1 - Existing and Proposed Operating Costs, Mobility Greensboro	6-2
Figure 6-2 - Existing and Proposed Capital Costs, Mobility Greensboro.....	6-2
Figure 6-3 - Projected Revenue Deficit With the Implementation of Mobility Greensboro.....	6-4

MAPS

Map 3-1 - GTA Existing Bus Routes & Residential Transit Orientation	3-11
Map 3-2 - PART Express Bus Routes & Residential Transit Orientation	3-12
Map 5-1 - Mobility Greensboro Short-Range Service Plan for GTA	5-34
Map 5-2 - Mobility Greensboro Integration with Regional Transit Services	5-35
Map 5-3 - Mobility Greensboro Long-Range Service Plan for GTA	5-36



Executive Summary

Mobility Greensboro Public Transportation Master Plan

BACKGROUND

Public transportation is an important part of the transportation system in Greensboro and the entire Piedmont Triad area. The Greensboro Transit Authority (GTA) is the public transportation provider for the City of Greensboro. Established in 1991, GTA operates 14 bus routes between downtown and various areas of the City.

In August 2002, GTA and the City of Greensboro initiated a public outreach program to establish a vision for the future of public transportation. Since that time, GTA staff and its consultants have worked closely to develop a comprehensive vision for public transportation in the community.

OVERVIEW OF MOBILITY GREENSBORO

GTA and the Project Team worked cooperatively through the visioning and analytical process of Mobility Greensboro to identify a blueprint for how to achieve this objective.

A comprehensive program of service, marketing, and other improvements are outlined in this plan in an effort to achieve this objective. It is important to note that the focus of Mobility Greensboro was on fixed-route bus services. A major study of SCAT services was being performed simultaneous to this study. Recommended improvements are highlighted as follows:

- Partnering with universities and employers;
- Focusing on marketing and education;
- Increasing the frequency of bus service;
- Adding cross-town routes;
- Implementing park-and-ride lots along major corridors;
- Implementing a downtown circulator service;
- Working more closely with PART on regional transit services and issues;

- Enhancing transit infrastructure and technologies.

Through Mobility Greensboro, a comprehensive vision for transit has been developed and an enhanced understanding has been reached regarding its future role in the City of Greensboro.

Thousands of citizens and visitors have participated in Mobility Greensboro to help define the future of transit in our community. Public involvement efforts included:

- Stakeholder interviews with **18 community leaders**, including face-to-face discussions with City Council members, County Commissioners, City staff, GTA Board members, and PART.
- Non-user telephone survey of **505 households** in the Greensboro area.
- On-board user survey of **2,000 existing bus riders** on GTA.
- Two Consensus-Building Workshops involving several hours of detailed, visionary discussions with **more than 80 participants**.
- Public outreach program that resulted in interaction with an **estimated 350 citizens, 40 major employers, and the Transportation Committee of the Chamber of Commerce**.
- Distribution of a Project Brochure and four Issues of the *Mobility Talk* newsletter to a mailing list of **nearly 500 residents** of Greensboro and the Triad area.
- **Three meetings** with the Project Steering Committee, which is comprised of approximately **15 members**.

- **Four meetings** with the Project Technical Advisory Committee (TAC), which is comprised of approximately **15 members**.
- **Countless meetings and strategic discussions with GTA and City staff** regarding the direction of Mobility Greensboro.

Input received throughout Mobility Greensboro indicates a sincere interest in expanding transit to become a more viable mode of transportation not only for individuals dependent upon transit, but also for individuals who may choose to use transit now and in the future.

PROJECT GOAL

Based on the public outreach process and direction from City staff, the major project goal was identified for Mobility Greensboro. This goal is:

“to double transit ridership in the next five years from two million in 2002 to four million in 2008.”

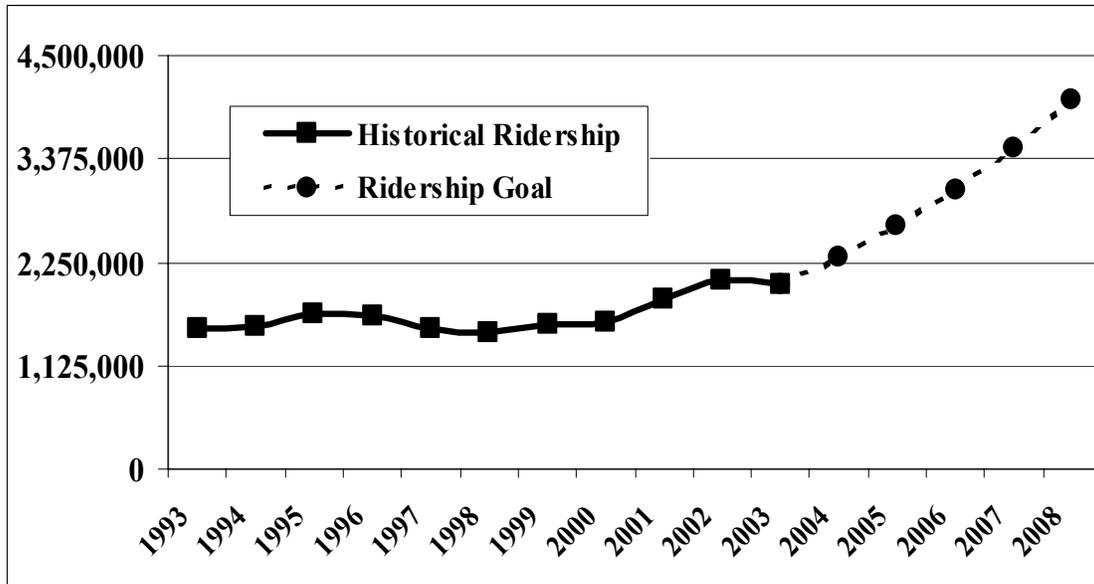
Figure ES-1 illustrates transit ridership since 1993, as well as the goal through 2008. As discussed throughout this plan, this aggressive goal will require a significant commitment by the City and GTA. This commitment will need to take the form of leadership by decision makers, capital resources to support new services, and financial resources to fund new services.

SUMMARY OF WHERE WE ARE TODAY

A major component of a long-range plan for any agency is a strategic assessment of how the agency functions as well as the environment in which the agency operates. Such an assessment is often referred to as a SWOT analysis, since it considers the Strengths and Weaknesses of the agency and the Opportunities and Threats in its environment.



**Figure ES-1
Existing & Potential Future GTA Ridership**



In developing this assessment, the project team relied on insights offered by GTA management and staff, Board members, elected officials, and other key local decision makers as well as its own observations. GTA’s strengths, weaknesses, opportunities, and threats are summarized in Table ES-1.

SUMMARY OF WHERE WE WANT TO BE

Developing a vision for public transportation in the City of Greensboro was the primary objective of Mobility Greensboro. As a result, significant efforts were devoted to facilitating this discussion and developing an understanding of the community’s vision for GTA. In particular, a summary of “where we want to be” was developed based on the results of:

- Stakeholder interviews;
- Consensus-building workshops;

- Non-user telephone survey;
- GTA on-board rider survey;
- Other public outreach activities;
- Assessment of GTA strengths, weaknesses, opportunities, and threats;
- Discussions with GTA and other City staff.

While no specific time frame was necessarily associated with the ultimate plan, there is general agreement that the next five years are critical to the successful implementation of Mobility Greensboro. Many components of the plan, however, are longer-term in nature and would need to be gradually implemented over the next ten to 15 years.

Using the information compiled from the public involvement program, consensus-building workshops were facilitated with a diverse group of representatives throughout the Greensboro area.

**Table ES-1
GTA Strengths, Weaknesses, Opportunities, and Threats**

STRENGTHS	WEAKNESSES
<ul style="list-style-type: none"> • Provide mobility • Take people to work • Given independence to elderly & persons with disabilities • Serve transit-oriented areas • Improved reliability • Improved span of services • Improved frequency of service • Willingness to be innovative • Responsiveness • Fixed-route cost increases • Service monitoring • Board open to public comments 	<ul style="list-style-type: none"> • Service not frequent enough • Lack of choice riders • Cost increases, especially SCAT • Limited staff resources • Serving outlying growth areas • Continuity with General Managers • Not enough quality vehicles • Central transfer location • Perception that GTA can be all things to all people
OPPORTUNITIES	THREATS
<ul style="list-style-type: none"> • Multi-agency efforts • Focus on Downtown Greensboro • PART and regional integration • Increased public outreach • Improvements for current riders • Expand to new markets • Staff expertise • Build upon local support • Leverage state/federal funding 	<ul style="list-style-type: none"> • Reliance on the automobile • Only for those with no choice • Difficulty with follow-through • Lack of priorities/focus • Perception of inefficiency • Carrying responsiveness too far

Consensus-Building Workshop #1

On March 27, a group of 38 attendees gathered in the Nausbaum Room of the Greensboro Public Library to discuss issues of importance to the long-range planning process for GTA. After an overview of the Mobility Greensboro process and a synopsis of data identified during a professionally conducted telephone survey, each participant was assigned to a break-out group so they could easily express their views and listen to those of others. The groups were instructed to decide on common areas of interest and build consensus while noting any areas of disagreement. After two hours of discussion, each group prepared a summary of their discussion to report to all the attendees.

Consensus-Building Workshop #2

On September 11, a group of 40 attendees gathered in the Nausbaum Room of the Greensboro Public Library to continue Mobility Greensboro. After an overview of the information that was gathered at the first workshop, each participant was assigned to a break-out group so they could easily express their views and listen to those of others. The groups were instructed to discuss a list of five topics outlined in the information packet that was handed out at the beginning of the meeting. After two hours of discussion, each group prepared a summary of their discussion to report to all the attendees.

The resulting transit improvement priorities are summarized below in terms of the five major areas of discussion.

Service Improvements

- Increase the frequency of service on existing bus routes.

- Implement new cross-town bus routes to provide more direct service to destinations that do not require a stop downtown at the Depot.

Marketing/Education

- Hire a marketing director to ensure a strong focus on marketing and education.
- Expand the travel training program to help existing and future transit riders in understanding how to use public transportation.
- Expand partnership with universities, colleges, and businesses throughout the City of Greensboro.
- Increase the number of media outlets where GTA information can be accessed and bus passes may be purchased.

Infrastructure/Technology

- Provide real-time customer information at the Depot and other selected locations (kiosks).
- Consider alternative fueled vehicles as part of future vehicle purchases.
- Focus on essential infrastructure, such as high quality buses, shelters, and customer information.
- Make extensive use of the Internet to provide information about GTA, display real-time customer information, and facilitate trip planning using the GTA bus route network.
- Coordinate with City staff regarding the sidewalk improvement program, placing an emphasis on access to bus stops and sidewalk connections between bus stops and major destinations.

Transit & Land Use

- Encourage transit supportive development by better integrating appropriate policies and procedures in the Land Development Code and the site plan review process.
- Consider the impacts of parking policies on public transportation and the potential for encouraging transit use through parking disincentives (cost and availability).

Transit Funding

- Be more proactive in pursuing grants from state and federal sources.
- Expand partnerships with universities, colleges, and businesses to help pay for existing and expanded transit services.
- Identify new revenue sources for GTA, such as fare increases, property tax millage increase, additional sales tax, parking revenues, and lottery.

A VISION FOR GREENSBORO

Mobility Greensboro was initiated to develop a vision for public transportation’s role in the City of Greensboro’s future. Based on the information compiled throughout the public involvement process, the vision include:

- clean, alternative-fueled buses coming by your home and destination every 15 minutes...
- those same buses traveling directly to your destination in downtown or cross-town...
- strong partnerships between GTA and the universities, colleges, and employers throughout the Greensboro area...

- the availability of park-and-ride lots on major corridors that provide convenient access to bus rapid transit that travels quickly and directly to The Depot...
- a revitalized downtown Greensboro that is pedestrian friendly and provides mobility through a downtown circulator bus...
- public transportation services that are integrated regionally to support convenient connections throughout the Triad region...
- the effective use of technology to improve customer service and enhance the availability of customer information...
- 11,000 daily bus trips on GTA within the next five years...
- 25,000 daily bus trips on GTA by the year 2025...

Mobility Greensboro lays out the possibilities, but more importantly, it reflects an action plan to make the possibilities become a reality.

THE MOBILITY GREENSBORO PLAN

Several components comprise the Mobility Greensboro Plan, including the following:

- Service Plan
- Marketing Plan
- Security Implementation Plan
- Capital Plan
- Staffing Plan
- Technology Implementation Plan

The Service Plan is summarized below, while the reader should refer to the complete report for additional information on the other plan components.

Service Plan

The consensus-building workshops and other public outreach activities yielded several good suggestions and comments regarding areas of improvement for transit in Greensboro. Most service-related comments fell into one of the following six categories:

- Add More Frequent Service
- Add direct service – not through downtown
- Reduce travel times (partly through more direct service)
- Improve reliability, in terms of on-time performance, through scheduling adjustments
- Expand service area and integrate with regional service
- Attract non-traditional riders

Participants in the second consensus-building workshop had an opportunity to recommend priorities among these types of service improvements. Improved service frequencies and the establishment of cross-town routes received the highest priority, with support for schedule adjustments, service extensions, and transfer centers outside of downtown.

In response to these issues, concerns, and priorities, the Mobility Greensboro service plan was developed for a short-range planning horizon (within the next five years) and a long-range planning horizon (beyond five years). The short- and long-range service plans for Mobility

Greensboro are illustrated in Maps ES-1 and ES-2, respectively, at the conclusion of this Executive Summary.

THE MOBILITY GREENSBORO FINANCIAL PLAN

The Mobility Greensboro visioning process resulted in an aggressive goal of doubling transit ridership in the next five years, as well as a significant proposed expansion in services that would be necessary to achieve the goal.

One of the major tasks of the Project Team was to then develop a financial plan that:

- Provides operating cost projections for implementing the service recommendations of Mobility Greensboro;
- Provides capital cost projections that would be necessary to support service expansion and the additional infrastructure;
- Identifies potential revenue sources to pay for the local share of the operating and capital costs of Mobility Greensboro.

Figure ES-2 illustrates existing and proposed operating costs while Figure ES-3 illustrates existing and proposed capital costs. The proposed costs for operating and capital are a result of implementing the improvements recommended by the Mobility Greensboro visioning process. The Mobility Greensboro Financial Plan is presented in more detail in Table ES-2.

With the recommended improvements, operating costs (less capitalized maintenance) would increase from \$7.1 million in 2004 to \$17.3 million in 2009, an increase of 144 percent. Service expansion also requires an increase in capital costs, with all new capital projections occurring in 2005 and 2009.

Figure ES-2
Existing and Proposed Operating Costs, Mobility Greensboro

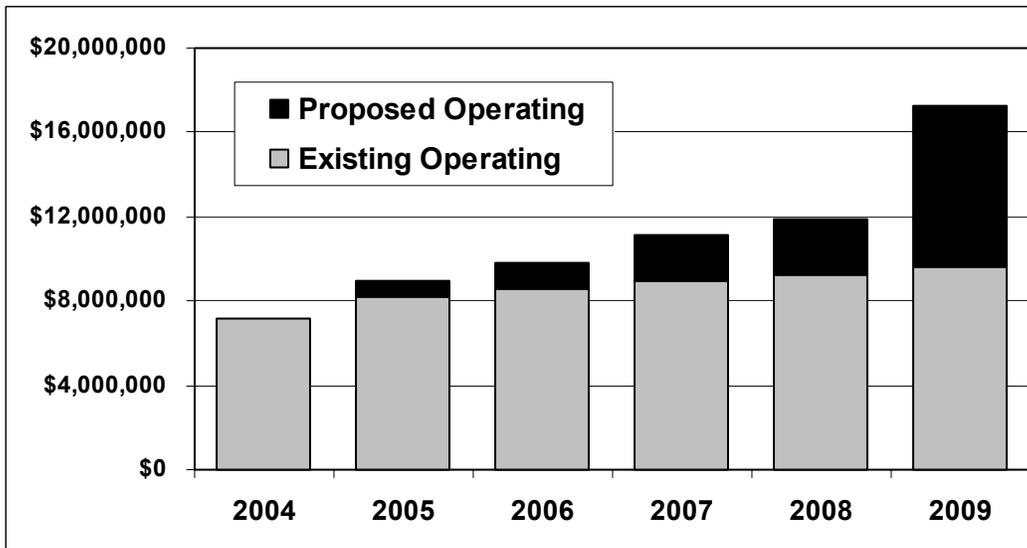


Figure ES-3
Existing and Proposed Capital Costs, Mobility Greensboro

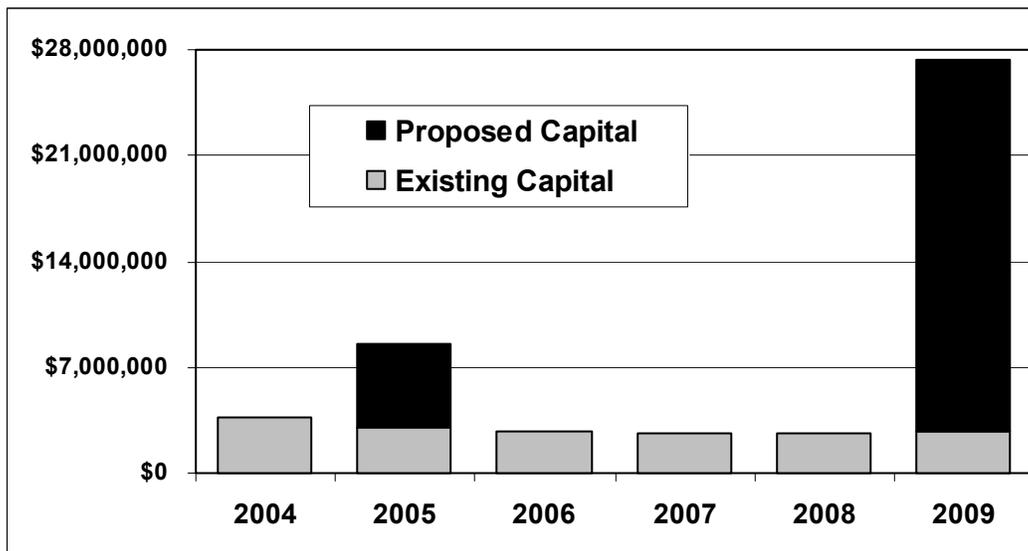


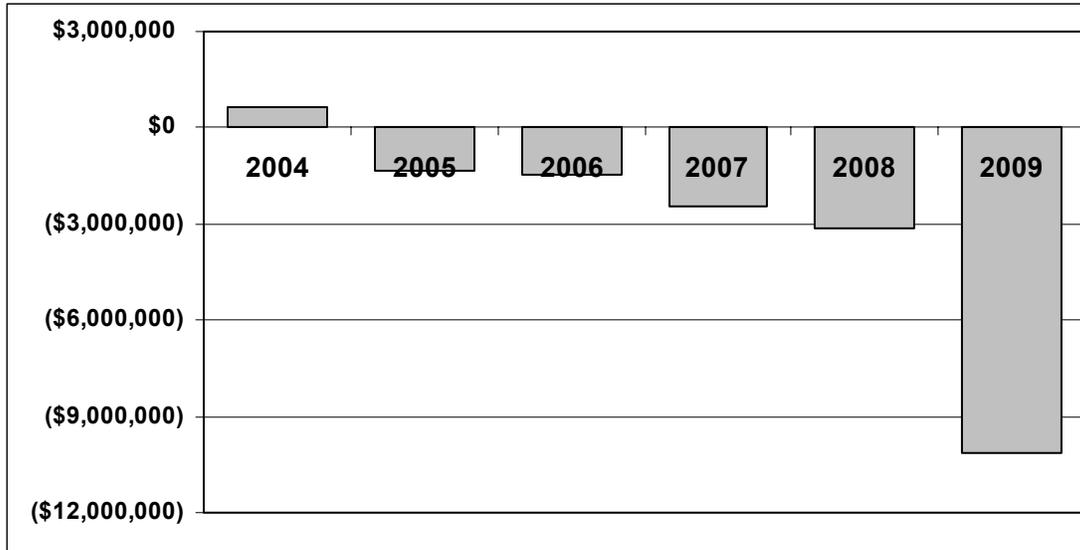
Table ES-2 Mobility Greensboro Financial Plan						
Cost Component	2004	2005	2006	2007	2008	2009
SUMMARY OF EXISTING & PROPOSED COST PROJECTIONS						
Cost Projections for Existing Services (Status Quo)						
Existing Operating	\$9,641,960	\$10,076,295	\$10,420,388	\$10,778,307	\$11,150,574	\$11,485,091
Capitalized Maintenance	\$2,503,708	\$1,860,314	\$1,860,314	\$1,860,314	\$1,860,314	\$1,860,314
Operating Less Cap. Maint.	\$7,138,252	\$8,215,981	\$8,560,074	\$8,917,993	\$9,290,260	\$9,624,777
Existing Capital	\$3,622,458	\$2,994,678	\$2,798,138	\$2,668,226	\$2,685,639	\$2,766,208
Total Existing Costs	\$10,760,710	\$11,210,659	\$11,358,212	\$11,586,219	\$11,975,899	\$12,390,985
Cost Projections for Mobility Greensboro Improvements						
Annual Addl. Operating	\$0	\$735,000	\$482,000	\$865,000	\$301,000	\$4,845,000
Proposed Operating	\$0	\$757,050	\$1,276,222	\$2,205,458	\$2,581,652	\$7,649,451
Proposed Capital	\$0	\$5,575,000	\$0	\$0	\$0	\$24,600,000
Total Proposed Costs	\$0	\$6,332,050	\$1,276,222	\$2,205,458	\$2,581,652	\$32,249,451
Total Costs for Existing Services & Mobility Greensboro Improvements						
Total Operating	\$7,138,252	\$8,973,031	\$9,836,296	\$11,123,451	\$11,871,912	\$17,274,229
Total Capital	\$3,622,458	\$8,569,678	\$2,798,138	\$2,668,226	\$2,685,639	\$27,366,208
Total Existing & Proposed	\$10,760,710	\$17,542,709	\$12,634,434	\$13,791,677	\$14,557,551	\$44,640,437
SUMMARY OF REVENUES AND SURPLUS/DEFICIT						
<i>Existing Local Revenues</i>	<i>\$6,791,593</i>	<i>\$6,985,776</i>	<i>\$7,122,992</i>	<i>\$7,343,810</i>	<i>\$7,459,517</i>	<i>\$8,390,825</i>
<i>Motorpool Vehicle Tax</i>	<i>\$890,000</i>	<i>\$890,000</i>	<i>\$890,000</i>	<i>\$890,000</i>	<i>\$890,000</i>	<i>\$890,000</i>
<i>Total Local Revenue</i>	<i>\$7,681,593</i>	<i>\$7,875,776</i>	<i>\$8,012,992</i>	<i>\$8,233,810</i>	<i>\$8,349,517</i>	<i>\$9,280,825</i>
Federal Revenues	\$2,915,291	\$2,400,966	\$2,253,150	\$2,153,511	\$2,148,511	\$2,148,511
Anticipated Fed Revenues	\$0	\$4,460,000	\$0	\$0	\$0	\$19,680,000
State Revenues	\$813,150	\$928,876	\$928,876	\$928,876	\$928,876	\$928,876
Anticipated State Revenues	\$0	\$557,500	\$0	\$0	\$0	\$2,460,000
Total Available Revenues	\$11,410,034	\$16,223,118	\$11,195,018	\$11,316,197	\$11,426,904	\$34,498,212
Surplus/Deficit	\$649,324	(\$1,319,591)	(\$1,439,415)	(\$2,475,480)	(\$3,130,647)	(\$10,142,224)

Source: Adapted from GTA Business Plan, December 2002, Table 6 and Section 5 of the Mobility Greensboro Plan.

NOTES:

- (1) An inflation factor of 3% is applied to costs/revenues when actual projections are not available.
- (2) Capitalized maintenance is excluded from operating costs since it is already included in capital.
- (3) Federal revenues were taken from the most recent GTA capital plan (December 2003).
- (4) Anticipated Federal revenues cover the Federal share of unfounded capital (buses & AVL in 2005).
- (5) State revenues were taken from the GTA Business Plan (December 2002).
- (6) To be conservative, the Motorpool Vehicle Tax is assumed to remain constant at \$890,000 per year.
- (7) The surplus/deficit compares the total revenue with total existing and proposed costs.
- (8) The revenue surplus in 2004 is intended to help replenish the diminishing reserve fund for GTA.

Figure ES-4
Projected Revenue Deficit With the Implementation of Mobility Greensboro



Please refer to Section 5 of this plan for further detail on the service and capital plans for Mobility Greensboro. Available revenues are provided at the bottom of Table ES-2, along with the resulting revenue surplus/deficit. The surplus in 2004 is intentional on the part of GTA in an effort to help replenish the reserve fund that had been depleted over the past several years. Subsequent to 2004, the revenue deficit ranges from a low of \$1.3 million in 2005 to a high of \$10.1 million in 2009. The revenue surplus/deficit is illustrated in Figure ES-4.

It is important to note that the bulk of the revenue deficit occurs in 2009, when significant service expansion is proposed in an effort to achieve the goal of doubling ridership within the next five years. **If the City is unable to fund this significant deficit, it does not make the Mobility Greensboro Plan unfeasible; it may suggest, however, that service expansion would need to be extended over a greater time period, longer than the currently proposed five-year time**

frame. For example, the recommended service improvements could easily be phased in over ten years rather than five years, making the investment more gradual over time.

POTENTIAL REVENUE SOURCES

Potential revenue sources were discussed as part of the Mobility Greensboro visioning process. Each source can be placed into one of two categories, including (1) primary sources and (2) supporting sources. One or more of the primary sources would be necessary to implement the recommendations outlined in this plan. In addition, the supporting sources play an important role in the overall package of solutions and would reduce the level of support required from the primary sources.

Potential revenue sources are identified and discussed below in the context of supporting the implementation of Mobility Greensboro in the coming years.



Primary Revenue Sources

- **Increase the full cash fare for local bus service** - Increasing the full cash fare could play an important role in addressing the revenue deficit identified in Table ES-2. It is important to recognize, however, that this revenue source cannot be the answer to resolving the deficit by itself. An across-the-board increase in all fare categories of 25% (e.g., full cash fare from \$1.00 to \$1.25) is projected to result in an approximate increase in fare revenues of \$0.3 million annually. Such an increase could be part of the package of revenue solutions so existing and future users pay their fair share of costs associated with the transit service and capital improvements.
- **Increase the property tax millage rate for GTA** - GTA is currently authorized to receive an ad valorem property tax rate of \$0.02 per \$100 of assessed taxable land value from the City of Greensboro, which amounts to about 40 percent of the operating costs for transit operations. In 2003, this is equivalent to approximately \$3.4 million. The City is authorized to collect up to a rate of \$0.035 per \$100 of assessed land value for transit, which, if implemented, would increase the annual funding to nearly \$6.0 million, or an additional \$2.6 million annually.
- **Increase the vehicle motorpool tax** - The recent transfer of the vehicle motorpool tax to support transit was an important step in resolving the recent deficit experienced by GTA and replenishing the depleted reserve. The current tax of \$5.00 generates approximately \$0.9 million. Increasing the tax to \$6.00 is projected to result in an additional \$0.1 million annually; likewise, increasing the tax to \$10.00 would generate an

additional \$0.9 million annually. The current level of funding is available to addressing deficits in the GTA budget.

- **Pursue a sales tax for public transportation** - Another option for the City would be to adopt an increase in the sales tax to support public transportation. Guilford County currently services a 2½% sales tax, which results in an annual allocation to Greensboro of \$34.3 million, or \$6.9 million for each ½%. One example, based on recent sales tax collections, is that a 1% sales tax in Guilford and Forsyth Counties is projected to generate \$53 million annually. Such a tax could also be combined to support other transportation needs or even other municipal infrastructure and services. Many communities have adopted sales tax funding for public transportation on a county-wide or region-wide basis (e.g., Mecklenburg County/Charlotte). It may be prudent to pursue a sales tax for the Piedmont Triad region, with a coordinated effort between PART and the counties of Guilford and Forsyth. Funding from a regional sales tax could be used to support the implementation of rail service and upgraded bus services that would integrate with the rail service. For example, if \$53 million were generated annually and \$30 million were used for regional rail, the balance of \$23 million could perhaps be used to support upgraded local bus services operated by GTA and the Winston-Salem Transit Authority (WSTA).

Supporting Revenue Sources

- **Be more aggressive in pursuing state and federal grants** - The City should be more aggressive in pursuing traditional grants and should work more closely with its legislative delegation to pursue Congressional earmarks as

appropriate (e.g., new and expanded operating and maintenance facility). An increase in the local financial commitment (see primary revenue sources) should also improve the ability to leverage additional state and federal dollars for public transportation.

- **Pursue college pass program with local colleges and universities** - A college pass program was a critical component of the transit marketing plan for Mobility Greensboro. Similar programs around the country are typically funded by colleges or student fees and involve transit service specifically oriented to student destinations. Such a relationship can also play an important role in addressing parking shortages on or near campuses. GTA and City staff have already begun pursuing a college program in the Greensboro area.
- **Expand Corporate Connections program** - Employer pass programs can be a win-win situation for businesses and GTA. It can provide a benefit to employees, a tax benefit to the employer, and/or help resolve a parking shortage, while at the same time increasing ridership for GTA. GTA has featured a Corporate Connections program for years, but without a marketing director to publicize the program and its benefits, it has not attracted much attention. Should a marketing director be added to the GTA staff, the program should be energized to expand corporate partnerships throughout the Greensboro area.
- **Advertising Revenue** - Advertising revenue contributes a small amount to GTA's annual budget but could be emphasized more with the hiring of a marketing director. Advertising revenues may be generated from ads on schedules and system maps, on-board buses, at the Depot and other locations, as well as with

bus wraps. While an aggressive advertising program is not expected to generate more than \$20 to \$30 thousand annually, it can play a supporting role in the complete package of revenue solutions.

- **Joint Development** - Joint development opportunities with the private sector are evident with the Depot, especially with the future space that will be available for leasing. Other opportunities will come about as other transit centers are established in the area.

The primary and supporting revenue sources identified for consideration as part of Mobility Greensboro are summarized in Table ES-3.

A CHALLENGE FOR GREENSBORO

Achieving the aggressive goal of doubling transit ridership from two million in 2002 to four million in 2008 will require a significant commitment by the City and GTA. This commitment will need to take the form of leadership by decisionmakers, capital resources to support existing and new services, and financial resources to fund new and expanded services throughout Greensboro.

It is important to recognize that the role of public transportation is substantial, as identified in the City's Comprehensive Plan. As a result, Mobility Greensboro provides the framework for expanding the public transportation system to fulfill this role.

MOBILITY GREENSBORO PHASE 2

Phase 1 of Mobility Greensboro, which is summarized in this report, provides the blueprint and framework for the future of public transportation in Greensboro. It should be recognized, however, that a Phase 2 is necessary to ensure that momentum is maintained and the City begins the implementation process for the Mobility Greensboro Plan.



Table ES-3 Potential Revenue Sources for Mobility Greensboro	
PROJECT REVENUE DEFICIT FOR MOBILITY GREENSBORO	\$1.3 in 2005 to a high of \$10.1 million in year 2009
POTENTIAL PRIMARY REVENUE SOURCES	
REVENUE SOURCE	PROJECTED ADDITIONAL ANNUAL REVENUES
Across-the-board increase of 25% for all fare categories	\$0.3 million
Increase in the Property Tax for public transportation (to maximum)	\$2.6 million
Increase in the Motorpool Vehicle Tax (\$5.00 to \$6.00)	\$0.1 million
Increase in the Motorpool Vehicle Tax (\$5.00 to \$10.00)	\$0.9 million
Adoption of a Sales Tax (1/2 penny)	\$6.9 million
POTENTIAL SUPPORTING REVENUE SOURCES	
REVENUE SOURCE	PROJECTED ADDITIONAL ANNUAL REVENUES
Be more aggressive in pursuing State and Federal grants	To be determined
Aggressively Pursue College Pass Program	To be determined
Aggressively expand Corporate Connections Program	To be determined
Advertising revenue	To be determined
Joint development at the Depot and other transit centers	To be determined

To that end, the preliminary components of Phase 2 are identified below as important follow-up elements for Mobility Greensboro. These include:

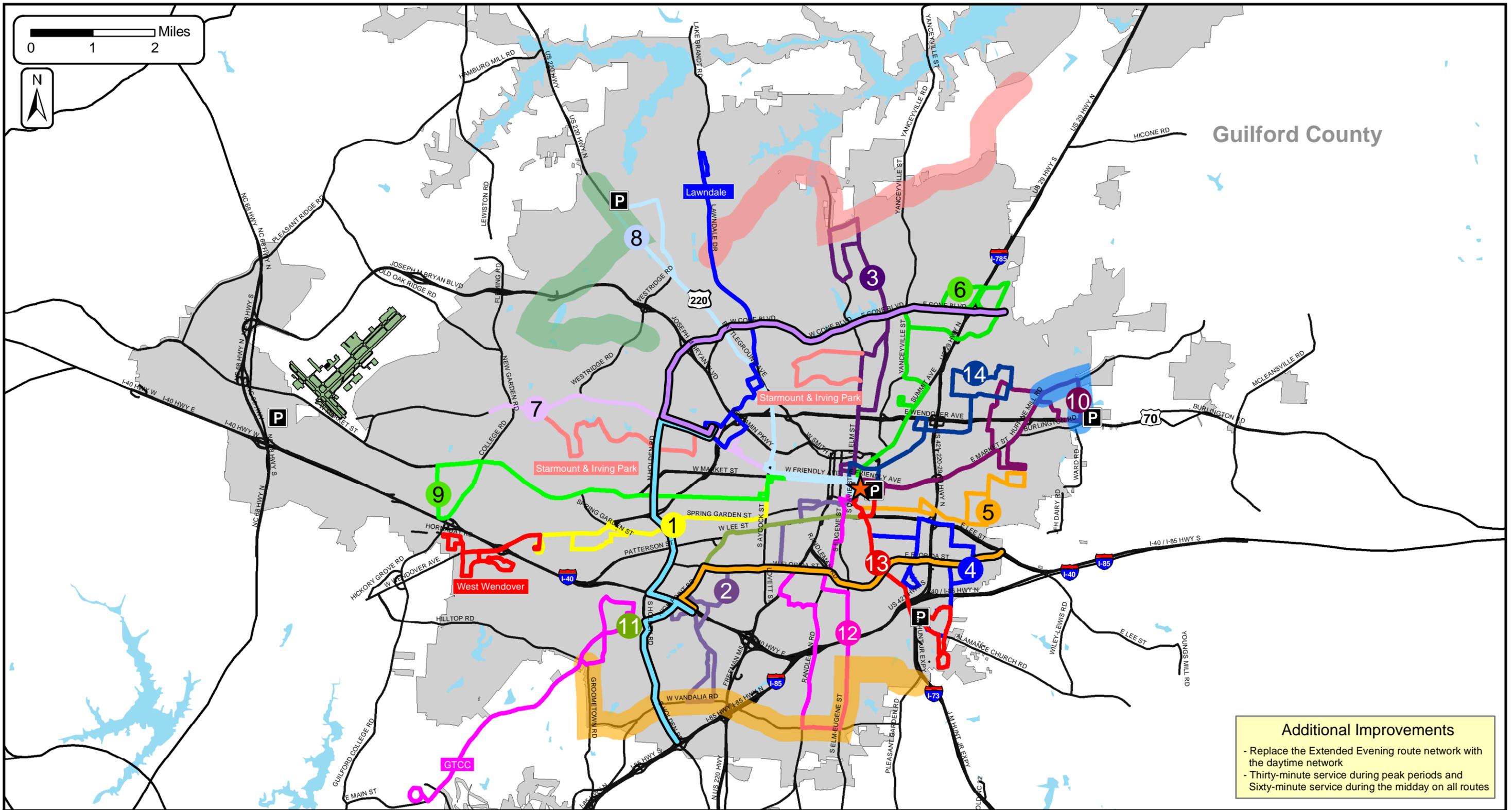
- Prepare a detailed implementation plan with the assignment of specific responsibilities and timeframes for the completion of these responsibilities.
- Prepare a detailed staffing plan to support the implementation of Mobility Greensboro.
- Work with City staff to integrate Mobility Greensboro into the Comprehensive Plan and MPO Long Range Transportation Plan as appropriate.
- Provide service planning support as appropriate for service expansion outlined in the Mobility Greensboro Plan.
- Develop an Infrastructure Design Standards/ Guidelines Handbook to facilitate the consistent application of infrastructure and technology throughout GTA.
- Perform additional public outreach activities as appropriate to obtain input and maximize support for the implementation of Mobility Greensboro.



- Prepare a more-detailed financial plan once additional guidance is provided by the City Council, as well as City and GTA staff.
- Provide miscellaneous support services for the implementation of Mobility Greensboro as requested by GTA and City staff.

SUMMARY

The Mobility Greensboro Public Transportation Master Plan was an excellent visioning process that used community input to define the future of public transportation for the City of Greensboro. The challenge remains to make this vision become a reality.



Additional Improvements

- Replace the Extended Evening route network with the daytime network
- Thirty-minute service during peak periods and Sixty-minute service during the midday on all routes

M
GTA Mobility Greensboro

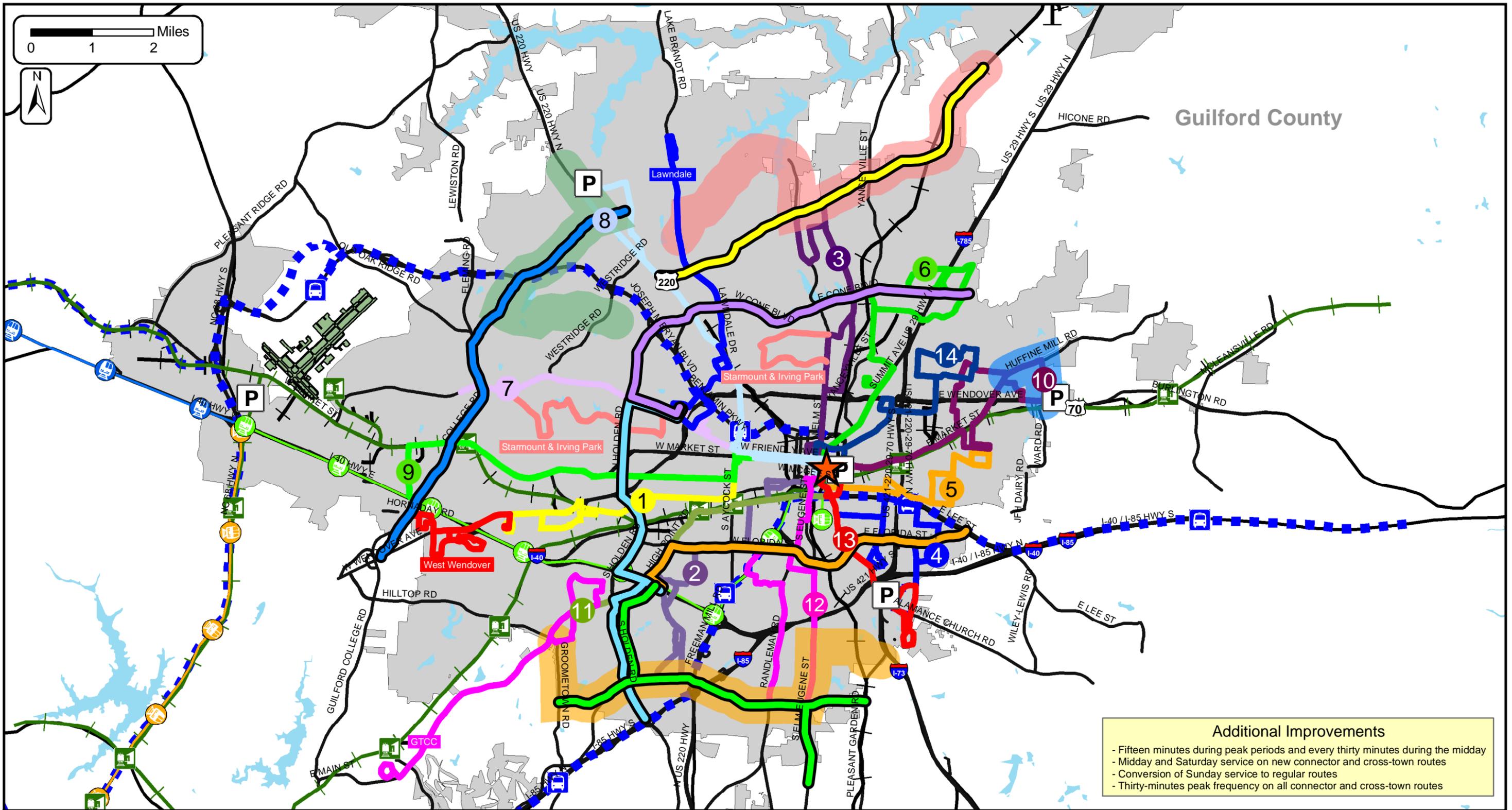
T
OA Tindale-Oliver & Associates

Existing Routes	Existing Connectors	Future Connectors	Future Cross-Town Routes
1 (Yellow)	Lawndale (Blue)	Battleground (Green)	Florida St (Orange)
2 (Purple)	GTCC (Pink)	Lake Jeanette (Red)	Holden Rd (Light Blue)
3 (Brown)	West Wendover (Red)	GTCC/Penry (Blue)	Cone Blvd (Purple)
4 (Blue)	Starmount & Irving Park (Pink)	Vandalia (Orange)	
5 (Yellow)			
6 (Green)			
7 (Purple)			
8 (Light Blue)			
9 (Green)			
10 (Brown)			
11 (Light Green)			
12 (Pink)			
13 (Red)			
14 (Blue)			

★ Depot
 □ Park-and-Ride Lots

MAP ES-1

Mobility Greensboro Short-Range Service Plan for GTA



Additional Improvements

- Fifteen minutes during peak periods and every thirty minutes during the midday
- Midday and Saturday service on new connector and cross-town routes
- Conversion of Sunday service to regular routes
- Thirty-minutes peak frequency on all connector and cross-town routes

M^G
GTA Mobility Greensboro

Tindale-Oliver & Associates

<p>Existing Routes</p> <ul style="list-style-type: none"> 1 (Yellow) 2 (Grey) 3 (Purple) 4 (Blue) 5 (Orange) 6 (Green) 7 (Pink) 8 (Light Blue) 9 (Light Green) 10 (Light Purple) 11 (Light Orange) 12 (Light Pink) 13 (Light Red) 14 (Light Blue) 	<p>Existing Connectors</p> <ul style="list-style-type: none"> Lawndale (Blue) West Wendover (Red) GTCC (Pink) <p>Existing Regional Routes</p> <ul style="list-style-type: none"> Greensboro Express (Green) Winston-Salem Express (Blue) High Point Express (Orange) 	<p>Future Connectors</p> <ul style="list-style-type: none"> Vandalia (Orange) GTCC/Penry (Blue) Lake Jeanette (Red) Battleground (Green) 	<p>Future Cross-Town Routes</p> <ul style="list-style-type: none"> Vandalia (Green) New Garden (Blue) Pisgah Church (Yellow) Cone Blvd (Purple) Holden Rd (Light Blue) Florida St (Orange) 	<p>Future Regional Service</p> <ul style="list-style-type: none"> Bus Rapid Route (Blue dashed line) Bus Rapid Transit Station (Blue square with 'B') Proposed Train Station (Green square with 'T') Proposed Rail (Green line with cross-ticks) Railroad (Black line with cross-ticks) Park-and-Ride Lots (White square)
--	--	---	---	--

MAP ES-2

Mobility Greensboro Long-Range Service Plan for GTA



Section 1 - Introduction

A VISION FOR GREENSBORO

Mobility Greensboro was initiated to develop a vision for public transportation's role in the City of Greensboro's future. This vision includes:

- clean, alternative-fueled buses coming by your home and destination every ten minutes...
- those same buses traveling directly to your destination in downtown or cross-town...
- strong partnerships between GTA and the universities, colleges, and employers throughout the Greensboro area...
- the availability of park-and-ride lots on major corridors that provide convenient access to bus rapid transit that travels quickly and directly to The Depot...
- a revitalized downtown Greensboro that is pedestrian friendly and provides mobility through a downtown circulator bus...

- public transportation services that are integrated regionally to support convenient connections throughout the Triad region...
- the effective use of technology to improve customer service and enhance the availability of customer information...
- 11,000 daily bus trips on GTA within the next five years...
- 25,000 daily bus trips on GTA by the year 2025...

Mobility Greensboro lays out the possibilities, but more importantly, **it reflects an action plan to make the possibilities become a reality.**

BACKGROUND

Public transportation is an important part of the transportation system in Greensboro and the entire Piedmont Triad area. The Greensboro Transit Authority (GTA) is the public transportation

provider for the City of Greensboro. Established in 1991, GTA operates 14 bus routes between downtown and various areas of the City.

In August 2002, GTA and the City of Greensboro initiated a public outreach program to establish a vision for the future of public transportation. Since that time, GTA staff and its consultants have worked closely to develop a comprehensive vision for public transportation in the community.

OVERVIEW OF MOBILITY GREENSBORO

The visioning process undertaken for the Mobility Greensboro Public Transportation Master Plan has resulted in an aggressive goal of doubling the number of transit trips in the next five years from two million in 2002 to more than four million in 2008. GTA and the Consultant Team worked cooperatively through the visioning and analytical process of Mobility Greensboro to identify a blueprint for how to achieve this objective.

A comprehensive program of service, marketing, and other improvements are outlined in this plan in an effort to achieve this objective. It is important to note that the focus of Mobility Greensboro was on fixed-route bus services. A major study of SCAT services was being performed simultaneous to this study. Recommended improvements are highlighted as follows:

- Partnering with universities and employers;
- Focusing on marketing and education;
- Increasing the frequency of bus service;
- Adding cross-town routes;
- Implementing park-and-ride lots along major corridors;

- Implementing a downtown circulator service;
- Working more closely with PART on regional transit services and issues;
- Enhancing transit infrastructure and technologies.

Through Mobility Greensboro, a comprehensive vision for transit has been developed and an enhanced understanding has been reached regarding its future role in the City of Greensboro.

Thousands of citizens and visitors have participated in Mobility Greensboro to help define the future of transit in our community. Public involvement efforts included:

- Stakeholder interviews with **18 community leaders**, including face-to-face discussions with City Council members, County Commissioners, City staff, GTA Board members, and PART.
- Non-user telephone survey of **505 households** in the Greensboro area.
- On-board user survey of **2,000 existing bus riders** on GTA.
- Two Consensus-Building Workshops involving several hours of detailed, visionary discussions with **more than 80 participants**.
- Public outreach program that resulted in interaction with an **estimated 350 citizens, 40 major employers, and the Transportation Committee of the Chamber of Commerce**.
- Distribution of a Project Brochure and four Issues of the *Mobility Talk* newsletter to a mailing list of **nearly 500 residents** of Greensboro and the Triad area.



- **Three meetings** with the Project Steering Committee, which is comprised of approximately **15 members**.
- **Four meetings** with the Project Technical Advisory Committee (TAC), which is comprised of approximately **15 members**.
- **Countless meetings and strategic discussions with GTA and City staff** regarding the direction of Mobility Greensboro.

Input received throughout Mobility Greensboro indicates a sincere interest in expanding transit to become a more viable mode of transportation not only for individuals dependent upon transit, but also for individuals who may choose to use transit now and in the future.

GREENSBORO CONNECTIONS 2025 COMPREHENSIVE PLAN

Connections 2025, the first comprehensive plan in the City’s history, provides a guide for the citizens and leaders of Greensboro to respond to a fundamental challenge for the future—“how do we positively engage and manage change in a manner that best promotes the well being of the City and its residents?” According to the Plan, Connections 2025:

- articulates an overall vision for Greensboro in the year 2025;
- establishes goals and policies in support of the vision; and
- lays out a specific action plan defining the steps the City will take to achieve the desired future.

Public transportation is identified as playing a critical role in achieving the goals of Connections 2025 and is a major component of the plan. In

recognition of this critical role, the City and GTA initiated Mobility Greensboro to further define the role of public transportation in the short-run (three to five years) and the long-run (through the year 2025).

It will be important for the City to fully integrate the results of Mobility Greensboro into Connections 2025 in the coming year.

ORGANIZATION OF THE PLAN

The Mobility Greensboro Plan is organized into five major sections including this introduction. The remaining sections are summarized below.

- **Section 2: Approach to Mobility Greensboro** - This section reviews the Project Goals, the public involvement process, and the overall planning process used to develop the Mobility Greensboro Plan.
- **Section 3: The Present** - This section reviews existing transit conditions in the City of Greensboro. Included in the existing conditions assessment are current transit markets and a review of the community’s perspective of GTA today. This section concludes with a summary of where we are today.
- **Section 4: The Future** - This section defines the goal of Mobility Greensboro and summarizes where we want to be in the future according to the results of the visioning process. This section concludes with a discussion of transit improvement priorities and the overall vision for transit in Greensboro.
- **Section 5: Mobility Greensboro Plan** - Section 5 presents the Mobility Greensboro Plan and reflects a commitment of the community to a new culture for public transportation and the role that it will play in

the future. The major components of the Plan are presented in this section, including service, marketing, security, technology, capital, and staffing. The financial plan is presented in Section 6. Section 5 concludes with a summary of proposed tasks for Phase 2, which is designed to facilitate the implementation of Mobility Greensboro.

- **Section 6: The Mobility Greensboro Financial Plan** - The final section of the Mobility Greensboro Plan provides operating cost projections, capital cost projections, and potential revenue sources to be considered for funding and implementing the public transportation improvements identified in Mobility Greensboro. The section concludes with a discussion of the challenges that the City of Greensboro and GTA face in the coming year and the potential role that public transportation can play in meeting these challenges.

For additional information about the Mobility Greensboro Plan, please contact GTA at 336-373-2634 or visit www.ci.greensboro.nc.us/gdot/public_trans.



Section 2 - Approach to Mobility Greensboro

This section provides a summary of the approach to Mobility Greensboro. Included in the summary are the project goal, purpose of the projects and an overview of the transit planning process used to prepare the Mobility Greensboro Public Transportation Master Plan.

PROJECT GOAL

Based on the public outreach process and direction from City staff, the major project goal was identified for Mobility Greensboro. This goal is:

“to double transit ridership in the next five years from two million in 2002 to four million in 2008.”

Figure 2-1 illustrates transit ridership since 1993, as well as the goal through 2008. As discussed throughout this plan, this aggressive goal will require a significant commitment by the City and GTA. This commitment will need to take the form of leadership by decisionmakers, capital resources to support new services, and financial resources to fund new services.

PURPOSE OF PROJECT

The purpose of Mobility Greensboro and its importance to the City of Greensboro and GTA can be summarized in a series of questions as presented below.

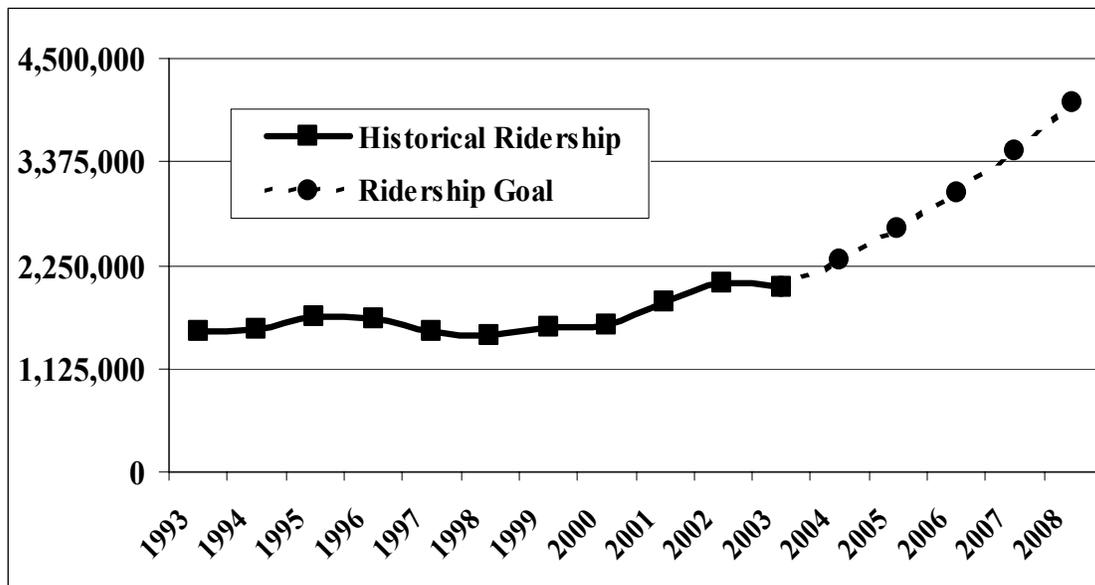
What was the purpose of Mobility Greensboro?

The purpose of Mobility Greensboro was to develop a vision for public transportation in Greensboro that is creative and practical. This vision is based on analysis and public input. The resulting Vision Plan will be incorporated into the City’s overall Comprehensive Transportation Plan.

Why is Mobility Greensboro important to the citizens in this community?

As population and congestion grow in Greensboro, the need for a viable transportation alternative to the automobile becomes even more critical. In addition to providing a needed social service, public transportation can provide a legitimate

**Figure 2-1
Existing & Potential Future GTA Ridership**



alternative to the automobile for many citizens in our community.

Who participated in Mobility Greensboro?

All citizens were invited to participate in Mobility Greensboro. An emphasis was placed on involvement from public agencies, policymakers, businesses, homeowner’s associations, social service agencies, community activists, existing transit users, and bus drivers, among others. More than three thousand individuals participated in a direct fashion in the public involvement process, while countless others undoubtedly received or reviewed information about the project.

Invites People to Become Involved

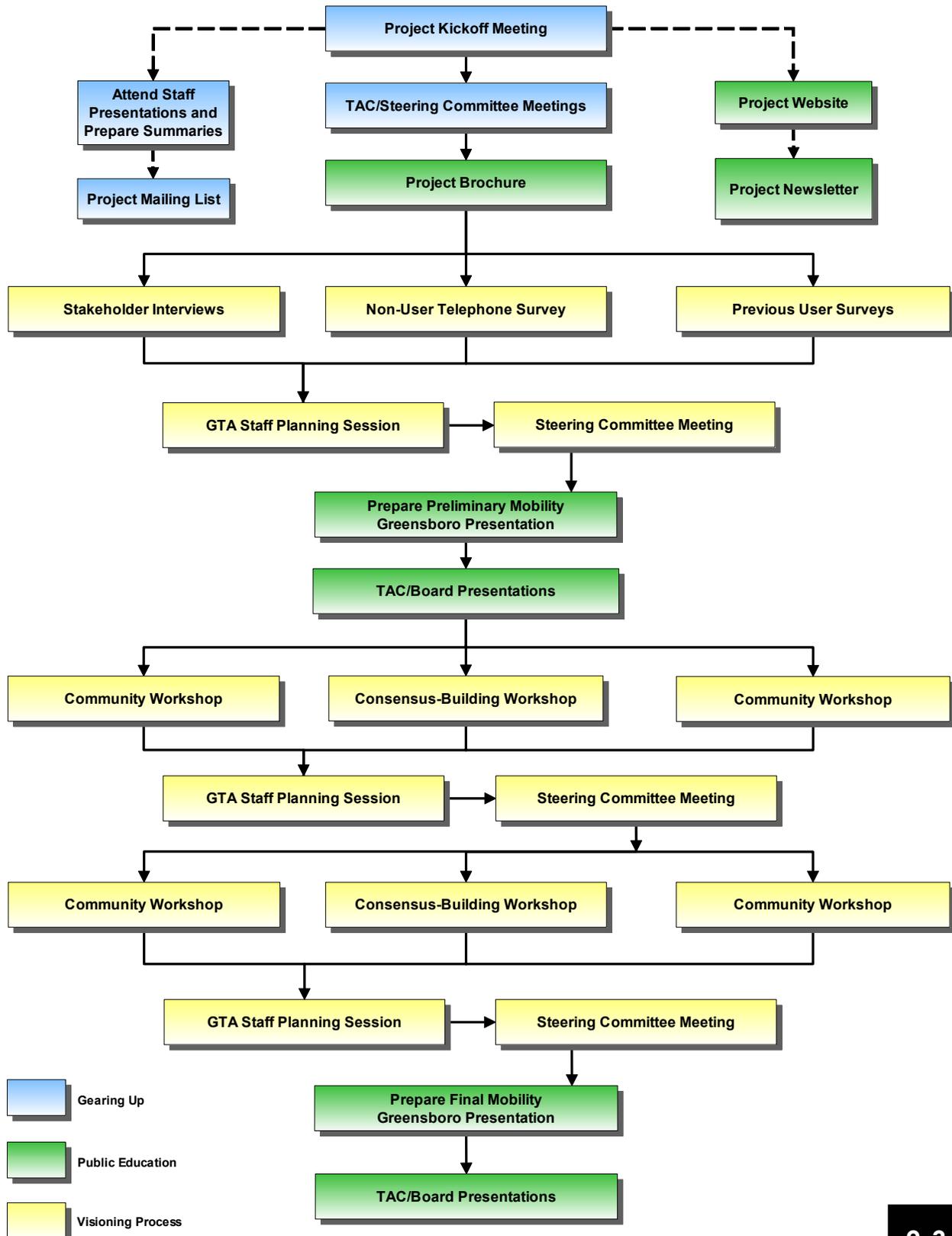
To become involved in Mobility Greensboro, citizens were encouraged to fill out a Public Outreach Form in the brochure or contact GTA at 336-373-2634 and provide the information needed to be notified of future public involvement

activities and functions. In addition, individuals were encouraged to contact GTA to schedule a presentation for an existing meeting, such as a homeowner’s association meeting, a civic organization meeting, or other organized gathering within the City of Greensboro.

PUBLIC INVOLVEMENT PROCESS

Several public involvement techniques were selected for inclusion in the public involvement process to ensure the active participation of citizens in the community. Each of them are listed and briefly discussed in this section. The techniques have been placed into two major categories, including direct involvement techniques and information distribution techniques. Direct involvement techniques refer to those that engage the public in “hands on” workshops and/or discussion about the project. The information distribution techniques refer to public information materials that are used to inform the general public of issues regarding the project.

**Figure 2-2
Public Involvement Process**



The public involvement techniques for *Mobility Greensboro* are summarized below and illustrated in Figure 2-1. The list below is organized according to direct involvement and information distribution techniques.

Direct Involvement Techniques

- Project Kickoff Meeting with GTA
- Steering Committee Meetings
- Technical Advisory Committee Meetings
- GTA Staff Meetings
- Stakeholder Interviews
- Non-User Telephone Survey
- On-Board Survey
- GTA Board and City Council Presentations
- Consensus-Building Workshops
- Community Workshops/Public Outreach Presentations and Meetings

Information Distribution Techniques

- Public Involvement Plan
- Public Involvement Schedule
- Project Mailing List
- Project Brochure
- Quarterly Newsletter
- Project Web Site
- Interactive Multimedia Presentation

TRANSIT PLANNING PROCESS

The structure of the transit planning process is illustrated in Figure 2-3 and can be summarized with three basic questions.

(1) Where are we now?

Understanding where we are now is an important step in the planning process. Strengths and weaknesses are identified, providing a starting point for understanding where we want to be in the future.

(2) Where do we want to be in the future?

The focus of the visioning process and technical analysis was on the definition of what we want to be in the future as a public transportation system. This included answering questions, such as how we want GTA to be perceived by users, non-users, and visitors to Greensboro.

(3) How do we get there?

The third and most important question involves the determination of what needs to be done to get from where we are now to where we want to be in the future. This includes specific implementation recommendations for:

- Service improvements;
- Capital requirements;
- Staffing requirements;
- Marketing component;
- Security component; and
- Financial requirements.



Section 3 - The Present

Significant efforts were devoted to understanding existing conditions for GTA. In particular, a summary of “where we are today” was developed based on the results of:

- Stakeholder interviews;
- Consensus-building workshops;
- Non-user telephone survey;
- GTA on-board rider survey;
- Other public outreach activities;
- Assessment of GTA strengths, weaknesses, opportunities, and threats.

A summary of existing conditions is provided in the remainder of this section, along with a current transit user profile and the overall community perspective of GTA.

SUMMARY OF WHERE WE ARE TODAY

A major component of a long-range plan for any

agency is a strategic assessment of how the agency functions as well as the environment in which the agency operates. Such an assessment is often referred to as a SWOT analysis, since it considers the strengths and weaknesses of the agency and the opportunities and threats in its environment.

In developing this assessment, the project team relied on insights offered by GTA management and staff, Board members, elected officials, and other key local decision makers as well as its own observations. GTA’s strengths, weaknesses, opportunities, and threats are summarized below.

Strengths

- Provides mobility for those without access to or who prefer not to rely on an automobile. One of GTA’s major strengths is that it provides mobility for those with few or no other choices for getting around. This is true of both its fixed-route and demand response services.

- Takes people to work. Surveys have consistently indicated that a large portion of GTA ridership uses the bus or the van to get to work. The recent national emphasis on Welfare-to-Work programs found that transit provides an important means of transportation for those entering or re-entering the work force. When GTA conducted a survey of its riders prior to implementing transit service on Sunday, over 55 percent of respondents noted that they would use Sunday service to get to work.
- Provides the elderly and those with disabilities a measure of independence in their travel. GTA does far more than just bring people to work and back. By providing opportunities for medical, shopping, and recreational trips, it provides a measure of independence for the elderly and persons with disabilities in the City of Greensboro.
- Serves transit-oriented neighborhoods. GTA's fixed-route services are designed to serve neighborhoods with a high propensity to use transit. These neighborhoods are well served by GTA buses.
- Improved reliability. Over the past several years, GTA and its contracted operator, ATC, have made a concerted effort to ensure on-time performance on the fixed-route system. Changes in procedures for operators reporting to work and a campaign to leave the Davie Street transfer location on time have significantly improved the reliability of fixed-route service. While unexpected traffic congestion can always create delays, the system now routinely operates on schedule. Another factor contributing to improved reliability was shortening two of the longest routes in the system and replacing their outlying portions with connector service.
- Improved span of service (evenings, Sunday). In January 2001, GTA established extended evening service on seven fixed routes (generally combinations of daytime routes) to replace LateLine service that had been provided with vans serving zones within the service area. Evening ridership has increased as a result. The same seven fixed routes are now operated on Sunday (beginning in October 2000), providing seven-day-a-week service for the first time. GTA was among the first systems in North Carolina to provide Sunday service.
- Improved frequency of service on selected routes. GTA improved frequency from one bus every hour to one bus every 30 minutes all day on Routes 3 (N. Elm) and 6 (Summit) and during the midday period on Route 12 (Randleman-South Elm/Eugene) in January 2001. At the same time, GTA reestablished midday service on Route 9 (W. Market). Ridership increases were particularly noteworthy on Routes 9 and 12.
- Willingness to innovate (Career Express, TAG, connector routes, Guilford College). GTA has been more willing than most transit agencies to experiment with new concepts. Career Express provided reverse-commute service to rapidly expanding employment opportunities in the Air Park area long before other agencies began to implement similar services related to Welfare to Work programs. TAG, the first attempt to establish connector routes serving outlying areas, may have been ahead of its time and was discontinued due to low usage. Three connector routes now operate in outlying areas

of Greensboro, providing connections to the big-bus fixed route system. A joint program with Guilford College to provide mobility for its students also fell short of expectations and was discontinued, although GTA and Guilford College are studying ways to revise the service. Oddly, the failures may be the key to the willingness to innovate, since GTA has shown the ability to discontinue experimental service that does not work as advertised. Many other transit agencies are unwilling to test new ideas for fear that they will be saddled with unproductive services if they do not work.

- Responsive. GTA receives high marks in the area of responsiveness to customer comments and complaints. GTA management emphasizes the importance of responding quickly to questions, comments, and complaints from customers and residents.
- Fixed-route costs have increased at the rate of inflation. A recent analysis revealed that increases in fixed-route operating costs since 1993 have paralleled the rate of inflation. GTA has managed its fixed-route costs well, even at a time when service has been expanding.
- Service monitoring. GTA has enhanced its service monitoring efforts so that it can better understand and respond to ridership and performance trends. This is an important function that allows transit agencies to manage proactively.
- Board openness to public comment. Many Boards allow public input during meetings, but few follow up with directives that staff investigate and report on the comments as consistently as GTA.

Weaknesses

- Not frequent enough. Despite attempts to enhance service frequency, GTA buses are perceived as not operating frequently enough. The most frequent service is every 30 minutes, and several routes operate hourly all day. If a passenger misses a bus, he/she has a long wait for the next one.
- Needs to attract discretionary riders. This weakness is related to frequency. Transit service is not convenient enough to encourage potential riders to leave their cars at home, especially in many middle-income neighborhoods with hourly service. Discretionary riders are generally more time-sensitive and expect a higher level of service that more closely approximates the automobile. Different types of service (such as express bus) offer a greater opportunity to attract this type of potential rider.
- Continued cost increases, especially on SCAT. While fixed-route costs have increased at the same pace as the cost of living, demand response costs have skyrocketed over the past decade. This can be attributed in part to GTA's efforts to come into compliance with the requirements of the Americans with Disabilities Act (ADA), but the increase in demand for this service and the difficulty of providing efficient demand response service are also factors.
- Lean staff cannot address all needs (marketing). In general, GTA is to be commended for operating with a relatively lean staff structure. However, this leaves the agency vulnerable to sudden staff departures

such as the recent resignation of the Marketing Director. Lack of a focused marketing effort was a contributing factor in the failure of the Guilford College student pass program, because other staff members were too busy with their own responsibilities to be able to pick up the slack.

- Difficult to serve outlying areas experiencing significant growth. GTA has established connector routes as the primary means to serve outlying areas, thus avoiding the difficulties inherent in trying to stretch existing routes beyond their ability to keep to schedule. However, growing outlying areas are usually characterized by low densities, and public transportation does best in situations of high concentration of jobs or residents. This will be a continuing challenge to GTA in the coming years.
- Turnover in contractor General Managers affects continuity. ATC has been required, for various reasons, to change General Managers more often than it would prefer in the past several years. A stable management team can impart a consistent message to and build relationships with the workforce that enhance the likelihood of service improvements. While there is no specific area that has suffered as a result of this turnover, the instability is not an ideal situation.
- Not enough high-quality vehicles. The newest GTA buses, while relieving a critical vehicle shortage, have experienced abnormally high maintenance problems and thus have not produced the benefits usually associated with new bus purchases. The average age of GTA's fleet is relatively high, resulting in high maintenance costs and the likelihood that at

least one bus will not be available on any given day. This restricts the agency's ability to provide high-quality service and to consider service expansion. The end result is an increase in negative perceptions on the part of both riders and non-riders.

- Central transfer location leaves room for improvement. If one were to design an ideal transfer location, it is very unlikely that it would look like Davie Street. GTA has made the best of a bad situation out of its control, but the impending move of the downtown transfer location to the Depot will provide a markedly improved environment for waiting passengers.
- Perception that GTA can be all things to all people, as opposed to a mass transit agency. This weakness is in some ways the other side of one of GTA's strengths, its responsiveness to the community. As a transit agency grows and more people rely on its services, the need to move greater numbers of passengers more quickly means that routes cannot be configured to meet everyone's needs. While this fact is easily understood intellectually, it requires a change in the way the agency works that can frustrate some riders because individual needs will be subordinated to the greater good.

Opportunities

- Increased participation with other agencies in providing service for specific markets. One example of this was the college pass program demonstration with Guilford College, and a similar project proposed for University of North Carolina at Greensboro. When The Depot is open, it could serve as a hub for a Downtown shuttle, with financial support from the City and/or Downtown Greensboro.

- Tie in with renewed focus on Downtown Greensboro. GTA worked with Downtown Greensboro to provide shuttle service for the “welcome back students” day in August 2002. As noted above, the next step could be a shuttle service, something that Downtown Greensboro has been interested in pursuing. A healthy downtown benefits transit, because the network is oriented to downtown.
- PART and opportunities to integrate regional and local service. PART recently assumed responsibility for the express portion of Career Express from downtown to the Air Park area and has also introduced a new shuttle serving the Air Park. As PART continues to develop regional service that includes High Point and Winston-Salem, there will be increased opportunities to integrate PART and GTA services.
- Increased community outreach. In the past several years, GTA has increased its outreach program and established contacts with several neighborhood and civic groups throughout the City. A strengthened community outreach effort builds partnerships with these groups, provides a vehicle to obtain community input, and can educate community leaders regarding both the important role transit can play and the financial limits within which GTA must operate. Routine community outreach can make GTA aware of issues and enable the agency to respond before they reach the Board or City Council level.
- Continued focus on improvements for current riders. Recent improvements such as new vehicles, enhanced frequency and regularization of evening service have focused on better service for current riders. This focus on current riders is intended to build loyalty toward GTA, encourage transit use for additional trip purposes, and retain riders even when a car is available for the trip. Changes that enhance existing service generally result in greater ridership increases.
- Expand services for current and potential markets. While the emphasis on current riders is appropriate, there is also room for expanded services to potential new markets. Concepts such as connector routes in outlying area, express bus routes and park and ride lots within the City of Greensboro, and new cross-town routes offer opportunities to attract new riders while also benefiting current riders.
- Develop staff expertise. GTA has developed a strong staff within a lean structure. Staff continuity over the past year has allowed staff members to develop expertise in specific fields (e.g., demand response transit, operations planning). While personnel at an agency the size of GTA need to have broad experience in all areas of transit, continuing development of expertise in specific areas will strengthen the agency.
- Build upon local support for transit. There is broad support for transit in the community, as demonstrated by the City Council’s financial contribution to start up Sunday service. This provides an important base for GTA as it continues to improve service. Community outreach efforts will help to maintain and strengthen this support at the grassroots level.
- Leverage state and federal funding, particularly for capital purchases. A sometimes-overlooked benefit of transit is that it can bring outside funds into the community. Although these need a local match, the local portion is typically only 10 to 20 percent of the total

grant. This availability of state and federal funding, particularly for capital purchases, means that every local dollar is matched by four to nine state or federal dollars, greatly enhancing the value of the local investment.

- Board members as advocates of transit in the broader political arena (advocacy and education). Board members can play an important role in building local support for transit by acting as local advocates for transit with local elected officials. Board members are also well placed to educate key local officials regarding the important roles that transit can play in terms of mobility, access to jobs, and economic development.

Threats

- Continued reliance on the automobile. This is the major threat facing transit systems throughout the United States. The American love affair with the automobile is a fact of life, although rising gas prices, increasing highway congestion, and limited and/or costly parking can encourage transit use. One tactic suggested here is to build customer loyalty among existing customers by focusing on improvements to existing service that benefit current riders. Surveys of former transit riders suggest that the purchase of an automobile is the primary reason for no longer using transit. The long-term aim of building customer loyalty is to provide a reason for continued transit use at least for certain trip purposes as customers move up the economic ladder.
- GTA could be seen as “only for those with no choices”. This perception is widely held among key local officials in Greensboro and elsewhere. The danger in this perception is two-fold: it can limit potential ridership growth among discretionary riders, and it can limit political support for transit, despite general support for enhancing the mobility of all citizens. In the coming years, GTA could experiment with innovative partnerships and service delivery concepts to broaden its ridership base without neglecting current ridership.
- Difficulty in follow-through, due to limited staff. Any agency like GTA that operates with a lean staff is vulnerable to difficulty in follow-through. GTA has restructured and clarified responsibilities in recent years to address this problem, but will continue to be vulnerable to unexpected staff departures. This is an unavoidable disadvantage of efficient staffing.
- Lack of priorities and focus re service improvements could result in not achieving goals or meeting expectations. GTA’s strategy in recent years has been to focus improvements where the ridership payoff is likely to be greatest. However, its responsiveness to the public will on some occasions create a conflict, in situations where the demand for transit does not support a community request. It is important for GTA and the Board to maintain and reinforce system priorities even at the expense of sometimes having to say “No” to community requests.
- Danger of being viewed as poor steward of taxpayer money. This is a danger faced by all public agencies. The most recent example of this was the Council debate over an automatic vehicle locator (AVL) system for GTA, a budget item that GTA had not originally requested. Even riders do not always understand that fares pay only a portion of



transit costs and that the community invests in transit through taxpayer dollars because of its overall benefits. Lean staffing is one way to counter or avoid this perception. Another is clear communication regarding the reasons for and benefits of public expenditures. A third approach is to ensure that transit users pay a fair share of expenses.

- Responsiveness, when carried too far, can weaken the system by adding unnecessary services. This threat is related to the potential lack of priorities and focus discussed earlier. GTA has in the past shown a willingness to innovate, coupled with the ability to discontinue services that fall below expectations. This ability is critical over the long term in keeping the transit system efficient. In the short term, as noted above, GTA and the Board will sometimes have to turn down community requests.

Summary

GTA does a good job of meeting mobility needs, and has expanded service strategically over the past several years. A major strength is its responsiveness to the community. The agency has also shown a willingness to innovate, an ability to partner with other private and public agencies, and a focus on controlling costs that has been particularly successful for its fixed-route service.

Service is not frequent enough to attract a significant number of discretionary riders. Even its busiest routes operate only two trips per hour. GTA is also faced with the challenge of expanding service to areas of lower density, where transit generally does not work well. Efforts to control costs have not been as successful for demand-response services (SCAT). Staffing and vehicle issues have limited the agency's ability to respond

to changing markets. As GTA has grown, it needs to educate its riders that it can no longer be all things to all people.

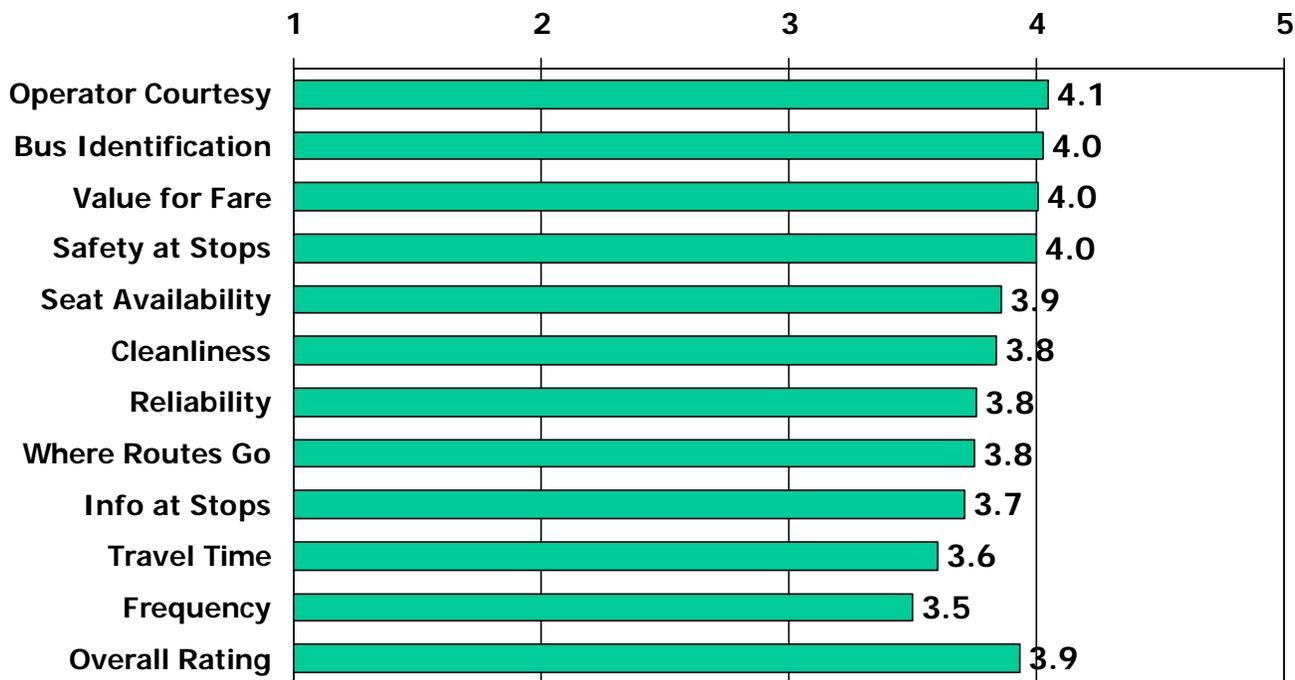
GTA has a strong base of support in the community to build upon, and has taken the right steps with regard to community outreach, service priorities, staff expertise, and leveraging of local funds. Threats commonly faced by transit agencies also exist in Greensboro: reliance on the automobile; the danger of being viewed as a poor steward of taxpayer money; and the difficulty of meeting demand with limited financial resources. GTA has a real opportunity to continue its progress in strengthening community support and approval, with Board support and leadership.

CURRENT USER PROFILE

GTA riders are using transit primarily for work, school, and shopping trips on weekdays and for work and shopping on weekends. Cash is reported as the most common fare payment method, but over one-third of all riders report using a pass. Most riders walk to and from their origin and destination, and most transfer during the course of their trips. GTA riders tend to be frequent, long-time riders, although one-third of all riders have been using the system for less than one year.

GTA riders generally pleased with the service. On a scale of one (very poor) to five (excellent), respondents rated GTA service at an average of 3.93, a high rating. Operator courtesy, ease of identifying the right bus, value for fare paid, and personal safety at bus stops all received an average rating of 4.00 or above. The lowest-rated service elements were frequency (3.50), travel time on the bus (3.60), and information at bus stops (3.71). Improved frequency was the most requested improvement among GTA riders. An analysis of performance versus importance for the eleven

**Figure 3-1
Overall User Ratings of GTA Service Characteristics**



service attributes indicates that frequency and travel time on the bus are the most critical elements in terms of needed improvements.

COMMUNITY PERSPECTIVE OF GTA

Awareness and Support for Transit

The citizens of Greensboro generally believe that the awareness of and support for transit is good for individuals in the community who need the service and have no other transportation alternative. Non-transit users, however, are not typically aware of the available transit services and their knowledge is generally limited to seeing buses on the road as they travel in the area. Despite this common perception, most believe that the awareness and support has increased in the past two years for a number of reasons, including:

- GTA staff is doing a better job of providing and marketing services;
- The anticipation of the Depot has generated interest and support (with a few exceptions);
- The involvement of PART has generated awareness and support from a regional perspective.

At the policy level, most believe that there is basic support for public transportation as a municipal service. This support in its current form, however, is not likely to translate to a commitment for significant service and funding expansion. The City Council, however, has demonstrated a willingness to respond when citizens have expressed support for new services (night and especially Sunday service, connector routes, etc.).



Perception of GTA in the Community

With regard to the perception of GTA in the community, there is a difference of opinion among the respondents of the various public involvement activities. Most GTA Board members believe that the perception of GTA is generally positive and well received in the community, especially within the past two years.

In contrast, one GTA Board member and many other respondents were more pragmatic in their comments. In their view, while a majority of citizens believe that the provision of transit service is the right thing to do, they also tend to be somewhat indifferent about GTA since they are not typically transit users. Despite this indifference, general perception is believed to have improved in the past two years. However, the widespread perception that GTA provides a needed service for those who do not have an alternative attaches a social stigma to the choice to use transit rather than driving an automobile. A citizen survey conducted a few years ago was also mentioned, with one result indicating that community perceptions toward transit were generally okay. One respondent also noted the lack of interest from businesses in the community.

Responses to transit's role in the community ranged from the need for a viable alternative for everyone to focusing only on those who do not have an alternative. Most support the need for a transit system and have an interest in seeing GTA evolve to provide services that can be used by everyone in the community, including those who drive their automobiles today.

GTA Responsiveness

Nearly all of the respondents indicated that GTA is responsive to the community's needs. They also

understand, however, that all needs cannot necessarily be met due to the lack of resources and/or funding. Several respondents were also complimentary of GTA staff, especially with their efforts to respond to needs within the past couple of years. One respondent did discuss the lack of responsiveness in GTA's early days following the transition from Duke Power. This same respondent also indicated that responsiveness appears to have improved in recent years.

Needs are communicated to the transit system through public comments at GTA Board meetings and community/neighborhood meetings scheduled by GTA staff. One respondent mentioned that a focus group was held one time to obtain information from riders. The perception is that GTA is willing to listen to suggestions and comments but new ways of communicating needs should be considered to expand opportunities for input to a broader population in the Greensboro area.

Availability of Transit Information

The consensus of the respondents is that transit information is available in the community but not "readily" available to the general population. Riders know how to find the information they need, but non-users are unsure where or how to obtain information. Opportunities for expanding the availability of transit information were emphasized, such as employer meetings/forums and cable television advertising.

OVERVIEW OF EXISTING CONDITIONS

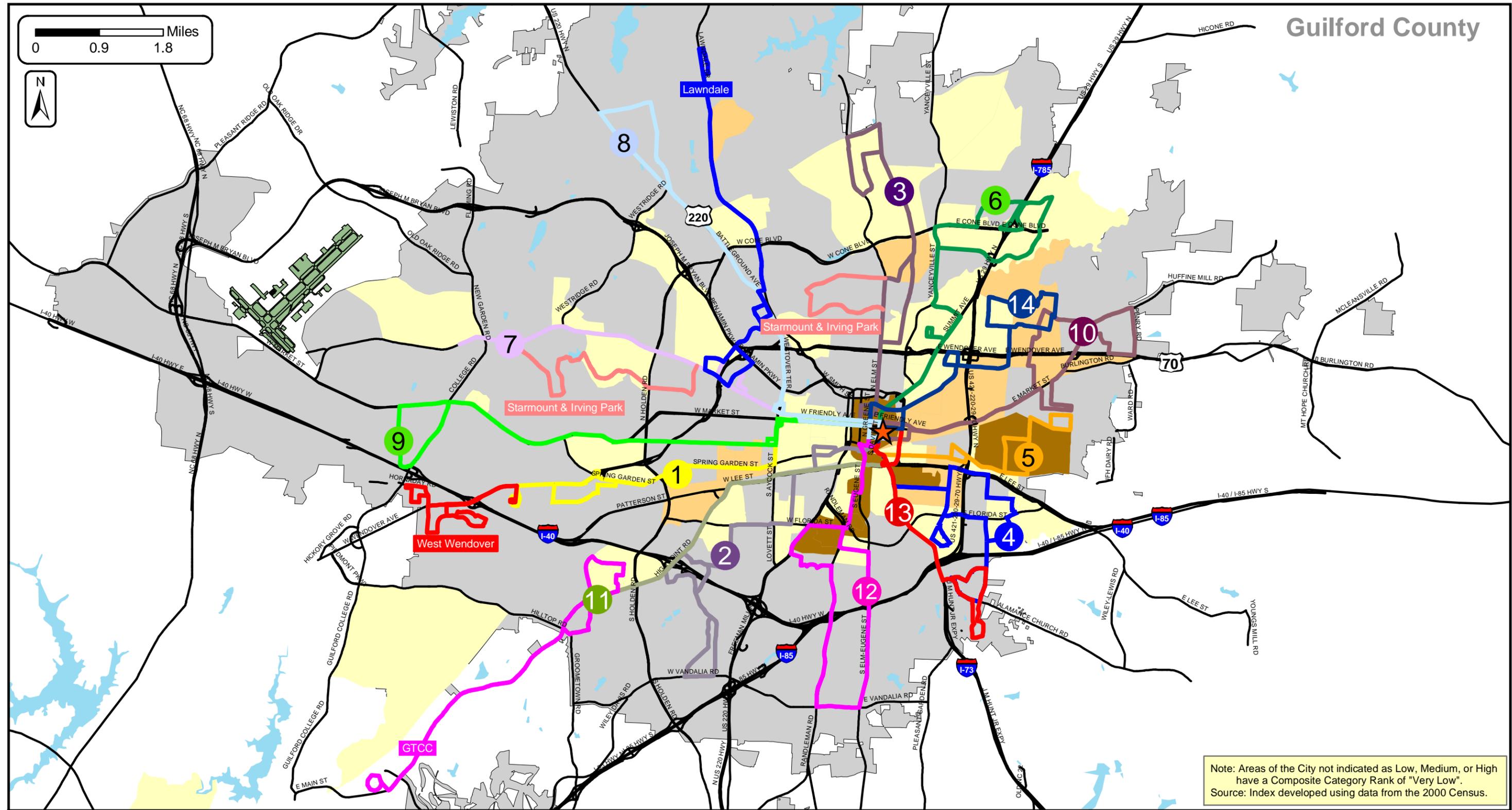
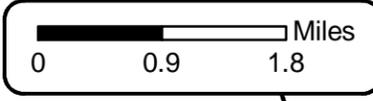
While a majority of individuals believes that GTA is doing an adequate job of providing public transportation services to those who need it most, this same majority also believes that the existing level of service is inadequate for significantly

expanding ridership and attracting “choice” riders. A choice rider is one that has an existing form of transportation, such as owning an automobile, but still chooses to use GTA services.

To further define existing transit services, two maps were produced to illustrate existing services operated by GTA and PART. Each map is summarized below.

- **Map 3-1: GTA Existing Bus Routes and Residential Transit Orientation - Existing GTA** bus routes and connectors are displayed as a starting point for Mobility Greensboro. Also provided is a Residential Transit Orientation Index for the City of Greensboro, which displays the orientation of a given area in the City to use transit based on characteristics historically conducive to transit use. Characteristics used to compute the index include population density, youth, elderly, low-income, and households with no automobile. Areas are designated as having a high, medium, or low orientation to transit.
- **Map 3-2: PART Express Bus Routes and Residential Transit Orientation - This map** illustrates the three regional express routes operated by PART, along with the Residential Transit Orientation Index for Guilford County.

In both maps, it is evident that existing bus routes serve the appropriate areas of the City with regard to higher level of transit orientation.

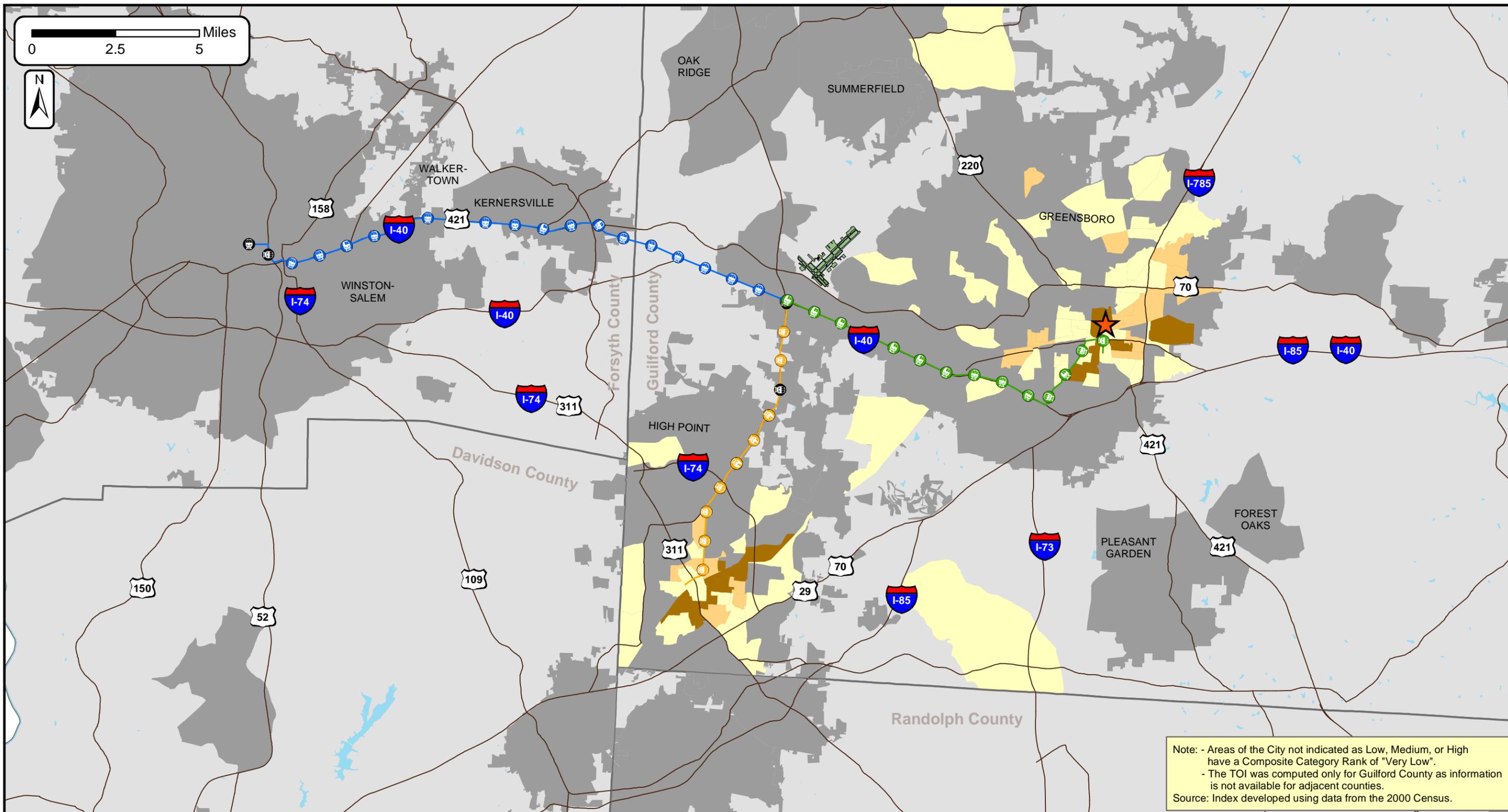


Note: Areas of the City not indicated as Low, Medium, or High have a Composite Category Rank of "Very Low".
Source: Index developed using data from the 2000 Census.

Depot	Routes 1 — 8 2 — 9 3 — 10 4 — 11 5 — 12 6 — 13 7 — 14	Connectors — Lawndale — GTCC — West Wendover — Starmount & Irving Park	Transit Orientation Index (TOI) — Low — Medium — High
--------------	---	---	---

MAP 3-1

GTA Existing Bus Routes and Residential Transit Orientation



Note: - Areas of the City not indicated as Low, Medium, or High have a Composite Category Rank of "Very Low".
 - The TOI was computed only for Guilford County as information is not available for adjacent counties.
 Source: Index developed using data from the 2000 Census.

M^G GTA Mobility Greensboro

Tindale-Oliver & Associates

PART Express Routes

- Greensboro Express
- Winston-Salem Express
- High Point Express

Transit Orientation Index (TOI)

- Low
- Medium
- High

Depot

MAP 3-2

PART Express Bus Routes and Residential Transit Orientation



Section 4 - The Future

Developing a vision for public transportation in the City of Greensboro was the primary objective of Mobility Greensboro. As a result, significant efforts were devoted to facilitating this discussion and developing an understanding of the community’s vision for GTA. In particular, a summary of “where we want to be” was developed based on the results of:

- Stakeholder interviews;
- Consensus-building workshops;
- Non-user telephone survey;
- GTA on-board rider survey;
- Other public outreach activities;
- Assessment of GTA strengths, weaknesses, opportunities, and threats;
- Discussions with GTA and other City staff.

The remainder of this section describes the vision for public transportation in Greensboro. While no

specific time frame was necessarily associated with the ultimate plan, there is general agreement that the next five years are critical to the successful implementation of Mobility Greensboro. Many components of the plan, however, are longer-term in nature and would need to be gradually implemented over the next ten to 15 years.

MOBILITY GREENSBORO GOAL

As discussed previously in Section 2, the immediate goal of Mobility Greensboro is to develop a plan that will double transit ridership in the next five years from two million riders in 2002 to four million riders in 2008. This goal resulted from the public involvement process in which thousands of citizens from the City of Greensboro and the Triad area participated over the past year.

The remainder of this section presents a summary of where we want to be with public transportation in the future and describes the characteristics of GTA patrons of the future.

SUMMARY OF WHERE WE WANT TO BE

A summary of where the community wants to be is provided below based on the input received in the public involvement process.

Transit Goals for the Future

Numerous goals were identified during the public involvement activities conducted for Mobility Greensboro. These include:

- Meet transit needs as the City grows;
- Serve all areas of Greensboro with fixed-route bus service;
- Operate more bus routes (new areas, cross-town routes, others);
- Expand night and weekend service;
- Increase integration and cooperation with regional bus service;
- Establish park-and-ride services;
- Improve reliability and on-time performance;
- Improve air quality;
- Increase ridership;
- Attract choice riders;
- Expand the connector service concept;
- Establish a more a comprehensive, multi-modal transit system.

Meeting the Needs of the Community

The perspectives on how GTA can better meet community needs are varied. Responses included the following:

- Focus more on marketing and education and become more customer service oriented (need to fill the marketing position);

- Obtain more funding;
- Use the results of Mobility Greensboro to identify how GTA can better meet community needs;
- Improve regional coordination;
- Implement more fixed-route bus service (more local routes, cross-town routes, park-and-ride service, establish satellite transfer locations, etc.);
- Obtain more and better infrastructure (vehicles, shelters, benches, other infrastructure as appropriate);
- Focus on employee training;
- Develop public/private partnerships with employers;
- Implement advanced technologies and new services to attract choice riders (learn from successful examples in other parts of the country);
- Focus on the basics of providing service and do not devote significant efforts to advanced technologies such as Automated Vehicle Location (AVL).

Responding to Growth

Most of the growth occurring in the Greensboro area is perceived as sprawling residential growth and the associated services that follow. The areas most frequently indicated as being targeted for growth include the airport area and east Greensboro. Other growth areas in the future include Browns Summit Road, West Friendly, North Battleground, Yanceyville, Northwest, and southwest to Jamestown. Two of the respondents encouraged a more thorough review of the

Comprehensive Plan (water and sewer) to develop a better understanding of where growth is projected to occur in the future. Development will occur near the roadway loop around Greensboro as it continues to be constructed in the future. Interest was also expressed in seeking redevelopment opportunities within the more concentrated areas of population and employment.

The nature of growth and development in the Greensboro and throughout the U.S. makes it extremely difficult for transit to respond to transportation needs. As growth continues to go outward, it becomes more and more difficult to efficiently serve the community with transit. Several respondents mentioned the need to coordinate closely with PART in the development of and connections with regional transit services. The Depot is also believed to be an important part of responding to development trends in the future.

Target Markets

Most respondents indicated that GTA should focus on existing markets first, which suggests the need to improve existing routes before implementing new routes. Several indicated that, although existing markets should be the priority, this should not preclude GTA from identifying opportunities for new services that respond to demand.

Bus Rapid Transit/Commuter Rail

While most respondents agree that bus rapid or rail transit service may not be practical today, they also generally support the development of premium transit services in the distant future (perhaps 20 to 25 years). Several respondents indicated that PART's regional bus service provides a starting point for building transit demand along key corridors between the three major cities in the Triad area. Developing these transit corridors will

lead to gradual increases in transit ridership and subsequent improvements to the quality of transit services. A few respondents suggested the possibility of advanced right of way acquisition for future transit corridors but were uncertain as to how to pay for the right of way. Many of those interviewed also emphasized the positive perception of rail transit versus bus transit, indicating that premium transit services would likely be required to achieve a significant "choice" ridership.

Transit Funding

Responses to this question were mixed, with approximately half of the respondents indicating no and the other half indicating that some potential exists if strong citizen support can be demonstrated to the City Council. A few respondents indicated that, although their immediate answer to additional funding is no, this certainly could change as the economy improves and GTA demonstrates more successes. It was mentioned, however, that the ability of PART to obtain funding through rental car fees is a good sign for regional support of public transportation.

Transit Improvements Needed

The most common responses to this question related to (1) the need for more and better marketing, and (2) a greater focus on transit infrastructure, amenities, and technology. First, a more aggressive marketing and education program was mentioned by nearly every respondent as being critical to overcoming the perception that the bus is only used by individuals with a low income or a disability. This would include efforts to make riding the bus as user friendly as possible. One comment was also made about the need to improve communication with non-print readers.

Second, increasing the emphasis on transit infrastructure, amenities, and technology will not only provide a better service to existing patrons but also provide incentives for citizens to choose transit as a viable transportation alternative. Specific suggestions included newer/better buses, smaller buses where appropriate, more amenities at bus stops (shelters, information kiosks, etc.), more amenities on buses (improved Talking Bus, music, television), and passenger information systems (kiosks, internet, etc.), among others.

Other more specific suggestions included the need for more routes in the airport area, improved east-west connections, improvements in service reliability and on-time performance, and development of the downtown as a major destination.

Nearly every respondent expressed an interest in park and ride lots having a role in the Mobility Greensboro plan. Numerous comments were made, however, regarding the feasibility of park and ride lots today versus in the future. There was some discussion of the recent grant received by PART to develop park and ride lots in the Triad area. Several respondents believe that this service concept is not needed at the present but it is a logical extension of regional bus services in the future. One respondent expressed concern about security at park and ride lots and mentioned the possibility of sharing lots with existing shopping centers. Finally, it was mentioned that a park-and-ride arrangement currently exists on the University of North Carolina Greensboro campus, which helps address parking problems at the campus.

Most Important Change

The responses to this question were quite diverse ranging from specific service improvements to

more funding. Responses to this question are listed below.

- Improve efficiency, in response to the general perception that transit is a social service and is operated inefficiently (empty buses);
- Add more bus routes throughout the City of Greensboro;
- Offer park-and-ride services as an option for choice riders;
- Improve communication with non-print readers;
- Offer Career Express service on Sundays;
- Improve the responsiveness and reliability of SCAT;
- Get The Depot operating sooner than later;
- Increase funding for expanding transit services;
- Increase focus on marketing and education;
- More service on demand;
- Build a rail system in the region.

Vision for the Future

A majority of the respondents envision a transit system that provides innovative services and offers a legitimate transportation option to all citizens and visitors in the area (captive and choice riders). It was emphasized that we can learn from other systems throughout the country that currently have innovative approaches to delivering services and serving customers. This vision would include a variety of services, such as expanded local bus, express bus, park-and-ride, shuttles, rail, and the intermodal connection of modes at the Depot. The

transit system would have a major function in the community, working closely to meet the needs of major employers. GTA should be completely focused on a customer service orientation.

More specific elements of the various visions expressed by respondents include the following:

- Provide more reliable and frequent service;
- Serve more areas in the Greensboro area;
- Change attitudes and perceptions about transit;
- Provide service to all citizens and visitors who need transportation;
- Ensure a strong link to regional transit services;
- Become more visible in the community with marketing, education, and involvement of the GTA Board and City Council;
- Consider smaller buses on less traveled bus routes;
- Increase the number of riders with disabilities;
- Improve communication with non-print readers.

TRANSIT IMPROVEMENT PRIORITIES

Using the information compiled from the public involvement program, consensus-building workshops were facilitated with a diverse group of representatives throughout the Greensboro area.

Consensus-Building Workshop #1

On March 27, a group of 38 attendees gathered in the Nausbaum Room of the Greensboro Public Library to discuss issues of importance to the long-range planning process for GTA. After an overview of the Mobility Greensboro process and a

synopsis of data identified during a professionally conducted telephone survey, each participant was assigned to a break-out group so they could easily express their views and listen to those of others. The groups were instructed to decide on common areas of interest and build consensus while noting any areas of disagreement. After two hours of discussion, each group prepared a summary of their discussion to report to all the attendees.

Consensus-Building Workshop #2

On September 11, a group of 40 attendees gathered in the Nausbaum Room of the Greensboro Public Library to continue Mobility Greensboro. After an overview of the information that was gathered at the first workshop, each participant was assigned to a break-out group so they could easily express their views and listen to those of others. The groups were instructed to discuss a list of five topics outlined in the information packet that was handed out at the beginning of the meeting. After two hours of discussion, each group prepared a summary of their discussion to report to all the attendees.

The resulting transit improvement priorities are summarized below in terms of the five major areas of discussion.

Service Improvements

- Increase the frequency of service on existing bus routes.
- Implement new cross-town bus routes to provide more direct service to destinations that do not require a stop downtown at the Depot.

Marketing/Education

- Hire a marketing director to ensure a strong focus on marketing and education.

- Expand the travel training program to help existing and future transit riders in understanding how to use public transportation.
- Expand partnership with universities, colleges, and businesses throughout the City of Greensboro.
- Increase the number of media outlets where GTA information can be accessed and bus passes may be purchased.

Infrastructure/Technology

- Provide real-time customer information at the Depot and other selected locations (kiosks).
- Consider alternative fueled vehicles as part of future vehicle purchases.
- Focus on essential infrastructure, such as high quality buses, shelters, and customer information.
- Make extensive use of the Internet to provide information about GTA, display real-time customer information, and facilitate trip planning using the GTA bus route network.
- Coordinate with City staff regarding the sidewalk improvement program, placing an emphasis on access to bus stops and sidewalk connections between bus stops and major destinations.

Transit & Land Use

- Encourage transit supportive development by better integrating appropriate policies and procedures in the Land Development Code and the site plan review process.
- Consider the impacts of parking policies on public transportation and the potential for

encouraging transit use through parking disincentives (cost and availability).

Transit Funding

- Be more proactive in pursuing grants from state and federal sources.
- Expand partnerships with universities, colleges, and businesses to help pay for existing and expanded transit services.
- Identify new revenue sources for GTA, such as fare increases, property tax millage increase , additional sales tax, parking revenues, and lottery.

A VISION FOR GREENSBORO

Mobility Greensboro was initiated to develop a vision for public transportation’s role in the City of Greensboro’s future. Based on the information summarized previously in this section, as well as that which was compiled throughout the public involvement process, this vision includes:

- clean, alternative-fueled buses coming by your home and destination every 15 minutes...
- those same buses traveling directly to your destination in downtown or cross-town...
- strong partnerships between GTA and the universities, colleges, and employers throughout the Greensboro area...
- the availability of park-and-ride lots on major corridors that provide convenient access to bus rapid transit that travels quickly and directly to The Depot...
- a revitalized downtown Greensboro that is pedestrian friendly and provides mobility through a downtown circulator bus...

- public transportation services that are integrated regionally to support convenient connections throughout the Triad region...
- the effective use of technology to improve customer service and enhance the availability of customer information...
- 11,000 daily bus trips on GTA within the next five years...
- 25,000 daily bus trips on GTA by the year 2025...

Mobility Greensboro lays out the possibilities, but more importantly, it reflects an action plan to make the possibilities become a reality.

SUMMARY

The purpose of this section was to define the global vision for what the community wants the public transportation system to be in the coming years and what role it should play in providing a mobility alternative to existing and future transit users.

Once the vision was defined, the Mobility Greensboro Plan could be developed, which is the blueprint for implementing transit improvements, achieving the vision, and doubling ridership in the next five years.



Section 5 - The Mobility Greensboro Plan

The Mobility Greensboro Plan is presented in this section of the report and is organized into six major sub-sections. A series of plan components is presented, including the following:

- Service Plan
- Marketing Plan
- Security Implementation Plan
- Capital Plan
- Staffing Plan
- Technology Implementation Plan

SERVICE PLAN

The consensus-building workshops and other public outreach activities yielded several good suggestions and comments regarding areas of improvement for transit in Greensboro. Most service-related comments fell into one of the following six categories:

- Add More Frequent Service
- Add direct service – not through downtown
- Reduce travel times (partly through more direct service)
- Improve reliability, in terms of on-time performance, through scheduling adjustments
- Expand service area and integrate with regional service
- Attract non-traditional riders

Participants in the second consensus-building workshop had an opportunity to recommend priorities among these types of service improvements. Improved service frequencies and the establishment of cross-town routes received the highest priority, with support for schedule adjustments, service extensions, and transfer centers outside of downtown.

In response to these issues, concerns, and priorities, the following actions are proposed as part of the Mobility Greensboro service plan. The time frame for implementation will depend upon availability of funding, but a suggested time frame is included at the end of this section.

Establish Cross-Town Routes

The GTA transit network features a radial design typical of transit systems in small cities in the South and elsewhere. The network is centered upon The Depot downtown. Thus, to travel from one part of the city to another, a rider must transfer downtown.

This proposal would establish cross-town routes that could avoid the need to transfer downtown. Most systems that operate cross-town services find that they are less productive than radial routes, so it is important to serve major activity centers and provide transfer opportunities at these points.

Candidate corridors for cross-town service include:

- Holden Road
- Florida Street
- Cone Boulevard

The consensus of workshop participants and GTA staff is that Holden Road would be the most promising candidate for the first cross-town route. Holden Road is centrally located, passes close to major shopping areas, and has been the subject of service requests.

A Holden Road cross-town route could begin as far south as Holden & Vandalia, where there are apartment complexes and retail opportunities, or even Holden & I-85 at Holden Crossing. At High Point Road, the route could turn north/east to serve the Four Seasons Town Centre and provide transfer opportunities to Route 2, then return to Holden Road and continue north to Friendly Avenue. The route would then travel east on Friendly Avenue to Friendly Center.

Service would operate at 60-minute headways during weekdays and Saturdays between approximately 5:15 a.m. and 7:00 p.m. At present, GTA evening and Sunday services operate as combinations of daytime routes, and cross-town service is not recommended for evenings or Sunday. Table 5-1 presents cost estimates for this proposal, along with a potential extension to evenings and Sunday.

**Table 5-1
Cost Estimate for Holden Road Crosstown Route**

Alternative	Annual Operating Cost	Weekday		Saturday		Sunday		Peak Vehicle Change		
		Hours	Cost	Hours	Cost	Hours	Cost	Wkday	Sat	Sun
60 min 6 days	\$208,648	14	\$688	13	\$639	0	\$0	1	0	0
60 min 7 days evenings	\$318,575	19	\$934	17	\$835	13	\$639	1	1	1



While many envision transfer opportunities to radial routes all along the Holden Road cross-town, in practice it would be difficult to schedule meets between all buses and the cross-town route. A hierarchy of transfer connections is proposed, with the route scheduled to provide convenient transfers to Route 2 inbound at Four Seasons Town Centre, to Route 7 at Friendly Center, and (if possible) to Route 1 along Spring Garden Road.

Other potential corridors for cross-town service include Florida Street (terminating at Four Seasons) and Cone Boulevard, possibly as an extension of the Holden Road cross-town, anchored at Friendly Center. These corridors along with Holden Road are a moderate distance outside of downtown, and thus serve major destinations and transit-oriented neighborhoods. This approach attempts to avoid the mistake made in Charlotte, where cross-town routes were established at the periphery of the service area and failed to establish a market. Depending on future development, New Garden-Guilford College Roads, Vandalia Road, and Pisgah Church-Lee’s Chapel Roads might

support cross-town service. There are no major north-south corridors appropriate for transit on the east side of town.

Improve Service Frequencies

The most frequent GTA routes operate every 30 minutes. Seven of the 14 big-bus routes offer 30-minute service during peak periods, while only four routes operate every 30 minutes throughout the day. What this means is that a person wishing to ride the bus must plan his or her trip carefully, as opposed to walking out to the nearest corner and waiting for the next bus.

Passenger demand for GTA service is not sufficient to operate very frequent schedules as is done in larger cities. However, improvements can be made to enhance the convenience of bus use.

In the near term, there are two options. The first is to increase peak-period frequencies to 30 minutes on each route, and to leave midday service as is. The second is to move to a policy of 30-minute service during peak periods and 60-minute service

**Table 5-2
Cost Estimate for Frequency Improvements**

Alternative	Annual Operating Cost	Weekday		Saturday		Sunday		Peak Vehicle Change		
		Hours	Cost	Hours	Cost	Hours	Cost	Wkday	Sat	Sun
30 min peak – no change to midday	\$526,289	42	\$2,064	0	\$0	0	\$0	7	0	0
30 peak/ 60 midday All routes	\$225,553	18	\$885	0	\$0	0	\$0	7	0	0
15 peak/ 30 midday All routes	\$3,383,289	270	\$13,268	0	\$0	0	\$0	35	0	0

during the midday on all routes. This would reduce midday service on the four routes that now operate every half hour, but the recent ridecheck indicates that half-hour trips have lower ridership and productivity than trips on the hour, possibly due to the limited opportunities to transfer on half-hour trips. If all routes operate on the hour and on the half-hour during peak periods, then ridership loads would be more equalized.

The long-term option is to increase service frequencies to every 15 minutes during peak periods and every 30 minutes during the midday. This option would greatly enhance the convenience of using GTA buses, but it is very expensive, as shown in Table 5-2.

Establish Park-and-Ride Lots/Express or Limited-Stop Service

Like most cities, the City of Greensboro is experiencing residential and employment growth on the outskirts of the urbanized area. The strategy for serving these areas with local bus service is to establish new connector routes (similar to the Lawndale, West Wendover, and GTCC connectors) that provide a one-transfer connection to downtown. It may be possible to attract new riders to the system with express or limited stop services

from park-and-ride lots in outlying areas of the city to downtown (and possibly elsewhere).

Express and limited-stop services are both intended to provide faster, more direct trips, but are structured somewhat differently. Express service boards passengers at (for example) a park-and-ride lot, and then operates non-stop to the final destination (usually downtown). Limited-stop service is similar to regular local service, except that it does not stop at every local stop. Stop spacing is typically one-half to one mile, depending on street layout and land use.

PART operates regional express service that connects Greensboro, High Point, and Winston-Salem. Express service within the City of Greensboro could be operated by either PART or GTA, while limited-stop service would clearly be within GTA’s purview.

Potential locations for park-and-ride lots include:

- Along Highway 421 in south Greensboro, possibly in the vicinity of the proposed interchange with the loop road.
- Near the airport and I-40, at the PART transfer facility.

**Table 5-3
Cost Estimate for New Express or Limited-Stop Services**

Alternative	Annual Operating Cost	Weekday		Saturday		Sunday		Peak Vehicle Change		
		Hours	Cost	Hours	Cost	Hours	Cost	Wkday	Sat	Sun
Four new express routes	\$300,737	24	\$1,179	0	\$0	0	\$0	4	0	0
Route 12 limited	\$75,184	6	\$295	0	\$0	0	\$0	1	0	0



- At The Depot in downtown Greensboro (for riders accessing the PART express bus currently in service).
- Along Wendover Avenue/Highway 70 east of Penry Road, near the proposed interchange with the loop road.
- Near Battleground Road/Highway 220 near the proposed interchange with the loop road.

PART is moving forward with plans for park-and-ride lots at its transfer facility, The Depot, and along Highway 70, along with two locations in Forsyth County, and is open to consideration of additional locations. Establishment of park-and-ride lots and express or limited-stop routes could be phased in; all five of the candidate locations do not

have to be implemented at the same time. At the outset, the routes would operate during peak periods only, with three inbound morning trips and three outbound afternoon trips. Certain routes might also operate in service in the reverse direction to serve employment areas. Another alternative is to route express buses through downtown, continuing on to a location such as Four Seasons Town Centre after stopping at the Depot.

Ideally, park-and-ride lots can be located adjacent to activity centers such as shopping centers. Experience in Charlotte suggests greater utilization of park-and-ride lots located near trip generators compared to those located in residential areas or areas with little activity.

**Table 5-4
Cost Estimate for New Connector Routes & Improvements to Lawndale Connector**

Alternative	Annual Operating Cost	Weekday		Saturday		Sunday		Peak Vehicle Change		
		Hours	Cost	Hours	Cost	Hours	Cost	Wkday	Sat	Sun
4 new Connector routes	\$300,737	24	\$1,179	0	\$0	0	\$0	4	0	0
Midday/Saturday service – Lawndale	\$105,848	6	\$295	12	\$590	0	\$0	0	1	0
Midday/Saturday service – 7 new connector & cross-town routes	\$740,933	42	\$2,064	84	\$4,128	0	\$0	0	7	0
30-minute peak frequency - 6 connectors*	\$451,105	36	\$1,769	0	\$0	0	\$0	6	0	0
30-minute peak frequency - 3 cross towns	\$225,553	18	\$885	0	\$0	0	\$0	3	0	0

There is also a short-term opportunity regarding limited-stop service on Route 12. This route is the busiest route in the GTA system, and experiences standing loads on a regular basis during peak hours. This proposal calls for addition of a limited-stop Route 12 bus that would stop only at major intersections and stops along the current route. This service would relieve loads on current local service and provide a faster trip for many riders.

Table 5-3 shows the costs associated with four new express or limited-stop routes. This table also breaks out the cost of a limited-stop addition to Route 12.

Adjust Schedules

The recent ridecheck has provided up-to-date information on running times between timepoints. All bus operators are instructed never to be early at a timepoint, and if that happens, they will wait until the correct time to continue the trip. GTA is in the process of using this information to fine-tune its schedules and thus minimize passenger delays. There is no cost to this action, and while benefits are modest, riders do appreciate a slightly faster trip.

Add Services

As noted above, GTA has adopted the strategy of expanding local service to outlying areas through connector routes that meet existing local routes at defined transfer points. Smaller vehicles are used on these connector routes. By not extending local routes, this strategy avoids the pitfalls of stretching these routes too thin and creating on-time issues that could spill over to all routes at the Depot.

Potential new connector routes could serve the following areas:

- Lake Jeanette and Lee’s Chapel Road, connecting with Route 3 at Pisgah Church & North Elm or Church
- The area west of Battleground in the vicinity of New Garden Road, connecting with Route 8 at Cotswald & Battleground (Wal-Mart). This route could also serve the new library proposed at Hobbs Road.
- The new GTCC campus east of Penry Road, also serving the K-Mart distribution facility. This connector route would allow Route 10 to be restored to its former routing west on

**Table 5-5
Cost Estimate for Converting Extended Evening Service to Regular Routes**

Alternative	Annual Operating Cost	Weekday		Saturday		Sunday		Peak Vehicle Change		
		Hours	Cost	Hours	Cost	Hours	Cost	Wkday	Sat	Sun
Extended Evening to Regular Routes	\$655,872	45	\$2,211	36	\$1,769	0	\$0	0	0	0
Sunday to Regular Routes	\$361,965	0	\$0	0	\$0	127	\$6,241	0	0	10



Phillips from Huffine Mill, and that intersection would serve as the meeting point.

- Vandalia Road west of Randleman Road, connecting with Route 12 at Vandalia & Randleman or South Elm/Eugene. This connector route could extend south on Holden to the Holden Crossing Center near I-85, also serving the proposed new library at Osborne Road, and could be routed south on South Elm/Eugene to connect to the proposed new Wal-Mart.

New connector services are expected to operate during peak periods only, as the Lawndale Connector has in its early stages (the other connector routes operated all day because they were formed from segments of local routes that had operated all day). Table 5-4 presents operating costs for four additional connector routes. The table also shows the cost of converting the Lawndale Connector to all-day service, the eventual cost of all-day service on the four new connector routes, and the eventual cost of 30-

minute frequencies during peak periods on all connector routes and on all cross-town routes.

PART is likely to expand its routes, add stops, and improve regional service over the next five years. It is very important for GTA to work with PART to ensure that local/regional services are integrated within Greensboro and the surrounding area.

Enhance Existing Services

GTA’s Extended Evening service has been very successful in converting the previous zone-based service that required advance reservations for pick-ups to a fixed-route system that is a variation of the daytime network, with seven routes instead of 14. As demand for Extended Evening service continues to grow, GTA could replace the Extended Evening route network with the daytime network. This would require additional buses in service, but since the change would occur in non-peak hours, it would not affect the number of peak vehicles required.

Alternative	Annual Operating Cost	Peak Vehicle Change		
		Weekday	Saturday	Sunday
Year 1	\$734,938	8	0	0
Year 2	\$481,769	5	1	0
Year 3	\$864,520	1	0	0
Year 4	\$300,737	4	0	0
Year 5	\$4,845,204	38	7	10
Total	\$7,227,167	56	8	10

Conversion of Extended Evening service to regular routes would involve all big-bus routes plus the Connector routes. Table 5-5 presents operating costs for these changes, as well as the costs of converting Sunday service to regular routes.

A no-cost service enhancement for Extended Evening service would be to allow passengers to get off anywhere along the route during evening hours, not only at bus stops. This would make the service more convenient for riders in the evening hours when it is dark out.

Conceptual Time Frame

An implementation time frame is proposed below. Of course, implementation will depend on the availability of funding. Table 5-6 provides an estimate of operating costs and additional peak vehicles required. Total operating costs would increase by \$6.55 million annually, and 47 new vehicles would be needed.

Year 1: Holden Road Cross-town

30-minute peak period frequency – all big-bus routes

Year 2: Two new connector routes

Two park and ride lots

Two new express routes

Route 12 limited stop service

Lawndale Connector midday and Saturday service

Year 3: Conversion of Extended Evening service to regular routes

A second cross-town route

Year 4: Two new connector routes

Two park and ride lots

Two new express routes

Year 5: 15/30 minute frequency – all big-bus routes

A third cross-town route

Midday and Saturday service on new connector and cross-town routes

Conversion of Sunday service to regular routes

30-minute peak frequency on all connector and cross-town routes

ILLUSTRATING THE SERVICE PLAN

Three maps were produced to illustrate the Mobility Greensboro service plan and are provided at the conclusion of this section. Each map is summarized below.

- Map 5-1: Mobility Greensboro Short-Range Service Plan for GTA - This map illustrates existing GTA bus routes and connectors, as well as future connectors and cross-town routes proposed within the next three to four years. Potential park-and-ride lot locations are also identified based on discussions with PART.
- Map 5-2: Mobility Greensboro Integration with Regional Transit Services - This maps illustrated existing bus routes and connectors and their relationship to existing and potential future regional transit services.
- Map 5-3: Mobility Greensboro Long-Range Service Plan for GTA - This map illustrates the

long-range service plan for GTA. It includes the short-range improvements plus additional cross-town routes. Existing and future regional transit services are also overlaid as part of the long-range service plan.

MARKETING PLAN

Marketing transit can be challenging, since Americans' love affair with their automobiles is well documented. Convincing people to leave their cars at home, at least for some trips, and try public transportation runs against the grain of how we live in the 21st century. While this is a difficult task, it is not impossible. One positive sign is that most residents value having a public transportation system in their city, whether they use it or not. In addition, recent implementation of welfare-to-work programs brought home the fact that transit is an essential component in getting people to new jobs and providing them with a reliable means of commuting once they find these jobs.

An examination of the marketing function in a public transportation agency such as Greensboro Transit Authority reveals that there are several elements grouped under the common term of "marketing." A useful distinction is between promoting awareness and providing information.

Awareness is the focus on many marketing campaigns, especially for products but also for services such as transit. Such campaigns in transit stress the positive aspects of the service, such as new, clean buses, a relaxing trip to work, ability to avoid driving in congested conditions, low cost, and environmental benefits. By their nature, these campaigns are broad-based and are intended to increase awareness of the transit system, to emphasize a positive image for transit, and to get potential riders to think about using transit. It can be difficult to measure the impacts of image

marketing, since greater awareness and improved image may not translate directly into ridership.

Information is a second key marketing function often overlooked, even by marketers. Unlike product marketing, where it can be assumed that potential customers know how to use a vacuum cleaner or drive a car, service marketing must have a specific information component. Think for a moment of a person who thinks about using transit for the first time (perhaps in response to image advertising) and what he or she needs to know. A short list would include:

- Where is the nearest bus stop to my house?
- What stop is closest to my destination?
- Does the bus that picks me up at that stop go to my destination?
- If it does not, what route serves my destination?
- How do I get to that route?
- How much does it cost?
- How do I pay?
- If I need a second bus to reach my destination, how do I transfer and do I have to pay again?
- What time does the bus arrive near my house?
- How often does it run, in case I miss a bus and have to wait?
- How long does it take to get where I want to go?
- What time does the bus leave my destination to come back home?
- How late do the buses run?

- Where can I go to ask questions like these and get information on the transit system?

Designing image campaigns is the fun part of marketing. Designing and disseminating useful information about the transit system is the hard work. A marketing plan for transit must emphasize both roles.

The most recent Marketing Plan for GTA (2001-2002) addressed three key goals:

1. **Retain current ridership and increase rider satisfaction with GTA services** - Actions to further this goal included rider appreciation events, a monthly newsletter, customer service training for all personnel, and providing contact information to riders.
2. **Increase new ridership** - Actions to accomplish this goal included promotions for evening and Sunday services (relatively new at the time), outreach to colleges, area businesses, schools, local media, and community groups, image advertising, a GTA mascot, and Try Transit Week.
3. **Improve community relations** through participation in community and charitable events, educational programs, and joint promotions (such as GTA's Buses to Books program conducted with the Greensboro Public Library to promote literacy).

The intent of the marketing component of the Mobility Greensboro Plan is not to replicate an annual marketing plan for GTA, but to set transit marketing and educational strategies and priorities over the next several years. To this end, the consensus-building workshops and other public outreach activities yielded several good suggestions and comments regarding areas of improvement for

transit marketing in Greensboro. Major areas of concern included:

- Lack of information on GTA services
- Need to educate the community on the “big-picture” role of transit
- Need to attract discretionary riders
- GTA cannot do this alone.

It is interesting to note that GTA can achieve ridership growth in several different ways. Attracting new discretionary riders is most commonly mentioned, but as the marketing plan notes, retention of existing riders is a very effective way of increasing ridership. Many riders use transit for only one purpose (e.g., the journey to work), and may not even be aware of destinations served by routes other than the ones they use every day. Encouraging these riders to use transit for additional travel is effective because these riders already know how to use the system.

Research in other cities has indicated that the purchase of a car is the primary reason that riders stop using transit. If the quality of transit service results in high customer satisfaction ratings, then riders who purchase private vehicles may be willing to continue to use transit for certain types of trips. Thus, attention to quality of service and customer satisfaction may help to retain additional riders.

Participants in the second consensus-building workshop recommend marketing priorities. Hiring a local, full-time marketing director and providing additional travel training for new riders received the highest priority, along with strong support for partnerships and smart use of local media.

The next section describes actions that are proposed as part of the Mobility Greensboro marketing plan.

PROPOSED MARKETING ACTIONS

Hire New Marketing Director

The new director should be a local person, and marketing is important enough to warrant a full-time position. The director's responsibilities would cover all aspects of marketing and passenger education, with a special focus in the following areas:

Review all GTA information and brochures from a customer perspective. The recently established Rider Advisory Panel may be particularly helpful in this review. One useful approach would be to conduct a peer review of system maps and route brochures used at transit agencies elsewhere in North Carolina, with the purpose to seek out innovative and user-friendly techniques of providing schedule, route, and fare information.

Evaluate current distribution channels for transit information. The peer review could also address this issue. The opening of The Depot provides an excellent central location for distribution of transit information to current riders, but outreach to those who do not ride must also be pursued.

Be the GTA presence in the community. As the current marketing plan states, community outreach is an important part of marketing, and an important part of the marketing director's responsibilities is to speak to schools and civic groups, attend neighborhood and civic meetings to discuss transit issues, meet with key decision-makers, and take the lead in GTA's participation in charitable activities.

Build partnerships, particularly with colleges and universities and local businesses. Actions

described below include greater details on these partnership opportunities. These partnerships offer the greatest promise to attract new discretionary riders to transit. Creation of such partnerships also enhances transit's image in the community.

Build on past marketing campaigns such as the Buses to Books program, the Sunday promotion with the Greensboro Bats, and develop innovative ways to market GTA services in Greensboro.

Continue to survey and analyze customer satisfaction with GTA services, and consider means to strengthen elements of service with low ratings. In the May 2003 survey of nearly 2,000 GTA riders, GTA generally received high marks, but the lowest-rated elements in terms of customer satisfaction were frequency, travel time on the bus, and information at bus stops. Marketing cannot influence the first two elements, but provision of information is at the heart of the marketing function. The low ratings on this element suggest a focusing of attention on information provision as opposed to new marketing campaigns, and this is reflected in the ordering of these responsibilities.

Pursue College Pass Program With Local Colleges and Universities.

Several bus systems operating in communities with a significant college or university presence have worked with the educational institutions to offer increased mobility to students. These programs have been implemented at over 35 locations throughout the United States. A primary motivation for the universities to become involved is a shortage of parking and a subsequent willingness to consider increased reliance on public transit as a means to get to campus.

GTA has initiated discussions with the colleges and universities in Greensboro regarding the benefits of

such a program. There was general interest, although each institution has particular concerns and issues. For example, the University of North Carolina – Greensboro (UNC-G) was interested primarily in getting its students to and from campus, in response to a parking shortage, while Guilford College was considering how to get its students to activities off campus. Many of the colleges and universities offer library facilities available to students at other colleges and have student cross-enrollment to take advantage of each school’s particular academic strengths. GTA began a pilot program with Guilford College during the academic year 2002-03, but the GTA marketing director’s departure at the pilot’s outset affected the ability to work together to promote the program, and it was discontinued. UNC-G continues to be interested in establishing a program, and the administration is working with a group of students on potential elements of a college pass program.

These programs produce a win-win situation. Students have an alternative to an endless search for a close-in parking space as well as the ability to use the transit system for non-school travel such as commuting to a part-time job downtown. Universities are spared the cost of constructing additional costly parking structures, and some have reported that a pass program is an inducement in recruiting for students. The transit agency gets increased revenue and more passengers on its buses.

College pass programs can be structured in different ways:

- Semester Pass - GTA currently offers discounted semester passes on campus at various colleges and universities, but this program has not been aggressively marketed.

This is an example of an “opt-in” program, where participation is optional.

- Student Fee Program - Sometimes referred to as “Unlimited Access,” this type of college pass program is funded by an increase in student fees, voted on by the student body. Money raised from the fee increase is turned over to the transit agency (sometimes with an “administrative fee” deducted by the colleges), and in exchange all students with a valid identification card can ride transit services free of charge. Some agencies have used a portion of these fees to fund new services oriented toward student destinations. Students have been willing to vote an increase in fees for unlimited access programs, usually by very comfortable margins. In rare cases, student participation and payment of the fee are voluntary (either on an opt-in or opt-out basis), but most of these programs are inclusive of all students at a particular university or college.
- College-funded Program - In some cases, the university itself has agreed to fund a college pass program for its students instead of requiring the students to vote for a fee increase. Guilford College developed its pilot program in this fashion, primarily because this approach offers a faster way to start up a university pass program.

Recommended actions include:

- Aggressively promote semester passes as a first step toward a more inclusive college pass program. Due to staff turnover at both GTA and the colleges and universities, the semester pass has not been marketed extensively in recent years.

- Continue discussions with UNC-G, Guilford College, and others in the Greensboro area to establish a college pass program, funded by colleges or student fees and including enhanced service to student destinations. While a multi-college agreement is the ultimate goal, working with an individual school to develop a successful program remains the most promising short-term approach. Once GTA establishes a successful partnership with one school, other colleges and universities will be more interested in how such a program can be tailored to their needs.

Expand Corporate Connections Program

Many transit agencies have incorporated employer pass programs in their fare policies, in attempts to build partnerships with the private sector and major public employers and to leverage the tax benefits available for employers and employees who purchase transit passes. The Transportation Equity Act for the 21st Century (TEA-21) allows employers to offer transit fringe benefits in lieu of and/or in addition to compensation. Employers may give their employees up to \$100 per month in benefits to commute to work by transit or by eligible vanpools. The employer receives an equivalent deduction from his business income taxes, while employees receive a tax-free benefit. Alternately, employers may choose to permit their employees to set aside some of their pre-tax income, up to \$100 per month, to pay for transit or eligible vanpools. Employees save on taxes, since the amount of the benefit they purchase is no longer treated as taxable salary. Employers’ payroll costs are reduced since payroll taxes do not apply to the set-aside amount.

Employer pass programs can be categorized as traditional or company-wide. The Employee Transportation Coordinator (ETC) program in

Charlotte, NC is an example of a traditional program, under which the employer and the transit agency jointly agree on the number of passes to be purchased. A sliding-scale discount is built into the program. The EcoPass program at RTD in Denver is an example of a company-wide program under which a participating employer purchases annual passes for all of its employees.

In Charlotte, NC, CATS established the ETC program through which employers (and certain non-profit organizations) can purchase prepaid fare media at a discount. The employer can then provide or sell the fare media to its employees, with both employer and employee reaping the tax benefits described in the first paragraph. The discount offered to employers on bulk purchase of prepaid fare media varies between 10 and 30 percent according to the dollar amount purchased (ten percent for under \$3,000 per month, 30 percent for over \$10,000 per month). Non-profit organizations whose primary purpose is to provide assistance to individuals and families at or below the federal poverty guidelines are offered a 25 percent discount.

GTA has featured a Corporate Connections program for several years, but without a marketing director to publicize the program and its benefits, it has not attracted much attention. Experience elsewhere suggests that a one-on-one approach is needed, particularly at program start-up, to persuade companies to participate. As noted above, this is one of the principal responsibilities envisioned for a new marketing director. Reinvigorating the Corporate Connections program is a labor-intensive effort that needs full-time attention.

The Corporate Connections program could help to achieve the goal of attracting discretionary riders to transit. One barrier to transit use is that a potential

rider might not know anyone who rides transit. If this potential rider sees someone else at work who uses transit, then he or she is more likely to consider the transit option seriously. If this potential rider can purchase fare media and get information about routes and schedules at work, it becomes much easier to make the decision to try transit.

Transit agencies that have established successful employer pass programs cite a less obvious benefit: it provides an opportunity to market transit to a group of employees who would otherwise be hard to reach with a conventional marketing campaign. Employers have allowed transit agencies to set up tables or booths on-site to explain the program, answer employee's questions, help to plan trips, and provide the information needed to use the transit system. This is an invaluable promotional tool, and the fact that the employer is subsidizing the purchase of fare media also encourages employees to try transit.

Initial areas where the Corporate Connections program would have the greatest chance of success would be in the Air Park area and in Downtown Greensboro. GTA's innovative Career Express service made jobs in the Air Park area accessible to transit riders. PART now operates Career Express, so there may be an opportunity for a joint employer pass program in the area. In downtown, the Downtown Greensboro business group has had several conversations with GTA over the years regarding a downtown shuttle. With the opening of the Depot and the potential offered by the Corporate Connections program to increase ridership and market transit to employees, this may be an excellent time to pursue this program with Downtown Greensboro. While it is somewhat easier to start the program in a strong economy,

where the benefits of an employer pass program serve as a marketing tool for employers in competing for employees, there are reasons to breathe new life into this program soon. These reasons include the opening of the Depot and the deployment of new buses in service, both of which have increased awareness and enhanced the image of GTA.

Steps to implement this recommendation include:

- Develop a list of contacts in the business community, particularly in the Air Park area and downtown Greensboro. These are the two most obvious areas in which to begin, but malls and hotels are also good candidates for an employer pass program.
- Prepare a fact sheet summarizing the Corporate Connections program and emphasizing the tax benefits for employers. Include additional steps GTA will take to market the program (such as staffing a table to work one-on-one with employees, providing responses to questions and support for the company's human resources department), and describe how the program would be implemented. Employers need to be convinced that this program will be a real benefit to their employees before they will agree to participate.
- Host a meeting of employers and business groups to publicize the program. GTA has done this in the past, but follow-up efforts have been hampered by the absence of a single person (such as a new marketing director) to sell the program. GTA also took this approach with the colleges and universities in the area when beginning discussions on a college pass program, and then followed up with the institutions that were most interested.

- Follow up with interested employers. Develop programs targeted toward the specific needs of their employees, and offer to meet with employees to discuss these benefits.

A final word of caution relates to the labor-intensive nature of establishing a successful program. GTA currently has no one dedicated to this type of marketing effort, and a marketing director is critical to achieving success. But this would only be one person, and splitting that person's attention among several different programs would decrease the likelihood of success in any one program. Consensus workshop participants and GTA staff rank the college pass program as higher in priority, in part because of extensive work already done. The Corporate Connections program should be second in priority, and should receive primary attention after a college pass is established (or if it is determined that interest in the college pass program is insufficient at this time). A marketing director will be a big plus for GTA as it continues to grow, but this person should not be expected to implement multiple major programs simultaneously.

Promote GTA and Transit in the Community

The varied activities included in the most recent Marketing Plan should be continued. Being perceived as a part of the community creates good will toward GTA that is invaluable in many other contexts (including political support). But this can be done only by ongoing participation in community events, regular attendance at key community organization meetings, and regular communication with neighborhood associations, business groups, and civic organizations. Each of these groups should have the name and number of the primary contact person at GTA (the marketing director would be the natural contact person,

although the planning staff has been fulfilling this function over the past year), so that they know whom to call if an issue arises. All of these activities benefit GTA and its staff, as it becomes a more trusted and respected actor in Greensboro. There will also be opportunities to involve bus operators in community activities that would provide them with a different perspective on the importance of GTA to Greensboro.

Along with participation in ongoing community activities and meetings, there are other specific promotional recommendations arising from the consensus workshop discussions:

- Continue and expand the travel-training program. GTA offers travel training for persons with disabilities and other potential riders to answer the many questions a would-be rider has and to familiarize persons with all the elements involved in travel on the bus. Aside from meeting worthy social goals, a travel-training program also makes it possible for those eligible for SCAT to use the fixed-route system. This offers a measure of independence to those riders, and also saves money because the cost of a fixed-route trip is much less than the cost of a SCAT trip.
- Use media effectively. It is important to get the good transit stories out to the community and to emphasize that transit is safe, affordable, and reliable. Media attention surrounding the opening of The Depot served as invaluable free publicity for GTA. Internal survey results that reveal high levels of satisfaction with service and continued growth in ridership also need to be publicized. Media advertising can be used to increase awareness and enhance the image of transit. Given a limited budget for marketing, creative means such as in-kind

trades can be designed to use the media. Workshop participants also suggested making greater use of Channel 13 in Greensboro.

- Other ideas coming out of the workshop discussions include City officials riding the bus (possibly for the next Try Transit week), stronger support from City Hall for transit, air quality as a marketing strategy, greater use of GTA Board members to provide information about transit to residents and visitors, use of the new 211 travel information service to market transit, and more incentives for bus riders. These are all good ideas, and can be incorporated into the marketing program.

Many participants stressed the need to change public perceptions of who rides GTA, but the recent ridership survey suggests that these perceptions are by and large accurate. As opposed to directly challenging these perceptions, this plan has proposed programs to diversify the ridership base by encouraging employees and students to make greater use of transit. When these programs are successful, they will provide concrete examples of how GTA is serving a broader base of Greensboro's population.

Summary

GTA has achieved notable growth in ridership, at a time when many other transit agencies have experienced ridership decreases, without a great deal of marketing, and has also established ongoing relationships with community groups. A new marketing director can build upon these accomplishments and design and implement innovative programs and outreach efforts to take GTA to a higher level in terms of community awareness and perception. Programs such as a college pass and Corporate Connections can make transit even more a part of the fabric of the

community and can attract new riders and new types of riders to the transit system. Working with civic organizations and community groups will build additional good will for transit in Greensboro.

This plan has advanced recommendations for marketing and education strategies to increase ridership and enhance GTA's standing in the community. The plan views this as an ongoing process, and recommends sequential implementation of major programs, with the college pass program taking precedence over the Corporate Connections, to avoid spreading the marketing director too thin and thus jeopardizing chances for success. The opening of The Depot and the arrival of new buses have modernized GTA's facilities and equipment and have provided a public platform from which to continue efforts to market transit services and to educate residents regarding the important role of GTA in providing mobility for all in the City of Greensboro.

SECURITY PLAN

Introduction

Up until 2001, transit security was viewed primarily in terms of crime prevention in and around transit vehicles and facilities, with a secondary emphasis on prevention of sabotage by disgruntled employees or ex-employees. After the attacks in New York and Washington, all branches of the Federal government began to develop plans and guidelines for the prevention and mitigation of terrorist attacks. Many of the strategies that have been developed are equally effective against both crime and terrorism, but the two threats are somewhat different in character.

We should note at the outset that the intention of this report is not to create a new security plan from scratch. The City of Greensboro has an emergency

response plan that covers not only transit but also all city functions. ATC, the contractor that operates transit service under the direction of GTA, has a safety and security plan specific to transit operations. This report reviews the findings of previous studies, recent guidance from the American Public Transportation Association (APTA), the Federal Transit Administration (FTA), and others to develop a series of recommended actions to maximize transit security in the City of Greensboro.

FTA provided an excellent summary of transit vulnerabilities and strengths in the area of security in the introductory section of its policy on homeland security:¹

- Transit relies on an inherently open architecture, allowing free movement of passengers in public facilities and vehicles. This freedom of movement must be maintained to permit transit to perform its basic functions.
- Transit is geographically widespread, often operating on public infrastructure and requiring important interagency cooperation to ensure protection.
- There is great diversity in how police and security forces are provided and deployed at different transit systems. There is no national mandate to standardize this facet of transit operations and security force policies will remain a local agency decision.
- Transit functions include substantial differences in equipment, infrastructure, operations and security practices from agency to agency. While this plan provides general guidance for response to individual threat conditions, the details of specific implementation vary substantially throughout these agencies.

- Transit systems are routinely under surveillance by their operating staff (e.g., drivers, supervisors, station attendants, and controllers), security employees, and, with increasing frequency, transit passengers. This normal level of vigilance, supplemented by appropriate awareness training and the protective measures identified under threat condition green/blue, may be sufficient vigilance for some systems.

In 1997, the Transit Cooperative Research Program (TCRP) published two syntheses dealing with transit security² and emergency preparedness for transit terrorism.³ While considerable research is ongoing with regard to terrorist emergencies, these documents provide a thorough analysis of techniques to combat and/or prevent criminal and terrorist activities. Findings from these reports are discussed in Sections 2 and 3.

Section 4 reviews the activities and measures related to transit security recommended by FTA, with additional detail provided in Appendix A.

Section 5 summarizes an APTA checklist for emergency response planning and system security.

Section 6 presents ten steps to prepare for a transit emergency that came out of a four-day conference in Colorado Springs, CO related to disaster preparedness training.

Section 7 summarizes consistencies among the strategies discussed in all reports and develops a series of recommended actions for the City of Greensboro and GTA.

Transit-related Crime

TCRP Synthesis 21 summarized the most effective anti-crime strategies for transit agencies, in five general categories:⁴

- Technology (cameras on buses, closed-circuit television, emergency telephones at stops)
- Uniformed officers (assigned officers, vehicular patrol, and officers on buses)
- Non-uniformed officers (plainclothes or undercover police, surveillance, decoys)
- Community outreach (interaction with schools, community meetings, general education and information)
- Other (operator training, suspension of riding privileges)

The synthesis also includes an interesting case study of the Ann Arbor Transit Authority (AATA), which experienced severe problems with disruptive passengers, fights among gang members, and drug sales in the late 1980s.⁵ AATA began a “banishment” program under which it suspended the riding privileges (for a period of months or years) of any rider who caused a disruption that the bus operator is not able to resolve immediately. An appeals process was established, and the suspension could be modified or cancelled based upon circumstances, remorse on the part of the rider, willingness to cooperate, and consultation with the operator. AATA also reached agreement with the Ann Arbor police department to set up a mini-police station in the central bus station and to dedicate two officers to transit duty, with AATA paying their salaries. The officers also made arrests of disruptive passengers and gang leaders, in full view of other passengers. AATA reported that police officers were preferable to private security guards because certain passengers could intimidate the guards. Finally, AATA stressed driver training in conflict management and physical safety and made changes in their process of selecting new operators.

The report concludes that the strategy of choice that is most effective in crime deterrence is the deployment of uniformed officers. The report also urges more systematic collection and storage of data regarding transit crimes and a sharing of information by local law enforcement officials with transit agencies regarding crimes in the vicinity of transit facilities or stops.⁶

Emergency Preparedness for Transit Terrorism

TCRP Synthesis 27 foreshadowed many of the current concerns in the post 9/11 environment. This report identified key elements in attempts to prevent, interdict, respond to, and mitigate the impact of terrorist acts, emphasizing the need for training and advance planning to clarify procedures, roles and responsibilities and to strengthen ties between transit and law enforcement agencies. A list of security measures used to deter terrorism is developed, and the report notes that these measures are very similar to crime prevention measures. Security measures include:⁷

- Routine and special police patrols
- Random and scheduled facility inspections
- Consideration of security needs in facility design
- Closed circuit television
- Intrusion-detection alarms
- Access control (employee badges, electronic control systems, fences and gates)
- Communications (radios, public address systems, emergency phones, silent alarms)
- X-ray equipment
- Blast resistant trash containers

- Concrete barriers at strategic locations
- Under-vehicle surveillance
- Gas detection devices
- Enhanced lighting

Steps taken in response to an incident emphasize an accurate assessment of the situation and potential danger, communication to passengers, senior management, and law enforcement agencies, and containment (securing perimeters, preventing escalation, establishing control so that rescue and recovery can proceed).

An interesting result of the 1997 survey of 41 transit agencies reported in the Synthesis was that 83 percent thought that a terrorist attack against a transit system in the United States was at least somewhat likely within the next ten years, but only 46 percent thought that an attack against their system was at least somewhat likely. The sense that “terrorism happens elsewhere” may not be so prevalent today, but a major intent of security plans is to guard against complacency.

FTA and Transit Security

As the federal agency overseeing public transportation, the FTA has taken a lead role in enhancing and ensuring the safety of transit systems throughout the county. In June 2002, the FTA reported on its five-part security initiative to enhance the security of the nation’s public transportation systems and help public transportation agencies cope with these new threats.⁸

The initiative emphasizes the following functional areas:

- **Assessment.** FTA has deployed expert teams to assess security at the 32 largest transit

agencies and to develop specific recommendations. FTA has found that, even at the most well prepared agencies, these assessments have resulted in additional actions.

- **Planning.** FTA is encouraging a reexamination of emergency response plans in light of heightened terrorist concerns.
- **Testing.** FTA notes that New York and Washington transit officials have emphasized the importance of having conducted regular emergency drills, and is providing grants to the top 100 agencies for organizing and conducting emergency preparedness drills.
- **Training.** Transit employees play a crucial role in security and emergency response. FTA has conducted emergency preparedness and security forums, and is working with the National Transit Institute to expand security-related course offerings targeted to front-line transit employees and supervisors.
- **Technology.** FTA is funding security-related transit research through TCRP, has improved the Transit Safety and Security Reporting module of the National Transit Database, and has implemented a Bus Safety Program.

In response to the Office of Homeland Security, the FTA has defined a plan to guide transit response to the Homeland Security Advisory System.⁹ The plan, which includes 128 specific measures organized by level of alert, establishes a consistent and coordinated transit response to potential threats in order to protect transit passengers, employees, and infrastructure, and to support community emergency response efforts. As noted in the excerpt from the plan included in the introduction to this report, a normal level of vigilance, supplemented by appropriate awareness training and the protective measures identified under threat

condition green/blue, may be sufficient for some transit systems. Green/blue measures corresponding to low-level and general-level threats, respectively, fall into the following categories:

- Protective measures contained in a security plan
- Personnel training
- Assessment of facilities in terms of potential security threats
- Access control at designated key facilities
- Physical security (fences, locks, cameras, alarms, lighting)
- Communications within the agency and with local law enforcement and emergency response agencies
- Security awareness

Appendix J-1 includes all 128 measures.

As FTA has learned more through its ongoing security and preparedness initiatives, it has issued additional directives and guidelines. In June 2003, FTA released “*Top 20 Security Program Action Items for Transit Agencies*.”¹⁰ The top 20 actions are grouped in the following areas:

- Management and Accountability
- Security Problem Identification
- Employee Selection
- Training
- Audits and Drills
- Document Control

- Access Control
- Homeland Security

Appendix J-2 includes the full document.

FTA has also provided a template for transit agencies to prepare their own security plan,¹¹ based on work done at the Ohio Department of Transportation. This might serve as a good resource to compare against current City of Greensboro and GTA-specific ATC plans and to identify any gaps in current plans.

APTA Checklist for Emergency Response Planning and System Security

The American Public Transportation Association developed a checklist of actions related to security and emergency response immediately in the wake of the September 11 attacks.¹² Much of this list has been superseded by subsequent FTA efforts. However, the checklist remains useful as more inclusive than the 20 top actions yet not so detailed as the 128 actions included in the threat level response recommendations. Appendix C presents the APTA checklist.

Ten Steps to Prepare for a Transit Emergency

State and local agencies have focused on security and emergency preparedness issues in conjunction with their Federal counterparts. An Ohio DOT template for a security plan was cited earlier, and the Colorado Association of Transit Agencies (CATA) sponsored a four-day disaster preparedness conference in the spring of 2003. During the conference, CATA released a list of actions to prepare for a transit emergency:¹³

- Establish a risk management team.
- Identify vulnerabilities (e.g., mass casualty accident, hijacking, bomb threat, etc.).



- Determine agency protocols for managing risk incidents.
- Develop communications materials to support risk management protocols.
- Establish a crisis communications plan.
- Provide training to local first responders on bus basics including ignition switches, power systems, fuel valves, etc.
- Determine the role the agency will play supporting community incidents (i.e., evacuations, transporting injured, transporting emergency crews, mobile shelter, and technical assistance.
- Teach managers the Incident Command system, so they know how to interface with police and fire on an incident.
- Provide triage, scene assessment, and passenger accountability training to drivers and dispatchers, who are effectively incident command and 911 for the initial minutes of any on-board incident.
- Perform at least one emergency exercise every year.

These are practical steps oriented toward what transit agencies need to know and plan for in the event of an emergency. As with many other recommended actions cited in this report, elements of this checklist are equally applicable to crime and terror threats.

Security Summary & Recommendations

FTA and APTA guidance and checklists for system security and emergency preparedness address both process and actions. Procedural aspects include plan development and communication, while

actions include more concrete “things to do.” This review of approaches and recommendations suggest that there are three critical themes in security and preparedness:

- Communications and Awareness
- Training
- Vigilance

Communications has both an internal and external component, and both are vital. ATC and GTA employees need to know emergency protocol and what is expected of them. Awareness of the security plan must be spread throughout the agency. At the same time, cooperation with local law enforcement agencies (primarily the Greensboro police department, although in the case of terrorist activity local state and FBI offices would also be involved) and emergency response personnel (EMS and the fire department) is essential. Riders and city residents also need to know that GTA has taken steps to prepare for an emergency. There is a fine line between informing and scaring riders on this topic, but a successful approach would involve general information regarding what GTA is doing to keep everyone safe and a clear message that riders can help by reporting suspicious activity, packages, or persons.

Training cannot be over-emphasized as a means of communicating GTA policies and procedures in emergency situations. It is important to note that at MTA-New York City Transit, the most important decisions in the immediate aftermath of the World Trade Center attacks were not made by senior management but by mid-level managers who had been trained to anticipate an emergency situation. Bus operators and dispatchers are likely to be the first-line response to a security-related emergency, and they must know the procedures to be followed.

All GTA personnel must be trained in security and emergency preparedness, because the entire agency would be involved in the case of a major emergency.

Continuing vigilance regarding security matters is a third critical theme. It is a natural human response over time to return to old behavioral patterns and to discount the threat of terrorist actions. As the Homeland Security threat level is raised or lowered without apparent effect on our everyday lives, we begin to take security for granted. Of course, GTA cannot control the general public's response to security issues, but it can take steps to ensure that its employees remain vigilant regarding security and terrorist threats, and it can gently encourage its riders to help in these efforts.

The GTA headquarters is secured by gates, fences, and locked doors, and GTA has tightened security procedures and protocols in recent years. The following recommendations are forwarded as a result of this review of Federal guidance in the area of security and emergency preparedness:

- Review City of Greensboro and GTA-specific ATC security plans to ensure compatibility and clarity regarding responsibilities and procedures in the event of an incident. The Security Plan template available from FTA could serve as a useful starting point in this review, to ensure that critical areas are addressed.
- Review security measures in light of the checklists developed by FTA and APTA.
- Contact the Greensboro police department to request random patrols of GTA headquarters, the Depot, and "hot spots" such as the stop at Four Seasons Town Centre on Friday and Saturday evenings. This was a

recommendation contained in the FTA Homeland Security document in response to higher alert levels, but this has been emphasized in nearly all documents as a very effective deterrent action. GTA and the City of Greensboro might also consider the conditions under which a more formal agreement with the police department is warranted.

- Contact Greensboro fire department and EMS personnel regarding security and emergency preparedness plans, and ensure that all personnel are familiar with bus basics (including ignition switches, power systems, and fuel valves) and also are aware of the layout of the Depot.
- Establish an ongoing means of communication with the police and fire departments and EMS to ensure sharing of crime and security information among all parties concerned.
- Define GTA's role in non-transit emergencies. GTA can offer its services to as well as request assistance from other agencies. As examples, transit buses were used to transport firefighting personnel to remote wildfire areas in California and have been used previously to support hurricane evacuation efforts.
- Train all personnel, but particularly operators and dispatchers, in emergency response procedures and protocols. Include refresher training annually. Training is one means to guard against complacency and to encourage continued vigilance.
- Conduct at least one emergency exercise annually.

These recommended actions would enhance security, support emergency preparedness, and

maintain vigilance regarding security issues in Greensboro. As FTA has noted, all transit agencies must work collaboratively with their local and regional emergency management organizations, joint terrorism task force, police agencies, and other organizations.

CAPITAL PLAN

The Mobility Greensboro Capital Plan is based upon the service plan recommendations and existing GTA capital plans. The December 2002 GTA Business Plan reported fleet inventory, procurement schedules, and planned capital expenditures through FY 2008, which would be the fourth year in the Mobility Greensboro plan (assuming that the plan begins in FY 2005).

Table 5-7 presents the fixed route fleet inventory and procurement schedule. Note that the 10 buses scheduled for delivery in FY 2003 are now in service, replacing 10 RTS buses from 1986.

Table 5-8 shows the demand response fleet inventory and procurement schedule. While the Mobility Greensboro study is focused primarily on fixed-route service, the capital plan should reflect all GTA capital needs.

Table 5-9 shows all planned GTA capital expenditures through FY 2008, and breaks down cost by federal, state, and local share. Costs are in current dollars.

The Mobility Greensboro service plan will require additional vehicles. Bus purchases comprise the major capital expense anticipated through this plan. Table 5-10 shows the expected change in peak vehicles, planned vehicle expansion, and additional vehicles required from the service plan over and above the planned vehicle acquisition. The expected change in peak vehicles assumes that

small buses will be used on all cross-town and new connector routes.

The vehicle expansion plan included in GTA's Business Plan is sufficient to meet the need for big and small buses throughout the period covered by the plan, although funding for the 15 big buses in FY 2005 has not been identified. The major capital need comes in 2009 with the anticipated expansion to 15-minute peak period service on all big-bus routes and 30-minute peak-period service on all connector and cross-town routes. An additional 24 big buses and six small buses will be required in FY 2009. In addition, the Federal Transit Administration (FTA) requires that all transit agencies maintain a 20 percent spare ratio, which translates to an additional eight big buses (bringing the total to 32) and four small buses (bringing the total to 10) in FY 2009.

An additional consideration is that GTA will need a new facility to house the expanded number of vehicles. The site at 320 East Friendly Avenue is nearing capacity. Estimates for the cost of a new facility were obtained from Pinellas Suncoast Transit Authority (PSTA) in St. Petersburg/Clearwater, FL. The cost of PSTA's new 300-bus facility is \$40.2 million. Assuming that a 100-bus facility would meet GTA's needs, that land costs are slightly less in Greensboro than in Pinellas County, and that a portion of design and construction management costs are fixed, the estimated cost of a new GTA facility would be \$13.5 million.

Table 5-11 shows planned capital expenditures by fiscal year and additional capital expenditures required due to fleet expansion. All costs are in current dollars. As expected from Table 5-10, impacts occur in FY 2005 (an additional \$5.6 million for bus purchases and AVL) and 2009 (an

**Table 5-7
Fixed-Route Fleet Inventory and Procurement Schedule**

Manufacturer	Year	Number of Buses	Expansion or Replacement
Thomas	2000	8	
Gillig	1995	3	
Gillig	1991	7	
RTS	1986	10	
Total Current Fleet	Average Age: 10.5 yrs	28	
Orion	2003	10	Replacement
To be determined	2004	10	Replacement
To be determined	2005	15 standard 8 small buses	Standard: Expansion Small: Replacement
To be determined	2007	3 small buses	Expansion

Source: GTA Business Plan, December 2002, Tables 2 and 3.

**Table 5-8
Demand-Response Fleet Inventory and Procurement Schedule**

Manufacturer	Year	Number of Vans	Expansion or Replacement
Ford	2002	10	
DTD	2000	8	
DTD	1997	4	
DTD	1996	5	
DTD	1994	1	
Total Current Fleet	Average Age: 3.6 yrs	28	
To be determined	2004	10	Replacement
To be determined	2005	3	Expansion
To be determined	2006	9	Expansion
To be determined	2007	8	Replacement

Source: GTA Business Plan, December 2002, Tables 3 and 5; Greensboro Urban Area MTIP, FY 2004-10 Minor Amendment: Public Transportation, November 2003



**Table 5-9
Planned Capital Expenditures**

Fiscal Year	Funding Program	Description	Federal Share	State Share	Local Share	Total Cost
2004	Urban Area Formula 5307	Park and Ride feasibility study	\$60,000	\$7,500	\$7,500	\$75,000
		10 Buses-replacement (funded with FY 2003 funds)	\$2,600,000	\$325,000	\$325,000	\$3,250,000
		10 Vans-replacement	\$479,325	\$46,200	\$51,975	\$577,500
		Preventive Maintenance	\$2,002,966		\$500,742	\$2,503,708
		Planning	\$100,000	\$12,500	\$12,500	\$125,000
		Routine Capital – APCs and other items	\$273,000		\$68,250	\$341,250
2005	Urban Area Formula 5307	Bus Shelters, Benches, and Rotary Lift	\$158,250		\$39,563	\$197,813
		8 Small Buses-replacement	\$409,920	\$51,240	\$51,240	\$512,400
		3 Small Buses-expansion	\$144,545	\$13,932	\$15,674	\$174,151
		Preventive Maintenance	\$1,488,251		\$372,063	\$1,860,314
		Planning	\$200,000	\$25,000	\$25,000	\$250,000
	5309 Unfunded Capital Program	Automated Vehicle Locating System	\$560,000	\$70,000	\$70,000	\$700,000
	15 Standard Buses-expansion	\$3,900,000	\$487,500	\$487,500	\$4,875,000	
2006	Urban Area Formula 5307	Bus stop retrofit – solar lights	\$50,260		\$12,565	\$62,825
		9 Vans-expansion	\$405,023	\$39,038	\$43,918	\$487,980
		Preventive Maintenance	\$1,488,251		\$372,063	\$1,860,314
		Routine capital	\$129,616		\$32,404	\$162,020
		Planning	\$100,000	\$12,500	\$12,500	\$125,000
		Dispatching scheduling software	\$80,000	\$10,000	\$10,000	\$100,000
2007	Urban Area Formula 5307	Transit hub feasibility study	\$41,530	\$5,191	\$5,191	\$51,912
		8 Vans-replacement 3 Small Buses-expansion	\$523,730	\$50,480	\$56,790	\$631,000
		Preventive Maintenance	\$1,488,251		\$372,063	\$1,860,314
		Planning	\$100,000	\$12,500	\$12,500	\$125,000
2008	Urban Area Formula 5307	Bus shelter retrofit – solar lights	\$80,000		\$20,000	\$100,000
		Preventive Maintenance	\$1,488,251		\$372,063	\$1,860,314
		Surveillance cameras	\$480,260		\$120,065	\$600,325
		Planning	\$100,000	\$12,500	\$12,500	\$125,000

Source: GTA Business Plan, December 2002, Table 3; Greensboro Urban Area MTIP, FY 2004-10 Minor Amendment: Public Transportation, November 2003. Preventive maintenance totals for FY 2005 assumed for subsequent fiscal years.



**Table 5-10
GTA Vehicle Needs Versus Scheduled Procurement**

Fiscal Year	Change in Peak Vehicles from the Service Plan		Planned Fleet Expansion		Additional Vehicles Needed beyond Business Plan Schedule	
	Big Bus	Small Bus	Big Bus	Small Bus	Big Bus	Small Bus
2005	7	1	15*	8	0	0
2006	3	2	0	0	0	0
2007	0	1	0	3	0	0
2008	2	2	0	0	0	0
2009	27	11	NA	NA	24	6
Total for 5-year period	39	17	*15	11	24	6

*Purchase of these buses is planned but unfunded as of December 2003

**Table 5-11
Planned and Additional Capital Expenditures**

Fiscal Year	Expenditure Status	Description	Federal Share	State Share	Local Share	Total Cost
2004	Planned	Total Capital Budget	\$2,915,291	\$66,200	\$640,967	\$3,622,458
2005	Planned	Total Capital Budget	\$2,400,966	\$90,172	\$503,540	\$2,994,678
	Additional	15 Big Buses (unfunded)	\$3,900,000	\$487,500	\$487,500	\$4,875,000
		AVL System (unfunded)	\$560,000	\$70,000	\$70,000	\$700,000
2006	Planned	Total Capital Budget	\$2,253,150	\$61,538	\$483,450	\$2,798,138
2007	Planned	Total Capital Budget	\$2,153,511	\$68,171	\$446,544	\$2,668,226
2008	Planned	Total Capital Budget	\$2,148,511	\$12,500	\$524,628	\$2,685,639
2009	Additional	32 Big Buses	\$8,320,000	\$1,040,000	\$1,040,000	\$10,400,000
		10 Small Buses	\$560,000	\$70,000	\$70,000	\$700,000
		New Transit Facility	\$10,800,000	\$1,350,000	\$1,350,000	\$13,500,000
		Total	\$19,680,000	\$2,460,000	\$2,460,000	\$24,600,000

Source: GTA Business Plan, December 2002, Table 3; Greensboro Urban Area MTIP, FY 2004-10 Minor Amendment: Public Transportation, November 2003.

additional \$11.1 million for bus purchases and \$13.5 million for a new transit facility). All costs are in current dollars.

STAFFING PLAN

While a detailed staffing plan was not prepared as part of Mobility Greensboro, some preliminary needs are identified in this section to be addressed as part of Phase 2 for Mobility Greensboro. The goal of doubling ridership in the next five years, along with the ambitious service expansion necessary to achieve this goal, will result in the staffing needs listed below.

- Marketing director;
- Additional supervisors;
- Additional bus drivers;
- Additional mechanics;
- Additional dispatchers.

The projected annual cost of the marketing director is \$55,000, while costs associated with other staffing needs are included in projected operating costs in Section 6. A detailed staffing plan will be necessary to move forward with the implementation of Mobility Greensboro.

TECHNOLOGY IMPLEMENTATION PLAN

The effective use of advanced technologies can enhance the efficiency, effectiveness, and quality of public transportation services provided by GTA. This section provides an overview and an evaluation of existing and potential future vehicle technologies, along with the anticipated significance of these vehicle technologies for GTA.

Fleet Management

Fleet Management focuses on technologies that

improve the efficiency and effectiveness of the vehicles and their operation, and passenger safety. An efficient and reliable transit system is more attractive to prospective riders, transit operators, and the municipalities they serve.

Automatic Vehicle Location

A computer-based vehicle-tracking systems that determines the vehicle position using one or more of following technologies and relaying the information to a central location.

- Global Positioning System-GPS (triangulation of satellite signals) - GPS is the industry standard for AVL systems today.
- Signposts (beacons at known locations transmit signals picked up by vehicle)
- Ground-Based Radio (triangulation of radio tower signals)
- Dead-Reckoning (vehicle's odometer and compass used to measure new position from previous known position)

Automatic Passenger Counters

Automatic Passenger Counters are automated means of counting passenger boarding and alighting at a variety of system levels including, route, route segment, or specific bus stops by time of day and by day of week. This technology uses infrared beams placed by the doors, treadle mats, or ultrasonic frequency sensors. Additional information APCs automatically collect also include maximum and minimum load points, boarding and alighting rates, vehicle dwell times, door cycles, distance traveled, and vehicle average speed. Compared to manual counters, APC provide much more comprehensive data at a lower cost.

Vehicle Component Monitoring

This provides continuous automatic remote measurement of vehicle system status including, engine oil pressure, engine temperature, engine temperature, fault diagnostics, brake temperatures and performance, vehicle speed, and status of other on-board components.

Out-of-tolerance conditions are reported in real time to an onboard computer and a central operations department.

Automated Operations Software

Transit operations software such as Computer-Aided Dispatch (CAD) are combined with the appropriate hardware for increased operational efficiency. Linked with AVL systems, transit operations software provides real-time dispatching, faster responses to service disruptions, efficient scheduling, and coordination between fixed-route buses and paratransit vehicles.

On-Board Safety Systems

These include systems installed on-board such as,

- Surveillance Cameras located in side the vehicle that record activities occur with in vehicle
- Silent Alarms that, if activated by the vehicle operator during an on-board emergency situation, alerts the dispatch center
- Covert Microphones that can be opened by a dispatcher if required to listen to what is happening on the vehicle

Traveler Information

Traveler information technologies provide

Information for traveler access via a variety of media, including telephones, monitors, cable television, variable message signs, kiosks and personal computers. Information on a single mode or on multiple transportation modes is provided to travelers to facilitate their trip decision-making. When linked to automatic vehicle location, traveler information systems can provide real-time information, such as arrival times, departure times and delays.

Automated Transit Information

Automated Transit Information systems allow transit agencies to reduce the time and the cost of a customer's request for information, and mostly do not even require human intervention. This includes a host of technologies that use touch-tone telephones, PCs, Internet, fax, kiosks, personal communications devices, pagers, kiosks, or voice synthesizers to directly provide route, schedule, stop, transfer, fare, trip planning, and other information.

Multi-Modal Traveler Information Systems

A single source typically provides pre-trip information covering multiple modes including transit and traffic or different transit modes operated by several transit providers. The information includes:

- Schedules and fares across different transit modes and providers,
- System disruptions,
- Carpooling and parking,
- Incidents and weather,
- Routes and transfer information

In-Terminal and Wayside Information Systems

Using the real-time data from technologies such as AVL, these systems provide schedule updates and transfer information for passengers in-transit through a number of technologies, including:

- Electronic signs,
- Kiosks,
- Television monitors, and
- Annunciators.

In-vehicle information systems

Using the real-time data from technologies such as AVL, riders are provided with displays and communication devices on-board vehicles that provide information on stops, routes, schedules, and connections. In-vehicle information systems generally include,

- Electronic signs,
- Television monitors, and
- Annunciators.

Electronic Fare Payment

Electronic and automated fare payment technologies use electronic communication, data processing, and data storage techniques. Electronic fare media are capable of storing information in readable, writable form.

Automated Fare Payment Systems

This automates manual fare collection processes through electronic communication, data processing, and data storage techniques. The customers use one single fare card to pay for transit and/or parking. In more advanced form of these systems, customers are able to use a single card to pay for tolls and

retail purchases and to conduct Automated Teller Machines (ATM) transactions. Widely used electronic fare methods include:

- Magnetic Stripe Card
- Contact Smart Cards
- Proximity Smart Cards
- Capacitively Coupled Cards, and
- Credit cards.

Automated Fare Payment Systems allow transit systems to, have more advanced fare pricing systems like distance and/or time of day based methods, eliminate cash and coin handling, improved security, lowered cash handling costs, automation of the accounting and financial settlement process, improved reliability and maintainability of fare boxes, and more equitable fare structures.

Multi-Carrier Fare Integration Systems

These systems utilize fare structure or payment mechanisms that cover more than one provider. These multi-modal automated payment media such as magnetic stripe cards, tokens, transfers, etc., can be used for more than one transit mode, such as usable for bus (at least two providers), subway, and passenger ferry.

Transportation Demand Management

Transportation Demand Management (TDM) technologies combine innovative approaches and advanced technologies to better utilize existing transit infrastructure.

Advanced Communications

Currently used advanced communication technologies include:

- Digital radio,
- Trunked radio (a computer selection of an available frequency, as opposed to manual selection or use of pre-set frequency),
- Mobile phones.

Automated Service Coordination

Automated service coordination provides "one-stop shopping" for a traveler in a region. With this concept, multiple transportation providers in a region can use combinations of APTS technologies to integrate and coordinate their services, including:

- Scheduling,
- Routing,
- Information systems, and
- Billing.

Transportation Management Center

A Transportation Management Center (TMC) provides multimodal transportation information and/or to manage and control transportation networks, using information from: AVL, geographic information systems, computerized signal system, GIS, video surveillance cameras, video imaging detection system, Inductive loops/loop detectors, ramp meters, vehicles as traffic probes, surveillance aircraft, closed-circuit television, roadside-mounted radar detectors, and other automated sources. This information is then distributed via technologies including:

- cable TV
- radio broadcasts,
- personal computers (with modems),

- information kiosks,
- telephone,
- electronic signs on-board vehicles and on highways, and
- highway advisory radio.

Signal Preemption

Either activated manually (e.g., by the driver pressing a button) or automatically (linked to an AVL system), signal preemption provides priority treatment for a transit vehicle approaching a traffic signal. This is done by, either advancing the green phase, or extending the green phase in order to minimize delay.

Dynamic Ridesharing

Through an information technology-based ride-matching system, rideshare groups are formed instantly among drivers and passengers meeting at a certain roadside location. Therefore this technology is only used to obtain a ride for a single, one-way, or round trip, rather than for trips made on a regular basis. Also called real-time ridesharing or single-trip ridesharing, requests for dynamic ridesharing can be made close to the time when the travel is desired.

HOV Lane Access

The High Occupancy Vehicle (HOV) lane access technology usually involves a transponder on the vehicle that gives it access to HOV-only lanes. A transponder system would operate in a manner similar to an automated vehicle identification system, with a transponder, mounted on vehicle, which communicates with a wayside sensor or reader.

Other technologies include:

- *Video* aimed to "look" inside vehicles using the HOV lanes to obtain images that are observed at a remote location for identification of HOV lane minimum passenger requirement violations.
- *Near Infrared* technology that uses images of the interior contents of a vehicle to identify occupants by their shapes (eliminates the problem of being able to see into a vehicle with tinted windows or under poor lighting conditions).
- *Millimeter Wave technology* that uses a scanner to receive reflected radio waves from a vehicle and its contents, and a processing algorithm would then identify vehicle occupants by their reflected wave patterns.
- *Thermal Infrared* technology is used to distinguish a live person from a dummy or a warm vehicle component.

Mobility Manager

Mobility manager handles the coordination of travel requests and vehicle dispatching for multiple agencies (e.g., social service agencies, HHS, transit agencies, etc.). Riders or agencies are billed by the Mobility Manager. FTA defines Mobility manager as "a mechanism for achieving the integration and coordination of transportation services offered by multiple providers--public, private for-profit, and private non-profit--involving a variety of travel modes and multiple sources of funding. This integration is accomplished through electronic technologies, allowing the programmatic integrity of all participants to be preserved, while at the same time automating most of the transactions - financial and otherwise - which occur in the

system. Mobility Manager's function resembles that of a travel agency and a financial clearinghouse."

Paratransit Providers

Paratransit system activities can be efficiently handled with computer-aided dispatch and automated scheduling technologies.

Automated Paratransit

Automated paratransit systems provide computerized reservation, scheduling, and routing functions, using digital geographic databases (DGD) and automated trip-scheduling systems (ATSS).

Vehicle Technologies

Vehicle fuel technologies such as using alternative fuels, structural enhancements such as low-floor buses/kneelers have gained popularity among both captive and choice riders.

Alternative Fuel Buses

Alternative Fuel vehicles are gaining more recognition due to clean air and energy security concerns. While a variety of these newer technology buses have become available, it can cost 20%-40% more than diesel buses to purchase. However, offsetting savings can be achieved in fuel and service costs, and through Federal grants, credits, and rebates from a variety of sources. Widely used alternative fuel types include,

- **Compressed Natural Gas (CNG):** The most common alternative fuel for buses. In the 8-year period beginning in 1993, its use in public transit buses increased more than tenfold, growing to an estimated 5.7% of the bus population in 2000, according to the American Public Transportation Association (APTA) 2001 Fact Book.

- Liquefied natural gas (LNG): Less common than CNG, LNG is also widespread as a transit fuel. LNG is estimated to fuel roughly 1.5% of buses nationwide. (The estimate comes from APTA surveys that cover about two-thirds of all buses nationwide.)
- Liquefied petroleum gas (LPG), commonly called propane, LPG is most widely used alternative fuel in the United States for light-duty applications. However, in transit industry, its use for transit has been limited to medium and small buses only. LPG is also derived from the processing of natural gas.

Other fuel types that power transit vehicles include bio-diesel, battery-electric power, and hydrogen.

Low-Floor Buses/Kneelers

Low-floor vehicle technology provide easy boarding, comfortable ride, and easy alighting. When boarding these buses, passengers do not have to climb steps to board. The vehicles with this technology are in compliance with the American with Disabilities Act (ADA) providing a wheelchair ramp for wheelchair access.

Other Vehicle Amenities

These are any other technology features such as new structural enhancement technologies, vehicle safety technologies including impact-warning systems (side and forward collision warnings), and other transit related technologies.

Technology Recommendations

Based on the review of technologies available and the guidance from the Mobility Greensboro visioning process, recommendations were prepared for the Technology Implementation Plan. Based on the recommendations, selected technologies have

already been included in the Capital Improvement Plan for GTA (see earlier section). The technology recommendations are summarized as follows:

- Acquire and use Automatic Passenger Counters (APCs) to enhance the efficiency with which ridership data are collected on buses (Year 2004).
- Implement an Automated Vehicle Locating (AVL) System to improve the ability to track vehicles in operation and eventually provide real-time customer information regarding bus time arrivals and departures.
- Install Solar Lighting at bus stops to more efficiently provide lighting and improve safety at bus stops.
- Upgrade the Dispatching software to improve scheduling and enhance the real-time customer information systems.
- Install Surveillance Cameras on buses to improve on-board safety and facilitate an on-board monitoring system.
- Provide Real-Time Customer Information Systems at major transfer locations (kiosks) and through the Internet.
- Focus on Essential Infrastructure at bus stops and develop an Infrastructure Design Standards Program for shelters and other bus stop infrastructure.
- Consider Alternative-Fueled Vehicles in the long-term capital plan for GTA.

Endnotes:

1. FTA, *Federal Transit Administration Transit Threat Level Response Recommendation*, <http://transit-safety.volpe.dot.gov/security/SecurityInitiatives/ThreatLevel/default.asp>, accessed November 6, 2003
2. Jerome A. Needle & Renée M. Cobb, “Improving Transit Security”, *TCRP Synthesis 21*. Washington, D.C., National Academy Press, 1997.
3. Annabelle Boyd & John P. Sullivan, “Emergency Preparedness for Transit Terrorism,” *TCRP Synthesis 27*. Washington, D.C., National Academy Press, 1997
4. *TCRP Synthesis 21*, pp. 8-9
5. *TCRP Synthesis 21*, pp. 19-20
6. *TCRP Synthesis 21*, p. 24
7. *TCRP Synthesis 27*, p. 21
8. Federal Transit Administration, Post 9/11 Security Initiative, <http://www.fta.dot.gov/new/si.html>, June 2002, accessed Nov. 6, 2003
9. FTA, *Federal Transit Administration Transit Threat Level Response Recommendation*
10. FTA, *Top 20 Security Program Action Items for Transit Agencies*, July 2003, <http://transit-safety.volpe.dot.gov/security/SecurityInitiatives/Top20/default.asp>, accessed November 7, 2003
11. Ohio Department of Transportation, *System Security and Emergency Preparedness Plan Template*, no date, http://transit-safety.volpe.dot.gov/training/EPSSeminarReg/CD/documents/OHIO_DOT/ODOTSecurityPlanTemplate.doc, accessed November 7, 2003
12. American Public Transportation Association, *Checklist for Emergency Response Planning and System Security*, December 2001, <http://www.apta.com/services/safety/checklist.cfm>, accessed November 7, 2003
13. “Colorado Agencies Participate in Disaster Preparedness Conference”, *Passenger Transport*, Vol. 61, No. 26, June 30, 2003, p. 12



Section 6 - The Mobility Greensboro Financial Plan

The Mobility Greensboro visioning process resulted in an aggressive goal of doubling transit ridership in the next five years, as well as a significant proposed expansion in services that would be necessary to achieve the goal.

One of the major tasks of the Project Team was to then develop a financial plan that:

- Provides operating cost projections for implementing the service recommendations of Mobility Greensboro;
- Provides capital cost projections that would be necessary to support service expansion and the additional infrastructure;
- Identifies potential revenue sources to pay for the local share of the operating and capital costs of Mobility Greensboro.

This section presents the preliminary financial plan for Mobility Greensboro and includes a review of operating and capital costs, along with existing and potential future revenues.

SUMMARY OF COSTS

Using the GTA Business Plan (December 2002) as a starting point, as well as the work completed as part of Mobility Greensboro, annual cost projections were developed through 2009 for maintaining the status quo and expanding services as summarized in Section 5 of this report..

Figure 6-1 illustrates existing and proposed operating costs while Figure 6-2 illustrates existing and proposed capital costs. The proposed costs for operating and capital are a result of implementing the improvements recommended by the Mobility Greensboro visioning process. The Mobility Greensboro Financial Plan is presented in more detail in Table 6-1.

With the recommended improvements, operating costs (less capitalized maintenance) would increase from \$7.1 million in 2004 to \$17.3 million in 2009, an increase of 144 percent. Service expansion also requires an increase in capital costs, with all new capital projections occurring in 2005 and 2009.

Figure 6-1
Existing and Proposed Operating Costs, Mobility Greensboro

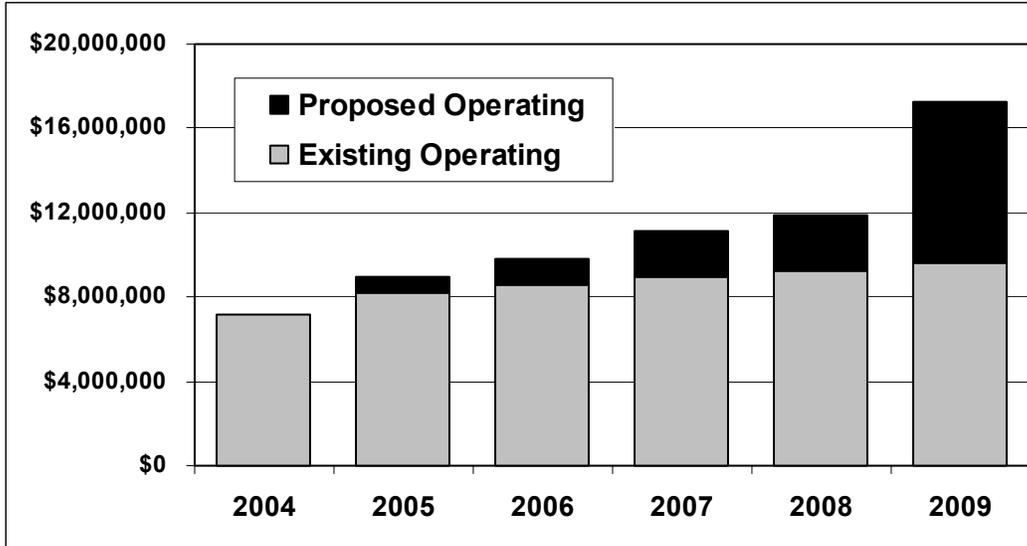
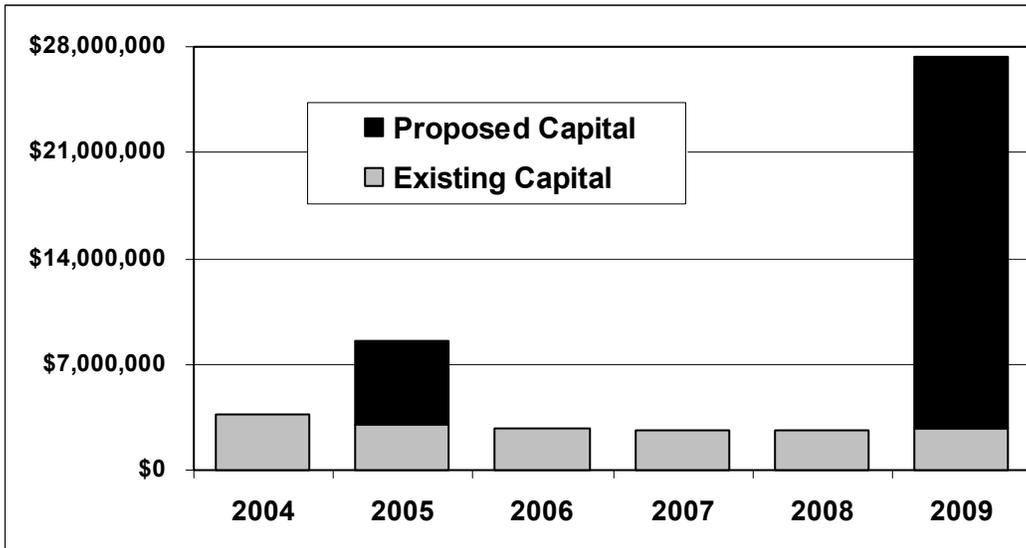


Figure 6-2
Existing and Proposed Capital Costs, Mobility Greensboro





**Table 6-1
Mobility Greensboro Financial Plan**

Cost Component	2004	2005	2006	2007	2008	2009
SUMMARY OF EXISTING & PROPOSED COST PROJECTIONS						
Cost Projections for Existing Services (Status Quo)						
Existing Operating	\$9,641,960	\$10,076,295	\$10,420,388	\$10,778,307	\$11,150,574	\$11,485,091
Capitalized Maintenance	\$2,503,708	\$1,860,314	\$1,860,314	\$1,860,314	\$1,860,314	\$1,860,314
Operating Less Cap. Maint.	\$7,138,252	\$8,215,981	\$8,560,074	\$8,917,993	\$9,290,260	\$9,624,777
Existing Capital	\$3,622,458	\$2,994,678	\$2,798,138	\$2,668,226	\$2,685,639	\$2,766,208
Total Existing Costs	\$10,760,710	\$11,210,659	\$11,358,212	\$11,586,219	\$11,975,899	\$12,390,985
Cost Projections for Mobility Greensboro Improvements						
Annual Addl. Operating	\$0	\$735,000	\$482,000	\$865,000	\$301,000	\$4,845,000
Proposed Operating	\$0	\$757,050	\$1,276,222	\$2,205,458	\$2,581,652	\$7,649,451
Proposed Capital	\$0	\$5,575,000	\$0	\$0	\$0	\$24,600,000
Total Proposed Costs	\$0	\$6,332,050	\$1,276,222	\$2,205,458	\$2,581,652	\$32,249,451
Total Costs for Existing Services & Mobility Greensboro Improvements						
Total Operating	\$7,138,252	\$8,973,031	\$9,836,296	\$11,123,451	\$11,871,912	\$17,274,229
Total Capital	\$3,622,458	\$8,569,678	\$2,798,138	\$2,668,226	\$2,685,639	\$27,366,208
Total Existing & Proposed	\$10,760,710	\$17,542,709	\$12,634,434	\$13,791,677	\$14,557,551	\$44,640,437
SUMMARY OF REVENUES AND SURPLUS/DEFICIT						
<i>Existing Local Revenues</i>	<i>\$6,791,593</i>	<i>\$6,985,776</i>	<i>\$7,122,992</i>	<i>\$7,343,810</i>	<i>\$7,459,517</i>	<i>\$8,390,825</i>
<i>Motorpool Vehicle Tax</i>	<i>\$890,000</i>	<i>\$890,000</i>	<i>\$890,000</i>	<i>\$890,000</i>	<i>\$890,000</i>	<i>\$890,000</i>
<i>Total Local Revenue</i>	<i>\$7,681,593</i>	<i>\$7,875,776</i>	<i>\$8,012,992</i>	<i>\$8,233,810</i>	<i>\$8,349,517</i>	<i>\$9,280,825</i>
Federal Revenues	\$2,915,291	\$2,400,966	\$2,253,150	\$2,153,511	\$2,148,511	\$2,148,511
Anticipated Fed Revenues	\$0	\$4,460,000	\$0	\$0	\$0	\$19,680,000
State Revenues	\$813,150	\$928,876	\$928,876	\$928,876	\$928,876	\$928,876
Anticipated State Revenues	\$0	\$557,500	\$0	\$0	\$0	\$2,460,000
Total Available Revenues	\$11,410,034	\$16,223,118	\$11,195,018	\$11,316,197	\$11,426,904	\$34,498,212
Surplus/Deficit	\$649,324	(\$1,319,591)	(\$1,439,415)	(\$2,475,480)	(\$3,130,647)	(\$10,142,224)

Source: Adapted from GTA Business Plan, December 2002, Table 6 and Section 5 of the Mobility Greensboro Plan.

NOTES:

- (1) An inflation factor of 3% is applied to costs/revenues when actual projections are not available.
- (2) Capitalized maintenance is excluded from operating costs since it is already included in capital.
- (3) Federal revenues were taken from the most recent GTA capital plan (December 2003).
- (4) Anticipated Federal revenues cover the Federal share of unfounded capital (buses & AVL in 2005).
- (5) State revenues were taken from the GTA Business Plan (December 2002).
- (6) To be conservative, the Motorpool Vehicle Tax is assumed to remain constant at \$890,000 per year.
- (7) The surplus/deficit compares the total revenue with total existing and proposed costs.
- (8) The revenue surplus in 2004 is intended to help replenish the diminishing reserve fund for GTA.

Please refer to Section 5 of this plan for further detail on the service and capital plans for Mobility Greensboro. Available revenues are provided at the bottom of Table 6-1, along with the resulting revenue surplus/deficit. The surplus in 2004 is intentional on the part of GTA in an effort to help replenish the reserve fund that had been depleted over the past several years. Subsequent to 2004, the revenue deficit ranges from a low of \$1.3 million in 2005 to a high of \$10.1 million in 2009.

It is important to note that the bulk of the revenue deficit occurs in 2009, when significant service expansion is proposed in an effort to achieve the goal of doubling ridership within the next five years. **If the City is unable to fund this significant deficit, it does not make the Mobility Greensboro Plan unfeasible; it may suggest, however, that service expansion would need to be extended over a greater time period, longer than the currently proposed five-year time frame. For example, the recommended service**

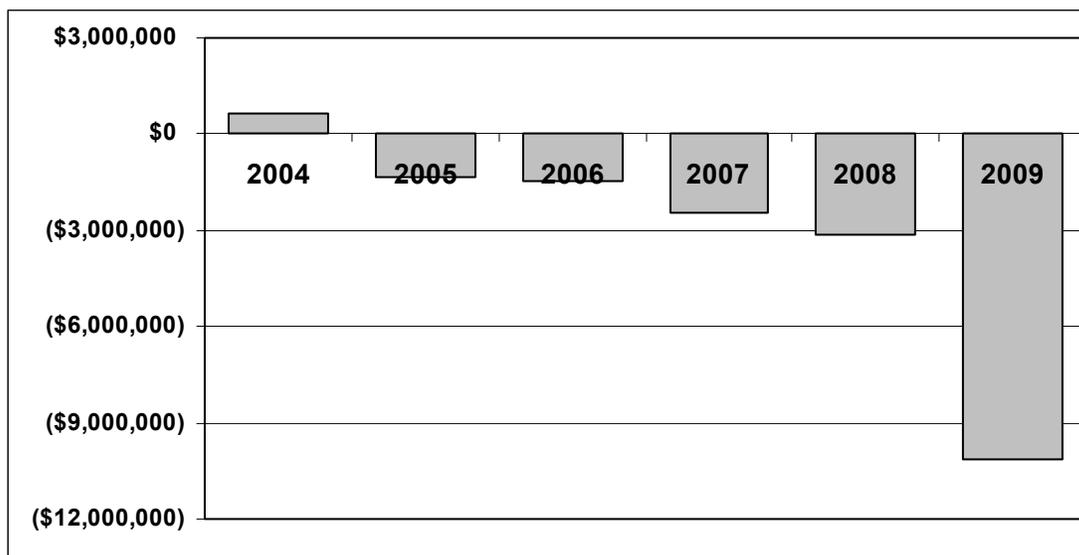
improvements could easily be phased in over ten years rather than five years, making the investment more gradual over time.

POTENTIAL REVENUE SOURCES

Potential revenue sources were discussed as part of the Mobility Greensboro visioning process. Each source can be placed into one of two categories, including (1) primary sources and (2) supporting sources. One or more of the primary sources would be necessary to implement the recommendations outlined in this plan. In addition, the supporting sources play an important role in the overall package of solutions and would reduce the level of support required from the primary sources.

Potential revenue sources are identified and discussed below in the context of supporting the implementation of Mobility Greensboro in the coming years.

**Figure 6-3
Projected Revenue Deficit With the Implementation of Mobility Greensboro**





Primary Revenue Sources

- Increase the full cash fare for local bus service** - Increasing the full cash fare could play an important role in addressing the revenue deficit identified in Table 6-1. It is important to recognize, however, that this revenue source cannot be the answer to resolving the deficit by itself. An across-the-board increase in all fare categories of 25% (e.g., full cash fare from \$1.00 to \$1.25) is projected to result in an approximate increase in fare revenues of \$0.3 million annually. Such an increase could be part of the package of revenue solutions so existing and future users pay their fair share of costs associated with the transit service and capital improvements.
- Increase the property tax millage rate for GTA** - GTA is currently authorized to receive an ad valorem property tax rate of \$0.02 per \$100 of assessed taxable land value from the City of Greensboro, which amounts to about 40 percent of the operating costs for transit operations. In 2003, this is equivalent to approximately \$3.4 million. The City is authorized to collect up to a rate of \$0.035 per \$100 of assessed land value for transit, which, if implemented, would increase the annual funding to nearly \$6.0 million, or an additional \$2.6 million annually.
- Increase the vehicle motorpool tax** - The recent transfer of the vehicle motorpool tax to support transit was an important step in resolving the recent deficit experienced by GTA and replenishing the depleted reserve. The current tax of \$5.00 generates approximately \$0.9 million. Increasing the tax to \$6.00 is projected to result in an additional \$0.1 million annually; likewise,

increasing the tax to \$10.00 would generate an additional \$0.9 million annually.

- Pursue a sales tax for public transportation** - Another option for the City would be to adopt an increase in the sales tax to support public transportation. Guilford County currently levies a 2½% sales tax, which results in an annual allocation to Greensboro of \$34.3 million, or \$6.9 million for each ½%. One example, based on recent sales tax collections, is that a 1% sales tax in Guilford and Forsyth Counties is projected to generate \$53 million annually. Such a tax could also be combined to support other transportation needs or even other municipal infrastructure and services. Many communities have adopted sales tax funding for public transportation on a county-wide or region-wide basis (e.g., Mecklenburg County/Charlotte). It may be prudent to pursue a sales tax for the Piedmont Triad region, with a coordinated effort between PART and the counties of Guilford and Forsyth. Funding from a regional sales tax could be used to support the implementation of regional rail service and upgraded bus services that would integrate with the rail service. For example, if \$53 million were generated annually and \$30 million were used for regional rail, the balance of \$23 million could perhaps be used to support upgraded local bus services operated by GTA and the Winston-Salem Transit Authority (WSTA).

Supporting Revenue Sources

- Be more aggressive in pursuing state and federal grants** - The City should be more aggressive in pursuing traditional grants and should work more closely with its legislative delegation to pursue Congressional earmarks as

appropriate (e.g., new and expanded operating and maintenance facility). An increase in the local financial commitment (see primary revenue sources) should also improve the ability to leverage additional state and federal dollars for public transportation.

- **Pursue college pass program with local colleges and universities** - A college pass program was a critical component of the transit marketing plan for Mobility Greensboro. Similar programs around the country are typically funded by colleges or student fees and involve transit service specifically oriented to student destinations. Such a relationship can also play an important role in addressing parking shortages on or near campuses. GTA and City staff have already begun pursuing a college program in the Greensboro area.
- **Expand Corporate Connections program** - Employer pass programs can be a win-win situation for businesses and GTA. It can provide a benefit to employees, a tax benefit to the employer, and/or help resolve a parking shortage, while at the same time increasing ridership for GTA. GTA has featured a Corporate Connections program for years, but without a marketing director to publicize the program and its benefits, it has not attracted much attention. Should a marketing director be added to the GTA staff, the program should be energized to expand corporate partnerships throughout the Greensboro area.
- **Advertising Revenue** - Advertising revenue contributes a small amount to GTA's annual budget but could be emphasized more with the hiring of a marketing director. Advertising revenues may be generated from ads on schedules and system maps, on-board buses, at the Depot and other locations, as well as with

bus wraps. While an aggressive advertising program is not expected to generate more than \$20 to \$30 thousand annually, it can play a supporting role in the complete package of revenue solutions.

- **Joint Development** - Joint development opportunities with the private sector are evident with the Depot, especially with the future space that will be available for leasing. Other opportunities will come about as other transit centers are established in the area.

The primary and supporting revenue sources identified for consideration as part of Mobility Greensboro are provided in Table 6-2, along with the projected annual revenue from each source.

A CHALLENGE FOR GREENSBORO

Achieving the aggressive goal of doubling transit ridership from two million in 2002 to four million in 2008 will require a significant commitment by the City and GTA. This commitment will need to take the form of leadership by decisionmakers, capital resources to support existing and new services, and financial resources to fund new and expanded services throughout Greensboro.

It is important to recognize that the role of public transportation is substantial, as identified in the City's Comprehensive Plan. As a result, Mobility Greensboro provides the framework for expanding the public transportation system to fulfill this role.

MOBILITY GREENSBORO PHASE 2

Phase 1 of Mobility Greensboro, which is summarized in this report, provides the blueprint and framework for the future of public transportation in Greensboro. It should be recognized, however, that a Phase 2 is necessary to ensure that momentum is maintained and the City



Table 6-2 Potential Revenue Sources for Mobility Greensboro	
PROJECT REVENUE DEFICIT FOR MOBILITY GREENSBORO	\$1.3 in 2005 to a high of \$10.1 million in year 2009
POTENTIAL PRIMARY REVENUE SOURCES	
REVENUE SOURCE	PROJECTED ADDITIONAL ANNUAL REVENUES
Across-the-board increase of 25% for all fare categories	\$0.3 million
Increase in the Property Tax for public transportation (to maximum)	\$2.6 million
Increase in the Motorpool Vehicle Tax (\$5.00 to \$6.00)	\$0.1 million
Increase in the Motorpool Vehicle Tax (\$5.00 to \$10.00)	\$0.9 million
Adoption of a Sales Tax (1/2 penny)	\$6.9 million
POTENTIAL SUPPORTING REVENUE SOURCES	
REVENUE SOURCE	PROJECTED ADDITIONAL ANNUAL REVENUES
Be more aggressive in pursuing State and Federal grants	To be determined
Aggressively Pursue College Pass Program	To be determined
Aggressively expand Corporate Connections Program	To be determined
Advertising revenue	To be determined
Joint development at the Depot and other transit centers	To be determined

begins the implementation process for the Mobility Greensboro Plan.

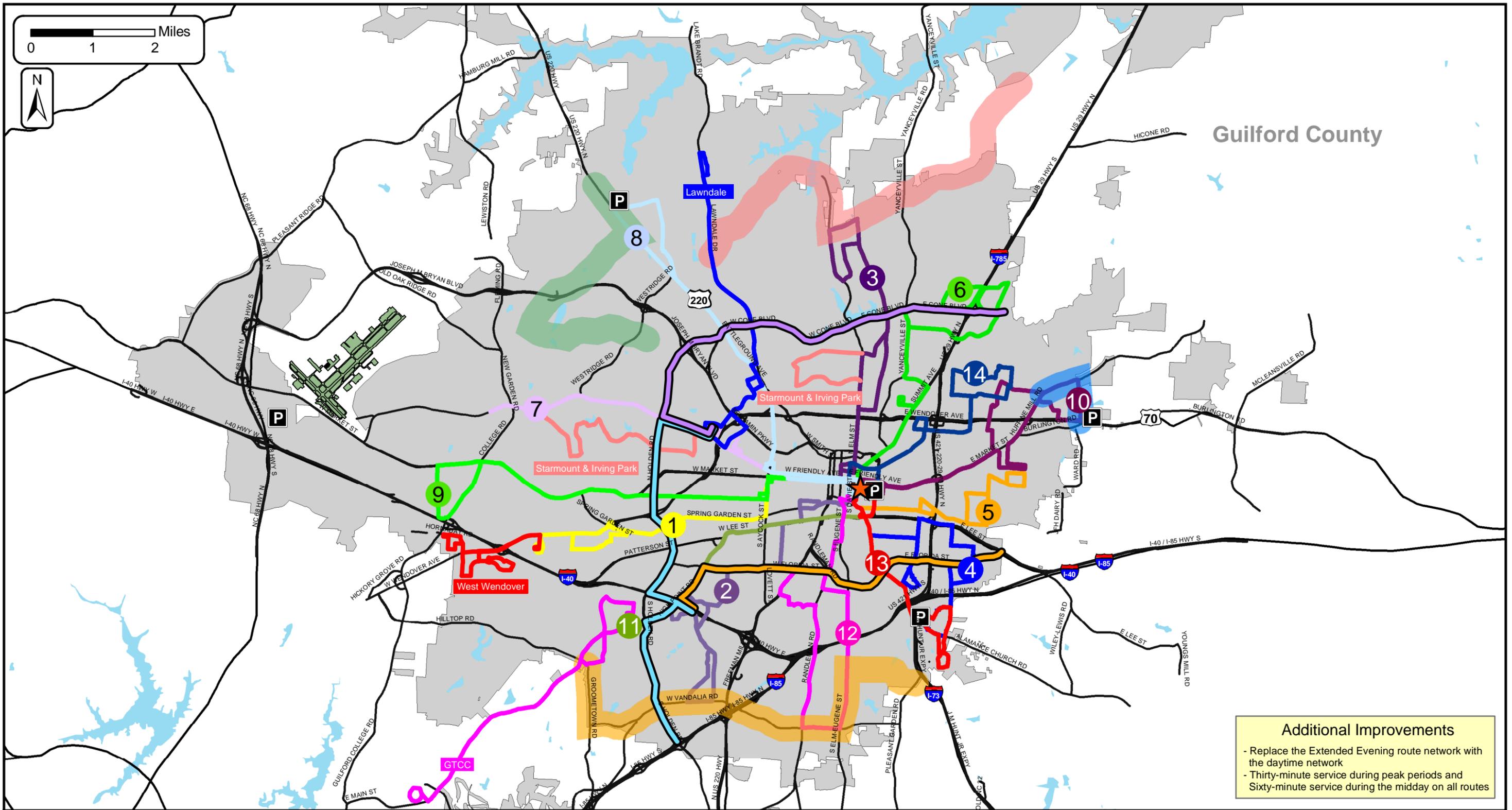
To that end, the preliminary components of Phase 2 are identified below as important follow-up elements for Mobility Greensboro. These components include:

- Prepare a detailed implementation plan with the assignment of specific responsibilities and timeframes for the completion of these responsibilities.
- Prepare a detailed staffing plan to support the implementation of Mobility Greensboro.
- Work with City staff to integrate Mobility Greensboro into the Comprehensive Plan and MPO Long Range Transportation Plan as appropriate.
- Provide service planning support as appropriate for service expansion outlined in the Mobility Greensboro Plan.

- Develop an Infrastructure Design Standards/ Guidelines Handbook to facilitate the consistent application of infrastructure and technology throughout GTA.
- Perform additional public outreach activities as appropriate to obtain input and maximize support for the implementation of Mobility Greensboro.
- Prepare a more-detailed financial plan once additional guidance is provided by the City Council, as well as City and GTA staff.
- Provide miscellaneous support services for the implementation of Mobility Greensboro as requested by GTA and City staff.

SUMMARY

The Mobility Greensboro Public Transportation Master Plan was an excellent visioning process that used community input to define the future of public transportation for the City of Greensboro. The challenge remains to make this vision become a reality.



Additional Improvements

- Replace the Extended Evening route network with the daytime network
- Thirty-minute service during peak periods and Sixty-minute service during the midday on all routes

M
GTA Mobility Greensboro

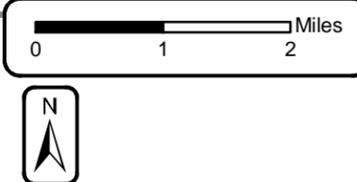
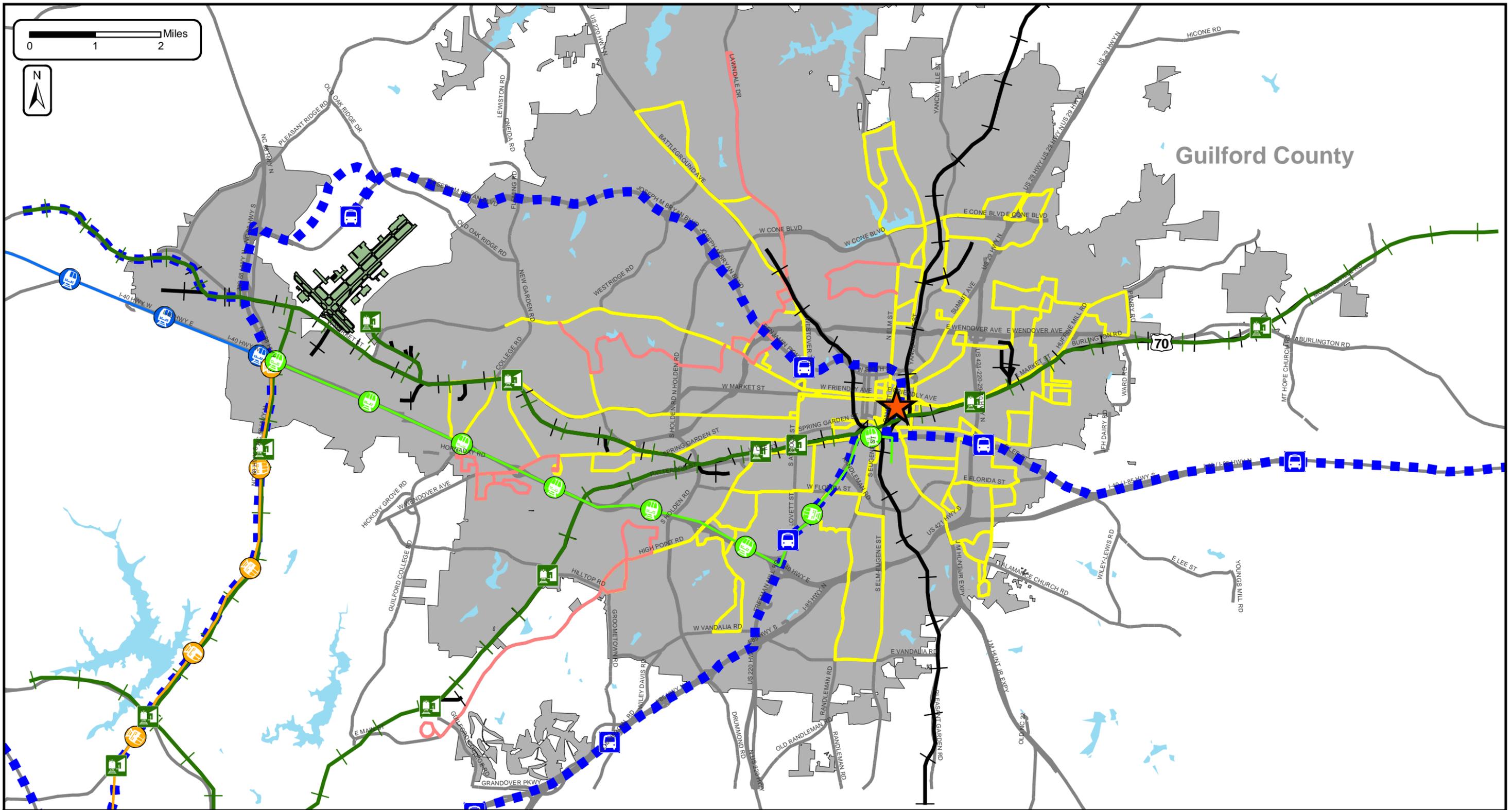
T
O Tindale-Oliver & Associates

Existing Routes	Existing Connectors	Future Connectors	Future Cross-Town Routes
1 (Yellow)	Lawndale (Blue)	Battleground (Green)	Florida St (Orange)
2 (Purple)	GTCC (Pink)	Lake Jeanette (Red)	Holden Rd (Light Blue)
3 (Brown)	West Wendover (Red)	GTCC/Penry (Blue)	Cone Blvd (Purple)
4 (Blue)	Starmount & Irving Park (Pink)	Vandalia (Orange)	
5 (Yellow)			
6 (Green)			
7 (Purple)			
8 (Light Blue)			
9 (Green)			
10 (Brown)			
11 (Light Green)			
12 (Pink)			
13 (Red)			
14 (Blue)			

★ Depot
 □ Park-and-Ride Lots

MAP 5-1

Mobility Greensboro Short-Range Service Plan for GTA



Guilford County

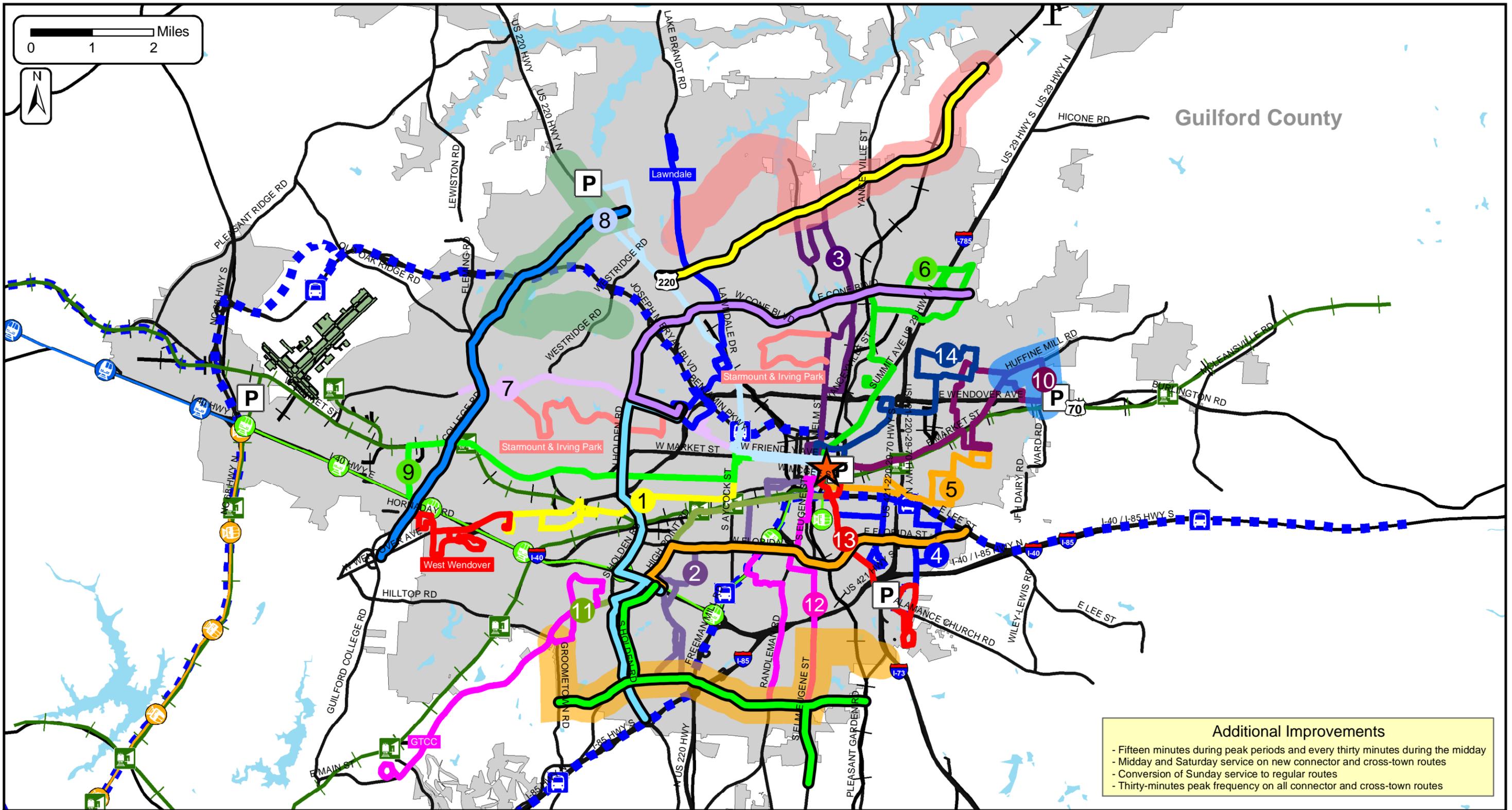
M^G
GTA Mobility Greensboro

Tindale-Oliver & Associates

- | Existing | Future |
|-----------------------|---------------------------|
| GTA Bus Routes | Bus Rapid Transit Route |
| GTA Connectors | Bus Rapid Transit Station |
| Greensboro Express | Proposed Train Station |
| Winston-Salem Express | Proposed Rail |
| High Point Express | Railroad |
| Depot | |

MAP 5-2

**Mobility Greensboro
 Integration with Regional
 Transit Services**



Additional Improvements

- Fifteen minutes during peak periods and every thirty minutes during the midday
- Midday and Saturday service on new connector and cross-town routes
- Conversion of Sunday service to regular routes
- Thirty-minutes peak frequency on all connector and cross-town routes

M
GTA Mobility Greensboro

Tindale-Oliver & Associates

<p>Existing Routes</p> <ul style="list-style-type: none"> 1 2 3 4 5 6 7 8 9 10 11 12 13 14 	<p>Existing Connectors</p> <ul style="list-style-type: none"> Lawndale West Wendover GTCC <p>Existing Regional Routes</p> <ul style="list-style-type: none"> Greensboro Express Winston-Salem Express High Point Express 	<p>Future Connectors</p> <ul style="list-style-type: none"> Vandalia GTCC/Penry Lake Jeanette Battleground 	<p>Future Cross-Town Routes</p> <ul style="list-style-type: none"> Vandalia New Garden Pisgah Church Cone Blvd Holden Rd Florida St 	<p>Future Regional Service</p> <ul style="list-style-type: none"> Bus Rapid Route Bus Rapid Transit Station Proposed Train Station Proposed Rail Railroad Park-and-Ride Lots
---	--	---	--	---

MAP 5-3

Mobility Greensboro Long-Range Service Plan for GTA



Appendix A

Final Public Involvement Plan



Mobility Greensboro
Long-Range Public Transportation Master Plan

Final Public Involvement Plan

Prepared for:

**CITY OF GREENSBORO
GREENSBORO TRANSIT AUTHORITY**
*320 East Friendly Avenue
Greensboro, North Carolina 27401
ph (336) 373-2634, fax (336) 373-2809*

SEPTEMBER 2002

Tindale-Oliver & Associates
*1000 N. Ashley Drive, Suite 100
Tampa, Florida 33602
ph (813) 224-8862, fax (813) 226-2106
bball@tindaleoliver.com*

In cooperation with:
*Dan Boyle and Associates
Hopper Communications
NuStats*

i:/27601.02/Docs/Public Involvement/



TABLE OF CONTENTS

Section 1: INTRODUCTION..... 1-1

Section 2: PUBLIC INVOLVEMENT PROCESS..... 2-1

Public Involvement Plan 2-1

 Direct Involvement Techniques..... 2-1

 Information Distribution Techniques 2-1

Public Involvement Techniques 2-3

 Direct Involvement Techniques..... 2-3

 Information Distribution Techniques 2-6

LIST OF FIGURES

Figure 2-1: Public Involvement Process..... 2-2

Figure 2-2: Preliminary Public Involvement Schedule..... 2-9



Section 1 INTRODUCTION

A Long-Range Public Transportation Master Plan was conceived by the City of Greensboro and the Greensboro Transit Authority (GTA) to develop a vision for public transportation in the Greensboro area. The purpose of the Master Plan is to guide the future growth and planning of the City's public transportation system through the year 2015. The planning process for the public transportation master plan shall be commonly referred to as *Mobility Greensboro*.

Consistent with the scope of services for *Mobility Greensboro*, a public involvement plan was prepared to ensure the participation of agencies, organizations, and citizens throughout the project. This document summarizes the public involvement process and plan developed specifically for the public transportation master plan.

The recommended public involvement techniques are integrated into a flow chart that illustrates the process of implementing the techniques throughout the project. The public involvement process is then reviewed in more detail to clearly describe when and how the various techniques will be used.

Section 2

PUBLIC INVOLVEMENT PROCESS

Several public involvement techniques were selected for inclusion in the public involvement process to ensure the active participation of citizens in the community. Each of them are listed and briefly discussed in this section. The techniques have been placed into two major categories, including direct involvement techniques and information distribution techniques. Direct involvement techniques refer to those that engage the public in “hands on” workshops and/or discussion about the project. The information distribution techniques refer to public information materials that are used to inform the general public of issues regarding the project.

PUBLIC INVOLVEMENT PLAN

The public involvement techniques for *Mobility Greensboro* are summarized below and illustrated in Figure 2-1. The list below is organized according to direct involvement and information distribution techniques.

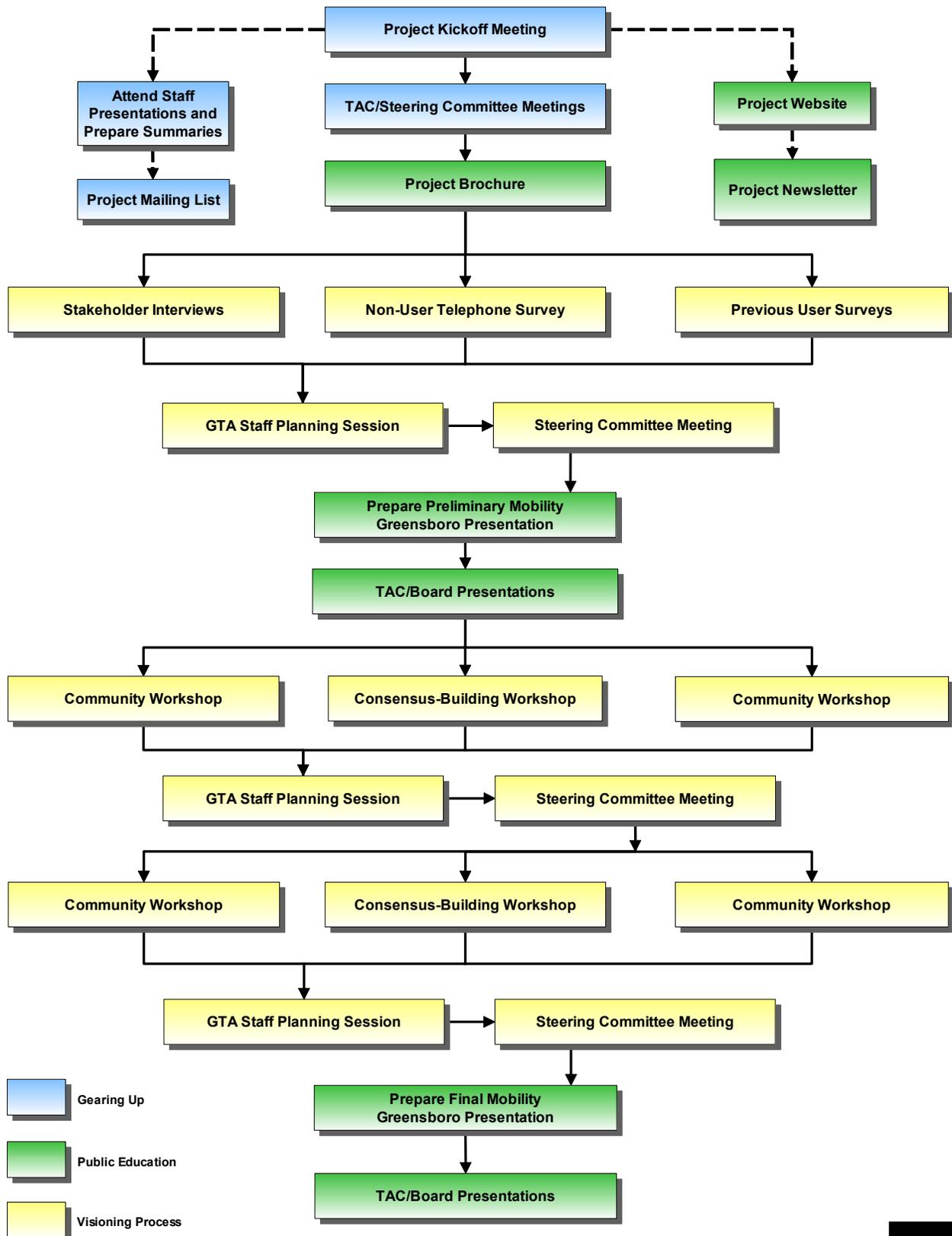
Direct Involvement Techniques

- Project Kickoff Meeting with GTA
- Steering Committee Meetings
- Technical Advisory Committee Meetings
- GTA Staff Meetings
- Stakeholder Interviews
- Non-User Telephone Survey
- On-Board Survey (reflects direct involvement if an on-board survey and ridecheck are completed during *Mobility Greensboro* as part of a separate project; otherwise, previous surveys will be reviewed and used as appropriate)
- GTA Board and City Council Presentations
- Consensus-Building Workshops
- Community Workshops/Public Outreach Presentations and Meetings

Information Distribution Techniques

- Public Involvement Plan
- Public Involvement Schedule
- Project Mailing List
- Project Brochure
- Quarterly Newsletter
- Project Web Site
- Interactive Multimedia Presentation

**Figure 2-1
Public Involvement Process**



PUBLIC INVOLVEMENT TECHNIQUES

Direct Involvement Techniques

Public involvement techniques involving direct interaction with agencies, organizations, and/or citizens are summarized below.

Project Kickoff Meeting – The first component of the public involvement process is the project kickoff meeting. This meeting was held on Tuesday, August 13, 2002 (9:00 AM) at the GTA offices and included a review and discussion of the following:

- Introductions
- Scope of Services
- Project Schedule
- Steering Committee and Technical Advisory Committee
- Public Involvement Process
- Data and Information Needs
- Upcoming Deliverables
- Other Issues

Participants in the kickoff meeting included staff from GTA, GTA/ATC, the Metropolitan Planning Organization (MPO), the North Carolina Department of Transportation (NCDOT), and consultants from Tindale-Oliver & Associates and Dan Boyle and Associates.

Steering Committee Meetings – The scope of services for *Mobility Greensboro* includes four scheduled meetings with the Steering Committee. Additional meetings may be coordinated with the Steering Committee in conjunction with other visits to Greensboro.

The purpose of the Steering Committee is “to provide policy guidance for *Mobility Greensboro*.” At this level, committee members will discuss broad issues, such as project goals, policy direction for the future, and other global issues for public transportation. The composition of the Steering Committee will be determined cooperatively with GTA staff. Representatives on the Steering Committee may be from:

- GTA (policy level)
- Selected public agencies (policy level)
- GTA Board
- City Council
- County Commission
- Chamber of Commerce
- Universities/Colleges
- Others as Identified

Technical Advisory Committee Meetings – The scope of services for *Mobility Greensboro* includes three scheduled meetings with the Technical Advisory Committee (TAC). Additional meetings with the TAC will likely be scheduled in conjunction with other visits to Greensboro.

The purpose of the TAC is to provide technical review and guidance for deliverables produced for *Mobility Greensboro*. Representatives of the TAC will participate from a more-detailed technical perspective. The composition of the TAC will be determined cooperatively with GTA staff. Representatives on the TAC may be from:

- GTA (technical level)
- Selected local/regional public agencies (technical level)
- North Carolina Department of Transportation (NCDOT)
- Others as Identified

GTA Staff Meetings – Representatives from the Consulting Team will participate in GTA staff meetings periodically to help ensure adequate communication throughout the project. The scope of services reflects participation in up to nine GTA staff meetings. Participation in staff meetings provides numerous opportunities to share information relevant to *Mobility Greensboro*.

Stakeholder Interviews – The Consulting Team will work cooperatively with GTA staff to identify stakeholders in the community. Based on preliminary discussions at the kickoff meeting, potential stakeholders include GTA Board members, City Council members, County Commissioners, business leaders, and community activists. A minimum of ten formal interviews is included in the scope of services; additional interviews, however, will be facilitated as appropriate via telephone and as part of other trips to Greensboro.

Non-User Telephone Survey – A telephone survey of non-users residing in the Greensboro area will be conducted. The universe of respondents will be limited to residents older than age 15 and those who have not used GTA in the past three months. All zip codes with the City limits and the immediate surrounding areas (approximately $\frac{3}{4}$ of mile from the city limits) will be included in the telephone survey. The sampling plan will include the completion of 500 interviews, providing an overall standard error of +/- 4.5 percent at the 95 percent confidence level.

A survey instrument will be designed in a Computer Assisted Telephone Interviewing (CATI) program that will capture necessary information within a 15-minute timeframe. In addition to collecting data on the respondent and household demographics and identifying the likelihood of using an improved transit system, the survey instrument will focus on the following topics:

- Attitudes toward public transportation issues
- Commute travel patterns and needs
 - o Origin and destination location (to be coded by zip code)

- o Time of day and frequency of commute
- o Mode used
- o Influences on mode choice decision
- o Knowledge of and access to transit options
- School travel patterns and needs
 - o Origin and destination location (to be coded by zip code)
 - o Time of day and frequency of commute
 - o Mode used
 - o Influences on mode choice decision
 - o Knowledge of and access to transit options
- Other regular travel needs
 - o Origin and destination location (to be coded by zip code)
 - o Time of day and frequency of commute
 - o Mode used
 - o Influences on mode choice decision
 - o Knowledge of and access to transit options
- Additional issues identified at kickoff meeting
 - o Applicable advanced technologies (transit vehicles, automatic vehicle location, voice annunciators, others)
 - o Park-and-ride lot potential

A questionnaire pre-test will be conducted by contacting a sub-sample of ten households. The pre-test will be used to check length, comprehension, perceived relevance, perceived burden, and the coding interface.

On-Board Surveys – The Consulting Team will make use of recently completed surveys conducted by GTA. In addition, GTA staff is exploring the possibility of conducting an on-board survey and ridecheck as separate projects in a timeframe that will support *Mobility Greensboro*.

GTA Board and City Council Presentations – Presentations will be made to the GTA Board and the City Council at various times throughout the project. Two formal presentations are identified in the scope; additional presentations, however, may be scheduled in conjunction with other trips to Greensboro.

Consensus-Building Workshops – A selected group of citizens and decision-makers will be personally invited to participate in consensus-building workshops to discuss existing and future public transportation issues and services in a more-detailed public involvement setting. A consensus-building workshop is a forum for a diverse group of citizens to discuss major topics and ultimately to develop consensus on strategies to address these topics.

The consensus-building process encourages and requires participants to work together in discussing topics. Each participant will be assigned to a small group and will work with that group for most of the afternoon. Each small group will use the following process in reviewing and discussing each topic:

- Conduct a general discussion about each workshop topic so that all members have at least a general understanding;
- Give each participant an opportunity to express their views;
- Listen to the views of each of your small group members;
- Decide on common areas of interest that all small group members can agree upon;
- Build consensus on areas of disagreement through compromise and discussion;
- Develop a written summary or outline of what your small group members agree upon;
- Present your small group recommendations on each topic to all participants;
- Listen to the recommendations of each of the other small groups; and
- Participate in the final consensus-building process with the other small groups.

Each group will have fifteen minutes to present their findings and recommendations on the workshop topics. After the small group presentations, the facilitators will summarize the results of the workshop, giving participants a final opportunity to comment.

Critical to the success of the consensus-building process is the aggressive recruitment of diverse representation through mail, e-mail, telephone, and face-to-face invitations. The public involvement plan includes two consensus-building workshops.

Community Workshops/Public Outreach Presentations – The final direct involvement component of the public involvement plan is designed to be flexible in order for the Consultant Team to pursue public participation through techniques that have not been determined at this time. This approach will allow the Project Team to pursue opportunities for public involvement as they become available throughout the project. These opportunities are expected to include meetings and/or presentations to civic organizations, neighborhood associations, business groups, and major employers, among others. Members of the Consulting Team will work closely with GTA, the Steering Committee, and the Technical Advisory Committee to identify the best opportunities for public outreach.

Information Distribution Techniques

Public involvement techniques involving the distribution of information to agencies, organizations, and/or citizens are summarized below.

Public Involvement Plan – This public involvement plan was prepared to guide public involvement activities throughout the project. The final plan can be distributed as appropriate to provide information about public involvement opportunities to agencies, organizations, and citizens throughout the Greensboro area.

Public Involvement Schedule - A tentative public involvement schedule is also included in this report. This schedule summarizes the public involvement activities along with when they are tentatively expected to occur.

Project Mailing List – A project mailing list is being compiled to support the distribution of information throughout the project. The project mailing list shall include but not necessarily be limited to the following:

- Neighborhood/Homeowner’s Associations
- Civic and Human Service Organizations
- Chamber of Commerce membership
- Colleges and universities
- Special Transportation Advisory Committee members
- GTA Board
- City Council
- County Commission
- Project Steering Committee
- Project Technical Advisory Committee
- Others as Identified

Project Brochure – A project brochure will be designed and written to provide an overview of *Mobility Greensboro*, answers to frequently asked questions, and a public outreach form to solicit interest in participating in the public involvement process. The brochure will be distributed to the project mailing list, to all locations at which bus schedules and other information are currently on display throughout the Greensboro area, and to GTA riders.

Quarterly Newsletter – A quarterly newsletter will be published for *Mobility Greensboro* to document progress and highlight issues of interest to the citizens of Greensboro. Similar to the project brochure, the quarterly newsletter will be distributed to the project mailing list, to all locations at which bus schedules and other information are currently on display throughout the Greensboro area, and to GTA riders.

Project Web Site – A project web site will be designed and developed to support the dissemination of information for *Mobility Greensboro*. General information about the project and links to deliverables will be provided on the Web Site. Information to be included on the Web Site may include but not necessarily be limited to the following:

- General Project Information
- How to Become Involved in the Project
- Public Involvement Plan
- Project Brochure
- Quarterly Project Newsletter
- Steering Committee Membership
- Technical Advisory Committee Membership

- Selected Results of Stakeholder Interviews
- Notice for Non-User Telephone Survey and Selected Results
- Selected Maps and Photographs
- *Mobility Greensboro* Master Plan (draft report)
- Other Information as Identified

Interactive Multimedia Presentation – An interactive multimedia presentation will be developed to support the presentation of information throughout the project. The presentation will include a “walk-around” map that reflects selected bus routes and stops. Locations along bus routes and at specific bus stops can then be clicked on to display a photograph of that particular location. Photographs may include bus stops, activity centers, downtown transfer facility (existing and under construction), and other locations of interest throughout the City of Greensboro. In addition, as the technical evaluations are conducted, the results will be summarized and incorporated into the presentation. The presentation will be developed incrementally throughout the project with the final presentation serving as a deliverable on CD that will accompany the final *Mobility Greensboro* Master Plan. The presentation can be used by GTA staff to present the results of the plan beyond the timeframe of this project.



Appendix B

Project Brochures & Newsletters





**To Request This
Brochure in Large Print or
Audiotape, Please Call
336-373-2634!**



**City of Greensboro/
Greensboro Transit Authority**
P.O. Box 3136
Greensboro, NC 27402-3136
Phone: 336-373-2634
www.ci.greensboro.nc.us/gdot/public_trans/

Place
Stamp
Here

City of Greensboro /
Greensboro Transit Authority
P.O. Box 3136
Greensboro, NC 27402-3136
Attention: Ms. Sharon Smiley



**City of Greensboro/
Greensboro Transit
Authority**

**Long Range Public
Transportation Master Plan
(Mobility Greensboro)**



GTA—The New Era

**P.O. Box 3136
Greensboro, NC 27402-3136
Tel: 336-373-2634**

MOBILITY GREENSBORO The Future of Public Transportation in the City of Greensboro

Public transportation is an important part of the transportation system in Greensboro and the entire Piedmont Triad area. The Greensboro Transit Authority (GTA) is the public transportation provider for the City of Greensboro. Established in 1991, GTA operates 14 bus routes between downtown and various areas of the City.

GTA and the City of Greensboro have begun a public outreach program to establish a vision for the future of public transportation in the City through the year 2015. During the next 18 months, GTA staff and its consultants will be discussing existing and future transit services over the next 13 years.

This Project Brochure was prepared to announce Mobility Greensboro and encourage participation in the project. Please take the time to review the contents of the brochure. For your convenience, a form is provided for you to indicate how you are interested in participating in this process.

Please join us as we develop a vision for the future public transportation system in the City of Greensboro!

Questions & Answers About Mobility Greensboro

What is the purpose of Mobility Greensboro?

The purpose of Mobility Greensboro is to develop a vision for public transportation in Greensboro that is creative and practical. This vision will be based on analysis and public input. The resulting Vision Plan will be incorporated into the City's overall Comprehensive Transportation Plan.

Why is Mobility Greensboro important to the citizens in this community?

As population and congestion grow in Greensboro, the need for a viable transportation alternative to the automobile becomes even more critical. In addition to providing a needed social service, public transportation can provide a legitimate alternative to the automobile for many citizens in our community.

Who should participate in Mobility Greensboro?

All citizens are invited to participate in Mobility Greensboro. An emphasis will be placed on involvement from public agencies, policymakers, businesses, homeowner's associations, social service agencies, community activists, existing transit users, and bus drivers, among others.

How do I become involved?

To become involved in Mobility Greensboro, please complete the Public Outreach Form in this brochure or contact GTA at 336-373-2634 and provide the information needed to notify you regarding future public involvement activities and functions. In addition, please contact us if you would like to schedule a presentation for an existing meeting, such as a homeowner's association meeting, a civic organization meeting, or other organized gathering within the City of Greensboro.

Public Outreach Form

**Please check the public outreach activities you are interested in and provide your contact information.
Thank you for your participation!**

- Add my name to the general Project Mailing List.
- Send me the Mobility Greensboro Quarterly Newsletter.
- Notify me of all public workshops and meetings.
- Consider me for participation in the consensus-building discussion groups.
- Contact me to schedule a presentation at an existing meeting.

Name:

Address:

City/Zip:

Organization
(if any):

Phone #:

E-mail:



Para Solicitar Este Folleto en
Impresión Grande o Cinta
Magnética Para Audio, Por
Favor Llame al
336-373-2634!



City of Greensboro/
Greensboro Transit Authority
P.O. Box 3136
Greensboro, NC 27402-3136
Phone: 336-373-2634

www.ci.greensboro.nc.us/gdot/public_trans/

Place
Stamp
Here

City of Greensboro/
Greensboro Transit Authority
P.O. Box 3136
Greensboro, NC 27402-3136
Attention: Ms. Sharon Smiley



Ciudad de Greensboro/
Autoridad De Tránsito De
Greensboro

**Plan Maestro De Transporte
Público De Largo Plazo
(Movilidad Greensboro)**



GTA—La Nueva Era

P.O. Box 3136
Greensboro, NC 27402-3136
Tel: 336-373-2634

MOVILIDAD GREENSBORO El Futuro de Transporte Público en la Ciudad de Greensboro

El transporte público es una parte importante del sistema del transporte en Greensboro y toda el área de Tríada de Piedmont. La Autoridad de Tránsito de Greensboro (GTA) es el proveedor público de transporte para la Ciudad de Greensboro. Establecido en 1991, GTA opera 14 rutas de autobuses entre el centro y varias áreas de la Ciudad.

GTA y la Ciudad de Greensboro han comenzado un programa de alcance público a establecer una visión para el futuro de transporte público en la Ciudad a través del año 2015. Durante los próximos 18 meses, el personal de GTA y sus consultores estarán discutiendo los servicios existentes y futuros de tránsito para los próximos 13 años.

Este Folleto del Proyecto ha sido preparado para anunciar la Movilidad Greensboro y animar la participación en el proyecto. Por favor tome el tiempo para repasar el contenido de este folleto. Para su conveniencia, hemos incluido una forma para que indique que interés tiene usted en la participación de este proceso.

¡Por favor únase a nosotros en el desarrollo de la visión del futuro sistema de transporte público en la Ciudad de Greensboro!

Preguntas y Respuestas Sobre la Movilidad Greensboro

¿Cual es el propósito de la Movilidad Greensboro?

El propósito de la Movilidad Greensboro es de desarrollar una visión para el transporte público en Greensboro que sea creativa y práctica. Esta visión será basada en el análisis y la entrada pública. El resultado del Plan Visión será incorporado en el Plan Comprensivo total del Transporte de la Ciudad.

¿Por qué la Movilidad Greensboro es importante para los ciudadanos en esta comunidad?

Según la población y la congestión crecen en Greensboro, la necesidad de una alternativa viable del transporte al automóvil llega a ser aún más crítica. Además de proporcionar un servicio social necesitado, el transporte público puede proporcionar una alternativa legítima al automóvil para muchos ciudadanos en nuestra comunidad.

¿Quién debería participar en la Movilidad Greensboro?

Todo ciudadano está invitado a participar en la Movilidad Greensboro. Se hará énfasis en la participación de agencias públicas, personas encargadas de hacer las regulaciones, negocios, asociaciones del propietario, agencias de servicio público, activistas de comunidad, usuarios existentes de tránsito, y conductores de autobuses, entre otros.

¿Cómo puedo estar involucrado?

Para estar incluido en la Movilidad Greensboro, por favor complete la Forma de Alcance Público en este folleto o comuníquese con GTA al 336-373-2634 y proporcione la información necesaria para notificarle sobre las actividades y funciones de involucramiento público futuro. Además, por favor déjenos saber si le gustaria planificar una presentación para una reunión existente, tal como una reunión de asociación de propietarios, una reunión de organización cívica, u otra reunión organizada dentro de la Ciudad de Greensboro.

Forma de Alcance Público

Por favor marque las actividades de alcance público en las que usted está interesado y procure incluir su información de contacto.

¡Gracias por su participación!

Añada mi nombre a la lista general de correspondencia del proyecto.

Envíeme el boletín trimestral de la Movilidad Greensboro.

Notifíqueme de todos talleres y reuniones públicos.

Considérenme para participación de discusión en grupos de estructura de acuerdos.

Avíseme para planificar una presentación en una reunión existente.

Nombre:

Dirección:

Ciudad / ZIP:

Organización (si alguna):

Número de Teléfono:

E-mail:

Public Outreach Form for Mobility Greensboro

Please check the public outreach activities you are interested in and provide your contact information.

Thank you for your participation!

- Add my name to the general Project Mailing List.
- Send me the Mobility Greensboro Quarterly Newsletter.
- Notify me of all public workshops and meetings.
- Consider me for participation in the consensus-building discussion groups.
- Contact me to schedule a presentation at an existing meeting.

Name: _____

Address: _____

City/Zip: _____

Organization (if any): _____

Phone #: _____

E-mail: _____

City of Greensboro/
Greensboro Transit Authority
P.O. Box 3136
Greensboro, NC 27402-3136

City of Greensboro/
Greensboro Transit Authority
P.O. Box 3136
Greensboro, NC 27402-3136



City of Greensboro/
Greensboro Transit Authority
P.O. Box 3136
Greensboro, NC 27402-3136

Place
Stamp
Here

City of Greensboro/
Greensboro Transit Authority



MOBILITY TALK

A Newsletter for the Mobility Greensboro Public Transportation Master Plan

Volume 1, Issue 1

September 2002

INSIDE THIS ISSUE:

<i>Regional Bus Service</i>	2
<i>Youth Recognized</i>	3
<i>GTA & the Holidays</i>	3
<i>Public Outreach</i>	4

GTA & THE CITY LOOK AT THE FUTURE OF TRANSIT

Public transportation is an important part of the transportation system in Greensboro and the entire Piedmont Triad area. The Greensboro Transit Authority (GTA) is the public transportation provider for the City of Greensboro. Established in 1991, the GTA currently operates an accessible fixed-route service, an evening service, a Sunday service, and a demand-response service for persons with disabilities within the City of Greensboro. In addition, GTA serves the GTCC/Jamestown campus as a means of encouraging local residents to obtain their GED and/or further technical training.



The Visioning Process is the most important step in developing a Master Plan with a long-range focus. Innovative public involvement techniques are planned over the next 18 months and will include consensus-building workshops, community workshops, review committees, newsletters, brochures, and other public outreach efforts.

GTA and the City of Greensboro have begun a comprehensive long range plan to establish a vision for the future of public transportation in the City. During the next 18 months, GTA staff and its consultants will be discussing existing and future transit services through the year 2015.

For additional information, please contact Elizabeth G. James, Public Transportation Manager, at 336-373-2634.

TRY TRANSIT DAY A SUCCESS

During the first week of October, transit systems throughout the nation participated in some form of activity to celebrate Try Transit Day, or "Communities in Motion." By participating in this national event, the Greensboro Transit Authority, along with other transit systems across the nation, help to build support for public transportation by being more visible in the community.

On Tuesday, October 1, the Greensboro Transit Authority sponsored an Employee Appreciation Breakfast to thank all of its Operations personnel for all of their hard work and perseverance. Breakfast began at 5:00 a.m. and consisted of pancakes, scrambled eggs, bacon, sausage, juice and coffee. Management staff took extra care

Continued on page 2



A special logo was designed for Mobility Greensboro.

REGIONAL BUS SERVICE KICKS OFF

Piedmont Authority for Regional Transportation (PART) started up its newest transportation services, PART Express and PART Shuttles, on September 30, 2002. PART Express is a regional bus service that connects the cities of Greensboro, Winston-Salem, and High Point with one another. It also connects all three cities with the Piedmont Triad International Airport and the businesses in the Airpark area via transfer to the PART Shuttles.



PART Express includes three routes that operate 30-minute peak service (60-minute off-peak service) between the downtowns of each city and the Regional Hub, which is located off Regional Road near Albert Pick Road. The Hub currently is still under construction, but it is expected to be fully operational by November 25, 2002. The Winston-Salem Express operates between the downtown Transportation Center and the Hub along Business 40. The Greensboro Express runs between the Davie Street Transfer Center and the Hub along I-40. The High Point Express operates along US 68 between the Broad Avenue Passenger Terminal and the Hub. The service operates Monday through Friday from 6:00 a.m. to 7:00 p.m. The adult one-way trip fare is \$2.00.

PART Shuttles service, which is designed to provide a link to job sites and other destinations in and around the airport area, consists of four routes that cover the areas of Piedmont Centre, Pleasant Ridge, Burnt Poplar, and the airport. This service has the same days and hours of operation as the PART Express service; however, it is free to ride.

For additional information, please contact David Morrin at 1-800-588-7787 or visit our web site at www.partnc.org.

Continued from page 1

TRY TRANSIT DAY

in preparing the breakfast and honoring special requests. Fun was had by everyone who participated.

The following day, the Greensboro Transit Au-

thority recognized its riders by providing an ice cream give-away at the Downtown Transfer Location. Passengers delighted in the refreshing treat before making their

connections to their final destinations. Just another way GTA gives back to the community. "Thank you for riding GTA!"

PART Express is a regional bus service that connects the cities of Greensboro, Winston-Salem, and High Point.

YOUTH RECOGNIZED BY BUSES TO BOOKS PROGRAM

Three area youth were recognized by the Greensboro Transit Authority at its August monthly meeting for their participation in the *Buses to Books* program. The 10-week summer program, sponsored in part by the Greensboro Public Library, was designed to promote literacy among school-aged children, ages 6

through 17, as well as to encourage ridership on the GTA buses. Free transportation to and from the library was provided to students for their participation in the program. As an added incentive, participating students were en-

couraged to enter a writing contest to discuss their experience riding the bus to the library.



Winners of the writing contest were selected from three age groups and were each awarded a \$25.00 Barnes and Noble gift certificate, a 31-day bus pass and a GTA Winner's Certificate. All other participants were awarded a Cer-

tificate of Participation and two complementary bus tickets. GTA Board Chair, Joyce Johnson recognized Jessica Liu, a 13-year old, as the winner in the 10-13 age group with her award winning fiction story, "Sally's Best Summer Experience". Other winners included Gloria Cole, with her non-fiction essay, and Aaron Olson, with his fiction essay, "Catch a Book by a Hook". Weekly participation in the Buses to Books program averaged 75 students each week. "The program was a huge success", stated Public Transportation Manager Elizabeth James.

The 10-week summer program...was designed to promote literacy among school-aged children.

GTA AND THE HOLIDAYS

GTA is pleased to give back to the community during the holiday season!

Lend-A Hand, Give a Can - Riders are allowed to pay their fare by bringing a canned good or other non-perishable food. Proceeds are donated to the Urban Ministries Food bank. Last year, GTA donated 700 pounds of food to the food bank.

Other activities include:

- adopting a needy family and purchasing items from their wish list;
- serving breakfast at the Pathway House (a shelter for needy families);
- caroling to human service agencies, i.e., the ARC of Greensboro and Bell House; and
- providing a Santa on the buses (Santa gives away candy and coloring books to children of all ages).

Public Outreach Form for Mobility Greensboro

Please check the public outreach activities you are interested in and provide your contact information to GTA (see contact information below). Thank you for your participation!

- Add my name to the general Project Mailing List.
- Send me the Mobility Greensboro Quarterly Newsletter.
- Notify me of all public workshops and meetings.
- Consider me for participation in the consensus-building discussion groups.
- Contact me to schedule a presentation at an existing meeting.

Name: _____

Address: _____

City/Zip: _____

Organization (if any): _____

Phone #: _____

E-mail: _____

**City of Greensboro/
Greensboro Transit Authority**
P.O. Box 3136
Greensboro, NC 27402-3136
Phone: 336-373-2634
www.ci.greensboro.nc.us.gdot/public_trans/

Comments & suggestions for future newsletters should be directed to:

Tindale-Oliver & Associates, Inc.
Ph: 813-224-8862, Fax: 813-226-2106
E-mail: bball@tindaleoliver.com

 City of Greensboro/
Greensboro Transit Authority
P.O. Box 3136
Greensboro, NC 27402-3136

Place
Stamp
Here

City of Greensboro/
Greensboro Transit Authority



MOBILITY TALK

A Newsletter for the Mobility Greensboro Public Transportation Master Plan

Volume 1, Issue 2

February 2003

INSIDE THIS ISSUE:

<i>Citizens Reflect Optimism for Transit</i>	2
<i>Public Outreach Program</i>	3
<i>Planning for Greensboro's Future</i>	3
<i>Public Outreach Form</i>	4

TRANSIT WORKSHOP TO BUILD CONSENSUS FOR FUTURE

On March 27, 2003, the City of Greensboro and the Greensboro Transit Authority are hosting a Consensus-Building Workshop (CBW) to develop a vision for public transportation in our community.

The consensus-building process is a type of public involvement that encourages and requires participants to work together in discussing issues for the future.

Each participant will be assigned to work with a small discussion group, each of which will have nearly two hours to discuss public transportation issues, build consensus, and prepare notes to be shared with all participants at the end of the workshop.

An informal dinner will be provided as we conclude the workshop by discussing the day's accomplishments and establishing the topics for the *next* consensus-building workshop (Summer 2003).

Developing Greensboro's Vision for Transit

What: Consensus-Building Workshop for Transit in the Greensboro Area

Where: Greensboro Public Library (219 North Church Street)

When: Thursday, March 27, 2003

Time: 2:30 pm to 7:30 pm (informal dinner to be provided)

Please consider participating in this process as we develop a vision for public transportation in the Greensboro area.

Individuals interested in participating in the CBW should contact Sharon Smiley at the Greensboro Transit Authority at 336-373-2634 or complete the Public Outreach Form provided on the back page of this newsletter.

RIDER ADVISORY PANEL TO MEET

The Greensboro Transit Authority (GTA) recently established a Rider Advisory Panel to provide input on customer service and transit operating issues.

Current GTA customers will meet on a regular basis to discuss issues and offer suggestions for improving customer relations and transit services in the future.

The goal is to obtain representation on the panel from riders throughout GTA's service area. The first meeting of the Rider Advisory Panel was held on February 18th, 2003, to discuss and clarify organizational issues.

For additional information, contact Sharon Smiley at 336-373-2634.

"There is no way to understand the real options involved in the future unless you become involved in creating them."

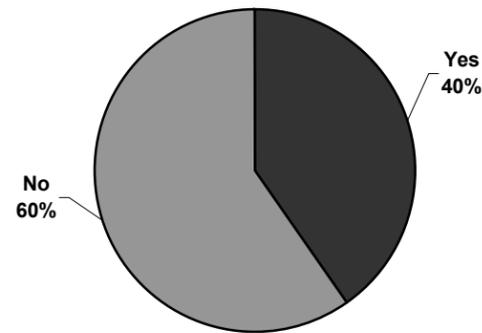
**Robert Theobald,
U.S. Urbanologist**

CITIZEN RESPONSE REFLECTS OPTIMISM FOR TRANSIT

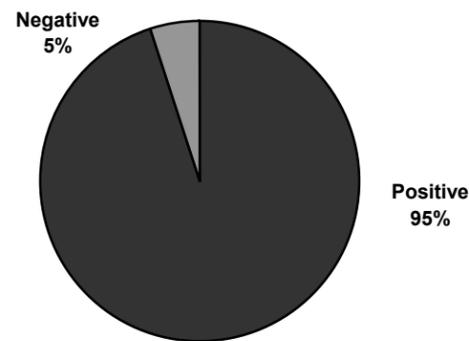
Recently, 505 citizens of the Greensboro area participated in a telephone survey about daily travel characteristics, transit perceptions, alternative transit service concepts, and demographic information. Respondents were screened to include only those citizens who have not used GTA services within the past six months and to ensure that each geographic area is adequately represented throughout the City as well as approximately 3/4 of a mile beyond the city limits. Selected results of the telephone survey are illustrated in the figures below.

40% of respondents (non transit users) were regular transit users before moving to the Greensboro area.

Did You Use Transit Regularly Before Coming to Greensboro?



If So, What Was Your Past Experience With Transit in Previous Cities?



Why Did You Stop Using Transit When You Moved to Greensboro?

Response	Percent
Access to Car	39.9%
Doesn't Go Where I Need	14.7%
Not Frequent Enough	10.1%
Not Reliable	8.1%
Too Slow	5.0%
Other Responses	18.7%
Not Provided	3.5%
Total	100.0%

What Are the Biggest Drawbacks to Using Public Transit?

Response	Percent
Not as Convenient as the Car	31.7%
Takes Too Long	19.6%
Doesn't Go Where I Need	8.1%
Doesn't Run When I Need	8.1%
No Drawbacks	4.4%
Too Crowded	4.0%
Other Responses	20.2%
Not Provided	3.9%
Total	100.0%

PUBLIC OUTREACH PROGRAM MOBILITY GREENSBORO

In addition to the Consensus-Building Workshop described earlier in this newsletter, a significant public outreach program is now under way to obtain public input for the Mobility Greensboro Plan.

Opportunities are currently being identified and scheduled throughout the Greensboro area. This includes meetings with neighborhood associations, civic associations, and

other community associations and events. The purpose of the broader public outreach program is to obtain input from as many citizens in the Greensboro area as possible.

A brief presentation will be made at each event identified for the public outreach program. The presentation will provide an overview of Mobility Greensboro and the efforts undertaken to develop a

vision for public transportation in Greensboro.

For additional information or to schedule a presentation at an upcoming community event, please contact Elizabeth G. James, Public Transportation Manager for the Greensboro Transit Authority, at 336-373-2634.

“One key motivation...is to...ensure that Greensboro continues to be the kind of livable, welcoming place in which citizens want to live and work.”

PLANNING FOR GREENSBORO'S FUTURE

“The City of Greensboro is nearing completion of its first comprehensive plan. One key motivation for this planning effort is to positively influence the direction and momentum of change and to promote economic vitality to ensure that Greensboro continues to be the kind of livable, welcoming place in which citizens want to live and work. The Comprehensive Plan provides a guide for the citizens of Greensboro to retain the community’s character, define its identity, improve its quality of life, and strengthen its economy.” (Excerpt from Draft Comprehensive Plan)



Public comments have been received and City staff are in the process of reviewing comments to determine the final revisions. It is anticipated that the final Comprehensive Plan will be presented to City Council by early April. Mobility Greensboro will serve as an extension of the Comprehensive Plan to provide a more detailed blueprint for public transportation services in the City.

Upcoming Meetings & Public Involvement Activities

Mobility Greensboro Technical Advisory Committee	June 24th	2 PM	GTA Board Room
Mobility Greensboro Steering Committee	June 24th	3 PM	GTA Board Room
GTA Board Meeting	June 24th	6 PM	GTA Board Room
Mobility Greensboro Consensus Workshop #2	August (TBD*)	TBD*	TBD*

*TBD—to be determined

City of Greensboro/ Greensboro Transit Authority

P.O. Box 3136
Greensboro, NC 27402-3136
Phone: 336-373-2634
www.ci.greensboro.nc.us.gdot/public_trans/

Comments & suggestions for future newsletters should be directed to:

Tindale-Oliver & Associates, Inc.
Ph: 813-224-8862, Fax: 813-226-2106
E-mail: bball@tindaleoliver.com



City of Greensboro/
Greensboro Transit Authority
P.O. Box 3136
Greensboro, NC 27402-3136

Place
Stamp
Here

City of Greensboro/
Greensboro Transit Authority

MOBILITY TALK

A Newsletter for the Mobility Greensboro Public Transportation Master Plan

Volume 1, Issue 3

June 2003



INSIDE THIS ISSUE:

<i>What do Riders Think?</i>	2
<i>Buses to Books Program</i>	3
<i>Top Goals From Citizens</i>	3
<i>Upcoming Activities</i>	4

SCAT Study Begins

The City of Greensboro is currently undergoing an operational analysis of its ADA Paratransit service referred to as SCAT. A public forum was recently conducted on May 12, 2003 at the Greensboro Public Library to gather input from SCAT users on the design and quality of the service. Many suggestions were made as to how to improve the service to make it more “user-friendly” and accessible to the disabled community.

A status report on this project will be provided in the next issue of *Mobility Talk*.

TRANSIT WORKSHOP BEGINS CONSENSUS TOWARDS VISION

On March 27, 2003, a group of 38 attendees gathered in the Nussbaum Room of the Greensboro Public Library to discuss issues of importance to the long-range planning process for the Greensboro Transit Authority (GTA).

After an overview of the Mobility Greensboro process and a synopsis of data identified during a professionally conducted telephone survey, each participant was assigned to a breakout group so they could easily express their views and listen to those of others. The groups were instructed to decide on common areas of interest and build consensus while noting any areas of disagreement.

After two hours of discussion, each group prepared a summary of their discussion to report to all the attendees. While each participant brought his/her point of view to the discussion, the group reached consensus on most items. A second consensus-building workshop is planned for later this year. An analysis of what the groups considered most important offers a road map of issues that should be ad-



Workshop participants review the agenda with facilitators prior to breaking into smaller discussion groups.

ressed as this long-range planning process continues. In some cases, additional analysis will be required to get to the core concerns of an issue. An example would be the observation that there was a lack of information available to the public, something that all five groups mentioned as a weakness. GTA and its consultants will need to probe how current and potential riders would like to learn about the

Continued on page 3

ADDITIONAL FUNDING RECOMMENDED FOR TRANSIT SERVICES

The City Manager is recommending an increase in funding for the fiscal year 2003-2004 transit budget. The funding, estimated to be approximately \$890,000, will be generated from an additional \$5.00 of the motorpool vehicle tax. An increase in pass fares system-wide, estimated to generate an additional \$111,000, is also

being considered. The additional funding will be used to both strengthen the fund balance and to help offset operating costs for service expansion. A budget hearing was scheduled for Tuesday, June 3, 2003 in the Council Chambers, located at 300 W. Washington Street. The public was invited to attend.

WHAT DO OUR RIDERS THINK?

To obtain current information on its customers, GTA arranged for a 100 percent ridecheck between May 3 and May 10, 2003. Surveyors counted passenger boardings and alightings at each stop on each weekday, Saturday, and Sunday trip, and also noted the travel times along each route. GTA routinely tracks ridership by route, but the ridecheck will provide a more complete picture of how customers use the system.

GTA undertook a similar ridecheck in November 1999. The previous ridecheck was the most comprehensive assessment of ridership patterns and travel times ever undertaken for a North Carolina transit system at the time, and its findings helped to improve on-time performance and identify locations for bus shelters and benches. Results from this survey will be compared to those of the previous survey to establish trends in ridership by route and time of day. This ridecheck will also provide detailed information on evening and Sunday usage.

While conducting the ridecheck, surveyors distributed and collected questionnaires designed to obtain information on GTA customers, their use of the transit system, and their perceptions and opinions regarding various elements of transit service. Over 2,000 surveys were received and are currently being coded and entered into a database for analysis.

While the ridecheck and survey were not part of the Mobility Greensboro study, the results are expected to be very useful in crafting long-term strategies for improvements to the transit system and recommending intermediate steps toward GTA's long-term goals.

“Students who show their library card at any branch library will be provided a free weekly transit pass.”

BUSES TO BOOKS PROGRAM ENCOURAGES READING

The Buses to Books Reading Program is back again by popular demand. Sponsored, in part, by the Greensboro Transit Authority and the Greensboro Public Library, the 10-week program seeks to promote literacy among school-aged children from ages 6 to 17 years old, as well as encourage ridership on GTA buses.

Students who show their library card at any branch library will be provided a free weekly transit pass. The passes will be color-coded each week to encourage students to visit the library at least once a week. Students are further encouraged to participate in a writing contest at the end of the program to discuss their trips to the library on the bus. Winners from three age groups will be recognized by the GTA Board and given a special award.

The program will begin on Monday, June 16, 2003 and continue through Sunday, August 24, 2003. Interested persons are encouraged to contact their local library or the GTA office at 373-2634 for further details.

Continued from page 1 - Consensus Workshop

system, through something like additional locations where fliers might be distributed or other, perhaps more high-tech and/or expensive methods.

The top goal for the next ten years, according to all five groups, was to change the image of the bus riders on GTA. Points made in a number of sections offer suggestions of ways to make that happen. There was a special interest in partnerships with the area colleges and universities.

The top goal for the next 20 years was light rail, followed by four groups urging a continuing expansion of routes and services. Since there was conflicting data on the need for Park & Ride locations,



that issue was pulled into its own section. It deserves additional examination with community groups.

A final observation should be made. Even if only one group, or for that matter, one person raised an issue, it still deserves attention. Fortunately, the second consensus-building workshop, as well as

other public meetings being planned, will allow further clarification of concepts.

For additional information, contact Sharon Smiley at 336-373-2182.

“The top goal for the next ten years, ..., was to change the image of bus riders on GTA.”

TOP GOALS IDENTIFIED BY CITIZENS IN THE CONSENSUS WORKSHOP

Top Goals for the Next Ten Years	Group #					Total # of Groups
	1	2	3	4	5	
Change image of rider	■	■	■	■	■	5
Adopt a regional approach	■		■	■	■	4
Capture non-traditional riders (white-collar/students)	■		■	■	■	4
Partner with universities/school system	■	■	■		■	4
Improve frequency	■		■		■	3
Expand routes			■	■	■	3

GTA Considers Pass Fare Increase

A pass fare increase for the City's Fixed Route and SCAT Paratransit Service will be considered at a public hearing on September 23, 2003 at 6:00 p.m. The hearing will take place in the Board Room of the GTA facility located at 320 E. Friendly Avenue. For additional information on the proposed pass fare increase, please contact GTA at (336) 373-2634.

Prior to the hearing, public meetings are being held throughout the city to solicit public feedback. The dates and locations for these meetings are listed below, some of which have already occurred.

July 10, 2003	Vance Chavis Library	6:00 p.m.
July 24, 2003	Southwest Library	6:00 p.m.
August 14, 2003	McGirt Horton Library	6:00 p.m.
August 28, 2003	Glenwood Library	6:00 p.m.
Sept. 9, 2003	Central Library	6:00 p.m.

City of Greensboro/ Greensboro Transit Authority

P.O. Box 3136
Greensboro, NC 27402-3136
Phone: 336-373-2634
www.ci.greensboro.nc.us/gdot/public_trans/

Comments & suggestions for future newsletters should be directed to:

Tindale-Oliver & Associates, Inc.
Ph: 813-224-8862, Fax: 813-226-2106
E-mail: bball@tindaleoliver.com

 City of Greensboro/
Greensboro Transit Authority
P.O. Box 3136
Greensboro, NC 27402-3136

Place
Stamp
Here

City of Greensboro/
Greensboro Transit Authority



MOBILITY TALK

A Newsletter for the Mobility Greensboro Public Transportation Master Plan

Volume 1, Issue 4

August 2003

INSIDE THIS ISSUE:

Why Ride the Bus?	2
GTA Employee Spotlight	3
New Buses in Service	3
GTA Considers Pass Fare Increase	4

Correction

In the July issue of Mobility Talk, a brief article was provided regarding new funding for transit services in Greensboro. The statement should have read:

“The funding, estimated to be approximately \$890,000, will be generated from a \$5.00 transfer of the present motorpool vehicle tax from the general fund to the transit fund.”

We apologize for any confusion.

SECOND WORKSHOP SCHEDULED: PARTICIPANTS NEEDED

On September 11, 2003, the City of Greensboro and the Greensboro Transit Authority will be hosting a second major workshop to continue developing a vision for transit in our community. Based on the input obtained at the first major workshop and other public involvement activities, discussion issues are being prepared to facilitate discussion on the future of public transportation. Dinner will be provided to all participants and transportation will be provided upon request.

Please consider participating in this process as we develop a vision for public transportation in the Greensboro area. Any requests for participation in this visioning process should be directed to Sharon Smiley by calling (336) 373-2182.

**Workshop on the Future of Transit
in Greensboro**
**Greensboro Public Library
(Nussbaum Room)**
219 N. Church St.
Thursday, September 11, 2003
4 PM to 8 PM, Please Join Us!



Workshop participants discuss the future of transit at the first major workshop.

CITY BUSES ROLL INTO DEPOT

Beginning on Sunday, August 10, 2003, the Davie Street Transfer Location, as the riders of GTA have come to know it, ceased to exist. Instead, the GTA bus riders now make their connections at a state-of-the-art bus station that serves as the Transportation Center for local, regional and long-distance buses. Greyhound/Trailway buses started departing from the station on Tuesday, August 12.

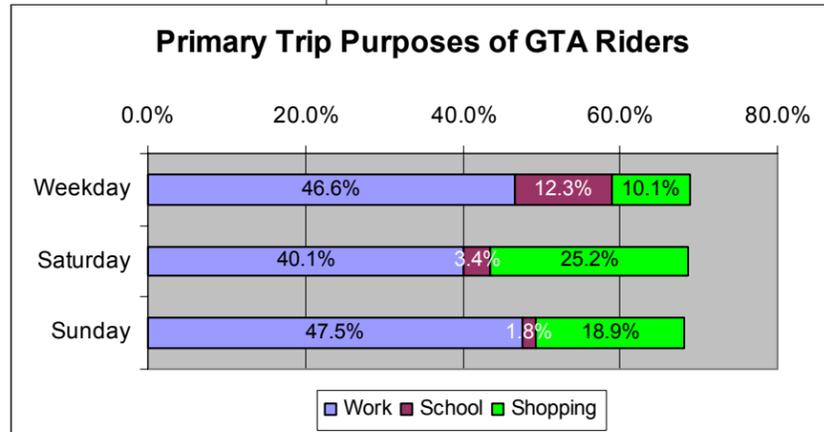
Renovations of the Depot, Greensboro's old train station, began in August 2001 and it has taken precisely two years to complete. In contrast to the open-air shelters riders have come to recognize as the Transfer station, GTA rid-

ers now enjoy the luxury of a climate-controlled waiting room, formerly the Southern Railway baggage area. The large oak pews from the station's main concourse have been retrieved from storage for the bus passengers. Vending machines and restrooms are also available.

The station's formal dedication ceremony will be held on Friday, August 29. Also on this date, ground will be broken on Phase 2 of the construction, which will bring trains back to the station in December 2004. The public is invited to an open house scheduled for Saturday, August 30.

WHY RIDE THE BUS?

The Greensboro Transit Authority commissioned an on-board survey of its riders between May 3 and May 8, 2003. A team of surveyors distributed and collected a total of 1,998 surveys. The full report contains a wealth of data on how GTA's customers use the transit system. This article summarizes results in two areas: why customers ride GTA and how they perceive various elements of service.

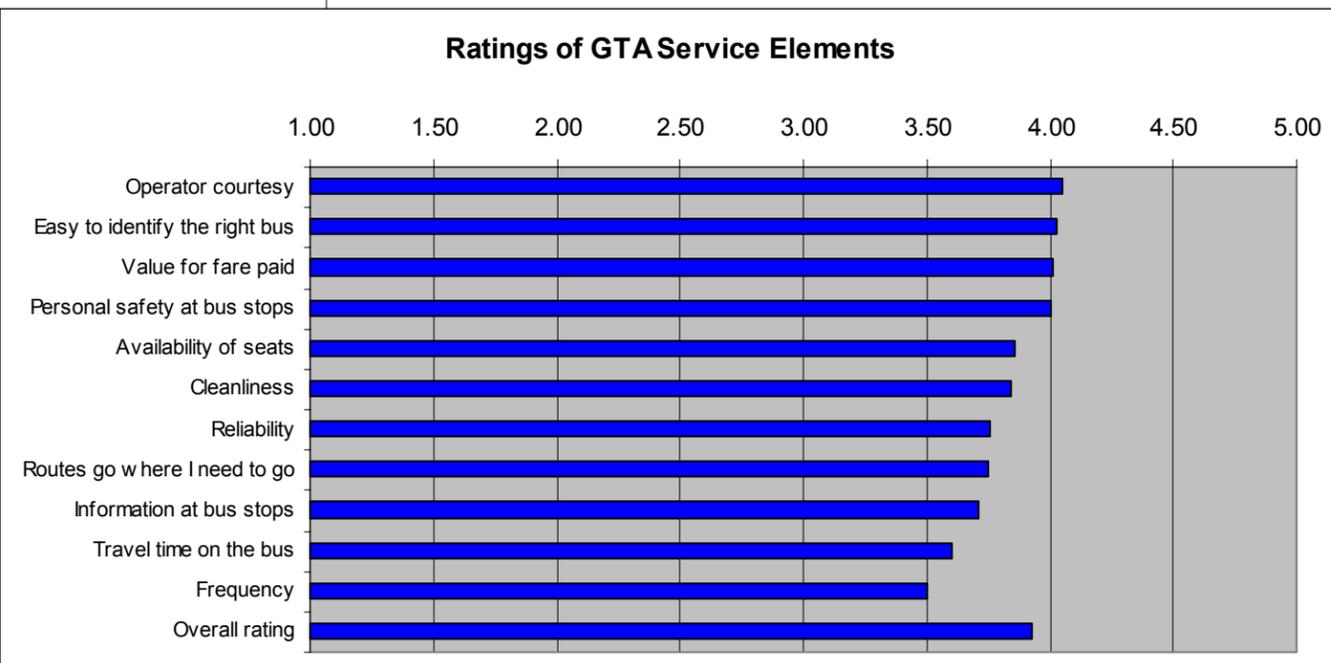


Getting to work is the primary purpose for using transit. This is true on Saturdays and Sundays as well as weekdays. On weekdays, school ranks second in terms of trip purpose, while on weekends shopping is the second most frequent trip purpose. The percentage of transit riders commuting to work is slightly higher on Sundays than on weekdays.

Respondents were asked to rank GTA service elements on a scale of 1 to 5, with 5 as the highest rating. The average rating for overall service is 3.93, a very positive rating for GTA. The service elements

receiving very high ratings include operator courtesy, ease of identifying the right bus, value for fare paid, and personal safety at bus stops. Frequency (3.50), travel time on the bus (3.60), and information at bus stops (3.71) received the lowest average ratings, although these ratings are respectable when compared to results at other systems.

The implications for the Mobility Greensboro Long Range Transit Plan are clear. Riders are generally pleased with transit, but want more frequent and faster (more direct) service. In addition, employment and shopping centers are key destinations for transit patrons.



GTA EMPLOYEE SPOTLIGHT

GTA Driver Recognized

Robin Dillon, a veteran paratransit driver for GTA, placed first in the van competition at the North Carolina Public Transportation Rodeo, sponsored by the North Carolina Public Transportation Association and the North Carolina Department of Transportation (June 8, 2003).

The contest requires participants to pass both driving and written tests. In addition, participants are further scored on personal appearance, knowledge of wheelchair securement and pre-trip inspection.

Congratulations Robin!

New Service Representative

Tamika Polk is no stranger to GTA bus riders. A regular user of both the Fixed Route Bus Service and SCAT ADA Paratransit Service herself, Tamika states that she enjoys her job as a Customer Service Representative, and feels it is a good way for her to assist riders who are disabled.

Tamika responds to callers who have complaints or concerns about the SCAT service, and makes a concerted effort to contact riders with visual impairments whenever there is information that needs to be disseminated to the community.

Tamika brings to the job a unique understanding of the issues relating to SCAT. Drawing on her own personal experiences and training in Special Education, Tamika has been instrumental in tutoring persons with visual impairments on the use of the computer screen user, JAWS. As a person who is totally blind, she knows full well the importance of making the service more integrated and accessible for all users.

Tamika (along with her service companion, "Moses") has proven to be an asset to GTA. For questions or comments relating to SCAT, Tamika can be reached at (336) 373-3281.

"Riders and drivers alike now experience a more comfortable and enjoyable ride on a fleet (of buses) that is 100% accessible..."

NEW BUSES IN SERVICE

The Greensboro Transit Authority is pleased to announce the arrival of ten new Orion buses to replace its aging fleet. Characterized by its low emission and high fuel economy, the Orion bus has long been one of the most trusted buses in transit service. Three of the ten buses rolled out on Friday, May 16, 2003, with the remaining seven placed into service the following Monday. Riders and drivers alike now experience a more comfortable and enjoyable ride on a fleet that is 100-percent accessible to meet the needs of the disabled community. Bicyclists also enjoy the added convenience of bike racks on each of the new buses.

GTA provides fixed-route bus service that operates along 14 routes during the day on weekdays, extended evening service, which is essentially a combination of daytime routes, and weekend service that operate on both Saturdays and Sundays. In addition to the 14 fixed routes, the Greensboro Transit Authority operates three (3) connector routes that serve outlying areas beyond the fixed route bus service and one (1) shuttle service. Riders use the service daily to travel to work, medical appointments and other discretionary trips, i.e., to Guilford Technical Community College in Jamestown. Despite its aged fleet, GTA has been able to experience minimum breakdowns and disruption to its service. Annual ridership on the bus service increased by 11 percent from last fiscal year, placing GTA's annual ridership at 2.2 million riders.

A special ceremonial run with GTA Board members took place at the GTA Transit Facility located at 320 E. Friendly Avenue on Thursday, May 15, 2003, at 5:00 p.m. to dedicate the new vehicles. Users and operators have expressed great satisfaction with the performance of the new buses.





Appendix C

Transit Services in the Greensboro Area



Transit Services in the Greensboro Area

Mobility Greensboro Public Transportation Master Plan



Greensboro Transit Authority

Greensboro Transit Authority (GTA) provides fixed-route transit bus service (under contract to ATC) for the City of Greensboro, including service to North Carolina A&T State University, the University of North Carolina at Greensboro, and Guilford Technical Community College (GTCC). GTA also contracts for the provision of demand-response service. According to National Transit Database figures, in FY 2000, GTA provided a total of 1,588,660 unlinked passenger trips with a peak vehicle fleet of 20 buses. An additional 170,197 passenger trips were provided by its complementary paratransit service, Specialized Community Area Transportation (SCAT). The adult one-way fare for bus service is \$1.00, with a number of discounted fares and multi-day pass options available.

Fixed-route services are operated along 14 routes (numbered 1 through 14) during the day on weekdays from 5:15 a.m. to 7:20 p.m., and on Saturdays from 6:00 a.m. to 7:00 p.m. Extended evening (7:30 p.m. – 12:30 a.m. on weekdays; 7:00 – 11:00 p.m. on Saturdays) and Sunday (6:00 a.m. – 7:00 p.m.) hours are provided for fixed-route service on seven routes (numbered 21 through 27) that are essentially a combination of daytime routes. Extended evening service was formerly known as “LateLine,” when it operated using vans in a series of zones.

Along with the 14 fixed routes, there are 3 connector routes operating beyond the endpoints of 3 of the fixed routes. Two of these routes were established in January 2001 by truncating long routes (Route 1 and the Wendover Connector, Route 11 and the High Point Road/GTCC Connector), while another was added in April 2001 at the request of the GTA Board (the Lawndale Connector, which ties in with Routes 7 and 8). The connector routes are operated with vans. In the case of the Wendover Connector, the vans connect with Route 1 at Edwardia and the LifeSpan Workshop, and then circulate through the shopping centers along West Wendover Avenue. Along this route, the vans can pick up and discharge riders at the door of popular retailers such as Wal-Mart, Target, and Super K-Mart. The Lawndale Connector meets Route 8 at Westover and Enterprise and meets Route 7 at Friendly Shopping Center. It provides service along Lawndale Drive between Cotswold and Cornwallis, and serves two area hospitals along with other destinations. The High Point Road/GTCC Connector meets Route 11 at Groometown and Frazier and provides service to Adams Farm and GTCC (where GTA service connects with High Point Transit). It is important to note that the Wendover Connector provides service Monday through Saturday during GTA’s normal daytime service hours. The High Point Road/GTCC Connector operates during normal daytime service hours, as well, but only Monday through Friday. However, the Lawndale Connector operates Monday through Friday only during peak hours of service (i.e., 6-9 a.m. and 4-7 p.m.).

In addition to the three connector routes, GTA also provides the Irving Park/Starmount Shuttle service. This service also is operated with vans. The shuttle operates out of the Davie Street Transfer Station and provides service along Sunset, Lafayette, and Cornwallis in the Irving Park area and Avondale, Tower, and Muirs Chapel in the Starmount area. The service operates Monday through Friday from 7:00 to 9:49 a.m. and 2:00 to 3:49 p.m.

Career Express is an innovative reverse-commute service offered by GTA to provide a direct connection between downtown and employment opportunities in the Piedmont Triad International Airport area in northwest Greensboro. The service currently operates with a transit bus connecting the downtown transfer center on Davie Street with a transfer location in the Airpark area. From this location, three vans circulate throughout specific portions of the employment sector picking up and discharging passengers at designated stops. This service operates during peak hours. There is also one midday trip via van from downtown. During extended evening hours, a van will make connections with one of the evening fixed-route lines on request. Reservations are required for midday and evening service. In addition, a person can request a deviation if there is no bus stop close to his or her work site; however, deviated service will only be accommodated as the schedule permits.

GTA's services are expected to receive a boost once Greensboro's Multi-Modal Transportation and Community Center (The Depot) opens in January 2003. Located at the site of the Greensboro Depot, which was built in 1930, the Depot will be home to GTA's new downtown Transfer Center and will serve as the central ground transportation hub for all public transportation modes in the city. Upon its completion, the Depot also will house a Greyhound/Trailways bus station, a taxicab stand, a community center, space for commercial and/or retail uses, and, eventually, an AMTRAK station. Even a child-care facility has been proposed for inclusion in the project. It is anticipated that the renovated Depot, with its central location and historic atmosphere, will help spur the continued development of the downtown business area. It should also enhance the mobility of Greensboro's citizens since it will facilitate the coordinated access of local bus service with other modes, including rail transportation.

As noted previously, demand-response service in Greensboro is provided by SCAT. Basically, SCAT is a door-to-door/curb-to-curb shared-ride transportation service that is available to eligible riders who cannot utilize the accessible fixed-route motorbus service because of a disability or health condition. Reservations are required for all trips – at least one day prior to the requested trip or up to 14 days in advance. GTA provides this service through its contractor, ATC. However, Guilford County is responsible for the call taking, reservations, scheduling, and routing of this service. It is important to note that improved communications between the County and GTA have resulted in a sharp decline in complaints regarding SCAT service.



Guilford County

In addition to the support services it provides for SCAT service in Greensboro, Guilford County also provides non-ADA subscription and dial-a-ride services for all citizens of the County who reside outside the cities of Greensboro and High Point. This service is provided Monday through Friday from 6:00 a.m. to 7:00 p.m., and Saturday from 6:00 a.m. to 5:00 p.m. The general public may utilize this service on a space-available basis for a fare of \$1.60 per one-way trip. Also, the County provides similar transportation services to elderly persons (over 60 years of age) and Medicaid recipients within the cities of Greensboro and High Point.



Piedmont Authority for Regional Transportation

Piedmont Authority for Regional Transportation (PART) is a regional transportation authority that jurisdictionally encompasses the counties of Rockingham, Forsyth, Alamance, Guilford, Davidson, and Randolph. Its formation was authorized by the North Carolina General Assembly in June 1997 (Article 27, GS160A). The mission of this organization is *to enhance the quality of all forms of transportation for each of our citizens through efficient use and protection of our natural economic, and human resources*. In addition, PART’s stated goal is to improve transportation through regional cooperation. To this end, since its inception, PART has been involved in a number of activities with the intent of improving mobility throughout the Triad region.

The first major activity that was undertaken by PART was the establishment of a ridesharing and vanpool program, through which carpool matching, vanpool leasing, and guaranteed ride home services are provided. To date, these services have been relatively successful at providing area commuters with convenient, dependable, and safe transportation. Then, in July 2002, the authority began operating PART Connections, which was originally known as the Regional Non-Emergency Medical and Human Services Transportation Coordination Program. This program was established to accomplish the following goals:

- Increase multi-county, non-emergency transportation coordination and delivery of service;
- Coordinate rural trips to and from regional medical centers; and
- Establish a single point of contact to coordinate out-of-county service and provide information material in multi-county areas.

With PART Connections, now all call taking, scheduling, and billing of out-of-county medical transportation is being managed by a single entity. Other identified benefits of this successful endeavor include the improved efficiency of services, less expensive overall service, greater utilization of regional resources, and an increase in the number of service options for agencies and clients that has resulted in meeting more of the medically-related mobility needs of the region.

The latest entries in PART’s array of services are PART Express and PART Shuttles. PART Express is a regional bus service that connects the cities of Greensboro, Winston-Salem, and High Point with each other and with the Piedmont Triad International Airport and the businesses in the Airpark area (via transfer to the PART Shuttles). Both services began on September 30, 2002. The PART Express service operates Monday through Friday from 6:00 a.m. to 7:00 p.m., with an adult one-way trip fare of \$2.00. The PART Shuttles operate Monday through Friday between 6:00 a.m. and 7:00 p.m., as well, but are free to ride.

PART Express includes three routes that operate 30-minute peak service (60-minute service during off-peak) between the downtowns of each of the cities and the Regional Hub located off Regional Road near Albert Pick Road. The Winston-Salem Express operates between the downtown Transportation Center and the Hub along Business 40. The Greensboro Express operates between the Davie Street Transfer Center and the Hub along I-40 (this route replaces the express route that GTA had been operating to connect to its Career Express services in the Airpark area). Finally, the High Point Express runs along US 68 between the Broad Avenue Passenger Terminal and the Hub. Currently, the Regional Hub is still under construction, so vehicles are meeting in the completed portion of the facility’s parking lot to effect transfers. The grand opening of the Regional Hub is slated for November 22, 2002, and it is expected to be fully operational by November 25, 2002.

The PART Shuttles service consists of four routes covering the areas of Piedmont Centre (Shuttle 1), Pleasant Ridge (Shuttle 2), Burnt Poplar (Shuttle 3), and the airport (PTIA Shuttle). The intention of the shuttle service is to provide a link to the job sites and other destinations in and around the airport area. As mentioned during the discussion of GTA's Career Express service (in a footnote), the PART Shuttles service has, in effect, replaced the Career Express as of September 30, 2002. PART funds all of the shuttle service; however, GTA continues to operate the three shuttles (Shuttles 1-3) to the airport area businesses, while PART operates the fourth shuttle (PTIA Shuttle) that serves the airport directly.

In addition to these services, PART also participates in regional planning efforts and is proactive in seeking solutions for improving travel in the region. For example, PART is currently working with the North Carolina Department of Transportation to establish a regional 511 travel information system. Such a system would allow people in the Triad region to access up-to-date roadway conditions and travel information by telephone. PART is also working in conjunction with other organizations/government agencies on several transportation studies, including the Airport Area Transportation Study, a Commuter Rail Study, and an Intercity Rail Study.



High Point Transit (Hi tran)

In August 1975, the City of High Point took over operation of transit service from Consolidated Bus Lines, one of two entities that had been providing transit service in the city since the 1960s. The name of the service was changed to Furn-Tex Transit; however, this moniker did not last long as the system was renamed yet again in 1978 to "Hi tran."

Today, Hi tran provides fixed-route bus transit and dial-a-ride paratransit services throughout the City of High Point. According to FY 2000 National Transit Database information, Hi tran provided a total of 831,164 unlinked passenger trips with a peak vehicle fleet of 12 buses. An additional 42,744 passenger trips were provided by its complementary paratransit service. Fixed-route service is provided via 12 routes that operate Monday through Friday from 5:45 a.m. to 6:30 p.m., and on Saturdays from 8:45 a.m. to 5:15 p.m. The regular fare for bus service is \$0.75, with a cost of \$0.25 per transfer. There are discounted fares available for senior citizens and persons with disabilities.

Nine of Hi tran's routes operate with 30-minute headways during peak periods and 60-minute headways during the city's defined off-peak period (8:45 a.m. to 3:15 p.m.). Only Routes 10 and 11 operate with 30-minute headways all day; these two routes serve North and South Main Street, respectively. Hi tran's twelfth route, Route 25, is the only route that does not have a regular all-day schedule. This route, which serves Jamestown and GTCC in the northeast portion of the city, only operates six trips per day. This is the route that connects with GTA service at GTCC and provides some level of connectivity between High Point and Greensboro.

Hi tran's paratransit service is known as "Dial-A-Lift." This demand-response service is for senior citizens 60 years of age and older and for persons with disabilities who are not able to make use of fixed-route transit service due to a physical or mental disability. Persons must have their eligibility for this service certified prior to use. However, once certified, patrons can schedule trips for medical, employment, and/or recreational purposes. Dial-A-Lift operates Monday through Saturday with hours of operation identical to those of the fixed-route service. The fare for the Dial-A-Lift service is \$1.50 per one-way trip. Reservations to ride must be made at least 24 hours in advance of the planned travel time.



Winston-Salem Transit Authority

Winston-Salem Transit Authority (WSTA) provides fixed-route transit bus service for the City of Winston-Salem, including service to Wake Forest University, Winston-Salem State University, and Salem College. WSTA also directly operates demand-response service (known as Trans-AID) throughout Forsyth County. Interestingly, until the startup of the PART Express, Winston-Salem had no transit connections with either Greensboro or High Point City. According to the FY 2000 National Transit Database, WSTA provided a total of 2,712,180 unlinked passenger trips with its peak vehicle fleet of 43 buses. In addition, a total of 96,368 passenger trips were provided on its demand-response mode. The adult fare for bus service is \$1.00 per one-way trip. Discounted fares are available for the elderly and persons with disabilities, and monthly and multi-ride passes can be purchased, as well.

WSTA operates a total of 22 regular daytime transit routes and another 8 night service routes (all of which are variations and/or combinations of daytime routes). Daytime service typically operates between 5:30 a.m. and 7:00 p.m. on weekdays, and between 6:00 a.m. and 7:00 p.m. on Saturdays. Night service operates only Monday through Friday from 7:00 p.m. to midnight. Of the 22 daytime routes, 6 routes (Routes 12, 14, 16, 19, 21, and 27) do not operate on Saturdays. In addition to the 22 regular fixed routes, WSTA also operates 5 other special service routes:

- Route 40 – West End Trolley – provides trolley service around downtown Winston-Salem in vehicles that are modern replicas of the original Winston-Salem Street Railway Trolleys. (Monday-Friday, 7:25 a.m. to 5:46 p.m.)
- Route 41 – Park & Shuttle North Lot – provides shuttle service between the North Lot (parking) and various downtown businesses (e.g., GMAC Insurance, Wachovia Park, etc.). (Monday-Friday, 7:00-8:54 a.m. and 4:03-5:58 p.m.)
- Route 43 – Westside Connector – provides additional service/better coverage for the growing retail and business areas in western Winston-Salem, including Hanes Mall, Pavilions Shopping Center, and others. (Monday-Friday, 6:25 a.m. to 7:15 p.m.; Saturday, 7:45 a.m. to 6:30 p.m.)
- Route 44 – Northside Connector – provides additional service/better coverage for the growing retail and business areas in northern Winston-Salem, including University Summit, University Plaza, and others. (Monday-Friday, 7:30 a.m. to 7:00 p.m.; Saturday, 8:30 a.m. to 7:00 p.m.)
- Route 45 – RJR Shuttle – provides transportation between the RJR Plaza Building and the RJR East Parking Lot at 7th and Linden. (Monday-Friday, 7:00-8:25 a.m., 11:30 a.m.-1:25 p.m., and 4:00-5:25 p.m.)

All of WSTA’s transit buses are wheelchair-accessible and are equipped with bicycle racks. The system also provides ridesharing and vanpooling services through PART. In March 1997, WSTA’s Multimodal Transportation Center opened for business. Located on Fifth Street between Trade and Liberty Streets, this downtown transit bus station serves as an attractive and comfortable place for waiting transit patrons. The station includes 16 covered bus bays and a glassed interior waiting area.

Finally, WSTA and its patrons have benefited from the system’s involvement in the Federal Transit Administration’s (FTA) Mobility Manager Project. In this project, FTA sought to apply various Advanced Public Transportation Systems technologies to a mid-sized transit system in order to gain knowledge about the process so that application to other transit systems could be facilitated. In the case of WSTA, a mobility management system for demand-response service was implemented in 1994 (other technologies, such as mobile data terminals and automatic vehicle location, were tested, as well). According to information from the WSTA web site, the computerized scheduling and dispatching system that was implemented was quite successful in ensuring efficient demand-response service and improved on-time performance.



Appendix D
Strengths, Weaknesses, Opportunities, & Threats
Greensboro Transit Authority





City of Greensboro/Greensboro Transit Authority (GTA) Mobility 2015 Long Range Public Transportation Plan

FINAL REPORT

January 28, 2003

Prepared by:

Tindale-Oliver and Associates, Inc.

1000 North Ashley Drive, Suite 100

Tampa, FL 33602 phone: (813) 224-8862

bball@tindaleoliver.com

In association with:

27601.02



City of Greensboro/Greensboro Transit Authority (GTA) Mobility 2015 Long Range Public Transportation Plan

FINAL REPORT

Table of Contents

Chapter 1:	Introduction.....	1-1
Chapter 2:	Strengths.....	2-1
Chapter 3:	Weaknesses.....	3-1
Chapter 4:	Opportunities.....	4-1
Chapter 5:	Threats.....	5-1
Chapter 6:	Summary.....	6-1



Strengths, Weaknesses, Opportunities, and Threats for Greensboro Transit Authority

Introduction

A major component of a long-range plan for any agency is a strategic assessment of how the agency functions as well as of the environment in which the agency operates. Such an assessment considers the strengths and weaknesses of the agency and the opportunities and threats in its environment.

This report summarizes the findings of a strategic assessment of the Greensboro Transit Authority (GTA), the agency responsible for the provision of public transportation service in the City of Greensboro. In developing this assessment, the project team relied on insights offered by GTA management and staff, Board members, elected officials, and other key local decision makers as well as its own observations.

GTA's strengths and weaknesses are presented first, followed by opportunities and threats for GTA in the coming years.

Strengths

- ◆ **Provides mobility for those without access to or who prefer not to rely on an automobile.** One of GTA's major strengths is that it provides mobility for those with few or no other choices for getting around. This is true of both its fixed-route and demand response services.
- ◆ **Takes people to work.** Surveys have consistently indicated that a large portion of GTA ridership uses the bus or the van to get to work. The recent national emphasis on Welfare-to-Work programs found that transit provides an important means of transportation for those entering or re-entering the work force. When GTA conducted a survey of its riders prior to implementing transit service on Sunday, over 55 percent of respondents noted that they would use Sunday service to get to work.
- ◆ **Provides the elderly and those with disabilities a measure of independence in their travel.** GTA does far more than just bring people to work and back. By providing opportunities for medical, shopping, and recreational trips, it provides a measure of independence for the elderly and persons with disabilities in the City of Greensboro.
- ◆ **Serves transit-oriented neighborhoods.** GTA's fixed-route services are designed to serve neighborhoods with a high propensity to use transit. These neighborhoods are well served by GTA buses.
- ◆ **Improved reliability.** Over the past several years, GTA and its contracted operator, ATC, have made a concerted effort to ensure on-time performance on the fixed-route system. Changes in procedures for operators reporting to work and a campaign to leave the Davie Street transfer location on time have significantly improved the reliability of fixed-route service. While unexpected traffic congestion can always create delays, the system now routinely operates on schedule. Another factor contributing to improved reliability was shortening two of the longest routes in the system and replacing their outlying portions with connector service.
- ◆ **Improved span of service (evenings, Sunday).** In January 2001, GTA established extended evening service on seven fixed routes (generally combinations of daytime routes) to replace LateLine service that had been provided with vans serving zones within the service area. Evening

ridership has increased as a result. The same seven fixed routes are now operated on Sunday (beginning in October 2000), providing seven-day-a-week service for the first time. GTA was among the first systems in North Carolina to provide Sunday service.

- ◆ **Improved frequency of service on selected routes.** GTA improved frequency from one bus every hour to one bus every 30 minutes all day on Routes 3 (N. Elm) and 6 (Summit) and during the midday period on Route 12 (Randleman-South Elm/Eugene) in January 2001. At the same time, GTA reestablished midday service on Route 9 (W. Market). Ridership increases were particularly noteworthy on Routes 9 and 12.
- ◆ **Willingness to innovate (Career Express, TAG, connector routes, Guilford College).** GTA has been more willing than most transit agencies to experiment with new concepts. Career Express provided reverse-commute service to rapidly expanding employment opportunities in the Air Park area long before other agencies began to implement similar services related to Welfare to Work programs. TAG, the first attempt to establish connector routes serving outlying areas, may have been ahead of its time and was discontinued due to low usage. Three connector routes now operate in outlying areas of Greensboro, providing connections to the big-bus fixed route system. A joint program with Guilford College to provide mobility for its students also fell short of expectations and was discontinued, although GTA and Guilford College are studying ways to revise the service. Oddly, the failures may be the key to the willingness to innovate, since GTA has shown the ability to discontinue experimental service that does not work as advertised. Many other transit agencies are unwilling to test new ideas for fear that they will be saddled with unproductive services if they do not work.
- ◆ **Responsive.** GTA receives high marks in the area of responsiveness to customer comments and complaints. GTA management emphasizes the importance of responding quickly to questions, comments, and complaints from customers and residents.
- ◆ **Fixed-route costs have increased at the rate of inflation.** A recent analysis revealed that increases in fixed-route operating costs since 1993 have paralleled the rate of inflation. GTA has managed its fixed-route costs well, even at a time when service has been expanding.
- ◆ **Service monitoring.** GTA has enhanced its service monitoring efforts so that it can better understand and respond to ridership and performance trends. This is an important function that allows transit agencies to manage proactively.
- ◆ **Board openness to public comment.** Many Boards allow public input during meetings, but few follow up with directives that staff investigate and report on the comments as consistently as GTA.

Weaknesses

- ◆ **Not frequent enough.** Despite attempts to enhance service frequency, GTA buses are perceived as not operating frequently enough. The most frequent service is every 30 minutes, and several routes operate hourly all day. If a passenger misses a bus, he/she has a long wait for the next one.
- ◆ **Needs to attract discretionary riders.** This weakness is related to frequency. Transit service is not convenient enough to encourage potential riders to leave their cars at home, especially in many middle-income neighborhoods with hourly service. Discretionary riders are generally more time-

sensitive and expect a higher level of service that more closely approximates the automobile. Different types of service (such as express bus) offer a greater opportunity to attract this type of potential rider.

- ◆ **Continued cost increases, especially on SCAT.** While fixed-route costs have increased at the same pace as the cost of living, demand response costs have skyrocketed over the past decade. This can be attributed in part to GTA’s efforts to come into compliance with the requirements of the Americans with Disabilities Act (ADA), but the increase in demand for this service and the difficulty of providing efficient demand response service are also factors.
- ◆ **Lean staff cannot address all needs (marketing).** In general, GTA is to be commended for operating with a relatively lean staff structure. However, this leaves the agency vulnerable to sudden staff departures such as the recent resignation of the Marketing Director. Lack of a focused marketing effort was a contributing factor in the failure of the Guilford College student pass program, because other staff members were too busy with their own responsibilities to be able to pick up the slack.
- ◆ **Difficult to serve outlying areas experiencing significant growth.** GTA has established connector routes as the primary means to serve outlying areas, thus avoiding the difficulties inherent in trying to stretch existing routes beyond their ability to keep to schedule. However, growing outlying areas are usually characterized by low densities, and public transportation does best in situations of high concentration of jobs or residents. This will be a continuing challenge to GTA in the coming years.
- ◆ **Turnover in contractor General Managers affects continuity.** ATC has been required, for various reasons, to change General Managers more often than it would prefer in the past several years. A stable management team can impart a consistent message to and build relationships with the workforce that enhance the likelihood of service improvements. While there is no specific area that has suffered as a result of this turnover, the instability is not an ideal situation.
- ◆ **Not enough high-quality vehicles.** The newest GTA buses, while relieving a critical vehicle shortage, have experienced abnormally high maintenance problems and thus have not produced the benefits usually associated with new bus purchases. The average age of GTA’s fleet is relatively high, resulting in high maintenance costs and the likelihood that at least one bus will not be available on any given day. This restricts the agency’s ability to provide high-quality service and to consider service expansion. The end result is an increase in negative perceptions on the part of both riders and non-riders.
- ◆ **Central transfer location leaves room for improvement.** If one were to design an ideal transfer location, it is very unlikely that it would look like Davie Street. GTA has made the best of a bad situation out of its control, but the impending move of the downtown transfer location to the Depot will provide a markedly improved environment for waiting passengers.
- ◆ **Perception that GTA can be all things to all people, as opposed to a mass transit agency.** This weakness is in some ways the other side of one of GTA’s strengths, its responsiveness to the community. As a transit agency grows and more people rely on its services, the need to move greater numbers of passengers more quickly means that routes cannot be configured to meet everyone’s needs. While this fact is easily understood intellectually, it requires a change in the

way the agency works that can frustrate some riders because individual needs will be subordinated to the greater good.

Opportunities

- ◆ **Increased participation with other agencies in providing service for specific markets.** One example of this was the college pass program demonstration with Guilford College, and a similar project proposed for University of North Carolina at Greensboro. When The Depot is open, it could serve as a hub for a Downtown shuttle, with financial support from the City and/or Downtown Greensboro.
- ◆ **Tie in with renewed focus on Downtown Greensboro.** GTA worked with Downtown Greensboro to provide shuttle service for the “welcome back students” day in August 2002. As noted above, the next step could be a shuttle service, something that Downtown Greensboro has been interested in pursuing. A healthy downtown benefits transit, because the network is oriented to downtown.
- ◆ **PART and opportunities to integrate regional and local service.** PART recently assumed responsibility for the express portion of Career Express from downtown to the Air Park area and has also introduced a new shuttle serving the Air Park. As PART continues to develop regional service that includes High Point and Winston-Salem, there will be increased opportunities to integrate PART and GTA services.
- ◆ **Increased community outreach.** In the past several years, GTA has increased its outreach program and established contacts with several neighborhood and civic groups throughout the City. A strengthened community outreach effort builds partnerships with these groups, provides a vehicle to obtain community input, and can educate community leaders regarding both the important role transit can play and the financial limits within which GTA must operate. Routine community outreach can make GTA aware of issues and enable the agency to respond before they reach the Board or City Council level.
- ◆ **Continued focus on improvements for current riders.** Recent improvements such as new vehicles, enhanced frequency and regularization of evening service have focused on better service for current riders. This focus on current riders is intended to build loyalty toward GTA, encourage transit use for additional trip purposes, and retain riders even when a car is available for the trip. Changes that enhance existing service generally result in greater ridership increases.
- ◆ **Expand services for current and potential markets.** While the emphasis on current riders is appropriate, there is also room for expanded services to potential new markets. Concepts such as connector routes in outlying area, express bus routes and park and ride lots within the City of Greensboro, and new crosstown routes offer opportunities to attract new riders while also benefiting current riders.
- ◆ **Develop staff expertise.** GTA has developed a strong staff within a lean structure. Staff continuity over the past year has allowed staff members to develop expertise in specific fields (e.g., demand response transit, operations planning). While personnel at an agency the size of GTA need to have broad experience in all areas of transit, continuing development of expertise in specific areas will strengthen the agency.

- ◆ **Build upon local support for transit.** There is broad support for transit in the community, as demonstrated by the City Council’s financial contribution to start up Sunday service. This provides an important base for GTA as it continues to improve service. Community outreach efforts will help to maintain and strengthen this support at the grassroots level.
- ◆ **Leverage state and federal funding, particularly for capital purchases.** A sometimes-overlooked benefit of transit is that it can bring outside funds into the community. Although these need a local match, the local portion is typically only 10 to 20 percent of the total grant. This availability of state and federal funding, particularly for capital purchases, means that every local dollar is matched by four to nine state or federal dollars, greatly enhancing the value of the local investment.
- ◆ **Board members as advocates of transit in the broader political arena (advocacy and education).** Board members can play an important role in building local support for transit by acting as local advocates for transit with local elected officials. Board members are also well placed to educate key local officials regarding the important roles that transit can play in terms of mobility, access to jobs, and economic development.

Threats

- ◆ **Continued reliance on the automobile.** This is the major threat facing transit systems throughout the United States. The American love affair with the automobile is a fact of life, although rising gas prices, increasing highway congestion, and limited and/or costly parking can encourage transit use. One tactic suggested here is to build customer loyalty among existing customers by focusing on improvements to existing service that benefit current riders. Surveys of former transit riders suggest that the purchase of an automobile is the primary reason for no longer using transit. The long-term aim of building customer loyalty is to provide a reason for continued transit use at least for certain trip purposes as customers move up the economic ladder.
- ◆ **GTA could be seen as “only for those with no choices”.** This perception is widely held among key local officials in Greensboro and elsewhere. The danger in this perception is two-fold: it can limit potential ridership growth among discretionary riders, and it can limit political support for transit, despite general support for enhancing the mobility of all citizens. In the coming years, GTA could experiment with innovative partnerships and service delivery concepts to broaden its ridership base without neglecting current ridership.
- ◆ **Difficulty in follow-through, due to limited staff.** Any agency like GTA that operates with a lean staff is vulnerable to difficulty in follow-through. GTA has restructured and clarified responsibilities in recent years to address this problem, but will continue to be vulnerable to unexpected staff departures. This is an unavoidable disadvantage of efficient staffing.
- ◆ **Lack of priorities and focus re service improvements could result in not achieving goals or meeting expectations.** GTA’s strategy in recent years has been to focus improvements where the ridership payoff is likely to be greatest. However, its responsiveness to the public will on some occasions create a conflict, in situations where the demand for transit does not support a community request. It is important for GTA and the Board to maintain and reinforce system priorities even at the expense of sometimes having to say “No” to community requests.

- ◆ **Danger of being viewed as poor steward of taxpayer money.** This is a danger faced by all public agencies. The most recent example of this was the Council debate over an automatic vehicle locator (AVL) system for GTA, a budget item that GTA had not originally requested. Even riders do not always understand that fares pay only a portion of transit costs and that the community invests in transit through taxpayer dollars because of its overall benefits. Lean staffing is one way to counter or avoid this perception. Another is clear communication regarding the reasons for and benefits of public expenditures. A third approach is to ensure that transit users pay a fair share of expenses.

- ◆ **Responsiveness, when carried too far, can weaken the system by adding unnecessary services.** This threat is related to the potential lack of priorities and focus discussed earlier. GTA has in the past shown a willingness to innovate, coupled with the ability to discontinue services that fall below expectations. This ability is critical over the long term in keeping the transit system efficient. In the short term, as noted above, GTA and the Board will sometimes have to turn down community requests.

Summary

GTA does a good job of meeting mobility needs, and has expanded service strategically over the past several years. A major strength is its responsiveness to the community. The agency has also shown a willingness to innovate, an ability to partner with other private and public agencies, and a focus on controlling costs that has been particularly successful for its fixed-route service.

Service is not frequent enough to attract a significant number of discretionary riders. Even its busiest routes operate only two trips per hour. GTA is also faced with the challenge of expanding service to areas of lower density, where transit generally does not work well. Efforts to control costs have not been as successful for demand-response services (SCAT). Staffing and vehicle issues have limited the agency's ability to respond to changing markets. As GTA has grown, it needs to educate its riders that it can no longer be all things to all people.

GTA has a strong base of support in the community to build upon, and has taken the right steps with regard to community outreach, service priorities, staff expertise, and leveraging of local funds. Threats commonly faced by transit agencies also exist in Greensboro: reliance on the automobile; scrutiny by the public; and the difficulty of meeting demand with limited financial resources. GTA has a real opportunity to continue its progress in strengthening community support and approval, with Board support and leadership.



Appendix E Summary of Stakeholder Interviews



**SUMMARY OF STAKEHOLDER INTERVIEWS
MOBILITY GREENSBORO
LONG RANGE PUBLIC TRANSPORTATION PLAN
CITY OF GREENSBORO/GREENSBORO TRANSIT AUTHORITY (GTA)**

Interviews with stakeholders in the Greensboro area play a major role in the Public Involvement Plan for Mobility Greensboro. In cooperation with GTA staff, 18 key individuals were identified for interviews to represent various entities throughout the area. The following individuals participated in this process.

- Mayor Keith Holliday, City of Greensboro
- Florence Gatten, City Council Member
- Tom Phillips, City Council Member
- Bob Landreth, County Commission
- Joyce Johnson, GTA Board
- Jayne Walker-Payne, GTA Board Member
- B.J. Covington, GTA Board Member
- Mary Lou Zimmerman, GTA Board Member
- Michael James, GTA Board Member
- Dottie Neely, GTA Board Member
- Lonnie Cunningham, GTA Board Member
- Bill Frank, GTA Board Member
- Dennis Burgess, GTA Board Member
- Ed Kitchen, City Manager
- Mitchell Johnson, Assistant City Manager
- Jim Westmoreland, Director, GDOT
- Brent McKinney, PART
- Scott Rhine, PART

A series of 21 detailed questions was developed to facilitate the discussion and obtain stakeholders' perceptions of three primary questions, including:

- Where are we today with public transportation?
- Where do we want to go with public transportation?
- How do we get there?

The remainder of this document summarizes the results of the stakeholder interviews. Where possible, common perceptions and themes are identified.

WHERE WE ARE

1. How much awareness of and support for transit is there in the community? Have the levels of awareness and support changed in the last two years?

Respondents generally believe that the awareness of and support for transit is good for individuals in the community who need the service and have no other transportation alternative. Non-transit users,

however, are not typically aware of the available transit services and their knowledge is generally limited to seeing buses on the road as they travel in the area. Despite this common perception, most believe that the awareness and support has increased in the past two years for a number of reasons, including:

- GTA staff is doing a better job of providing and marketing services;
- The anticipation of the Depot has generated interest and support (with a few exceptions);
- The involvement of PART has generated awareness and support from a regional perspective.

At the policy level, most believe that there is basic support for public transportation as a municipal service. This support in its current form, however, is not likely to translate to a commitment for service and funding expansion. The City Council has demonstrated a willingness to respond when citizens have expressed support for new services (night and especially Sunday service, connector routes, etc.).

2. How is GTA perceived in the community? What is your perception of transit's role in the community?

With regard to the perception of GTA in the community, there is a difference of opinion among respondents. Most GTA Board members believe that the perception of GTA is generally positive and well received in the community, especially within the past two years. In contrast, one GTA Board member and many other respondents were more pragmatic in their comments. In their view, while a majority of citizens believe that the provision of transit service is the right thing to do, they also tend to be somewhat indifferent about GTA since they are not typically transit users. Despite this indifference, general perception is believed to have improved in the past two years. However, the widespread perception that GTA provides a needed service for those who do not have an alternative attaches a social stigma to the choice to use transit rather than driving an automobile. A citizen survey conducted a few years ago was also mentioned, with one result indicating that community perceptions toward transit were generally okay. One respondent also noted the lack of interest from businesses in the community.

Responses to transit's role in the community ranged from the need for a viable alternative for everyone to focusing only on those who do not have an alternative. Most support the need for a transit system and have an interest in seeing GTA evolve to provide services that can be used by everyone in the community, including choice riders.

3. Is the transit system responsive to community needs? How are those needs communicated to the transit system?

Nearly all of the stakeholders indicated that GTA is responsive to the community's needs. They also understand, however, that all needs cannot necessarily be met due to the lack of resources and/or funding. Several respondents were also complimentary of GTA staff, especially with their efforts to respond to needs within the past couple of years. One respondent did discuss the lack of responsiveness in GTA's early days following the transition from Duke Power. This same respondent also indicated that responsiveness appears to have improved in recent years.

Needs are communicated to the transit system through public comments at GTA Board meetings and community/neighborhood meetings scheduled by GTA staff. One respondent mentioned that a focus group was held one time to obtain information from riders. The perception is that GTA is willing to

listen to suggestions and comments but new ways of communicating needs should be considered to expand opportunities for input to a broader population in the Greensboro area.

4. Is information on transit readily available in the community?

The consensus of the respondents is that transit information is available in the community but not “readily” available to the general population. Riders know how to find the information they need, but non-users are unsure where or how to obtain information. Opportunities for expanding the availability of transit information were emphasized, such as employer meetings/forums and cable television advertising.

5. What is your opinion of the transit fare?

All respondents indicated that the existing fare structure (full cash fare, passes, etc.) is extremely reasonable for riders, especially with existing transit markets that are comprised largely of lower-income individuals and persons with disabilities. One respondent did express concern about fares associated with the SCAT service. Another respondent mentioned the possible need to increase the fare to help cover operating costs as they increase in the future. Another stakeholder indicated that a fare increase should not be a high priority.

6. Is traffic congestion a problem in the City of Greensboro? If so, what role can transit play in alleviating this problem?

Responses varied with regard to traffic congestion being a problem for the City of Greensboro. Those who said yes indicated that congestion occurs in selected areas only during peak times of the day (Wendover, Battleground, etc.). Others indicated that congestion is not really a problem when compared to other cities. They did indicate that many citizens have a perception that congestion exists in certain areas but from a perspective that is relative only to other areas of the City.

For those who believe there is a congestion problem, most felt that GTA could play a role if the system were able to attract choice riders, perhaps through new and more direct services (park-and-ride, express bus services). Others were reluctant to indicate that GTA could contribute significantly to reducing congestion.

7. Is there a parking problem in the City of Greensboro? If so, how does this affect transit's role in the community?

Nearly all respondents indicated that parking is plentiful and inexpensive in the City of Greensboro. Parking problems that do exist are limited to college campuses and special events. These limited problems may offer unique opportunities for GTA in the future.

WHERE WE WANT TO GO

8. What goals have the community and elected officials voiced for transit? What do you see as appropriate goals for the transit system through the year 2015?

Respondents did not provide much response regarding transit goals expressed by the community or elected officials. They did express a variety of goals for the transit system from their own personal

perspectives. Among the goals identified by respondents are the following:

- Meet transit needs as the City grows;
- Serve all areas of Greensboro with fixed-route bus service;
- Operate more bus routes (new areas, crosstown routes, others);
- Expand night and weekend service;
- Increase integration and cooperation with regional bus service;
- Establish park-and-ride services;
- Improve reliability and on-time performance;
- Improve air quality;
- Increase ridership;
- Attract choice riders;
- Expand the connector service concept;
- Establish a more a comprehensive, multi-modal transit system.

9. How can GTA better meet community needs?

The perspectives on how GTA can better meet community needs are varied. Responses included the following:

- Focus more on marketing and education and become more customer service oriented (need to fill the marketing position);
- Obtain more funding;
- Use the results of Mobility Greensboro to identify how GTA can better meet community needs;
- Improve regional coordination;
- Implement more fixed-route bus service (more local routes, cross-town routes, park-and-ride service, establish satellite transfer locations, etc.);
- Obtain more and better infrastructure (vehicles, shelters, benches, other infrastructure as appropriate);
- Focus on employee training;
- Develop public/private partnerships with employers;
- Implement advanced technologies and new services to attract choice riders (learn from successful examples in other parts of the country);
- Focus on the basics of providing service and do not devote significant efforts to advanced technologies such as Automated Vehicle Location (AVL).

10. What is happening in the City of Greensboro in terms of residential and commercial development? How much? Where? How can transit best respond to these trends?

Most of the growth occurring in the Greensboro area is perceived as sprawling residential growth and the associated services that follow. The areas most frequently indicated as being targeted for growth include the airport area and east Greensboro. Other growth areas in the future include Browns Summit Road, West Friendly, North Battleground, Yanceyville, Northwest, and southwest to Jamestown. Two of the respondents encouraged a more thorough review of the Comprehensive Plan (water and sewer) to develop a better understanding of where growth is projected to occur in the future. Development will occur near the roadway loop around Greensboro as it continues to be constructed in the future. Interest was also expressed in seeking redevelopment opportunities within the more concentrated areas of population and employment.

The nature of growth and development in the Greensboro and throughout the U.S. makes it extremely difficult for transit to respond to transportation needs. As growth continues to go outward, it becomes more and more difficult to efficiently serve the community with transit. Several respondents mentioned the need to coordinate closely with PART in the development of and connections with regional transit services. The Depot is also believed to be an important part of responding to development trends in the future.

11. Should GTA be looking at new markets for transit service, or should it concentrate on its existing markets?

Most respondents indicated that GTA should focus on existing markets first, which suggests the need to improve existing routes before implementing new routes. Several indicated that, although existing markets should be the priority, this should not preclude GTA from identifying opportunities for new services that respond to demand.

12. Is there a need for bus rapid or rail transit service in the City of Greensboro? What role do you see bus rapid transit and/or rail playing in the overall transportation scheme for the City of Greensboro?

While most respondents agree that bus rapid or rail transit service may not be practical today, they also generally support the development of premium transit services in the distant future (perhaps 20 to 25 years). Several respondents indicated that PART’s regional bus service provides a starting point for building transit demand along key corridors between the three major cities in the Triad area. Developing these transit corridors will lead to gradual increases in transit ridership and subsequent improvements to the quality of transit services. A few respondents suggested the possibility of advanced right of way acquisition for future transit corridors but were uncertain as to how to pay for the right of way. Many of those interviewed also emphasized the positive perception of rail transit versus bus transit, indicating that premium transit services would likely be required to achieve a significant “choice” ridership.

13. Is there a willingness in the community to consider additional local funding sources for transit?

Responses to this question were mixed, with approximately half of the respondents indicating no and the other half indicating that some potential exists if strong citizen support can be demonstrated to the City Council. A few respondents indicated that, although their immediate answer to additional funding is no, this certainly could change as the economy improves and GTA demonstrates more successes. It was mentioned, however, that the ability of PART to obtain funding through rental car fees is a good sign for regional support of public transportation.

HOW WE GET THERE

14. What improvements are needed in the transit system to attract more riders and meet community goals?

The most common responses to this question related to (1) the need for more and better marketing, and (2) a greater focus on transit infrastructure, amenities, and technology. First, a more aggressive marketing and education program was mentioned by nearly every respondent as being critical to overcoming the perception that the bus is only used by individuals with a low income or a disability.

This would include efforts to make riding the bus as user friendly as possible. One comment was also made about the need to improve communication with non-print readers.

Second, increasing the emphasis on transit infrastructure, amenities, and technology will not only provide a better service to existing patrons but also provide incentives for citizens to choose transit as a viable transportation alternative. Specific suggestions included newer/better buses, smaller buses where appropriate, more amenities at bus stops (shelters, information kiosks, etc.), more amenities on buses (improved Talking Bus, music, television), and passenger information systems (kiosks, internet, etc.), among others.

Other more specific suggestions included the need for more routes in the airport area, improved east-west connections, improvements in service reliability and on-time performance, and development of the downtown as a major destination.

15. Are there needs for park and ride lots, possibly in conjunction with express or limited-stop bus service?

Nearly every respondent expressed an interest in park and ride lots having a role in the Mobility Greensboro plan. Numerous comments were made, however, regarding the feasibility of park and ride lots today versus in the future. There was some discussion of the recent grant received by PART to develop park and ride lots in the Triad area. Several respondents believe that this service concept is not needed at the present but it is a logical extension of regional bus services in the future. One respondent expressed concern about security at park and ride lots and mentioned the possibility of sharing lots with existing shopping centers. Finally, it was mentioned that a park-and-ride arrangement currently exists on the University of North Carolina Greensboro campus, which helps address parking problems at the campus.

16. Are there areas currently not served or underserved by transit that should receive a higher priority?

From the perspectives of those interviewed, there are not a significant number of areas not served or underserved by transit in the Greensboro area. Some suggestions were made regarding what should receive a higher priority, including:

- Increase transit service in the airport area (mentioned by several respondents);
- Increase transit service in the northwest and southwest (but some concern as to whether demand is sufficient in these areas);
- Improve services to persons with disabilities;
- Provide service on corridors such as State Road 68 (Eastchester Drive) and the Oak Ridge area.

One respondent expressed concern that priorities tend to be set based on who complains the most, and hopes that a more objective approach can be used to set priorities.

17. Are there other policies that should be changed to help the transit system reach its goals?

A majority of respondents were unable to identify any particular policies that should be changed to help the transit system meet its goals. While a couple of respondents mentioned that parking policy could be changed to help transit, they also recognize that this may discourage development. One comment was

made regarding the lack of consensus at the policy level, which precludes transit from becoming a high priority. Another respondent indicated that they were looking to Mobility Greensboro to provide recommended policy changes to better support transit in the community. On a more general policy level, one respondent indicated the need for a more informed GTA Board and a more active City Council when it comes to transit issues. Finally, one respondent was interested in seeing transit decision-making become more business oriented and that consultant services are perhaps used too often to make local decisions.

SUMMARY

18. What are the major strengths and accomplishments of the transit system?

The respondents identified many strengths and accomplishments for GTA. Among the more common strengths and accomplishments were the following:

- Major transit needs are addressed in the community;
- Competency and continuity of management and staff and their willingness to listen and adapt;
- Addition of evening, Sunday, and Career Express services;

Other strengths and accomplishments identified by at least one respondent include the following:

- Good Board of Directors (includes riders on Board);
- Improvements to SCAT service in last two years;
- The Depot;
- On-time performance and reliability;
- Easier to use the bus system in recent years;
- Vehicles are accessible to persons with disabilities;
- Bikes-on-Bus program.

19. How have perceptions of the transit system changed over the last two years?

All but one respondent indicated that the perception of the transit system has become more positive in the last two years. The one respondent who did not agree indicated that general perceptions had not changed during this time period. Some respondents, however, did qualify this statement by indicating that perception is more positive for those who use or are familiar with the bus system. Non-users with no interest in GTA do not appear to have a different perception of the system. Overall, respondents are more confident in GTA, believe the system is more reliable, and hear fewer complaints. There remains some perception that empty buses are commonly observed in the Greensboro area.

20. If you could pick one thing to change about the transit system, what would it be?

The responses to this question were quite diverse ranging from specific service improvements to more funding. Responses to this question are listed below.

- Improve efficiency, in response to the general perception that transit is a social service and is operated inefficiently (empty buses);
- Add more bus routes throughout the City of Greensboro;

- Offer park-and-ride services as an option for choice riders;
- Improve communication with non-print readers;
- Offer Career Express service on Sundays;
- Improve the responsiveness and reliability of SCAT;
- Get The Depot operating sooner than later;
- Increase funding for expanding transit services;
- Increase focus on marketing and education;
- More service on demand;
- Build a rail system in the region.

21. What is your vision for GTA by the year 2015?

A majority of the respondents envision a transit system that provides innovative services and offers a legitimate transportation option to all citizens and visitors in the area (captive and choice riders). It was emphasized that we can learn from other systems throughout the country that currently have innovative approaches to delivering services and serving customers. This vision would include a variety of services, such as expanded local bus, express bus, park-and-ride, shuttles, rail, and the intermodal connection of modes at the Depot. The transit system would have a major function in the community, working closely to meet the needs of major employers. GTA should be completely focused on a customer service orientation.

More specific elements of the various visions expressed by respondents include the following:

- Provide more reliable and frequent service;
- Serve more areas in the Greensboro area;
- Change attitudes and perceptions about transit;
- Provide service to all citizens and visitors who need transportation;
- Ensure a strong link to regional transit services;
- Become more visible in the community with marketing, education, and involvement of the GTA Board and City Council;
- Consider smaller buses on less traveled bus routes;
- Increase the number of riders with disabilities;
- Improve communication with non-print readers.



Appendix F
Consensus-Building Workshop #1



**Mobility Greensboro Long Range Public Transportation Plan
Greensboro Transit Authority/City of Greensboro
Consensus-Building Workshop #1**

March 27, 2003

On March 27, a group of 38 attendees gathered in the Nussbaum Room of the Greensboro Public Library to discuss issues of importance to the long-range planning process for the Greensboro Transit Authority (GTA). After an overview of the Mobility Greensboro process and a synopsis of data identified during a professionally conducted telephone survey, each participant was assigned to a break-out group so they could easily express their views and listen to those of others. The groups were instructed to decide on common areas of interest and build consensus while noting any areas of disagreement. After two hours of discussion, each group prepared a summary of their discussion to report to all the attendees. While each participant brought his/her point of view to the discussion, the group reached consensus on most items. A second consensus-building workshop is planned for the summer 2003. Participants in the workshop are listed below and the remainder of this document summarizes the results of the workshop.

Attendees:

Allen Purser	Jenny Page
Anson Gock	Jim Fleet
B.J. Gerald-Covington	Jim Westmoreland
Bruce Adams	Jonah Smith, Sr.
Carol Valez	Kim Goins
Charles Hook	Libby James
Charles Patterson	Melissa Cox
Charlotte Bransky	Michael James
Dale Joyce	Nancy Nichols
Dennis Burgess	Paul Muschick
Dottie Neely	Queen Vashti
Foy Flowers	Ray Huger
George Linney	Rita Desouza
Harry Clapp	Sandy Carmany
Heidi Galanti	Sharon Smiley
Henry Canipe	Sherna Allen
Henry Guy	Stan Sprague
Jack McIntire	William Frank
Jane Walker Payne	Zack Browning

GTA's Role in the community:

- GTA's role is to provide service to everyone, especially people who do not have cars.
- GTA's role is to provide safe, efficient service that is accessible to all citizens that need or want to use the transit services.
- GTA's role is to listen to the community and its needs.

Group 1

Where are we today?

- **What do you think of transit services provided by GTA?**
GTA services are overwhelming and confusing. There is a lack of ridership. The frequency needs to be increased. Currently, some people do not view transit as a viable alternative.
- **What is GTA's role in the community?**
For many people, transit is viewed as a last resort. This perception needs to be changed.
- **Responsive to community needs?**
GTA is responsive to select communities, but not all. The services do not correspond with community activities.
- **Is information available?**
GTA needs to work on bringing information into the community. People need to be educated constantly and repeatedly about services offered. Suggest that a timetable with key locations should be created in order to better inform the community of the routes.
- **Strengths?**
The staff/board is proactive. GTA has a good community base.
- **Weaknesses?**
Funding is a weakness, specifically the lack of marketing funding and support. Also, the equipment is a major concern.

Where do we want to go?

- **Goals for next 10 years?**
GTA needs to take a more comprehensive, regional approach. Transit amenities needs to be improved (i.e. providing lap top plug-ins on buses). GTA should consider cooperating with the universities in the area to increase ridership (i.e. create a bus pass system or not allowing freshmen to have cars).
- **In the next 10 years, should GTA look at new or existing markets?**
GTA should branch out into new markets.
- **Vision for year 2015?**
Greensboro transit under one umbrella instead of having different jurisdictions. Fifteen-minute intervals on every route. Increase Park & Ride through partnerships with local businesses. For example, one member of the group parks in Wal-mart parking lot and rides the bus in to the city. Maybe businesses, like Wal-mart, could cooperate with Park & Ride. Zoning will have to be involved.
- **Goals for next 20 years?**
There should be a rail system in place, especially providing good location for terminals or easy access to airports. Also want Park & Ride increased.

- **In the next 20 years, should GTA look at new or existing markets?**
GTA should concentrate on existing markets, but continue to look at new markets. GTA might also work more in the private sector.
- **Vision for year 2025?**
GTA needs to expand their services and provide more incentives for the commuters.

Getting there?

- **Improvements?**
The transit system should be more user friendly. Also, should provide much more commuter incentives such as convenience and being cost effective. Need to improve the marketing and education. Find way to improve air quality.
- **Park & Ride lots?**
Yes, there is a need for Park & Ride. Need to consider zoning options, perhaps through rezoning along routes.
- **Changes in policy?**
Consider policies concerning HOV lanes, zoning options, premium options (i.e. limo bus in Jamestown equipped with lap top stations).
- **How do we pay for change?**
Consider charging a vehicle registration fee, taxing and privatization.
- **What is the role of technology?**
Most concerned with using technology to enhance safety measures. Consider implementing an automatic payment system since most people do not carry around cash (i.e. smart card). Use technology for buses to have signal priority. Add to vehicle amenities, work on improving basic features first then start adding the “cool stuff.” Lastly, use technology to consider alternative fuels.

Group 2

Where are we today?

- **What do you think of transit services provided by GTA?**
GTA provides great services, but the county is growing. We are lacking in proportion to the town since it took over in 1991. GTA has not kept up with the growth. Industry is decentralized and workforce is spread out. Would like to see improvements on evening/weekend service, extended hours, more frequent service and on-time performance. Example given that currently buses will not stop along routes to pick commuters up like they used to. Overall, the system has seen a lot of improvements.
- **What is GTA’s role in the community?**
GTA’s role is to provide service to everyone, especially people who do not have cars.
- **Responsive to community needs?**
Providing Sunday service and evening service to the community are huge improvements. To some

degree, service is different to certain quadrants of the city. There are areas of the community that buses don't cover (i.e. between Friendly Ave. and Market St., on Chapel Rd. and Chapman Rd.).

- **Is information available?**

- **Strengths?**

Fairly good service on main routes. There have been improvements in frequency and on-time performance.

- **Weaknesses?**

Transportation should be more frequent and more reliable, especially to attract choice riders. There are certain pockets of the city that aren't served. Better use of land (i.e. when developers build apartments they should consider where the bus stops are located). Lacking connector routes. Direct connector routes should connect to main routes allowing commuters to bypass coming into town for transfers. Safety should be improved, especially at bus stops (i.e. lighting).

Where do we want to go?

- **Goals for next 10 years?**

GTA should focus on where service is provided now before looking at expanding. Would like to see some intelligent land use planning (i.e. less urban sprawl).

- **In the next 10 years, should GTA look at new or existing markets?**

Will be looking at increasing mass transit dependent market. Automobile transportation will be more of a luxury because of changes in income. Thus, focus is on existing markets in this time frame.

- **Vision for year 2015?**

Would like to see increased accessibility for people with special needs. Also increase partnerships (i.e. partner with school systems to educate youth on transit opportunities). An integrated transit system that is accessible to all is the vision. The City can do its part by providing more sidewalks.

- **Goals for next 20 years?**

Eventually would like a light rail system around outskirts of town (possibly a monorail system). Interested in implementing a tracking system (i.e. AVL) to reduce the need for paratransit service

- **In the next 20 years, should GTA look at new or existing markets?**

New markets will become more important in this time frame. But the City should provide incentives for redevelopment in the downtown area, which transit serves well.

- **Vision for year 2025?**

Hope to be serving the entire city limits with additional routes. Improved bus designs that have ads (i.e. Koury Center sponsor bus) and look sleek.

Getting there?

- **Improvements?**

Main points are to increase frequency and service area. Add connector routes. Try to educate the

communities, starting with the schools and neighborhoods and including outreach to apartment complexes and businesses. Consider more education for drivers (i.e. sensitivity training), and also educate riders. Make services more accessible by adding more sidewalks and altering curb cuts. Build more than one hub with frequent, color-coded buses running between them.

- **Park & Ride?**

Some members said that there was no need for Park & Ride, that GTA should let PART handle this since it would be totally unprofitable. Usually people who move out generally have their own vehicle. Could add Park & Ride at end of lines. Other members said that Park & Ride would attract more choice riders, and could be focused in shopping areas.

- **Changes in policy?**

Shorter routes focused on hubs outside of downtown. Color coded or picture-coded routes and stops. Smaller buses.

- **How do you pay for change?**

Find innovative ways to fund transit such as corporate sponsorship. Could use smaller vehicles on less used routes. Hire lower-income people. Look at fare structure to see if an increase is necessary. Consider eliminating the half price discount offered to disabled people. Get advocates to help lobby for funding. Some members thought that funding should not be acquired from taxpayers who do not ride the bus; while others thought GTA needs to look at taxing the general public because it benefits the entire community. Could also get donations from riders.

- **What is the role of technology?**

Discussed using tracking system so people with disabilities would know when to get off buses.

Group 3

Where are we today?

- **What do you think of transit services provided by GTA?**

We are appreciative of what we have for a small community. Currently the density is not high enough to increase and support services. Comprehensive Plan will hopefully help with this problem. Usually people are able to get where they need to go.

- **What is GTA's role in the community?**

To provide safe, efficient service that is accessible to all citizens that need or want to use the transit services.

- **Responsive to community needs?**

Some members think GTA seems unresponsive because at times it is difficult to get through to ask questions. Phone recordings don't always help. On the other hand, other members believe that GTA staff is responsive to questions and problems.

- **Is information available?**

Buses don't always have schedules on them to say where they're going and when. Holiday routes or changes in routes aren't always posted on the bus until the last minute.

- **Strengths?**
GTA has some of the best drivers who are courteous. The buses are clean. The staff and board are effective. Half hour routes are good.
- **Weaknesses?**
Some buses leave before designated time and this causes problems for people who have bought groceries that are frozen. Also on-time performance is a concern because some routes are late getting back in the afternoon and it throws off other routes. There are not enough buses and the current buses are old.

Where do we want to go?

- **Goals for next 10 to 20 years?**
GTA needs to think more regionally as opposed to locally. If we're going to get improvements, we've got to get greater mass. GTA should expand routes, including express, connector and feeder routes. Need to increase frequency to every 10 minutes.
- **In the next 10 to 20 years, should GTA look at new or existing markets?**
GTA should continue serving their current customers while also looking at ways to expand ridership.
- **Vision for year 2015?**
GTA needs to change the image of transit riders. We especially want white-collar workers downtown ("Get the suits on the bus") and students to want to ride the bus (i.e. UNCG needs to limit students vehicle availability). Develop projects for colleges to encourage students to use transit. GTA should expand current services and add more (i.e. half hour or fifteen minute service on all routes).
- **Vision for year 2025?**
Light Rail in Greensboro, specifically to Winston-Salem. Add cross-town routes with multiple hubs. More riders will hopefully be on the buses.

Getting there?

- **Improvements?**
More frequent service with better reliability. Enhance current bus shelters and add more. Put suggestion boxes with comment cards on buses or at departure points. Increase the number of places to buy passes.
- **Park & Ride?**
There is a need for Park & Ride service.
- **Changes in policy?**
Have legislature raise the transportation tax limit. Allocate more money to transit instead of building roads.
- **How do you pay for change?**
Have city council put the property taxes at full amount available. Increase fares.

- **What is the role of technology?**

Explore Bus Rapid Transit (BRT). Bus stops should have a way to tell if buses will be on time or when the next bus will arrive (i.e. trains and planes). Find ways to provide message boards or automated information systems in other locations. GTA should also use advanced technology to control their finances and print reports. Finally, technology should be used to discover ways to conserve energy.

Group 4

Where are we today?

- **What do you think of transit services provided by GTA?**

Overall the service is good, but many improvements are still needed specifically relating to time issues and area of service. GTA and the transit system have a positive perception.

- **What is GTA's role in the community?**

GTA's role is to listen to the community and its needs.

- **Responsive to community needs?**

Yes

- **Is information available?**

Information is available, but GTA needs to include Spanish literature. Also consider ways to inform non-print readers. Better communication about the variety of services that are available. Many group members did not even know about some of them. Also, consider informing riders when GTA does positive things (i.e. winning driving competition).

- **Strengths?**

Many unique services are offered such as Sunday, night and guaranteed ride home services.

- **Weaknesses?**

Bus stops and shelters need improvements both in structure and security. Sidewalks need to be added. Transit does not reach some locations. The routes are too long because they are not direct. On-time performance is not consistent. There are problems with equipment. Food is being allowed on the buses that creates cleaning problems and also adds to the financial burden. Communication between driver and passenger is not effective.

Where do we want to go?

- **Goals for next 10-20 years?**

GTA should be more regional. Want to see light rail brought into Greensboro. Include numerous cross-town, mid-morning (i.e. Lawndale) and express bus routes (i.e. every 15-20 minutes). Capture the non-traditional riders such as white-collar workers and college students. Increase security on buses and at bus stops. Continue to build evening services.

- **In the next 10-20 years, should GTA look at new or existing markets?**

Focus on encouraging university students to become transit riders (i.e. limit the number of parking spaces available on campus so that students are forced to ride the bus). Modify the system to meet their needs.

- **Vision for year 2015-2025?**

More technology will be used so that everybody can use the system. Non-print readers can get information concerning GTA. Better equipment will be in service. The streets will be accessible to people with disabilities.

Getting there?

- **Improvements?**

Purchase better, safer equipment. Add various additional routes to meet specific needs. Make information available to all riders, including non-print and Spanish readers. Use technology to make the system more sensitive to all commuters.

- **Park & Ride?**

Look at land use. We will need additional Park & Ride lots as people move further outside of the city. Some group members thought that GTA has tried Park & Ride and it does not work.

- **Changes in policy?**

Encourage any policies that make it easy for people to ride a bus and harder for people to drive. Consider giving developers a maximum number of parking spaces instead of a minimum in order to limit spaces. This would put a cap on parking. Could transfer the parking garage revenue to GTA transit. Look at creating traffic impact fees. Council needs to have more will when it comes to transit.

- **How do you pay for change?**

Need to add kiosks to inform people about transit options. GTA could pay for these kiosks by forming joint ventures with local businesses to sponsor kiosks and allowing them to advertise on them. Tax on registration.

- **What is the role of technology?**

Technology should be utilized specifically to increase safety and distribute information (i.e. the new 2-1-1 service designed for visually impaired commuters).

Group 5

Where are we today?

- **What do you think of transit services provided by GTA?**

The transit provided is underused. GTA is serving its current riders well, but it is not attracting new riders. Overall, GTA is doing a good job and has many positive aspects.

- **What is GTA's role in the community?**

- **Responsive to community needs?**

- **Is information available?**

- **Strengths?**

Positive aspects are evening service, polite drivers, Sunday service and safety.

- **Weaknesses?**

The bus routes are confusing. Needs to be more convenient and provide more time for scheduling. Frequency problems are an issue. Lack of bus shelters in selected areas.



Where do we want to go?

- **Goals/vision for next 10 years?**
Use larger city transportation systems as a model to learn from. Hope to have more frequent service with existing routes. Expand the current GTA service by adding more needed routes using a grid system (i.e. cross-town) and eliminating duplicate routes. Have electric trolleys in the city. Allow K-12 students to ride GTA for free. Use smaller transportation units (i.e. vans). Consider doing special event transportation. Think about eliminating church bus service on Sundays and encouraging people to use GTA Sunday service instead. Set-up transfer points at major shopping malls. GTA and PART should coordinate on regional issues.
- **Goals/vision for next 20 years?**
Have a high frequency on all GTA routes (i.e. bus run every 5 minutes). Use more environmentally friendly buses. Put light rail in PART region and use electric trolley in the city.

Getting there?

- **Improvements?**
Increase public awareness of GTA through marketing efforts (i.e. discount for frequent riders). Include more transfer points. Consider other methods of payment. Have good customer service for bus riders. Create incentives to increase ridership (i.e. special promotions).
- **Park & Ride?**
Increase the number of lots.
- **Changes in policy?**
- **How do you pay for change?**
Increase passenger fares. Increase property tax. Increase vehicle registration fee. Try to get more federal funding to compete with larger cities and states. Increase advertising charges. Work with area universities for donations in exchange for increased services. Consider GTA overtaking shuttle services of UNCG and NCAT. GTA could provide bus service for high-school athletes on away games.
- **What is the role of technology?**
Rated aspects on scale from 1-10: AV location- 5, AP counters-8, OB safety-10, Autotrans information-3 (future), I-T/Wayside-6 (future), IV information-6 (future), Auto fare pay-8 (now), Signal priority-3/4 (now), Alternative fuels-9/10 (now), LPG-9/10 (now), Low floor buses-7/8 (safety for senior citizens), OV amenities-8 (Express and PART). Little things on bus safety matter such as chock blocks and trash cans.

Additional comments:

- Generally a good meeting. Minuses would be: a) a built-in agenda to once again try to drum up support for increased spending for technology (AVL) as priority item b) too much input from non-riders rather than actual riders. Pluses would be: a) GTA attempting to think outside the box b) GTA attempting to solve its 12-year-old problem of how to increase ridership without substantially increasing service or spending.

- I thought everything went well. I thought the session went well and I don't see anything that you need to improve.
- Good location, format, food and mix of participants. It's also a plus that you got instant results.
- Need more passenger involvement. Overall very well planned.
- I thought the workshop was excellent. A lot of good feedback and honest discussion. Great set up and good mix of participants and facilitators.
- It seems that signal priority should be a high priority for our transit system. This seems like a great idea. Would like to see more of the riding community here.
- The focused group discussions were great to pull ideas from different perspectives. Groups had a slight difficulty in hearing each other due to the closeness of work groups.
- Great process to involve each participant in learning about GTA and projecting to the future.
- The procedure was excellent. The type of program was excellent. No negative comments.
- An interactive website that would allow her to locate specific destinations (i.e. stops on site).

Summary:

In addition to the minutes of the discussion that took place in the break-out groups, a chart is attached to this report that shows both the full range of topics covered by the participants and the items on which there was clear consensus. Given the wide variety of backgrounds and interests of the participants, any item that was mentioned by three or more groups could be considered a consensus. Please note that items are listed in descending order, with issues raised by all five break-out groups listed first.

An analysis of what the groups considered most important offers a road map of issues that should be addressed as this long-range planning process continues. In some cases, additional analysis will be required to get to the core concerns of an issue. An example would be the observation that there was a lack of information available to the public, something that all five groups mentioned as a weakness. GTA and its consultants will need to probe how current and potential riders would like to learn about the system, through something like additional locations where fliers might be distributed or other, perhaps more high-tech and/or expensive methods.

The top goal for the next ten years, according to all five groups, was to change the image of the riders. Points made in a number of sections offer suggestions of ways to make that happen. There was a special interest in partnerships with the area colleges and universities. The top goal for the next 20 years was light rail, followed by four groups urging a continuing expansion of routes and services. Since there was conflicting data on the need for Park & Ride locations, that issue was pulled into its own section. It deserves additional examination with community groups.

A final observation should be made. Even if only one group, or for that matter, one person raised an issue, it still deserves attention. Fortunately, the second consensus building workshop, as well as other public meetings being planned, will allow further clarification and the testing of concepts.



Appendix G
Consensus-Building Workshop #2



**Mobility Greensboro Long Range Public Transportation Plan
Greensboro Transit Authority/City of Greensboro
Consensus Building Workshop #2**

September 11, 2003

On September 11, a group of 41 attendees gathered in the Nussbaum Room of the Greensboro Public Library to discuss issues of importance to the long-range planning process for Greensboro Transit Authority (GTA). After an overview of the information that was gathered at the first workshop, each participant was assigned to a break-out group so they could express their views and listen to those of others.

The groups were instructed to discuss a list of five topics outlined in the information packet that was handed out at the beginning of the meeting. After two hours of discussion, each group prepared a summary of their discussion to report to all the attendees. While each participant brought his/her point of view to the discussion, there was virtually no disagreement. Workshop participants are listed below.

Attendees:

Alfreda Williams	Jane Walker Payne
Anita Heath	Jim Westmoreland
Anne George	L.J. Weslowski
Anson Gock	Luther Falls, Jr.
Anthony Miller	Mable Scott
Art Saunders	Marilyn Smith
B.J. Gerald-Covington	Michael James
Bruce Adams	Nancy Nichols
Carol Valez	Nathan Cook
Charles Hook	Nellie Rudd
Claire Holmes	Niles McClinton
Claudette White	Queen Jones
Dennis Burgess	Ray Huger
Dirward White	Robert Larson
Dorothy Brown	Sharon Smiley
Dottie Blanchard	Sherria Allen
Dottie Neely	Steve Hill
Ed Blakely	Tamika Polk
Florence Gatten	Virginia Hedgepeth
George Linney	William Frank
Jack McIntire	

As presented in the opening presentation of the workshop, the goal of Mobility Greensboro is to **“double transit ridership in the next five years from two million riders in 2002 to more than four million riders in 2008.”**

Five discussion topics were identified to facilitate discussion for the break-out groups. A one-page description of each topic was provided to support the discussions. The discussion topics include the following:

- **Discussion Topic #1 - Transit Service Improvements (20 minutes)**
- **Discussion Topic #2 - Transit Marketing & Education Strategies (20 minutes)**
- **Discussion Topic #3 - Transit Infrastructure & Technology (20 minutes)**
- **Discussion Topic #4 - Transit & Land Use Relationships (20 minutes)**
- **Discussion Topic #5 - Transit Funding (20 minutes)**

The information provided for each topic was summarized in two major categories:

- **What We Heard** - This category reflected “what we heard” during the previous workshop and other public involvement activities undertaken in the past year.
- **Proposed Actions** - Proposed actions were offered in this category that were developed in an effort to respond to “what we heard” in the previous category.

For each discussion topic, participants were asked to review, discuss, and answer the following questions.

- 1. Please review “What We Heard” for each discussion topic.**
 - With which statements do you agree?
 - With which statements do you disagree?
 - Do you have any additional comments you would like to add?
- 2. Please review the “Proposed Actions” for each discussion topic.**
 - With which proposed actions do you agree?
 - With which proposed actions do you disagree?
 - Please prioritize the proposed actions with which you agree?
- 3. This workshop is the final, major opportunity to provide input into the Mobility Greensboro plan.**
 - Please provide any additional comments to guide the development of the plan.

The results of the workshop are summarized below for each discussion issue. For the reader’s convenience, the summary page for each discussion topic is provided prior to the results of the discussion about each topic. In addition, a summary matrix of comments is provided at the conclusion of the document.

Goal: *Double transit ridership in the next five years from 2 million riders in 2002 to 4 million riders in 2008.*

Topic #1: Transit Service Improvements

Group 1

- Need transfer center(s) outside downtown. Adjust services to provide transit to areas within the City limits that aren't being served (i.e. Holden Road, Greensboro Day School).
- GTA needs more frequent services.
- Extend service out to Greensboro Day School to possibly integrate GTA with the school bus system. Extend service to Lawndale where five new businesses are moving and apartment complexes exist today.

Group 2

- Ranking of proposed actions:
 - 1-Improve frequency
 - 2-Establish cross-town routes
 - 3-Adjust schedules
 - 4-Add services
 - 5-Establish express services
 - 6-Enhance existing services

Group 3

- The transit service improvement topic was the second most important topic for this group.
- In this group, there were four bus riders and four members of administration.
- Group realized that GTA has "champagne dreams on a beer budget." We need to address the basic needs and then look towards the future.
- Improve frequency on a high number of routes.
- Adjust schedule times to keep people from being late.
- Agree that we need cross-town routes and a downtown circulator.

Group 4

- The group agreed with the proposed actions.
- Wanted an emphasis placed on having 30-minute headways on all routes, with the ultimate goal being 15-minute headways. This improvement would enhance service and increase ridership.
- Group believes that, as the current service grows, there will be a greater demand for cross-town routes.

Group 5

- More frequent service, with priority on the routes with the highest ridership.
- Need cross-town routes so that people don't have to travel through downtown.
- Need to have larger coverage area. Consider restructuring routes.
- Important that we continue SCAT travel training for handicapped and first time users.
- An issue was discussed concerning a single parent who doesn't have a car seat and needs transportation. Since taxicabs can't utilize car seats, the bus system could address this need.
- Consider a route to Lawndale.
- Need more park-and-ride lots.
- Need more situations where people can ride the bus spontaneously.
- Expand express services.
- Need more outlying stations or mini-stations.

Topic #2: Transit Marketing & Education Strategies**Group 1**

- Encourage stronger leadership from City Hall. Employees should be users of the services that are provided. We need to get City officials on the buses to make other riders feel more comfortable with the services.
- Need to convince elected officials to support the transit system as part of their platforms. If they are concerned about smog and pollution, this should rank high on their priority list.
- Emphasize air quality as a marketing strategy.
- Include information for the blind and Spanish speaking riders at the Depot.
- Market the free City passes that are available to City employees that can be renewed yearly.
- Our slogan is “We will take you there” hasn’t been true.
- Educate the community about the services that GTA has to offer.
- Create a program for Board members to inform citizens and visitors about the services available.
- Make the 211 service through United Way and the Spanish service available from 2:00-7:00. We need to really market and utilize this service.
- Educate parents about the opportunity for their children to ride the bus.
- Market the low 2% crime rate on the buses to change the current perception.

Group 2

- Ranking of proposed actions:
 - 1-Hire marketing director - The new director should be a local and full-time staff person.
 - 2-Pursue college pass program - Establish a connection with college students to provide revenue. Possibly have a separate route for college students.
 - 3-Expand Corporate Connections - Group thought that the bullet phrase, “Partner with Downtown Greensboro to establish a shuttle through downtown and connecting with the Depot,” should be a stand-alone point. A downtown trolley is a good goal for private sector investment.
 - 4-Promote GTA in the community - Increase education and outreach to enhance community awareness. A rider’s handbook is needed and need to continue a travel-training program

Group 3

- Group felt transit marketing and education was the fourth most important topic.
- Need to make the existing riders happy before concentrating on doubling ridership.
- Need to advertise the ridership numbers.
- Change perception of riders. In this town, it is perceived that only people with low incomes ride the bus, but this is not true in other parts of the country. We need to address this image-and soon!
- Partnerships - Work with the universities and colleges to implement a pass program.
- Partnerships - Develop corporate partnerships.
- Promote - Use the power of “word of mouth” through the neighborhood associations to lower marketing costs. Get people talking within the community.
- Utilize Channel 13 to produce a show on how to purchase a ticket and ride transit.

Group 4

- Group believed that the proposed actions would move GTA in a good direction, but there are certain things that we need to especially continue working towards, as summarized below.
- Marketing Director - The group agreed with the need for a marketing director who could serve as liaison to organizations, businesses, and the community. GTA needs an aggressive marketing plan

to get the word out about the services offered. This position has been a sore subject for the GTA Board for a long time.

- Promote GTA - In recent years, the board has taken an aggressive approach to promote all programs, not just the services available for handicapped. Information should be made available for all riders who also need to learn how to ride the bus (Bus Buddy Program).

Group 5

- Take advantage of media outlets.
- Additional travel training for new riders.
- Create user-friendly schedules that are 100% current and correct.
- Place more schedules around town at key trip generators (i.e. hospitals, malls, etc.).
- Schedule board should be large and colorful with points showing where stops are located.
- People who drive cars think, “What reason do I have to ride public transit?” This is how we need to think when we’re trying to promote transit. We should advertise more negative aspects of driving a car (i.e. high gas prices, fuel, maintenance, insurance costs).
- Provide more incentives for bus riders (i.e. free fare once a month).

Topic #3: Transit Infrastructure and Technology**Group 1**

- Look towards the future to implement “talking software” on the buses, since Braille is not always used for all visually impaired passengers (Note: already available on buses).
- Make sure new schedules are in both Spanish and English.
- Use marketing and education to change the negative safety perception rather than technology.
- Need automatic vehicle location (AVL) technology.

Group 2

- Rankings of proposed actions:
 - 1-Implement new technologies - Group thought that developing interactive, real-time systems and considering alternative fuels were the most important.
 - 2-Infrastructure design programs - Need to encourage GTA and City Council to make all steps wheel chair accessible.
 - 3-Group disagreed with offering more vehicle amenities right now. Should not be concerned with the extras.

Group 3

- Group felt that transit infrastructure and technology was the third most important topic.
- We need the base essentials such as shelters, benches, garbage cans, and schedule displays.
- Elements of park-and-ride, express service, and electronic information should be worked into the budget as extras.
- The group opposes surveillance cameras.
- Need to continue researching the use of alternative fuels (bio-diesel).
- We need to eliminate “fluff.” No puppet shows or fancy technology. Just need to provide good service and transport where riders need to go!

Group 4

- Technology is a hard subject to tackle assuming that most people ride the bus to get somewhere quickly, not be entertained.
- Emphasize alternative fuels, possibly bio-diesel. Group believes that interest will continue to grow as research continues in this area.
- Need a system to provide up-to-date information to riders (i.e. kiosks).
- If we look down the road six or seven years, the Internet may be the most efficient way to connect with riders, but we need to remember that visually impaired cannot easily access the Internet.

Group 5

- Include shelters.
- Provide “real-time” information at stations to let riders know when and why a bus might be late. People will be less frustrated if they know the reason for the delay. (Reddman Road route is consistently late)
- Web-based trip planning.
- “Smart card” for multiple uses (transit fares, ATMs, etc).
- Use priority signals or a priority lane for buses on major transit corridors.
- Need lower straps for riders to hold when there is standing room only.

Topic #4: Transit & Land Use Relationship

Group 1

- Limit the number of free parking spaces to encourage transit use.
- Improve land use decisions to better support transit.

Group 2

- Rankings of proposed actions:
 - 1-Achieve integrated development patterns
 - 2-Facilitate a balance among modes of travel
 - 3-Pursue equitable distribution of facilities and choices

Group 3

- Group felt that transit and land use relationships was the fifth and least most important topic.
- Other groups can handle this topic.
- Group does understand the importance of building basic infrastructure like sidewalks.
- Must encourage riders from neighborhoods, as well as from major employment centers.

Group 4

- Continue working with builders and the City government to be sure decisions and regulations that they pass are compatible with transit use.

Group 5

- Bus bays on congested corridors.
- Bus only lanes in the future.
- Create a unified regional system and put all services under one umbrella with one governing board. Raleigh has been looking at a similar system.

Topic #5: Transit Funding

Group 1

- Get a grant proposal for bus service to Lawndale.
- Work with school busing.
- Insurance rebate program.

Group 2

- Rankings of proposed actions:
 - 1 (tie)-Identify and develop partnerships.
Identify other transit funding sources.
 - 2-Increase bus fares
 - 3-Increase property tax
- Other ideas-Should tack on a fee for transit when citizens renew their driver's license.
- Other ideas-Vehicle miles traveled (VMT) tax at inspections to increase as people drive more.
- Other ideas-Lottery.

Group 3

- Ranked funding as number one concern. Improvements are essential, but we need funding first.
- Consider redistributing property taxes without tax increase.
- Seek new sources for dollars. Identify someone to do grant writing to federal government (EPA, CMAQ), state government, and organizations such as Action Greensboro, etc.).
- Look to colleges and corporate businesses for financial partnerships.

Group 4

- For the short term, we need to look at generating revenue by changing the fare structure.
- In the future, we need to look at getting additional taxes approved.
- The news reported that the City Council passed an increase in the registration fee that would be allocated to GTA.

Group 5

- Allocate lottery revenues to public transportation.
- Sell regional transit passes and split the income.
- Sell park-and-ride and regular passes at a combined rate.
- Seek support from non-profit organizations.
- City and County integration of funding responsibility.

Additional Comment

An attendee mentioned an Insurance Rebate Program where employees get a 10% reduction for using the bus to get to work. We should consider this program as an incentive.

Conclusion

To conclude the workshop, facilitators summarized what was presented and highlighted certain topics that were emphasized by a majority of the groups. Emphasis areas include the following:

- Frequent service was important to all groups.
- There was a common interest in finding a variety of funding sources.
- Most groups mentioned the need to hire a marketing director.
- The groups agreed that forming partnerships with businesses and colleges would benefit GTA.
- Getting information out about how to use the system was important to all attendees. Need to remember that visual methods are not useful to all riders.
- With respect to technology, the focus was mainly on practical things. We need to find a balance between what we need to improve now and what can wait until the future. The technological elements that were geared towards passengers seemed more popular.
- When thinking about land use, attendees wanted to encourage development around transit.
- There was a lot of talk about the fares. Need to find a “fair fare.”



Appendix H Greensboro Non-User Telephone Survey



TINDALE-OLIVER & ASSOCIATES

GREENSBORO NON-USER SURVEY

Draft Final Report

January 2003



NuStats

3006 Bee Caves Rd., Suite A-300 . Austin, Texas 78746
(512) 306-9065 . fax (512) 306-9077 . www.nustats.com

Contact: Stacey Bricka, *Project Director*



TABLE OF CONTENTS

Introduction	1
Methods	1
Sample Design	2
Sample Validation	4
Demographic Results	7
Commute Characteristics	11
Workers	11
Students	16
Trip Making Characteristics	19
Consumer Activities	19
Preferences	22
Conclusions & Recommendations	33
Trip Locations	33
Trip Times	33
Non-Users Preferences	34
Other Key Findings	34
Appendix A: Survey Instrument	35
Appendix B: Survey Instrument w/ Frequencies	56



LIST OF TABLES

Table 1: Target Population Distribution by Zip Code	2
Table 2: Greensboro Non-User Survey Targets	3
Table 3: Distribution of Greensboro Non-User Respondents	3
Table 4: Categorized Sample	4
Table 5: Demographic Comparison - Gender	5
Table 6: Demographic Comparison – Household Size	5
Table 7: Demographic Comparison – Employment Status	5
Table 8: Demographic Comparison – Income	5
Table 9: Demographic Comparison – Household Vehicles	6
Table 10: Geographic Distribution	7
Table 11: Respondent Age	7
Table 12: Household Income	8
Table 13: Respondent Ethnicity	8
Table 14: Respondent Marital Status	8
Table 15: Respondent Household Size	9
Table 16: Licensed Drivers per Household	9
Table 17: Vehicles per Household	9
Table 18: Vehicle to Driver Ratio	10
Table 19: Access to the Internet	10
Table 20: Employed in Paying or Non-Paying Job	11
Table 21: Number of Days Worked per Week	11
Table 22: Benefits Offered by Employers	12
Table 23: Is Workplace in Greensboro	12
Table 24: Workplace Zip Code (Greensboro)	12
Table 25: home to work zip code travel	13
Table 26: Workplace City (Not in Greensboro)	14
Table 27: Departure Times	14
Table 28: Home to Work Mode of Transportation	15
Table 29: Average Number of Stops by Household Size	15
Table 30: Reasons for Stops Between Home and Work	15
Table 31: Student Status	16
Table 32: Home to School Mode of Transportation	16
Table 33: Benefits Offered by School	16
Table 34: School in Greensboro	17
Table 35: School Zip Code (Greensboro Students)	17
Table 36: School City (Not in Greensboro)	17

Table 37: Reasons for Student Stops to or From School	18
Table 38: Departure Times Between Home and School	18
Table 39: Consumer Trip Making by Demographic Groups	19
Table 40: Time of Week When Consumer Trips Made	20
Table 41: Time of Day When Week Day Consumer Trips Made	20
Table 42: Time of Day When Weekend Consumer Trips Made	20
Table 43: Home to Shopping Zip Code Travel	21
Table 44: Why Stop Using Public Transit in Greensboro	23
Table 45: Potential Use by Demographic Group	25
Table 46: Attractiveness of Potential Transit Improvements to Respondents	26
Table 47: Biggest Drawbacks to Using Public Transit	26
Table 48: Respondent Level of Agreement with Transit Related Statements	27
Table 49: Zip Code Distribution of Respondent Preferring Service within their Community	29
Table 50: Zip Code Distribution of Respondent Likely to Use Park-n-Ride Lots	30
Table 51: Reasons to Use Park-n-Ride Service	31
Table 52: Respondent Level of Agreement with Transit Related Cost Statements	31



LIST OF FIGURES

Figure 1: Extent to Which Public Transit Relied Upon Previously	22
Figure 2: Regular Use Public Transit in Another City	22
Figure 3: Past Transit Experience	23
Figure 4: Source of Transit Information	24
Figure 5: Use of Transit if System Modified	24
Figure 6: Mini-Bus Service Preference	28
Figure 7: Route Preference	28
Figure 8: Bus Service Preference	29
Figure 9: Use of Park-n-Ride Lots	30
Figure 10: Respondent Perception of Transit Fares	32



INTRODUCTION

This report documents the design, implementation, and results of the 2002 Greensboro Non-User telephone survey conducted for Tindale-Oliver & Associates and the City of Greensboro, NC. The survey is an essential element in the identification of latent demand for public transit to aid in the preparation of the long-range transit plan. The initiative answers three primary questions:

- Where are trips being made?
- When are the trips being made?
- How interested are non-users in the use of alternative modes?

The Non-User survey, like many recent transportation surveys, relied on the willingness of area residents to complete a telephone interview that averaged 15 minutes in length. A total of 505 non-users answered questions about their daily commutes, trip making patterns, alternative service concepts, and demographic information. The surveys were conducted during November and December 2002 at NuStats DataSource in San Marcos, Texas.

The survey used a scientifically formulated sample design, a computer assisted telephone interview (CATI) program, and employed processing and reporting procedures that conform to standards of the Council of American Survey Research Organizations (CASRO).

The purpose of this report is to detail the methods used to sample and survey the residents of Greensboro and present survey results. In addition to the survey instrument (contained in Appendix A), this report contains the following sections:

- 1) Introduction
- 2) Demographic Results
- 3) Commute Characteristics
- 4) Trip Making Characteristics
- 5) Preferences
- 6) Conclusions and Recommendations

METHODS

The purpose of this section is to detail the methods used to sample and survey the residents of Greensboro. The 505 interviews were collected from November through December 2002. During that time, the collected data and sample performance were reviewed daily. Interviews were conducted between the hours of 5:00 PM and 9:00 PM EST during the week and between the hours of 1:00 PM and 8:00 PM EST on the weekend. On average, the interview lasted 15 minutes.

SAMPLE DESIGN

The purpose of the non-user survey was to provide information suitable for gaining an in-depth understanding of the characteristics and preferences of non-users within the study area (defined as the city of Greensboro and a 3/4 mile buffer surrounding the city limits). The purpose of the sampling design was to collect data from a sufficient number of residents to facilitate an analysis at the 95% confidence level (+/- 4.4%). Eligible respondents included those residents that lived in the study area, were at least 16 years old, had not used public transit in the 90 days prior to survey administration, were at least somewhat interested in seeing public transit improved¹, and agreed to participate in the survey.

The sample universe included all households with telephone service in the City of Greensboro or the 3/4 mile buffer. Since the sample was drawn randomly from the study area, the final data set contained 505 completed interviews representative of the study area population, including geographic distribution. In order to ensure an accurate geographic distribution of the surveyed households, geographic targets were used to guide data collection. The following is a description of the process used to arrive at the geographic targets.

The targets were established using study area zip codes. As shown in Table 1, there are 14 zip codes associated with the city of Greensboro. The total population within the study area universe is 314,543 persons. Of those, 248,792 persons are aged 16 or older. However, not all of the boundaries for the 14 zip codes were entirely within the city limits. So, the total population age 16+ in the city limits was adjusted to reflect the proportion within those zip codes and the city limits. The distribution of the total population age 16+ included in the study universe was used to determine how many interviews should be conducted with residents in each zip code.

TABLE 1: TARGET POPULATION DISTRIBUTION BY ZIP CODE

ZIP CODE	ZIP CODE POPULATION	ZIP CODE POPULATION AGE 16+	% OF ZIP CODE INCLUDED	TOTAL POPULATION INCLUDED	TOTAL POPULATION AGE 16+ INCLUDED	SURVEY GOAL
27401	18,817	15,230	100.00%	18,817	15,230	43
27403	19,956	16,862	100.00%	19,956	16,862	47
27408	17,480	14,351	100.00%	17,480	14,351	40
27455	21,503	16,893	82.39%	17,716	13,918	39
27407	44,595	34,867	82.32%	36,711	28,703	80
27405	40,446	30,997	81.15%	32,822	25,154	70
27410	47,637	38,302	78.39%	37,343	30,025	84
27409	14,035	11,779	74.82%	10,501	8,813	25
27406	50,441	39,147	62.35%	31,450	24,408	68
27214	8,253	6,348	13.96%	1,152	886	2
27235	2,450	1,916	4.66%	114	89	0
27282	14,004	10,660	3.57%	500	381	1
27358	9,210	6,984	0.75%	69	52	0
27301	5,716	4,456	0.16%	9	7	0
Total	314,543	248,792		224,640	178,879	500

Source: Census 2000, 2002 Claritas Estimates provided by Marketing Systems Group

¹To maximize usefulness of survey data, all potential participants were asked about their level of interest in seeing public transit service improved. Those potential participants that indicated they were not at all interested in public transit were not surveyed.

For analysis purposes, sample sizes smaller than 25 in any particular zip code were deemed insufficient for reliable inference. Therefore, for final data collection smaller zip codes were combined with adjacent zip codes, as shown in Table 2.

TABLE 2: GREENSBORO NON-USER SURVEY TARGETS

ZIP CODE TARGETS	QUOTA TARGET
27401	43
27403	47
27406	68
27405 / 27214 / 27358	72
27407 / 27282	81
27408	40
27409/27235	25
27410	84
27455	39
Total	500

The sample itself was purchased from Marketing Systems Group (MSG), one of the premier sources of telephone samples for projects requiring methodologically rigorous sample designs. MSG has been generating survey research samples for 15 years and uses a patented sample generation system called GENESYS. The following is an excerpt from the MSG web site (www.m-s-g.com) detailing how the sample is selected:

The GENESYS System is made up of several databases and sample generation algorithms. The databases contain over 48,000 residential telephone exchanges along with various descriptors of the geographic service area and demographic estimates of the population served by each exchange. Using the database, a sample frame consisting of a set of telephone exchanges is created based on the geographic area desired. Using statistically rigorous sample generation algorithms, 10 digit numbers are then generated from the set of telephone exchanges (refer to GENESYS Sampling System Methodology for details). Once the sample has been generated, there are a variety of processes that can be implemented in preparation for data collection. These include sorting the sample, running frequencies, nonproductive number purging and other reporting features.

Interviews were completed with a total of 505 respondents. The distribution of respondents by zip code is shown in Table 3.

TABLE 3: DISTRIBUTION OF GREENSBORO NON-USER RESPONDENTS

ZIP CODE	TARGET	INTERVIEWS	% COMPLETE
27401	43	43	100%
27403	47	47	100%
27406	68	70	101%
27405 / 27214 / 27358	72	68	94%
27407 / 27282	81	85	107%
27408	40	43	108%
27409/27235	25	25	100%
27410	84	85	101%
27455	39	39	100%
Total	500	505	101%

SAMPLE VALIDATION

The sampling plan was but a means to an end, as it is the response of the actual sample that matters. The responses of those that completed the survey comprise the data set, and an acceptable response rate is critical. Overall response rate is one guide to the representativeness of sample respondents.

Response rate is determined according to specifications established by the Council of American Survey Research Organizations (CASRO). The calculations involve first dividing the sample into two types:

- eligible (i.e., reached a household within the study area who did not use public transit in the last 90 days, was at least 16 years old, and was at least somewhat interested in seeing public transit improved)
- ineligible (i.e., did not reach a household within the study area, resident had used public transit in the last 90 days, or respondent was not at least somewhat interested in seeing public transit improved)

Once the sample was categorized (Table 4) the response rate was calculated as the number of completed interviews divided by the number of eligible sample pieces, or 46%. This means that 46% of all eligible residents who were contacted participated in the survey, which is an acceptable rate.

TABLE 4: CATEGORIZED SAMPLE

OUTCOME	FREQUENCY	PERCENT OF TOTAL
ELIGIBILITY UNKNOWN		
No Answer	1,023	22.7%
Busy	105	2.4%
Answering Machine	596	13.2%
Callback	100	2.3%
Pending Subtotal	1,824	40.6%
INELIGIBLE		
Non Residential	141	3.1%
Not Qualified	375	8.4%
Computer/Fax	178	3.9%
Disconnect	719	15.9%
Over Quota	134	2.9%
Non English	56	1.2%
Not Qualified Subtotal	1,603	35.5%
ELIGIBLE		
Refusal	518	11.4%
Partial Complete	67	1.4%
Completes	505	11.1%
Qualified Subtotal	1,090	23.9%
Grand Total	4,517	100.0%

The analysis presented in this report is based on unweighted data. Tables 5-9 below provide a comparison of survey respondents to the general City of Greensboro population for certain key variables.

Table 5 shows that females were more likely to participate in the survey than were males. Two-thirds of the survey population was female (67%), while one-third (33%) was male.

TABLE 5: DEMOGRAPHIC COMPARISON - GENDER

GENDER	CENSUS	SURVEY
Male	47.2%	33.1%
Female	52.8%	66.9%

N=505

The most likely household size to participate in the survey was 2-person households, representing 33% of all surveyed households. Overall, the survey included more large households relative to the percentage indicated in the 2000 US Census.

TABLE 6: DEMOGRAPHIC COMPARISON – HOUSEHOLD SIZE

HOUSEHOLD SIZE	CENSUS	SURVEY
1	32.7%	22.6%
2	33.5%	33.3%
3	15.4%	16.2%
4+	18.4%	27.9%

N=505

Similar to the estimates reported for all Greensboro residents in the US Census, 68% of survey respondents were employed in a paying or non-paying job during the time of survey administration. The remaining 32% were not employed.

TABLE 7: DEMOGRAPHIC COMPARISON – EMPLOYMENT STATUS

EMPLOYMENT STATUS	CENSUS	SURVEY
Employed	68.7%	68.3%
Not employed	31.3%	31.7%

N=505

During the administration of telephone surveys, income variables typically exhibit a high percentage of item non-response, relative to other variables. The survey data in Table 8 shows a fairly close fit between the income data reported for Greensboro residents and that obtained in the 2000 US Census.

TABLE 8: DEMOGRAPHIC COMPARISON – INCOME

HOUSEHOLD INCOME	CENSUS	SURVEY
Less than \$10,000	9.2%	5.7%
\$10,000 to \$14,999	6.0%	3.4%
\$15,000 to \$24,999	14.3%	11.6%
\$25,000 to \$34,999	14.8%	13.8%
\$35,000 to \$49,999	17.4%	23.9%
\$50,000 to \$74,999	18.7%	19.2%
\$75,000 to \$99,999	8.3%	14.8%
\$100,000 to \$149,999	6.5%	6.4%
\$150,000 to \$199,999	2.2%	0.0%
\$200,000 or more	2.5%	1.2%

N=406

Three percent of all surveyed respondents reported having no vehicles available for use, compared to 9% indicated by the 2000 US Census. This discrepancy is largely due to the fact that 0-vehicle households tend to be lower income households and are less likely to have telephone service. Low income households and 0-vehicle households are also more likely to be transit users, thus ineligible for the survey. Nearly 35% reported having 1 vehicle, while almost 41% reported the use of 2 vehicles. The remaining 22% of respondents reported having 3+ vehicles available for use.

TABLE 9: DEMOGRAPHIC COMPARISON – HOUSEHOLD VEHICLES

HOUSEHOLD VEHICLES	CENSUS	SURVEY
0	8.7%	3.0%
1	40.5%	34.7%
2	36.9%	40.8%
3+	13.8%	21.6%

N=505



DEMOGRAPHIC RESULTS

Included in the survey were respondents who did not use public transit in the last 90 days, were at least 16 years old, and were at least somewhat interested in seeing public transit improved. A total of 505 respondents participated in the survey. Table 10 identifies the frequency distribution of the survey population by zip code.

TABLE 10: GEOGRAPHIC DISTRIBUTION

ZIP CODE	FREQUENCY	PERCENTAGE
27410	85	16.8%
27407	84	16.6%
27406	69	13.7%
27405	68	13.5%
27403	47	9.3%
27401	43	8.5%
27408	43	8.5%
27455	39	7.7%
27409	25	5.0%
27402	1	0.2%
27419	1	0.2%
Total	505	100%

The age distribution of the survey respondents was varied. The majority (63%) were middle aged, between 25 and 54 years. Fourteen percent of respondents were 16-24, and the remaining 24% were age 55 or older.

TABLE 11: RESPONDENT AGE

AGE	FREQUENCY	PERCENT
16-24	70	13.9%
25-34	103	20.5%
35-44	107	21.3%
45-54	104	20.7%
55-64	54	10.8%
65+	64	12.7%
Total	502	100.0%

Of the 406 respondents that reported household income, more than half (58%) reported an annual household income of less than \$50,000.

TABLE 12: HOUSEHOLD INCOME

HOUSEHOLD INCOME	FREQUENCY	PERCENT
Under \$10,000	23	5.7%
\$10,000 to <\$15,000	14	3.4%
\$15,000 to <\$25,000	47	11.6%
\$25,000 to <\$35,000	56	13.8%
\$35,000 to <\$50,000	97	23.9%
\$50,000 to <\$75,000	78	19.2%
\$75,000 to <\$100,000	60	14.8%
\$100,000 to <\$150,000	26	6.4%
\$150,000 to <\$200,00	0	0.0%
\$200,000+	5	1.2%
Total	406	100.0

Nearly two thirds (62%) of all respondents that reported ethnicity were white, while nearly another third (31%) were African American. The remaining 7% were comprised of Asian (1%), Hispanic (1%), Native American (1%) and Other (4%).

TABLE 13: RESPONDENT ETHNICITY

ETHNICITY	FREQUENCY	PERCENT
White	300	61.9%
African American	152	31.3%
Asian	7	1.4%
Hispanic	5	1.0%
Native American	4	0.8%
Other	17	3.5%
Total	485	100.0%

Slightly over half (51%) of all respondents were single. The remainder were married or reported having a partner.

TABLE 14: RESPONDENT MARITAL STATUS

MARITAL STATUS	FREQUENCY	PERCENT
Single	259	51.4%
Married or Partner	245	48.6%
Total	504	100.0%

The average reported household size was 2.69 persons. The distribution by household size is shown in Table 15.

TABLE 15: RESPONDENT HOUSEHOLD SIZE

HOUSEHOLD SIZE	FREQUENCY	PERCENT
1	114	22.6%
2	168	33.3%
3	82	16.2%
4+	141	27.9%
Total	505	100.0%

On average there were 1.80 licensed drivers per household. Virtually all respondents indicated that there was at least one licensed driver in the household.

TABLE 16: LICENSED DRIVERS PER HOUSEHOLD

LICENSED DRIVERS	FREQUENCY	PERCENT
0	3	0.6%
1	193	38.9%
2	224	45.2%
3+	76	15.3%
Total	496	100.0%

The mean number of household vehicles was 1.93. As discussed earlier, 22% of respondents reported owning 3 or more vehicles.

TABLE 17: VEHICLES PER HOUSEHOLD

VEHICLES PER HOUSEHOLD	FREQUENCY	PERCENT
0	15	3.0%
1	175	34.7%
2	206	40.8%
3+	109	21.6%
Total	496	100.0%

Mobility did not seem to be a problem for survey respondents. Ninety-seven percent of respondents reported at least one vehicle available for use, and most had at least one vehicle in the household for each licensed driver.

TABLE 18: VEHICLE TO DRIVER RATIO

RATIO	FREQUENCY	PERCENT
0.00 - 0.25	16	3.2%
0.26 - 0.5	35	7.0%
0.51 - 0.75	18	3.6%
0.76 - 1.00	320	63.9%
1.01+	112	22.4%
Total	501	100.0%

More than three-fourths (77%) of surveyed respondents reported that they had access to the Internet at home, at work, or both.

TABLE 19: ACCESS TO THE INTERNET

ACCESS	FREQUENCY	PERCENT
Yes	389	77.3%
No	114	22.7%
Total	503	100.0%



COMMUTE CHARACTERISTICS

The commuter population is comprised of both students and workers. A total of 68% of all surveyed respondents were workers, and 16% were students. Worker and student data are summarized in this section.

WORKERS

More than two-thirds of all respondents reported employment in a paying or non-paying job. For purposes of this survey, volunteer work that occurred on a regular basis was treated as a non-paying job.

TABLE 20: EMPLOYED IN PAYING OR NON-PAYING JOB

EMPLOYED	FREQUENCY	PERCENT
Yes	345	68.3%
No	160	31.7%
Total	505	100%

On average, survey respondents worked 4.93 days per week, and reported telecommuting an average of 0.3 times per week. The majority (72%) worked a conventional 5-day workweek. Slightly more than half reported fixed schedules (55%).

TABLE 21: NUMBER OF DAYS WORKED PER WEEK

# OF DAYS	FREQUENCY	PERCENT
1	1	0.3%
2	7	2.0%
3	19	5.5%
4	24	7.0%
5	247	71.6%
6	30	8.7%
7	17	4.9%
Total	345	100.0%

When employed individuals were asked about benefits offered by their employers, more than half of all responses (60%) identified free parking as an offered benefit. Approximately 7% of all responses mentioned a guaranteed ride home program, 5% mentioned partial payment for parking, and 1% mentioned partial payment for public transit. More than one-quarter (28%) of responses indicated that none of these benefits were offered by area employers.

TABLE 22: BENEFITS OFFERED BY EMPLOYERS

BENEFITS	FREQUENCY	PERCENT
Free Parking	210	59.5%
Guaranteed Ride Home	22	6.8%
Partial Payment of Parking	17	4.8%
Partial Payment of Public Transit	5	1.4%
None	97	27.5%
Total	353	100.0%

Multiple Response Table

Overall, 85% of surveyed workers who provided data regarding work place location were employed within the city limits of Greensboro. The remaining 15% worked outside the city limits.

TABLE 23: IS WORKPLACE IN GREENSBORO

IN GREENSBORO	FREQUENCY	PERCENT
Yes	273	85.0%
No	48	15.0%
Total	345	100.0%

Table 24 provides a frequency distribution of work location by zip code for all respondents that reported working in the city limits. More than half (51%) of all respondents that provided work location data work in the 27401, 27410, 27406, or 27405 zip codes. Approximately 11% of all workers refused to provide their work location data, could not remember, or provided an unrecognizable cross street or landmark.

TABLE 24: WORKPLACE ZIP CODE (GREENSBORO)

ZIP CODE(S)	FREQUENCY	PERCENT
27401	56	20.6%
27410	38	13.9%
27406	23	8.5%
27405/27214/27358	22	8.0%
27409/27235	22	8.1%
27408	21	7.6%
27407/27282	17	6.3%
27403	10	3.6%
27455	8	2.9%
All other	26	9.6%
Not Provided	30	10.9%
Total	273	100.0%

When travel between home and work zip code is analyzed, the data suggest most work destinations are either:

1. in the central business district (27401, 27410) for work, or
2. in the same zip code in which they live.

TABLE 25: HOME TO WORK ZIP CODE TRAVEL

WORK ZIP CODE	HOME ZIP CODE								
	27401	27410	27406	27405/27214/ 27358	27409/27235	27408	27407/27282	27403	27455
27401	47.8%	19.6%	14.3%	21.1%	17.6%	25.0%	15.4%	11.5%	21.7%
27410	8.7%	19.6%	11.4%	7.9%	17.6%	30.0%	15.4%	11.5%	4.3%
27406	0.0%	7.8%	17.1%	7.9%	0.0%	15.0%	15.4%	3.8%	0.0%
27405/27214/ 27358	8.7%	2.0%	8.6%	21.1%	47.1%	0.0%	10.3%	7.7%	8.7%
27409/27235	0.0%	7.8%	2.9%	13.2%	0.0%	0.0%	5.1%	7.7%	4.3%
27408	4.3%	15.7%	5.7%	5.3%	0.0%	10.0%	0.0%	11.5%	13.0%
27407/27282	4.3%	0.0%	8.6%	7.9%	0.0%	5.0%	20.5%	3.8%	0.0%
27403	4.3%	2.0%	0.0%	0.0%	0.0%	0.0%	0.0%	23.1%	8.7%
27455	0.0%	5.9%	0.0%	0.0%	5.9%	5.0%	0.0%	3.8%	8.7%
Other	4.3%	11.8%	14.3%	10.5%	0.0%	10.0%	5.1%	7.7%	13.0%
Not Provided	17.4%	7.8%	17.1%	5.3%	11.8%	0.0%	12.8%	7.7%	17.4%
Total	100.0%	100.0%	100.0%	100.0%	100.0	100.0%	100.0%	100.0%	100.0%

Respondents that did not work in Greensboro were asked in which city they did work. Table 26 identifies that the most common city outside of Greensboro to work was High Point (27% of those working outside Greensboro).

TABLE 26: WORKPLACE CITY (NOT IN GREENSBORO)

CITY	FREQUENCY	PERCENT
High Point	13	26.5%
Winston-Salem	7	14.3%
Burlington	6	12.2%
Reidsville	3	6.1%
Graham	2	4.1%
Jamestown	2	4.1%
Lexington	1	2.0%
Welcome	1	2.0%
Browns Summit	1	2.0%
Colfax	1	2.0%
Stokesdale	1	2.0%
Whitsett	1	2.0%
Chapel Hill	1	2.0%
Casville	1	2.0%
Madison	1	2.0%
Mayodan	1	2.0%
Other	4	8.2%
Not Provided	1	4.1%
Total	48	100.0%

Table 27 presents a matrix of home-to-work by work to home departure times for all workers employed at a non-home location. Nearly two-thirds (62%) make these trips at the traditional peak travel periods of 6 AM to 9 AM and 3 PM to 6 PM.

TABLE 27: DEPARTURE TIMES

HOME TO WORK	WORK TO HOME					TOTAL
	BEFORE 6 AM	6 AM-9AM	9AM-3PM	3PM-6PM	AFTER 6PM	
Before 6 AM	0.6%	0.0%	1.6%	2.8%	0.9%	5.9%
6 AM-9AM	0.0%	0.3%	5.3%	61.5%	9.0%	76.1%
9AM-3PM	0.3%	0.0%	0.9%	5.0%	5.9%	12.1%
3PM-6PM	0.0%	0.3%	0.0%	0.0%	3.7%	4.0%
After 6PM	0.6%	0.9%	0.3%	0.0%	0.0%	1.9%

N=322

The overwhelming majority of respondents drove alone in their vehicle on their daily work commute. Only 7% carpooled, while 3% walked to work. Less than 1% took a taxi.

TABLE 28: HOME TO WORK MODE OF TRANSPORTATION

IN GREENSBORO	FREQUENCY	PERCENT
Car – Drove Alone	294	87.2%
Carpool	24	7.1%
Walk	11	3.3%
Other	5	1.5%
Taxi	2	0.6%
Not Provided	1	0.3%
Total	337	100.0%

Multiple Response Table

One reason most commonly given for not taking transit is the need to make stops while traveling to or from work. When asked about the number of stops they made on their way home from work the day prior to taking the survey, 3-person households reported the most with a mean of 0.98 stops. Two person households made 0.63 stops and 4-person households made an average of 0.60 stops. One person households made the least stops at 0.49. The mean number of stops was 0.64.

TABLE 29: AVERAGE NUMBER OF STOPS BY HOUSEHOLD SIZE

HH SIZE	FREQUENCY	AVERAGE STOPS
1	78	0.49
2	115	0.63
3	52	0.98
4+	100	0.60
Total	345	0.64

In all, 38% of respondents reported making a stop on their way home from work the day prior to the survey. When asked for the reasons they made stops, over half (54%) of these respondents reported shopping as the reason. The next most common reason cited was personal business (34%), then picking up or dropping off a child (11%), followed by eating or getting coffee (8%).

TABLE 30: REASONS FOR STOPS BETWEEN HOME AND WORK

REASON	FREQUENCY	PERCENT
Shopping	65	53.7%
Personal Business	41	33.9%
Pick Up/Drop Off Child	16	11.0%
Eat/Get Coffee	10	8.3%
Pick Up/Drop Off HH Member	5	4.1%
Entertainment/Visit	4	3.3%
Work-Related Business	4	3.3%
Go to Hospital	1	0.8%
Total	146	100.0%

Multiple Response Table

STUDENTS

Sixteen percent of the 505 survey respondents reported being a full or part time student at a high school, college, university, trade school or other institution of higher learning.

TABLE 31: STUDENT STATUS

STUDENT	FREQUENCY	PERCENT
Yes	83	16.4%
No	422	83.6%
Total	505	100.0%

Similar to workers, nearly two-thirds (64%) of students traveled alone in their car for the daily commute to school. Only 14% carpooled, while 12% walked.

TABLE 32: HOME TO SCHOOL MODE OF TRANSPORTATION

MODE	FREQUENCY	PERCENT
Car – Drove Alone	58	63.7%
Carpool	13	14.3%
Walk	11	12.1%
School Bus	5	5.5%
Taxi	2	2.2%
Other	1	1.1%
Not Provided	1	1.1%
Total	91	100.0%

Multiple Response Table

When asked about benefits offered by their school, 66% of all students indicated that the school offered no benefits to students. Approximately 19% of responses mentioned free parking, and another 7% mentioned a guaranteed ride home. Partial payment of public transit and partial payment of parking constituted 3% and 1% of responses respectively.

TABLE 33: BENEFITS OFFERED BY SCHOOL

BENEFITS	FREQUENCY	PERCENT
Free Parking	17	19.3%
Guaranteed Ride Home	6	6.8%
Partial Payment of Public Transit	3	3.4%
Partial Payment of Parking	1	1.1%
None	58	65.9%
Not Provided	3	3.4%
Total	88	100.0%

Multiple Response Table

Of the students interviewed, 64% stated that their school was located within the city limits of Greensboro. The remaining 36% went to school outside the city limits.

TABLE 34: SCHOOL IN GREENSBORO

IN GREENSBORO	FREQUENCY	PERCENT
Yes	53	63.9%
No	30	36.1%
Total	83	100.0%

TABLE 35: SCHOOL ZIP CODE (GREENSBORO STUDENTS)

ZIP CODE(S)	FREQUENCY	PERCENT
27403	16	30.3%
27401	13	24.6%
27411	7	13.3%
27402	4	7.6%
27408	2	3.9%
27413	2	3.9%
27406	1	1.3%
Not Provided	8	15.1%
Total	53	100.0%

The majority of the students interviewed that reported attending school outside Greensboro travel to Jamestown (57%). The remaining attended school in Worthville, Fort Bragg, Fayetteville, and Asheboro.

TABLE 36: SCHOOL CITY (NOT IN GREENSBORO)

CITY	FREQUENCY	PERCENT
Jamestown	17	56.6%
Worthville	1	3.3%
Fort Bragg	1	3.3%
Fayetteville	1	3.3%
Asheboro	1	3.3%
Not Provided	9	30.0%
Total	30	100.0%

On average, students stopped 0.27 times per day during their commute home from school. When asked about the reasons they stopped, the most frequent response for the 17% of students that reported making a stop was shopping, which accounted for 37% of all stops. Personal business comprised 26% of all stops, and picking up food or coffee constituted 11%.

TABLE 37: REASONS FOR STUDENT STOPS TO OR FROM SCHOOL

REASON	FREQUENCY	PERCENT
Shopping	7	36.8%
Personal Business	5	26.3%
Eat/Get Coffee	2	10.5%
Pick Up/Drop Off Child	1	5.3%
Pick Up/Drop Off HH Member	1	5.3%
Entertainment/Visit	1	5.3%
Other Specify	2	10.5%
Total	19	100.0%

Multiple Responses

When home-to-school departure times are compared to school-to-home departure times, it is apparent that the most common home-to-school departure times between 6 AM and 9 AM (57%). In looking at both portions of the commute (home to school and school to home), 32% reported leaving home for school between 6 AM and 9 AM, and leaving school to return home between 3 PM and 6 PM. An additional 21% travel between 6 AM and 9 AM and return home between 9 AM and 3 PM.

TABLE 38: DEPARTURE TIMES BETWEEN HOME AND SCHOOL

HOME TO SCHOOL	SCHOOL TO HOME					TOTAL
	BEFORE 6 AM	6 AM-9AM	9AM-3PM	3PM-6PM	AFTER 6PM	
Before 6 AM	0.0%	0.0%	0.0%	1.2%	0.0%	1.2%
6 AM-9AM	0.0%	0.0%	20.7%	31.7%	4.9%	57.3%
9AM-3PM	0.0%	0.0%	6.1%	4.9%	3.7%	14.6%
3PM-6PM	0.0%	0.0%	0.0%	0.0%	14.6%	14.6%
After 6PM	0.0%	0.0%	0.0%	1.2%	11.0%	12.2%

N=82



TRIP MAKING CHARACTERISTICS

One of the main purposes of conducting the survey was to identify latent demand for public transit in terms of geography, frequency and trip purpose. Work and school trips were summarized in the demographic section. This section focuses on trips made for consumer activities (shopping or personal business).

CONSUMER ACTIVITIES

Approximately 97% of all surveyed respondents reported making consumer related trips at least one day per week. On average they traveled 3.75 days per week for this purpose. Table 38 shows the mean number of days consumer related trips were made per week by different demographic segments of the survey population. The data suggest that the following demographic groups make more consumer trips:

- Respondents that live in households that make \$75,000 or more per year
- Respondents that are not employed
- Respondents 25-34 years old
- Respondents that are married or have a partner
- White respondents
- Female respondents

TABLE 39: CONSUMER TRIP MAKING BY DEMOGRAPHIC GROUPS

DEMOGRAPHIC VARIABLE	STATUS	FREQUENCY	MEAN
Marital Status	Married or Partner	245	3.89
	Single	259	3.63
Employment Status	Employed	245	3.60
	Not Employed	160	4.07
Household Income	Under \$10,000	23	3.61
	\$10,000 to <\$15,000	14	3.43
	\$15,000 to <\$25,000	47	3.66
	\$25,000 to <\$35,000	56	3.43
	\$35,000 to <\$50,000	97	3.85
	\$50,000 to <\$75,000	78	3.91
	\$75,000 to <\$100,000	60	4.12
	\$100,000 to <\$150,000	26	4.42
	\$150,000 to <\$200,000	0	0.00
\$200,000+	5	4.60	
Ethnicity	African American	152	3.72
	Asian	7	3.14
	Hispanic	5	3.00
	Native American	4	2.50
	White	300	3.85
	Other	17	4.12
Gender	Male	167	3.60
	Female	338	3.82

DEMOGRAPHIC VARIABLE	STATUS	FREQUENCY	MEAN
Age	16-24	70	3.44
	25-34	103	3.99
	35-44	107	3.86
	45-54	104	3.63
	55-64	54	3.80
	65+	64	3.72

A significant portion of respondents (42%) reported that they made their trips both on weekdays and weekends. Slightly less than one-fourth (24%) reported making consumer related trips only on weekends, while the remaining 34% indicated that they made their trips during the week.

TABLE 40: TIME OF WEEK WHEN CONSUMER TRIPS MADE

TIME OF WEEK	FREQUENCY	PERCENT
During the Week	167	34.2%
During the Weekend	119	24.3%
Both	203	41.5%
Total	489	100.0%

Nearly half of all respondents making weekday trips (47%) indicated that they made their weekday consumer trips between 9 AM and 3 PM. One-fourth (24%) reported making trips between 3PM and 6 PM, while 20% indicated their preferred time was after 6 PM.

TABLE 41: TIME OF DAY WHEN WEEK DAY CONSUMER TRIPS MADE

TIME OF DAY	FREQUENCY	PERCENT
Before 6AM	6	1.6%
6AM-9AM	27	7.3%
9AM-3PM	174	47.0%
3PM-6PM	90	24.3%
AFTER 6PM	73	19.7%
Total	370	100.0%

Preferred times for making weekend consumer related trips were very similar to preferred times for making weekday consumer related trips. Nearly three-fourths of all respondents making weekend trips (73%) reported a preferred time of 9 AM to 3 PM.

TABLE 42: TIME OF DAY WHEN WEEKEND CONSUMER TRIPS MADE

TIME OF DAY	FREQUENCY	PERCENT
Before 6AM	4	1.2%
6AM-9AM	31	9.6%
9AM-3PM	234	72.7%
3PM-6PM	44	13.7%
AFTER 6PM	9	2.8%
Total	322	100.0%

When home zip codes are compared to consumer shopping zip codes, the data suggest that the majority of respondents conduct their shopping in the same zip code in which they live.

TABLE 43: HOME TO SHOPPING ZIP CODE TRAVEL

WORK ZIP CODE	HOME ZIP CODE								
	27401	27410	27406	27405/27214/ 27358	27409/27235	27408	27407/27282	27403	27455
27401	22.0%	3.7%	7.7%	6.3%	9.1%	11.9%	3.9%	4.3%	2.6%
27410	2.4%	59.8%	1.5%	3.2%	9.1%	14.3%	3.9%	15.2%	15.8%
27406	9.8%	2.4%	49.2%	6.3%	0.0%	0.0%	5.3%	2.2%	0.0%
27405/27214/ 27358	12.2%	3.7%	4.6%	50.8%	4.5%	9.5%	9.2%	4.3%	5.3%
27409/27235	2.4%	2.4%	1.5%	0.0%	40.9%	0.0%	0.0%	4.3%	0.0%
27408	7.3%	4.9%	6.2%	3.2%	0.0%	50.0%	2.6%	4.3%	21.1%
27407/27282	9.8%	13.4%	12.3%	12.7%	31.8%	2.4%	63.2%	15.2%	0.0%
27403	4.9%	2.4%	1.5%	1.6%	0.0%	4.8%	1.3%	37.0%	2.6%
27455	0.0%	1.2%	0.0%	0.0%	0.0%	4.8%	1.3%	12.2%	42.1%
OTHER	4.9%	1.2%	1.5%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
NOT PROVIDED	24.4%	4.9%	13.8%	15.9%	4.5%	2.4%	9.2%	10.9%	10.5%
Total	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

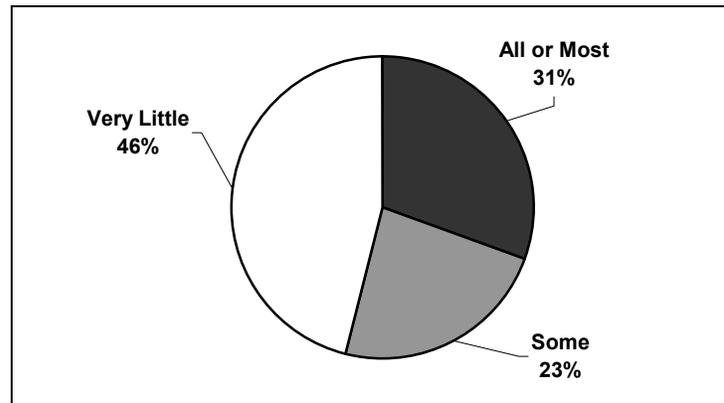
While respondents in the 27409/27235 zip code made 41% of their consumer trips in the same area, they also reported 32% of trips to the 27407/27282 area. In addition, respondents in the 27455 zip made 42% of trips in their home zip and 21% to the 27408 zip code.



PREFERENCES

Although respondents were non-users by definition, 34% reported having used public transit in the City of Greensboro sometime in the past. Of these, 31% relied on it for all or most of their transportation needs, while 23% relied on it for some of their transportation needs.

FIGURE 1: EXTENT TO WHICH PUBLIC TRANSIT RELIED UPON PREVIOUSLY

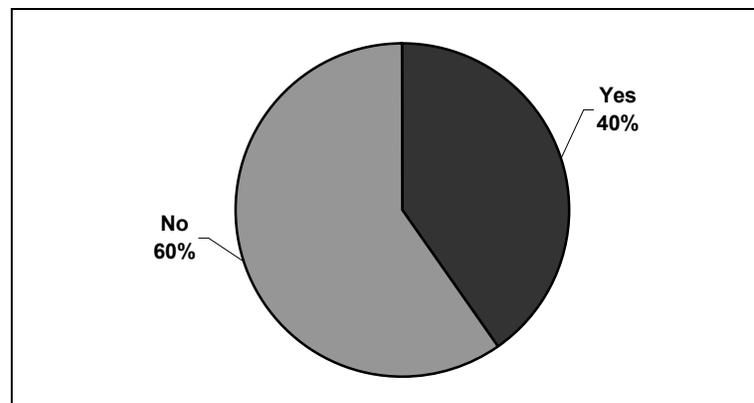


N=173

Access to a car was the primary reason provided when respondents were asked why they no longer used public transit in Greensboro (69%). Eight percent stated that transit did not go where they needed to. Slightly more than 5% stated that transit does not come often enough, while 3% felt that using public transit made it difficult for them to get to their destination on time.

Forty percent of respondents have regularly used public transit in another city.

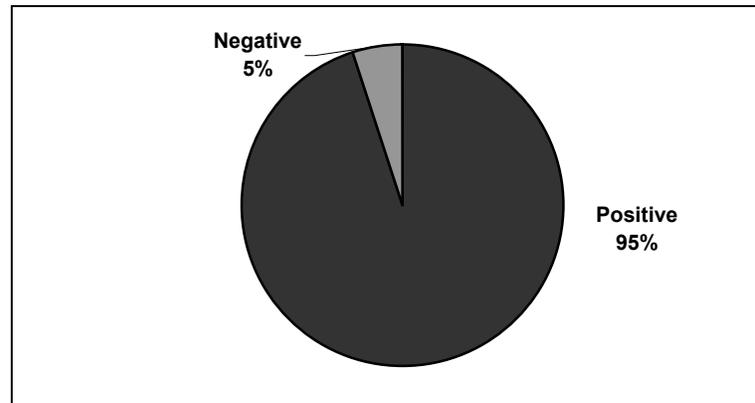
FIGURE 2: REGULAR USE PUBLIC TRANSIT IN ANOTHER CITY



N=505

Of those respondents that have used public transit in another city, the overwhelming majority commented that their experiences were positive.

FIGURE 3: PAST TRANSIT EXPERIENCE



N=203

Next, these respondents who had used transit in another city were asked why they stopped using transit when they moved to Greensboro. The top three reasons were access to a car (40%), transit not going where the respondent needs to go (15%), and transit not coming often enough (10%). These three reasons cumulatively combined for nearly two-thirds (65%) of all provided responses.

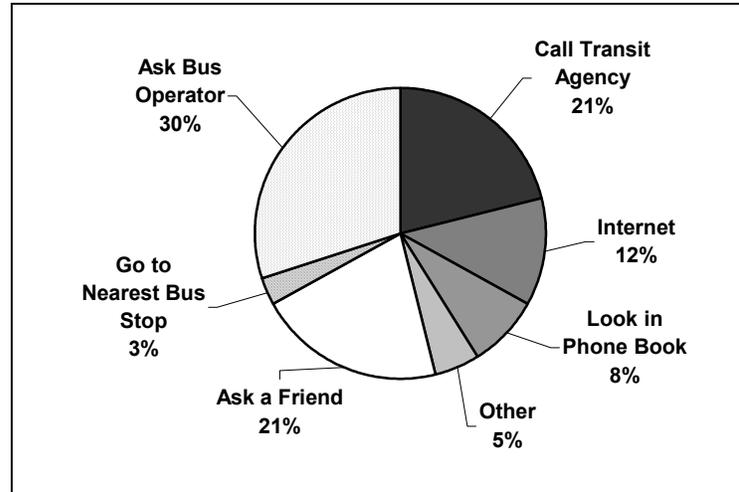
TABLE 44: WHY STOP USING PUBLIC TRANSIT WHEN MOVED TO GREENSBORO

TIME OF DAY	FREQUENCY	PERCENT
Access to Car	103	39.9%
Transit does not go Where I Need	38	14.7%
Scheduling/Transit does not Come Often Enough	26	10.1%
Transit not Reliable	21	8.1%
Transit too Slow	13	5.0%
Hard to Get to Destination On-Time	8	3.1%
Too Many Transfers	5	1.9%
Travel Less	2	0.8%
Traveling with Children Now	1	0.4%
Other	32	12.4%
Not Provided	9	3.5%
Total	258	100.0%

Multiple Responses

When respondents were asked to provide the source(s) they would consult if they chose to use public transit, 30% stated that they ask a bus operator, 21% would ask a friend and 21% would call the transit agency. Twelve percent said they would consult the Internet, and 8% said they would look in the phone book.

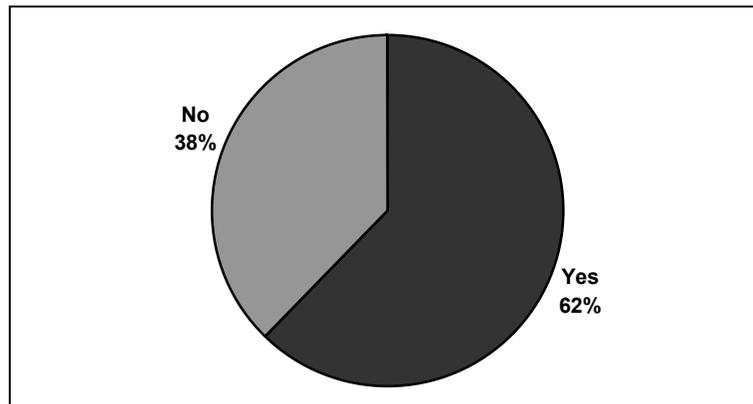
FIGURE 4: SOURCE OF TRANSIT INFORMATION



Multiple response table

Nearly two-thirds (62%) of all surveyed respondents answered affirmatively when they were asked “If public transportation were changed so that it was easy to use, convenient, and information about using it was readily available, would you personally consider using it for some of your transportation needs?”

FIGURE 5: USE OF TRANSIT IF SYSTEM MODIFIED



N=501

To identify characteristics of respondents most likely to use transit if their identified changes were made, key demographic variables were compared between two groups: those that would use transit and those that would not. In this analysis, frequency distributions are compared between the two groups to identify significant differences between the two groups. As indicated in the table below, marital status differs greatly between the two groups, while employment status does not. This analysis suggests that single, African American males are mostly likely to begin using transit if desired changes were implemented.

TABLE 45: POTENTIAL USE BY DEMOGRAPHIC GROUP

DEMOGRAPHIC VARIABLE	STATUS	YES	No
Marital Status	Married or Partner	42.9%	57.7%
	Single	57.1%	42.3%
Employment Status	Employed	69.9%	66.1%
	Not Employed	30.1%	33.9%
Household Income	Under \$10,000	6.2%	4.8%
	\$10,000 to <\$15,000	4.7%	1.4%
	\$15,000 to <\$25,000	12.4%	10.3%
	\$25,000 to <\$35,000	15.1%	11.7%
	\$35,000 to <\$50,000	26.0%	19.3%
	\$50,000 to <\$75,000	16.3%	24.8%
	\$75,000 to <\$100,000	12.4%	18.6%
	\$100,000 to <\$150,000	6.2%	6.9%
	\$150,000 to <\$200,000	0.0%	0.0%
\$200,000+	0.8%	2.1%	
Ethnicity	African American	35.7%	24.5%
	Asian	1.7%	1.1%
	Hispanic	1.3%	0.5%
	Native American	1.0%	0.5%
	White	57.2%	69.0%
	Other	3.0%	4.3%
Gender	Male	34.9%	29.6%
	Female	65.1%	70.4%
Age	16-24	15.1%	12.3%
	25-34	21.9%	18.7%
	35-44	19.9%	24.1%
	45-54	22.2%	18.7%
	55-64	10.9%	10.2%
	65+	10.0%	16.0%

Using a scale of 1-5, respondents who would use transit if changes were made were asked to rank a number of statements regarding potential transit improvements. As seen in Table 46, the improvement most likely to increase ridership is transit service that could get the respondent to their destination within 15 minutes of the same time as their car. Stops with covered waiting areas were highly ranked, while transit service available every 30 minutes on weekdays rounded out the top three reasons.

TABLE 46: ATTRACTIVENESS OF POTENTIAL TRANSIT IMPROVEMENTS TO RESPONDENTS

POTENTIAL IMPROVEMENT	FREQUENCY	MEAN	STD. ERROR
Service that could get you to your destination within 15 minutes of the same time as your car	312	4.45	+/-0.06
Stops with covered waiting areas	312	4.41	+/-0.06
Service available every 30 minutes on weekdays	312	4.40	+/-0.05
Regularly scheduled mini-bus service that travels within your neighborhood and stops throughout your community	312	4.35	+/-0.06
Stops within a 10-minute walk of your home	312	4.32	+/-0.07
Making transit information easier to obtain	312	4.18	+/-0.06
Mini-bus service you schedule in advance to pick you up and drop you off while picking up and dropping off others along the way	312	4.10	+/-0.07

Scale of 1-5, where 5 corresponded to an improvement that would make using public transit very attractive and 1 corresponded to an improvement that would make using public transit least attractive

Respondents had many perceptions concerning the drawbacks of using public transit. The most frequently mentioned drawback (32%) was that public transit was not as convenient as a car. One-fifth (20%) of respondents mentioned that public transit took too long, while 8% mentioned that public transit does not go where they need it to go.

TABLE 47: BIGGEST DRAWBACKS TO USING PUBLIC TRANSIT

DRAWBACK	FREQUENCY	PERCENT
Not as convenient as car	160	31.7%
Takes too long	99	19.6%
Doesn't go where I need it to go	41	8.1%
Doesn't run when I need it to run	41	8.1%
There are no drawbacks	22	4.4%
Too crowded	20	4.0%
Not reliable enough	19	3.8%
Distance to bus stop too great	18	3.6%
Security and Safety	13	2.6%
Lack of route information	11	2.2%
Too many transfers	9	1.8%
Lack of shelter at bust stops	9	1.8%
Other	24	4.8%
DK/RF	19	3.9%
Total	505	100.0%

Respondents were next asked a series of questions about their attitudes towards transit in general. Respondents were most likely to agree with the statement “Owning and maintaining a car is expensive” providing a mean score of 3.23. “I enjoy driving by myself” and “Taking transit improves air quality” garnered mean scores of 3.13 and 3.12, respectively. Respondents were least likely to agree with statements concerning the construction of new roads to improve traffic and their affinity for driving in heavy traffic.

TABLE 48: RESPONDENT LEVEL OF AGREEMENT WITH TRANSIT RELATED STATEMENTS

TRANSIT RELATED STATEMENT	FREQUENCY	MEAN	STD ERROR
Owning and maintaining a car is expensive	497	3.23	+/-0.03
I enjoy driving by myself	468	3.13	+/-0.03
Taking Transit Improves air quality	479	3.12	+/-0.03
For the average person, the cost of transit is less than the cost of driving	439	3.06	+/-0.03
When I drive somewhere, I'm more concerned with the length of time than how much it will cost.	478	3.05	+/-0.03
Public transit is not quick enough for me	446	2.98	+/-0.03
Driving is more stressful than riding the bus	475	2.83	+/-0.03
Driving any type of car is higher status than riding the bus	456	2.48	+/-0.03
Building more roads is the best remedy for traffic congestion	480	2.34	+/-0.03
I don't mind driving in heavy traffic	492	2.19	+/-0.04

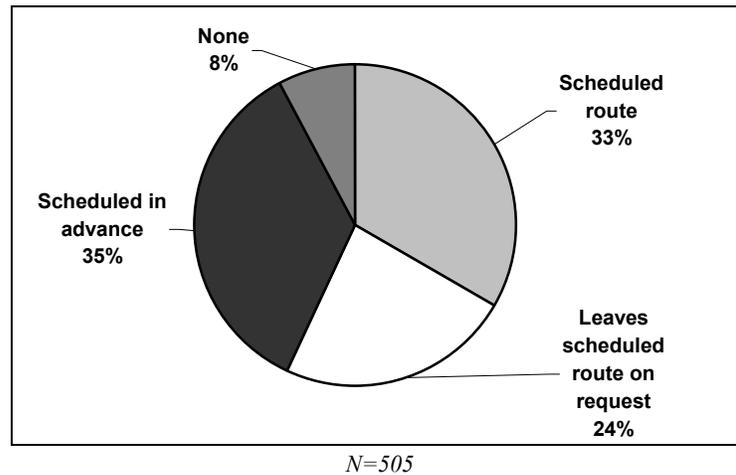
1=strongly disagree and 4=strongly agree

To determine non-user preferences for specific transit options, respondents were asked to indicate their preference for three different types of mini-bus service. The three options were:

- A neighborhood mini-bus that operates on a scheduled route and serves major community destinations,
- A neighborhood mini-bus that can leave the regularly scheduled route upon request to drop-off passengers at their destinations, or
- A neighborhood mini-bus that respondents need to schedule in advance, but which picks up and drops off passengers anywhere in their neighborhood.

Figure 6 shows that the most attractive option to all non-users is the mini bus that is scheduled in advance. This selection was preferred by 35% of the survey population. The next most mentioned option was a mini bus that operates on a scheduled route. These findings are the reverse rankings from those presented in Table 46. The difference is that this question was asked of all respondents and reflects more of a community perspective, while the ranking in Table 46 was obtained only from respondents who would use transit if service improvements were made.

FIGURE 6: MINI-BUS SERVICE PREFERENCE

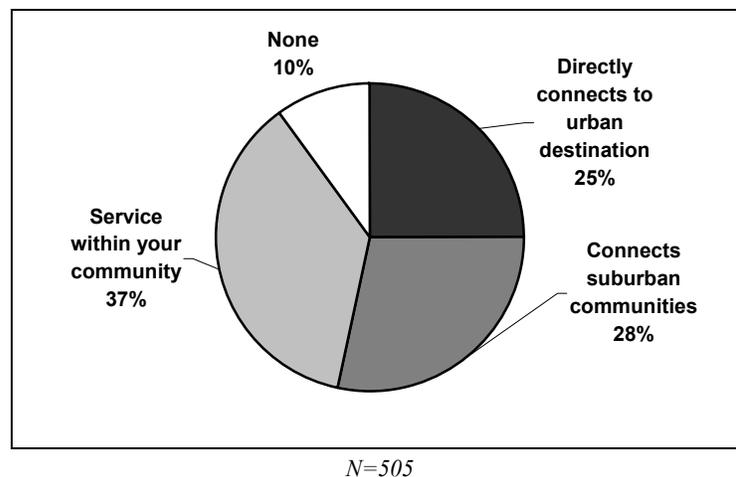


A similar question regarding route preference was asked with the following choices from which respondents could select a preferred choice:

- Frequent, comfortable transit service that directly connects to urban area destination,
- Frequent, comfortable transit service that directly connects one suburban community to another without transfers,
- Frequent, comfortable transit service within your community

Over one-third of respondents selected service within their community as the preferred option, with another 28% selecting services that connect suburban communities. This is consistent with the earlier findings that most trips are within home zip areas.

FIGURE 7: ROUTE PREFERENCE



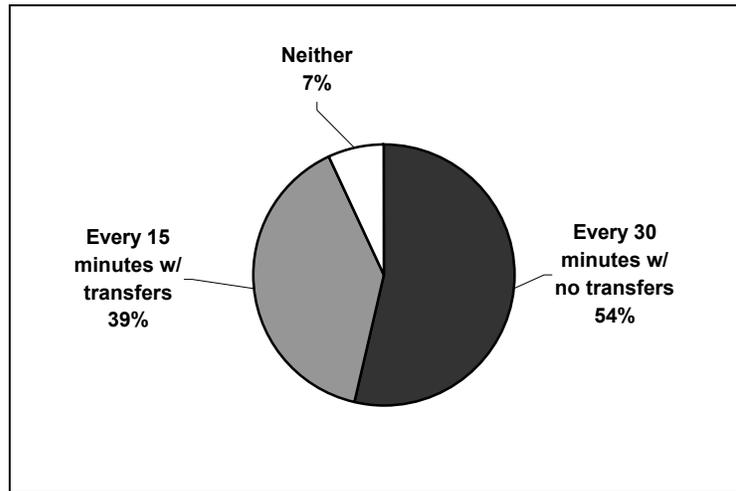
Nearly one-half (47%) of those respondents that would prefer service within their community live in one of three zip code targets: 27407/27282, 27410, and 27405/27214/27358.

TABLE 49: ZIP CODE DISTRIBUTION OF RESPONDENT PREFERRING SERVICE WITHIN THEIR COMMUNITY

ZIP CODE	FREQUENCY	PERCENT
27407/27282	34	18.5%
27410	32	17.4%
27405/27214/27358	20	10.9%
27406	19	10.3%
27408	19	10.3%
27403	19	10.3%
27455	17	9.2%
27401	12	6.5%
27409/27235	12	6.5%
Total	184	100.0%

In the last preference question, given a choice between bus service every 30 minutes with no transfers and bus service every 15 minutes with transfers at a convenient transfer center with frequent bus service to most destinations, over half of all respondents (54%) selected service every 30 minutes with no transfers.

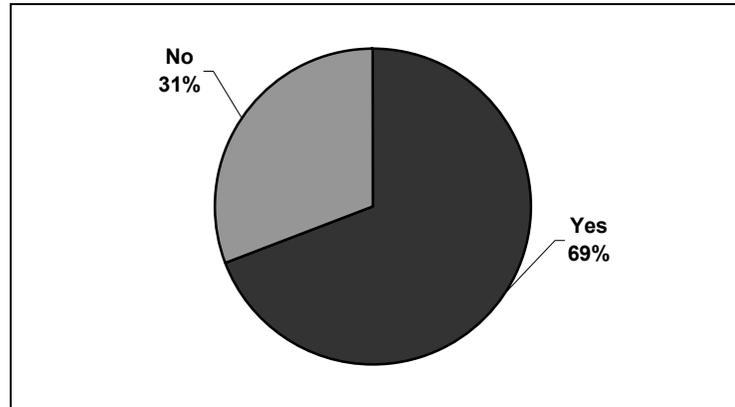
FIGURE 8: BUS SERVICE PREFERENCE



N=505

Over two-thirds of the survey population (69%) said that if Park-n-Ride lots were available, with Express Bus service to downtown, they would consider using that service.

FIGURE 9: USE OF PARK-N-RIDE LOTS



N=498

Table 50 provides a zip code distribution of those respondents most likely to use Park-n-Ride Lots.

TABLE 50: ZIP CODE DISTRIBUTION OF RESPONDENT LIKELY TO USE PARK-N-RIDE LOTS

ZIP CODE	FREQUENCY	PERCENT
27410	53	15.5%
27406	53	15.5%
27407/27282	52	15.2%
27405/27214/27358	51	14.9%
27401	35	10.2%
27403	29	8.5%
27455	27	7.9%
27408	25	7.3%
27409/27235	16	4.7%
Total	342	100.0

One-fourth (25%) of interested respondents stated that the major reason they would use the Park-n-Ride service was to avoid driving when they made shopping trips. Seventeen percent stated that they would use the service to go to work, and 15% would use it to conduct personal business. See Table 51 for a list of all reasons cited for the use of Park-n-Ride services.

TABLE 51: REASONS TO USE PARK-N-RIDE SERVICE

REASON	FREQUENCY	PERCENT
Shopping	83	24.9%
Work	57	17.1%
To Conduct Personal Business	50	14.9%
To Go Downtown	39	11.7%
To Travel to Social Gatherings and Entertainment	29	8.6%
Avoid Parking	28	8.4%
To Avoid Driving	24	7.1%
All Else	28	7.3%
Total	334	100.0%

The last portion of the survey asked respondents their opinions on transit costs and who was responsible for recovering the costs incurred as a result of providing these services. Non-users were most likely to agree with the statement “Transit agencies should keep fares as low as possible to provide mobility to all Greensboro residents” assigning a mean score of 3.52. They were least likely to agree with statements implying that transit agencies should recover all of its costs from its riders (mean score of 2.02).

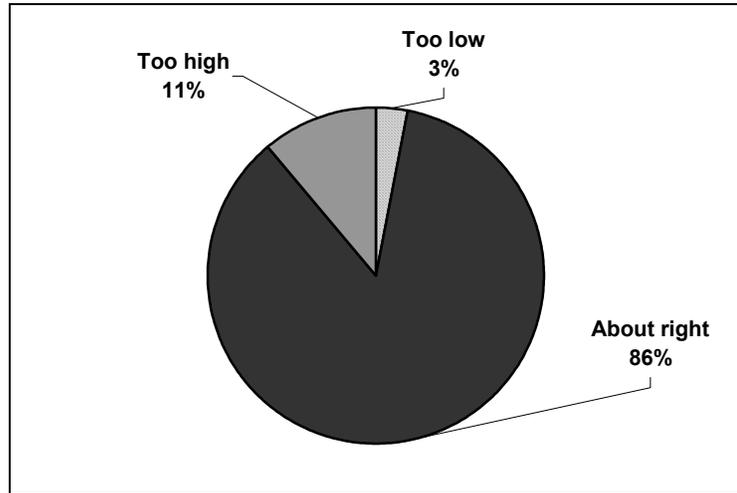
TABLE 52: RESPONDENT LEVEL OF AGREEMENT WITH TRANSIT RELATED COST STATEMENTS

TRANSIT RELATED COST STATEMENT	FREQUENCY	MEAN	STD ERROR
Transit agencies should keep fares as low as possible to provide mobility to all Greensboro residents	487	3.52	+/-0.03
Transit agencies should have riders pay a reasonable share of the cost of operating the system	474	3.07	+/-0.04
Transit agencies should recover all its cost from the riders	476	2.02	+/-0.04

1 = “strongly disagree” and 4 = “strongly agree.”

Almost nine of ten (86%) felt that current transit fares are “about right.” Slightly more than 1 in 10 felt that they were too high, and only 3% felt they were too low.

FIGURE 10: RESPONDENT PERCEPTION OF TRANSIT FARES



N=502



CONCLUSIONS & RECOMMENDATIONS

As indicated at the start of this report, the survey was intended to collect data that would assist in the preparation of a long-range transit plan for the City of Greensboro. In particular, the objective was to determine answers to three primary questions:

- 1) Where are trips being made?
- 2) When are the trips being made?
- 3) How interested are non-users in the use of alternative modes?

The purpose of this section is to provide preliminary answers to those questions in light of responses pertaining to three specific types of trips: work, school, and shopping.

TRIP LOCATIONS

- **Work** – Most employed respondents (72%) reported that they worked a conventional 5-day workweek. One-third of all reported work locations were either in the 27401 zip code (21%) or the 27410 zip code (14%). A more detailed look at work commutes shows that most work travel is to either a destination in the same zip code as the home or to the central business district (zip codes 27401 and 27410).
- **School** – Sixteen percent of the survey respondents reported being a full or part-time student. Of these, 64% attended school at a location within Greensboro. For more than half these students, the school was either in the 27403 zip code (30%) or the 27401 zip code (25%). This did not vary based on home zip code.
- **Shopping** – For the most part, respondents reporting shopping trips to destinations located within the home zip code area. In particular, respondents in zip codes 27407/27282, 27410, 27405/27214/27358, and 27408 reported 50% or more shopping trips stayed within their home zip code. Two exceptions to this community-based trip pattern include: (1) respondents in the 27409/27235 zip code area reported 41% of shopping in their home zip and 32% in the 27407/27282 zip code area and (2) respondents in the 27455 zip code reported 42% of trips in their home zip code and 21% to the 27408 zip code.

TRIP TIMES

Most workers and students reported starting their commute during the peak period of 6 AM to 9 AM, and most returned home during the afternoon peak period of 3 PM to 6 PM. Students were less likely to make a stop as part of their home-to-school or school-to-home commute than were workers, suggesting they might be a better focus for transitioning to transit. The majority of weekend shopping was between the hours of 9 AM to 3 PM (72%), while weekday shopping tended to occur during the day or after work (which is consistent with the workers and students reporting stops for shopping during their commute).

- **Work** – Nearly two-thirds (62%) of workers make the home-to-work trip between 6 AM and 9 AM and the work-to-home trip between 3 PM and 6 PM, or during the typical peak periods. Overall, workers reported making an average of 0.64 stops as part of their home-to-work or work-to-home travel. These stops were primarily for shopping (54%), personal business (34%), or picking-up/dropping-off a child (11%).
- **School** – Most students reported making the home-to-school trip between 6 AM and 9 AM (57%), while 15% each reported leaving home between 9 AM and 3 PM or between 3 PM and 6 PM. The departure times for the school-to-home trips were more diverse: 39% reported a departure time between 3 PM and 6 PM, 34% reported a time after 6 PM, and 27% reported a time between 9 AM

and 3 PM. As with workers, students were most likely to make a stop for shopping (37%) or personal business (26%).

- **Shopping** - Respondents reported making shopping trips throughout the week, with 42% reporting both weekend and weekday shopping trips. Forty-seven percent of weekday shopping trips were made between 9 AM and 3 PM, while 72% of weekend shopping trips were made during this same time period. For the weekday shoppers, other popular shopping times coincided with the peak travel period of 3 PM to 6 PM (24%) and after 6 PM (20%).

NON-USERS PREFERENCES

The Greensboro residents included in this survey were somewhat familiar with using transit. One-third (34%) are previous users of the city's transit system and 40% have used transit in another city with mostly (96%) a positive experience. For those former system users, the main reasons they stopped using transit in Greensboro were (1) access to a car, transit not serving their destination, and service frequency. While auto ownership cannot be countered, service destinations and frequency can be improved.

Given the travel behavior obtained in the first part of the survey, most travel is either within the home zip code area or to the central business district. This suggests neighborhood or community service and express service to the downtown. In terms of a neighborhood service, respondents indicated they preferred a regularly scheduled mini-bus service in lieu of a dial-a-ride service (4.35 vs. 4.10 on a scale of 1 to 5, where 5 was an improvement that would make using public transit very attractive). However, both of these service types were preferred to a mini-bus service that could leave the scheduled route upon request.

While respondents preferred service within their community (37%) or connecting to other suburbs (28%), one-fourth of the respondents did prefer service that might connect them to the downtown. Sixty-nine percent of respondents would seriously consider express service originating from a park-n-ride lot to downtown. In addition, respondents clearly preferred service that was time-competitive with auto travel time (within 15 minutes) and service that came every 30 minutes with no transfers (as opposed to service that came more often but involved transfers). This suggests that this group of potential riders would tolerate fewer opportunities to "catch" the bus if rewarded by a timely delivery to their destination. Convenience is also a key factor influencing use or non-use of the system, with one-third of respondents indicating the current system was not as convenient as their car and an additional 20% reporting that transit took too long.

OTHER KEY FINDINGS

- Given that 69% of respondents would consider using some type of express bus service originating at a park-n-ride lots, combined with the fact that most stops made on the work and school commutes involve shopping, suggest that workers and students might consider using transit if the park-n-ride lots were located at or near shopping centers in their home zip code.
- Overall, survey respondents agree that owning and maintaining a car is expensive.



APPENDIX A: SURVEY INSTRUMENT

Hi, my name is _____. I'm calling on behalf of the Greensboro Transit Authority. We're conducting an important study about transportation issues in your city. Are you over 15?

ContinueOK D
No, I am not over 15 years of age.....ND => ASK FOR ORESP

To make sure our survey represents everyone in your area, what is your zip code? WE HAVE:<HZIP>.
YES - ZIP IS CORRECT1 => BUS USAGE
NO2
DK/RF9 => TERMINATE

What is the correct zip code? .
REFUSED99999 => TERMINATE

In the past 90 days, have you used any type of public transportation within the City of Greensboro? This would include Greensboro Transit Authority buses, SCAT vans, Career Express, and PART Regional buses.

YES1 => ASK FOR ORESP
NO2 D
DK/RF3 => ASK FOR ORESP

And to what degree would you say you're interested in seeing public transportation improved so that more people in your community could benefit from it? Would you say you're...

Very interested1
Somewhat interested, or2
Not at all interested.....3 => ASK FOR ORESP

How long have you lived in the City of Greensboro?
DK/RF999

Not including yourself, how many other persons live in your household?
NONE.....00

How many of them, are under age 16?
NONE.....00

How many are between the ages of 16 and 17?
NONE.....00

How many are between the ages of 18 and 64?
NONE.....00

How many are age 65 and older
NONE.....00

Do you have a valid driver's license?
YES1
NO2
DK/RF9

Counting yourself, how many people with a valid driver's license regularly live in your household?

In what city is your place of work? [IF OUTSIDE GREENSBORO]

Abner.....	098
Advance.....	058
Alamance.....	001
Altamahaw.....	002
Ararat.....	165
Arcadia.....	043
Archdale.....	077
Asheboro.....	121
Axton.....	177
Bahama.....	063
Bannertown.....	064
Bassett.....	178
Bear Creek.....	030
Belews Creek.....	065
Bennett.....	031
Bethania.....	066
Biscoe.....	099
Blairs.....	191
Blanch.....	015
Bonlee.....	032
Browns Summit.....	078
Burlington.....	003
Bynum.....	033
Carbonton.....	096
Carr.....	110
Carrboro.....	111
Casville.....	138
Cedar Falls.....	122
Cedar Grove.....	112
Chapel Hill.....	113
Churchland.....	044
Claudeville.....	188
Clemmons.....	067
Climax.....	079
Coleridge.....	123
Colfax.....	080
Collinsville.....	179
Concord.....	116
Cornatzer.....	059
Courtney.....	170
Craven.....	151
Crutchfield Crossroads.....	034
Cumnock.....	097
Dalton.....	153
Danbury Meadows.....	154
Danville.....	174
Denton.....	045
Dillard.....	155
Dry Fork.....	192
East Bend.....	171
East Spencer.....	152
Eden.....	139
Efland.....	114
Eldorado.....	100
Ellisboro.....	140

Elon College.....	004
Enon	175
Ether	101
Farmer	124
Farmington	060
Fearrington Village.....	035
Fieldale	180
Figsboro.....	181
Fitch.....	016
Forbush.....	172
Fork Church.....	061
Francisco	156
Franklinville	125
Frogsboro	017
Gatewood	018
Germanton	157
Gibsonville	081
Glen Raven.....	005
Glendon	105
Glenola	082
Goldston	036
Gordonton.....	046
Graham	006
Grays Chapel	126
Gulf.....	037
Haw River	007
Healing Springs.....	047
High Point	083
High Rock	048
Highfalls	106
Hightowers	019
Hillsborough.....	115
Hurdle Mills	117
Jackson Hill.....	049
Jamestown	084
Jericho	020
Julian	085
Keeling	193
Kernersville	068
Kimesville	127
Lawsonville	158
Leasburg.....	021
Level Cross.....	128
Lewisville	069
Lexington	050
Liberty	129
Linwood	051
Locust Hill.....	187
Longhurst	118
Madison.....	141
Martinsville	186
Matkins.....	022
Mayfield	142
Mayodan.....	143
McLeansville	086
Mebane	008

Midway.....	144
Milesville.....	023
Milton.....	024
Mocksville.....	062
Moncure.....	038
Monticello.....	087
Moore's Spring.....	159
Mount Vernon Springs.....	039
Oak Ridge.....	088
Osceola.....	089
Ossipee.....	009
Parkwood.....	107
Patrick Springs.....	189
Pelham.....	025
Pfafftown.....	070
Pilot Mountain.....	166
Pine Hall.....	160
Pinnacle.....	161
Pittsboro.....	040
Pleasant Garden.....	090
Prestonville.....	162
Price.....	145
Prospect Hill.....	026
Providence.....	027
Purley.....	028
Ramseur.....	130
Randleman.....	131
Reidsville.....	146
Ridgeville.....	029
Ridgeway.....	182
Robbins.....	108
Rockford.....	167
Ruffin.....	147
Rural Hall.....	071
Sandy Ridge.....	163
Saxapahaw.....	010
Schley.....	176
Seagrove.....	132
Sedalia.....	091
Sedgefield.....	092
Semora.....	119
Siler City.....	041
Silk Hope.....	042
Siloam.....	168
Smithtown.....	014
Snow Camp.....	011
Sophia.....	133
Southmont.....	052
Spencer.....	183
Spies.....	109
Stacey.....	148
Staley.....	134
Stanleytown.....	184
Stanleyville.....	072
Star.....	102
Steeds.....	103

Stokesdale.....	093
Stoneville.....	149
Stuart.....	190
Summerfield.....	094
Swepsonville.....	012
Thomasville.....	053
Timberlake.....	120
Tobaccoville.....	073
Tyro.....	054
Ulah.....	135
Union Ridge.....	013
Uwharrie.....	104
Vienna.....	074
Walkertown.....	075
Wallburg.....	055
Walnut Cove.....	164
Welcome.....	056
Wentworth.....	150
Westfield.....	169
Whitsett.....	095
Whynot.....	136
Williamsburg.....	185
Winston-Salem.....	076
Worthville.....	137
Yadkin College.....	057
Yadkinville.....	173
OTHER, SPECIFY.....	997 O
DK/RF.....	999

What are the cross streets closest to your workplace?

Is there a major landmark nearby?

YES: What is the landmark?	1 O
NO.....	2
DK/RF.....	9

In the past 7 days, how have you traveled to your main paying or non-paying job?
ALLOW UP TO FIVE RESPONSES.

Car- drove alone.....	01
Carpool (2+ persons "WHO COULD DRIVE THEMSELVES").....	02
Vanpool.....	03
Taxi.....	04
Bike.....	05
Walk.....	06
Other, specify.....	97 O
DK/RF.....	99

How many days per week do you usually work?

Of these, how many do you work at home in place of going to the office (sometimes referred to as "telecommuting")? THIS DOES NOT INCLUDE BRINGING WORK HOME TO DO AFTER A DAY IN THE OFFICE.

Does your employer allow you to work flexible hours or are your hours fixed?
 FLEXIBLE1
 FIXED2

To the best of your knowledge, do the benefits offered by your employer include any of the following?
 ALLOW UP TO THREE RESPONSES.

Partial payment (or subsidy) of public transit fares.....1
 Partial payment (or subsidy) of parking2
 Free parking.....3
 Guaranteed ride home.....4
 NONE.....0 X
 DON'T KNOW.....8 X
 REFUSED9 X

At what time do you usually depart from home to go to work?

BEFORE 6AM1
 6AM - 9AM.....2
 9AM - 3PM3
 3 PM - 6PM4
 AFTER 6PM.....5

At what time do you usually depart from work to return home?

BEFORE 6AM1
 6AM - 9AM.....2
 9AM - 3PM3
 3 PM - 6PM4
 AFTER 6PM.....5

About how many stops did you make on your way home from work yesterday?

NONE.....00 => STUDENT

What was/were the purpose/s of your stop(s)? ALLOW UP TO 4 RESPONSES

PICK-UP/DROP OFF CHILD01
 PICK-UP/DROP OFF OTHER HOUSEHOLD MEMBERS OR FRIENDS 02
 EAT/GET COFFEE.....03
 SHOPPING04
 ENTERTAINMENT/VISIT05
 PERSONAL BUSINESS.....06
 SPORTS/RECREATION07
 WORK-RELATED BUSINESS.....08
 CATCH ANOTHER MODE (E.G., PARK-N-RIDE)09
 OTHER,SPECIFY97 O
 DK/RF99 X

Are you currently a part-time or full-time student at a high school, college, university, trade school, or other institution of higher education?

YES1
 NO2 => T1
 DK/RF9 => T1

What is the name of your school?	
HOME SCHOOLED	000
Alamance Elementary	001
Alderman Elementary	002
Allen Jay Elementary	003
Allen Jay Middle	004
Allen Middle	005
Andrews High	006
Archer Elementary	007
Aycock Middle	008
Bessemer Elementary	009
Bluford Elementary	010
Bluford Elementary	011
Brightwood Elementary	012
Brooks Global Studies	013
Brooks Global Studies Extended Year	014
Claxton Elementary	015
Colfax Elementary	016
Cone Elementary	017
Dudley High	018
Dudley Science, Math, Technology Academy	019
Early College at Guilford College	020
Eastern High	021
Eastern Middle	022
Erwin Montessori	023
Erwin Montessori	024
Fairview Elementary	025
Falkener Elementary	026
Ferndale Middle	027
Florence Elementary	028
Foust Elementary	029
Frazier Elementary	030
Gatewau Education Center	031
General Greene Elementary	032
General Greene Elementary	033
Gibsonville Elementary	034
Greensboro College Middle School	035
Griffin Middle	036
Grimsley High	037
GTCC Middle College High	038
Guilford Middle	039
Guilford Primary	040
Hairston Middle	041
Hampton Academy	042
Hampton Academy	043
High Point Central High	044
Hunter Elementary	045
Irving Park Elementary	046
Jackson Middle	047
Jamestown Elementary	048
Jamestown Middle	049
Jefferson Elementary	050
Jesse Wharton Elementary	051
Johnson Street Elementary	052
Jones Elementary	053
Jones Elementary	054

Joyner Elementary	055
Kernodle Middle.....	056
Kirkman Park Elementary	057
Kiser Middle.....	058
Laughlin Primary.....	059
Lindley Elementary	060
Madison Elementary.....	061
McIver Education Center	062
Mendenhall Middle	063
Millis Road Elementary.....	064
Monticello-Brown Summit Elementary	065
Montlieu Elementary	066
Montlieu Elementary	067
Morehead Elementary	068
Morehead Elementary	069
Murphey Elementary	070
Murphey Traditional Academy	071
Nathanael Green Elementary.....	072
Northeast High	073
Northeast Middle.....	074
Northwest High	075
Northwest middle	076
Northwood Elementary	077
Oak Hill Elementary.....	078
Oak Ridge Elementary	079
Oak View Elementary	080
Page High	081
Parkview Elementary.....	082
Parkview Elementary.....	083
Peck Elementary.....	084
Peeler Elementary.....	085
Peeler Open Elementary	086
Pilot Elementary	087
Pleasant Garden Elementary.....	088
Ragsdale High	089
Rankin Elementary	090
Sedalia Elementary.....	091
Sedgefield Elementary.....	092
Shadybrook Elementary	093
Smith High	094
Southeast High	095
Southeast Middle.....	096
Southern Elementary	097
Southern High.....	098
Southwest Elementary	099
Southwest High	100
Southwest Middle.....	101
Sternberger Elementary.....	102
Stokesdale Elementary	103
Summerfield Elementary.....	104
Sumner Elementary	105
Tomlinson Montessori.....	106
Tomlinson Montessori.....	107
Union Hill Elementary	108
Vandalia Elementary	109
Washington Elementary	110

Welborn Middle 111
 Western High..... 112
 Wiley Elementary..... 113
 OTHER, SPECIFY..... 997 O
 DK/RF 999

Is your school in Greensboro, NC? [IF SCHOOL NAME NOT ON ABOVE LIST]

YES 1
 NO 2 => SKIP NEXT Q
 DK/RF 9 => SKIP NEXT Q

In what zip code is your school? [IF SCHOOL IS IN GREENSBORO]

..... 27401
 27402
 27403
 27404
 27405
 27406
 27407
 27408
 27409
 27410
 27411
 27412
 27413
 27415
 27416
 27417
 27419
 27420
 27425
 27427
 27429
 27435
 27438
 27455
 27480
 27495
 27498
 27499
 DK/RF 99999 => SXSTR

In what city is your school? [IF SCHOOL IS OUTSIDE GREENSBORO]
 SAME CITY LIST AS USED IN WORK CITY QUESTION

What are the cross streets closest to your school?

Is there a major landmark nearby?

YES: What is the landmark? 1 O
 NO 2
 DK/RF 9

How many days per week do you usually go to school?

In the past 7 days, how have you traveled to school?		
Car- drove alone .....	.01	
Carpool (2+ persons) .....	.02	
Vanpool .....	.03	
School Bus.....	.04	
Taxi.....	.05	
Bike .....	.06	
Walk .....	.07	
Other,specify .....	.97	O
RF .....	.99	X

To the best of your knowledge, does your school offer any of the following?		
Partial payment (or subsidy) of public transit fares.....	1	
Partial payment (or subsidy) of parking	2	
free parking.....	3	
Guaranteed ride home.....	4	
NONE.....	5	
DON'T KNOW.....	8	X
REFUSED	9	X

At what time do you usually depart from home to go to school?		
BEFORE 6AM	1	
6AM - 9AM.....	2	
9AM - 3PM	3	
3 PM - 6PM	4	
AFTER 6PM.....	5	

At what time do you usually depart from school to return home?		
BEFORE 6AM	1	
6AM - 9AM.....	2	
9AM - 3PM	3	
3 PM - 6PM	4	
AFTER 6PM.....	5	

About how many stops did you make on your way home from school yesterday?		
NONE.....	.00	=> T1

What was/were the purpose/s of your stop(s)?		
PICK-UP/DROP OFF CHILD .....	.01	
PICK-UP/DROP OFF OTHER HOUSEHOLD MEMBERS OR FRIENDS .....	.02	02
EAT/GET COFFEE.....	.03	
SHOPPING .....	.04	
ENTERTAINMENT/VISIT .....	.05	
PERSONAL BUSINESS.....	.06	
SPORTS/RECREATION .....	.07	
WORK-RELATED BUSINESS.....	.08	
CATCH ANOTHER MODE (E.G., PARK-N-RIDE) .....	.09	
OTHER.....	.97	O
DK/RF .....	.99	

How many days a week do you typically make trips for consumer activities, such as shopping, errands, or personal business?
 NONE.....0 => EVERI

Would you say you make more of these types of trips...
 During the week1
 During the weekend.....2
 Both3

When you make these types of trips, do you:
 Typically go to one location at a time, returning home between trips.....1
 Typically combine errands, making several stops before returning home2
 OTHER, SPECIFY.....7 O

At what time do you usually make these weekday types of trips?
 BEFORE 6AM1
 6AM - 9AM.....2
 9AM - 3PM3
 3 PM - 6PM4
 AFTER 6PM.....5

At what time do you usually make these weekend types of trips?
 BEFORE 6AM1
 6AM - 9AM.....2
 9AM - 3PM3
 3 PM - 6PM4
 AFTER 6PM.....5

Thinking about the most recent errand you ran, what was the name of the destination?
 RECORD RESPONSE.....1 DO
 DK/RF9

Was this in Greensboro, NC?
 YES1
 NO2 => T4A3
 DK/RF9 => T4A3

In what zip was this destination? IF IN GREENSBORO

.....	27401	
.....	27402	
.....	27403	
.....	27404	
.....	27405	
.....	27406	
.....	27407	
.....	27408	
.....	27409	
.....	27410	
.....	27411	
.....	27412	
.....	27413	
.....	27415	
.....	27416	
.....	27417	
.....	27419	
.....	27420	
.....	27425	
.....	27427	
.....	27429	
.....	27435	
.....	27438	
.....	27455	
.....	27480	
.....	27495	
.....	27498	
.....	27499	
DK/RF	99999	=> OBTAIN ADDR INFO

In what city was this destination?
SAME CITY LIST AS USED IN WORK CITY QUESTION

What are the nearest cross streets? IF ZIP UNKNOWN

Is there a major landmark nearby?

YES: What is the landmark?	1	O
NO	2	
DK/RF	9	

At what store do you conduct most or your incidental shopping, such as grocery shopping?

RECORD RESPONSE	1	DO
DK/RF	9	

86:

T4B1B

Is this in Greensboro, NC?

YES	1	
NO	2	=> T4B3
DK/RF	9	=> T4B3

In what zip do you conduct most of your incidental shopping? IF IN GREENSBORO

-27401
-27402
-27403
-27404
-27405
-27406
-27407
-27408
-27409
-27410
-27411
-27412
-27413
-27415
-27416
-27417
-27419
-27420
-27425
-27427
-27429
-27435
-27438
-27455
-27480
-27495
-27498
-27499
- DK/RF99999

=> T4B4

88:

T4B3

In what city do you conduct most of your incidental shopping?
SAME CITY LIST AS USED IN WORK CITY QUESTION

What are the nearest cross streets? IF ZIP UNKNOWN

Is there a major landmark nearby?

- YES: What is the landmark?1 O
- NO2
- DK/RF9

You don't use public transportation now, but have you ever used it in the City of Greensboro in the past?

- YES1
- NO2
- DK/RF9

To what extent did you rely on public transportation to get around? Would you say you used it for . .

- All or most of your transportation needs,1
- Some of your transportation needs, or2
- Very little of your transportation needs?3

Why did you stop using public transportation? UP TO FOUR RESPONSES.

ACCESS TO CAR	01	
TRAVELING LESS (CHANGED JOBS, MOVED, ETC.).....	02	
HARD TO GET TO DESTINATION ON-TIME	03	
LENGTH OF TRIP; TRANSIT TOO SLOW	04	
TOO MANY TRANSFERS	05	
TRAVELING WITH CHILDREN NOW	06	
SCHEDULE/ DOESN'T COME OFTEN ENOUGH.....	07	
NOT RELIABLE ENOUGH; NOT AT BUS STOP ON TIME	08	
DOESN'T GO WHERE I NEED IT TO.....	09	
LIFESTYLE CHANGE.....	10	N
OTHER, SPECIFY.....	97	O
DK/RF	99	X

Have you ever lived in another city and used public transit on a regular basis?

YES	1	
NO	2	=> INFO1

Was this past experience with transit positive or negative?

POSITIVE	1	
NEGATIVE.....	2	
DK	8	
RF	9	

Why did you stop using transit when you moved here? ALLOW UP TO FOUR RESPONSES.

ACCESS TO CAR	01	
TRAVELING LESS (CHANGED JOBS, MOVED, ETC.).....	02	
HARD TO GET TO DESTINATION ON-TIME	03	
LENGTH OF TRIP; TRANSIT TOO SLOW	04	
TOO MANY TRANSFERS	05	
TRAVELING WITH CHILDREN NOW	06	
SCHEDULE/ DOESN'T COME OFTEN ENOUGH.....	07	
NOT RELIABLE ENOUGH; NOT AT BUS STOP ON TIME	08	
DOESN'T GO WHERE I NEED IT TO.....	09	
OTHER, SPECIFY.....	97	O
DK/RF	99	X

If you needed to ride the bus for whatever reason, how would you get information on routes and schedules?

ALLOW UP TO THREE RESPONSES.

ASK A BUS OPERATOR	1	
ASK A FRIEND.....	2	
CALL TRANSIT AGENCY	3	
GO TO NEAREST BUS STOP.....	4	
LOOK IN THE PHONEBOOK	5	
INTERNET	6	
Other, specify	7	O
DK/RF	9	I

If public transportation services were changed so that it was easy to use, convenient, and information about using it was readily available, would you personally consider using it for some of your transportation needs?

YES1
 NO2 => DRAW
 DK/RF9 => DRAW

The City of Greensboro is interested in finding out what improvements to the local public transit system would make it more appealing to individuals such as yourself. I will read a list of potential improvements that might make it easier to ride transit. Using a scale of 1-5, where 5 corresponds to an improvement that would make using public transit very attractive and 1 corresponds to an improvement that would make using public transit least attractive, I would like you to rank each potential improvement.

	<i>5 Very Attractive</i>	<i>4</i>	<i>3</i>	<i>2</i>	<i>1 Least Attractive</i>
<i>Transit information more accessible and easier to obtain.</i>	<input type="checkbox"/>				
<i>Transit stops with covered waiting areas to protect against bad weather.</i>	<input type="checkbox"/>				
<i>Transit service available every 30 minutes on weekdays.</i>	<input type="checkbox"/>				
<i>Transit stop within a 10-minute walk of your home.</i>	<input type="checkbox"/>				
<i>Transit service that would get you to your destination within 15 minutes of the same time as by car.</i>	<input type="checkbox"/>				
<i>Regularly scheduled mini-bus service that circulates through your neighborhood and stops at major destinations within your community.</i>	<input type="checkbox"/>				
<i>Mini-bus service you schedule in advance to pick you up at one location and drop you off at another that also picks up and drops off other passengers along the way.</i>	<input type="checkbox"/>				

In your mind, what's the biggest drawback to using public transportation?

DOESN'T GO WHERE I NEED IT TO.....01

DOESN'T RUN WHEN I NEED IT TO02

TAKES TOO LONG.....03

INCONVENIENT / NOT AS CONVENIENT AS CAR.....04

NOT RELIABLE ENOUGH.....05

TOO MANY TRANSFERS.....06

OTHER PEOPLE USING SYSTEM.....07

NO DRAWBACKS.....08

Other, SPECIFY.....97 O

DON'T KNOW.....98

REFUSED.....99 I

I'm going to read a few statements. For each, tell me if you agree or disagree with that statement.					
FOLLOW-UP: Do you strongly "agree/disagree"?					
	<i>Strongly Agree</i>	<i>Agree</i>	<i>Disagree</i>	<i>Strongly Disagree</i>	<i>No Opinion</i>
<i>Taking transit improves air quality</i>	<input type="checkbox"/>				
<i>I enjoy driving by myself</i>	<input type="checkbox"/>				
<i>When I'm going someplace, I think more about how quickly I can get there than how much it will cost</i>	<input type="checkbox"/>				
<i>Owning and maintaining a car is expensive</i>	<input type="checkbox"/>				
<i>Building more roads is the best remedy for traffic congestion</i>	<input type="checkbox"/>				
<i>Public transit is not quick enough for me</i>	<input type="checkbox"/>				
<i>For the average person, the cost of using transit is less than the cost of driving</i>	<input type="checkbox"/>				
<i>I don't mind driving in heavy traffic</i>	<input type="checkbox"/>				
<i>Driving any type of car is higher status than riding the bus</i>	<input type="checkbox"/>				
<i>Driving is more stressful than riding the bus</i>	<input type="checkbox"/>				

If you could get on: A neighborhood mini-bus that operates on a scheduled route and serves major community destinations, OR a neighborhood mini-bus that can leave the regularly scheduled route upon request to drop-off passengers at their destinations, OR a neighborhood mini-bus that you need to schedule in advance, but which picks up and drops off passengers anywhere in your neighborhood. Would you prefer:

- The neighborhood mini-bus that operates on a scheduled route.....1
- The neighborhood mini-bus that could leave the regularly scheduled route 2
- The neighborhood mini-bus that you schedule in advance.....3
- NONE.....4

If you had the choice between: Frequent, comfortable transit service that directly connects to urban area destination, OR Frequent, comfortable transit service that directly connects one suburban community to another without transfers, OR frequent, comfortable transit service within your community. Would you prefer:

- The service that directly connects to urban area destinations.....1
- The service that connects one suburban community to another without transfers 2
- The service within your community.....3
- NONE.....4

If you had the choice between: Bus service every 30 minutes with no transfers OR Bus Service every 15 min with transfers at a convenient transfer center with frequent bus service to most destinations. Would you prefer:

- The bus service every 30 minutes with no transfers.....1
- The bus service every 15 minutes with transfers.....2
- NEITHER.....3

If Park-n-Ride lots were available, with Express Bus service to downtown, would you consider using that service?

- YES1
- NO2 => P17A
- DK/RF9 => P17A

For what purpose would you use this service?

- RECORD RESPONSE.....1 DO
- DK/RF9

I'm going to read a few statements. For each, tell me if you agree or disagree, or if perhaps you have no opinion on that statement. Follow-up: Do you strongly "agree/disagree"?					
	4 Strongly Agree	3	2	1 Strongly Disagree	0 No Opinion
Transit agencies should keep fares as low as possible to provide mobility to all Greensboro residents	<input type="checkbox"/>				
Transit agencies should have riders pay a reasonable share of the cost of operating the system	<input type="checkbox"/>				
Transit agencies should recover all of its cost from the riders	<input type="checkbox"/>				

The current cash fare for adults is \$1.00, with a monthly pass available for \$30.00 and an 11-trip ticket for \$7.00. Do you think these prices are:

Too low	1
About right	2
Too high	3
DK/RF	9

What is your marital status?

MARRIED OR PARTNER	1
SINGLE	2
RF	9

And is your spouse/partner employed?

YES	1
NO	2
RF	9

Into which of the following age categories do you fall?

16-24	1
25-34	2
35-44	3
45-54	4
55-64	5
65+	6
DK/RF	9

In considering the 2001 annual income of all members of your household, could you tell me if it is above or below \$35,000? IF /DK/RF: I understand your reluctance to share this kind of information, but let me assure you that it is completely confidential. It's important for us to collect this type of information so we can be sure we have a representative sample of people in your community.

ABOVE	1	
BELOW	2	
DK/RF	9	=> INCO1

Which of the following income categories best represents your household?

Under \$10,000	01	=> INCO1
At least \$10,000 but less than \$15,000	02	=> INCO1
At least \$15,000 but less than \$25,000	03	=> INCO1
At least \$25,000 but less than \$35,000	04	=> INCO1
At least \$35,000 but less than \$50,000	05	=> INCO1
At least \$50,000 but less than \$75,000	06	=> INCO1
At least \$75,000 but less than \$100,000	07	=> INCO1
At least \$100,000 but less than \$150,000	08	=> INCO1
At least \$150,000 but less than \$200,000	09	=> INCO1
Greater than \$200,000	10	=> INCO1
DK/RF	99	=> REFUA

Which of the following ethnic/racial groups best describes you?	
African American	1
Asian.....	2
Hispanic.....	3
Native American.....	4
White	5
Other, specify	7 O
RF	9

Do you have access to the Internet?	
YES	1
NO	2
RF	9

Is that at home, at work, or at school? UP TO THREE RESPONSES.	
HOME	1
WORK.....	2
SCHOOL	3
LIBRARY	4
OTHER, SPECIFY	7 O
RF	9 I

NOT ASKED - CODED BY OBSERVATION	
MALE.....	1
FEMALE	2

The Greensboro Transit Authority is currently in the process of forming the city long-range public transportation master plan. The success of this plan, referred to as Mobility Greensboro, will be influenced by participation from individuals such as yourself. Would you be interested in participating in Mobility Greensboro?		
YES	1	=> /THANK
NO	2	=> /THANK



APPENDIX B: **SURVEY INSTRUMENT W/ FREQUENCIES**

Not including yourself, how many other persons live in your household?		
N =	505	100%
NONE.....00	114	23%
<hr/>		
How many of them, are under age 16?		
N =	391	100%
NONE.....00	228	58%
<hr/>		
How many are between the ages of 16 and 17?		
N =	391	100%
NONE.....00	358	92%
<hr/>		
How many are between the ages of 18 and 64?		
N =	391	100%
NONE.....00	62	16%
<hr/>		
How many are age 65 and older?		
N =	391	100%
NONE.....00	361	92%
<hr/>		
Do you have a valid driver's license?		
N =	505	100%
YES.....1	473	94%
NO.....2	32	6%
DK/RF.....9	0	0%
<hr/>		
Counting yourself, how many people with a valid driver's license regularly live in your household? .		
N =	496	100%
<hr/>		
How many motor vehicles registered and in working condition do you have available for your use?		
N =	505	100%
NONE.....00	15	3%
<hr/>		
Are you currently employed in either a paying or non-paying (volunteer) job?		
N =	505	100%
YES.....1	345	68%
NO.....2	=> STUD 160	32%
DK/RF.....9	=> STUD 0	0%
<hr/>		
What is the name of your place of work?		
N =	345	100%
WORK AT HOME.....1	23	7%
OTHER, SPECIFY.....7 O	281	81%
DK/RF.....9	41	12%

Is your workplace in Greensboro, NC?			
N =		322	100%
YES	1	273	85%
NO	2	=> WCITA 48	15%
DK/RF	9	=> WCITA 1	0%

In what zip code is your place of work?			
N =		273	100%
	27401	48	18%
	27402	12	4%
	27403	9	3%
	27404	1	0%
	27405	19	7%
	27406	23	8%
	27407	13	5%
	27408	19	7%
	27409	20	7%
	27410	38	14%
	27411	4	1%
	27413	1	0%
	27420	3	1%
	27425	1	0%
	27455	8	3%
DK/RF	99999	=> WXSTR 53	19%

In what city is your place of work? NOTE! THE CODES ARE TO THE LEFT OF THE CITY NAME			
N =		49	100%
Browns Summit	078	1	2%
Burlington	003	6	12%
Casville	138	1	2%
Chapel Hill	113	1	2%
Colfax	080	1	2%
Graham	006	2	4%
High Point	083	13	27%
Jamestown	084	2	4%
Lexington	050	1	2%
Madison	141	1	2%
Mayodan	143	1	2%
Reidsville	146	3	6%
Stokesdale	093	1	2%
Welcome	056	1	2%
Whitsett	095	1	2%
Winston-Salem	076	7	14%
OTHER, SPECIFY	997	4	8%
DK/RF	999	2	4%

In the past 7 days, how have you traveled to your main paying or non-paying job? ALLOW UP TO FIVE RESPONSES.

N =	322	100%
Car- drove alone .....01	294	91%
Carpool (2+ persons "WHO COULD DRIVE THEMSELVES").....02	24	7%
Vanpool .....03	0	0%
Taxi.....04	2	1%
Bike .....05	0	0%
Walk .....06	11	3%
Other, specify .....97 O	5	2%
DK/RF .....99	1	0%

How many days per week do you usually work?

N =	345	100%
-----------	-----	------

Of these, how many do you work at home in place of going to the office (sometimes referred to as "telecommuting")? THIS DOES NOT INCLUDE BRINGING WORK HOME TO DO AFTER A DAY IN THE OFFICE.

N =	322	100%
-----------	-----	------

Does your employer allow you to work flexible hours or are your hours fixed?

N =	322	100%
FLEXIBLE .....1	146	45%
FIXED .....2	176	55%

To the best of your knowledge, do the benefits offered by your employer include any of the following? ALLOW UP TO THREE RESPONSES.

N =	322	100%
Partial payment (or subsidy) of public transit fares.....1	5	2%
Partial payment (or subsidy) of parking .....2	17	5%
Free parking.....3	210	65%
Guaranteed ride home.....4	22	7%
NONE.....0 X	97	30%
DON'T KNOW.....8 X	2	1%
REFUSED .....9 X	0	0%

At what time do you usually depart from home to go to work?

N =	322	100%
BEFORE 6AM .....1	19	6%
6AM - 9AM.....2	245	76%
9AM - 3PM .....3	39	12%
3 PM - 6PM .....4	13	4%
AFTER 6PM.....5	6	2%

At what time do you usually depart from work to return home?

N =	322	100%
BEFORE 6AM .....1	5	2%
6AM - 9AM.....2	5	2%
9AM - 3PM .....3	26	8%
3 PM - 6PM .....4	223	69%
AFTER 6PM.....5	63	20%

About how many stops did you make on your way home from work yesterday? RANGE: 0 - 20
 N = 322 100%
 NONE.....00 => STUD 201 62%

What was/were the purpose/s of your stop(s)? ALLOW UP TO 4 RESPONSES
 N = 121 100%
 PICK-UP/DROP OFF CHILD01 16 13%
 PICK-UP/DROP OFF OTHER HOUSEHOLD MEMBERS OR FRIENDS 02 5 4%
 EAT/GET COFFEE.....03 10 8%
 SHOPPING04 62 51%
 ENTERTAINMENT/VISIT05 4 3%
 PERSONAL BUSINESS.....06 33 27%
 SPORTS/RECREATION07 0 0%
 WORK-RELATED BUSINESS.....08 3 2%
 CATCH ANOTHER MODE (E.G., PARK-N-RIDE)09 0 0%
 OTHER,SPECIFY97 O 15 12%
 DK/RF99 X 0 0%

Are you currently a part-time or full-time student at a high school, college, university, trade school, or other institution of higher education?
 N = 505 100%
 YES1 83 16%
 NO2 => T1 422 84%
 DK/RF9 => T1 0 0%

What is the name of your school?
 N = 83 100%
 HOME SCHOOLED000 1 1%
 Grimsley High037 1 1%
 GTCC Middle College High.....038 7 8%
 Guilford Primary040 1 1%
 High Point Central High.....044 1 1%
 Page High081 1 1%
 Ragsdale High089 1 1%
 Southeast High095 1 1%
 Southern High.....098 1 1%
 OTHER, SPECIFY997 O 68 82%
 DK/RF999 0 0%

Is your school in Greensboro, NC?
 N = 68 100%
 YES1 59 87%
 NO2 => SCITA 9 13%
 DK/RF9 => SCITA 0 0%

In what zip code is your school?			
N =		59	100%
	27401	11	19%
	27402	4	7%
	27403	3	5%
	27405	1	2%
	27406	1	2%
	27408	1	2%
	27409	1	2%
	27410	1	2%
	27411	6	10%
	27413	2	3%
DK/RF	99999	=> SXSTR 28	47%

In what city is your school?			
N =		12	100%
Asheboro	121	1	8%
Jamestown	084	4	33%
Worthville	137	1	8%
OTHER, SPECIFY	997 O	6	50%
DK/RF	999	0	0%

How many days per week do you usually go to school?			
N =		83	100%

In the past 7 days, how have you traveled to school? ALLOW UP TO 5 RESPONSES.			
N =		82	100%
Car- drove alone	.01	58	71%
Carpool (2+ persons)	.02	13	16%
Vanpool	.03	0	0%
School Bus	.04	5	6%
Taxi	.05	2	2%
Bike	.06	0	0%
Walk	.07	11	13%
Other,specify	.97 O	1	1%
RF	.99 X	1	1%

To the best of your knowledge, does your school offer any of the following? ALLOW UP TO THREE RESPONSES.			
N =		82	100%
Partial payment (or subsidy) of public transit fares	1	3	4%
Partial payment (or subsidy) of parking	2	1	1%
free parking	3	17	21%
Guaranteed ride home	4	6	7%
NONE	5	58	71%
DON'T KNOW	8 X	3	4%
REFUSED	9 X	0	0%

At what time do you usually depart from home to go to school?		
N =		82 100%
BEFORE 6AM	1	1 1%
6AM - 9AM	2	47 57%
9AM - 3PM	3	12 15%
3 PM - 6PM	4	12 15%
AFTER 6PM	5	10 12%

At what time do you usually depart from school to return home?		
N =		82 100%
BEFORE 6AM	1	0 0%
6AM - 9AM	2	0 0%
9AM - 3PM	3	22 27%
3 PM - 6PM	4	32 39%
AFTER 6PM	5	28 34%

About how many stops did you make on your way home from school yesterday? RANGE: 0 - 20		
N =		82 100%
NONE	00 => T1	68 83%

What was/were the purpose/s of your stop(s)? ALLOW UP TO FOUR RESPONSES.		
N =		14 100%
PICK-UP/DROP OFF CHILD	01	1 7%
PICK-UP/DROP OFF OTHER HOUSEHOLD MEMBERS		
OR FRIENDS	02	1 7%
EAT/GET COFFEE	03	2 14%
SHOPPING	04	7 50%
ENTERTAINMENT/VISIT	05	1 7%
PERSONAL BUSINESS	06	2 14%
SPORTS/RECREATION	07	0 0%
WORK-RELATED BUSINESS	08	0 0%
CATCH ANOTHER MODE (E.G., PARK-N-RIDE)	09	0 0%
OTHER	97 O	5 36%
DK/RF	99	0 0%

How many days a week do you typically make trips for consumer activities, such as shopping, errands, or personal business?		
N =		505 100%
NONE	0 => EVERI	16 3%

Would you say you make more of these types of trips...		
N =		489 100%
During the week	1	167 34%
During the weekend	2	119 24%
Both	3	203 42%

When you make these types of trips, do you:		
N =		489 100%
Typically go to one location at a time, returning home between trips	1	35 7%
Typically combine errands, making several stops before returning home	2	448 92%
OTHER, SPECIFY	7 O	6 1%

At what time do you usually make these weekday types of trips?		
N =	370	100%
BEFORE 6AM	6	2%
6AM - 9AM	27	7%
9AM - 3PM	174	47%
3 PM - 6PM	90	24%
AFTER 6PM	73	20%

At what time do you usually make these weekend types of trips?		
N =	322	100%
BEFORE 6AM	4	1%
6AM - 9AM	31	10%
9AM - 3PM	234	73%
3 PM - 6PM	44	14%
AFTER 6PM	9	3%

Thinking about the most recent errand you ran, what was the name of the destination?		
N =	489	100%
RECORD RESPONSE.....1 DO	480	98%
DK/RF	9	2%

Was this in Greensboro, NC?		
N =	489	100%
YES	475	97%
NO	12	2%
DK/RF	2	0%
	=> T4A3	
	=> T4A3	

In what zip was this destination?		
N =	475	100%
.....27401	21	4%
.....27402	3	1%
.....27403	18	4%
.....27404	1	0%
.....27405	46	10%
.....27406	37	8%
.....27407	43	9%
.....27408	33	7%
.....27409	13	3%
.....27410	59	12%
.....27411	1	0%
.....27455	19	4%
.....27499	1	0%
DK/RF	180	38%
	=> T4A4	

In what city was this destination?			
N =		14	100%
Burlington	003	1	7%
High Point	083	2	14%
Hillsborough	115	1	7%
Jamestown	084	1	7%
Kernersville	068	2	14%
Thomasville	053	1	7%
Winston-Salem	076	2	14%
OTHER, SPECIFY	997	2	14%
DK/RF	999	2	14%

At what store do you conduct most or your incidental shopping, such as grocery shopping?			
N =		489	100%
RECORD RESPONSE	1 DO	477	98%
DK/RF	9	12	2%

Is this in Greensboro, NC?			
N =		489	100%
YES	1	476	97%
NO	2 => T4B3	9	2%
DK/RF	9 => T4B3	4	1%

In what zip do you conduct most of your incidental shopping?			
N =		476	100%
	27401	21	4%
	27402	1	0%
	27403	16	3%
	27404	4	1%
	27405	49	10%
	27406	48	10%
	27407	49	10%
	27408	35	7%
	27409	12	3%
	27410	82	17%
	27411	2	0%
	27412	1	0%
	27413	1	0%
	27419	1	0%
	27455	25	5%
DK/RF	99999 => T4B4	128	27%

In what city do you conduct most of your incidental shopping?			
N =		40	100%
Abner	098	1	3%
Gibsonville	081	1	3%
Graham	006	1	3%
High Point	083	1	3%
Jamestown	084	6	15%
Kernersville	068	1	3%
Winston-Salem	076	1	3%
OTHER, SPECIFY	997 O	22	55%
DK/RF	999	6	15%

You don't use public transportation now, but have you ever used it in the City of Greensboro in the past?

N =	505	100%
YES	173	34%
NO	329	65%
DK/RF	3	1%

To what extent did you rely on public transportation to get around? Would you say you used it for . .

N =	173	100%
All or most of your transportation needs,	53	31%
Some of your transportation needs, or	40	23%
Very little of your transportation needs?	80	46%

Why did you stop using public transportation? UP TO FOUR RESPONSES.

N =	173	100%
ACCESS TO CAR	120	69%
TRAVELING LESS (CHANGED JOBS, MOVED, ETC.)	2	1%
HARD TO GET TO DESTINATION ON-TIME	4	2%
LENGTH OF TRIP; TRANSIT TOO SLOW	6	3%
TOO MANY TRANSFERS	0	0%
TRAVELING WITH CHILDREN NOW	0	0%
SCHEDULE/ DOESN'T COME OFTEN ENOUGH	9	5%
NOT RELIABLE ENOUGH; NOT AT BUS STOP ON TIME	5	3%
DOESN'T GO WHERE I NEED IT TO	12	7%
LIFESTYLE CHANGE	0	0%
OTHER, SPECIFY	37	21%
DK/RF	4	2%

Have you ever lived in another city and used public transit on a regular basis?

N =	505	100%
YES	203	40%
NO	302	60%

Was this past experience with transit positive or negative?

N =	203	100%
POSITIVE	189	93%
NEGATIVE	10	5%
DK	4	2%
RF	0	0%

Why did you stop using transit when you moved here? ALLOW UP TO FOUR RESPONSES.

N =	203	100%
ACCESS TO CAR	100	49%
TRAVELING LESS (CHANGED JOBS, MOVED, ETC.)	2	1%
HARD TO GET TO DESTINATION ON-TIME	7	3%
LENGTH OF TRIP; TRANSIT TOO SLOW	10	5%
TOO MANY TRANSFERS	5	2%
TRAVELING WITH CHILDREN NOW	1	0%
SCHEDULE/ DOESN'T COME OFTEN ENOUGH	22	11%
NOT RELIABLE ENOUGH; NOT AT BUS STOP ON TIME	21	10%
DOESN'T GO WHERE I NEED IT TO	24	12%
OTHER, SPECIFY	59	29%
DK/RF	9	4%

If you needed to ride the bus for whatever reason, how would you get information on routes and schedules?
 SELECT BEST FIT. ALLOW UP TO THREE RESPONSES.

N =	505	100%
ASK A BUS OPERATOR	10	2%
ASK A FRIEND	33	7%
CALL TRANSIT AGENCY	226	45%
GO TO NEAREST BUS STOP	27	5%
LOOK IN THE PHONEBOOK	86	17%
INTERNET	129	26%
Other, specify	105	21%
DK/RF	0	0%

If public transportation services were changed so that it was easy to use, convenient, and information about using it was readily available, would you personally consider using it for some of your transportation needs?

N =	505	100%
YES	312	62%
NO	=> DRAW 189	37%
DK/RF	=> DRAW 4	1%

The City of Greensboro is interested in finding out what improvements to the local public transit system would make it more appealing to individuals such as yourself. I will read a list of potential improvements that might make it easier to ride transit. Using a scale of 1-5, where 5 corresponds to an improvement that would make using public transit very attractive and 1 corresponds to an improvement that would make using public transit least attractive, I would like you to rank each potential improvement.

	5 Very Attractive	4	3	2	1 Least Attractive
<i>Transit information more accessible and easier to obtain.</i>	56%	19%	18%	4%	4%
<i>Transit stops with covered waiting areas to protect against bad weather.</i>	68%	15%	9%	4%	4%
<i>Transit service available every 30 minutes on weekdays.</i>	64%	20%	11%	3%	3%
<i>Transit stop within a 10-minute walk of your home.</i>	66%	16%	9%	3%	6%
<i>Transit service that would get you to your destination within 15 minutes of the same time as by car.</i>	69%	17%	8%	2%	4%
<i>Regularly scheduled mini-bus service that circulates through your neighborhood and stops at major destinations within your community.</i>	66%	16%	9%	3%	6%
<i>Mini-bus service you schedule in advance to pick you up at one</i>	56%	18%	14%	6%	7%

<i>location and drop you off at another that also picks up and drops off other passengers along the way.</i>					
--	--	--	--	--	--

In your mind, what's the biggest drawback to using public transportation?

N =	505	100%
DOESN'T GO WHERE I NEED IT TO.....01	37	7%
DOESN'T RUN WHEN I NEED IT TO.....02	26	5%
TAKES TOO LONG.....03	91	18%
INCONVENIENT / NOT AS CONVENIENT AS CAR.....04	158	31%
NOT RELIABLE ENOUGH.....05	19	4%
TOO MANY TRANSFERS.....06	7	1%
OTHER PEOPLE USING SYSTEM.....07	16	3%
NO DRAWBACKS.....08	19	4%
Other, SPECIFY.....97 O	116	23%
DON'T KNOW.....98	16	3%
REFUSED.....99 I	0	0%

I'm going to read a few statements. For each, tell me if you agree or disagree with that statement.					
FOLLOW-UP: Do you strongly "agree/disagree"?					
	<i>Strongly Agree</i>	<i>Agree</i>	<i>Disagree</i>	<i>Strongly Disagree</i>	<i>No Opinion</i>
<i>Taking transit improves air quality</i>	28%	52%	12%	2%	5%
<i>I enjoy driving by myself</i>	31%	50%	12%	3%	4%
<i>When I'm going someplace, I think more about how quickly I can get there than how much it will cost</i>	25%	51%	16%	2%	5%
<i>Owning and maintaining a car is expensive</i>	36%	50%	11%	1%	2%
<i>Building more roads is the best remedy for traffic congestion</i>	7%	32%	44%	12%	5%
<i>Public transit is not quick enough for me</i>	19%	49%	18%	2%	12%
<i>For the average person, the cost of using transit is less than the cost of driving</i>	18%	58%	10%	1%	13%
<i>I don't mind driving in heavy traffic</i>	4%	30%	45%	19%	3%
<i>Driving any type of car is higher status than riding the bus</i>	6%	38%	40%	7%	10%
<i>Driving is more stressful than riding the bus</i>	17%	46%	30%	2%	6%

If you could get on: A neighborhood mini-bus that operates on a scheduled route and serves major community destinations, OR a neighborhood mini-bus that can leave the regularly scheduled route upon request to drop-off passengers at their destinations, OR a neighborhood mini-bus that you need to schedule in advance, but which picks up and drops off passengers anywhere in your neighborhood. Would you prefer:

N =	505	100%
The neighborhood mini-bus that operates on a scheduled route.....1	168	33%
The neighborhood mini-bus that could leave the regularly scheduled route 2	119	24%
The neighborhood mini-bus that you schedule in advance.....3	178	35%
NONE.....4	40	8%

If you had the choice between: Frequent, comfortable transit service that directly connects to urban area destination, OR Frequent, comfortable transit service that directly connects one suburban community to another without transfers, OR frequent, comfortable transit service within your community. Would you prefer:

N =	505	100%
The service that directly connects to urban area destinations.....1	127	25%
The service that connects one suburban community to another without transfers.....2	143	28%
The service within your community.....3	184	36%
NONE.....4	51	10%

If you had the choice between: Bus service every 30 minutes with no transfers OR Bus Service every 15 min with transfers at a convenient transfer center with frequent bus service to most destinations. Would you prefer:

N =	505	100%
The bus service every 30 minutes with no transfers.....1	271	54%
The bus service every 15 minutes with transfers.....2	199	39%
NEITHER.....3	35	7%

If Park-n-Ride lots were available, with Express Bus service to downtown, would you consider using that service?

N =	505	100%
YES.....1	342	68%
NO.....2	=> P17A 156	31%
DK/RF.....9	=> P17A 7	1%

For what purpose would you use this service?

N =	342	100%
RECORD RESPONSE.....1 DO	334	98%
DK/RF.....9	8	2%

I'm going to read a few statements. For each, tell me if you agree or disagree, or if perhaps you have no opinion on that statement. Follow-up: Do you strongly "agree/disagree"?					
	4 Strongly Agree	3	2	1 Strongly Disagree	0 No Opinion
<i>Transit agencies should keep fares as low as possible to provide mobility to all Greensboro residents</i>	55%	40%	2%	1%	2%
<i>Transit agencies should</i>	32%	44%	14%	6%	4%

<i>have riders pay a reasonable share of the cost of operating the system</i>					
<i>Transit agencies should recover all of its cost from the riders</i>	9%	14%	44%	29%	4%

The current cash fare for adults is \$1.00, with a monthly pass available for \$30.00 and an 11-trip ticket for \$7.00. Do you think these prices are:

N =	496	100%
Too low	14	3%
About right	405	82%
Too high	53	11%
DK/RF	24	5%

What is your marital status?

N =	505	100%
MARRIED OR PARTNER	245	49%
SINGLE	259	51%
RF	1	0%

And is your spouse/partner employed?

N =	245	100%
YES	185	76%
NO	59	24%
RF	1	0%

Into which of the following age categories do you fall?

N =	505	100%
16-24	70	14%
25-34	103	20%
35-44	107	21%
45-54	104	21%
55-64	54	11%
65+	64	13%
DK/RF	3	1%

In considering the 2001 annual income of all members of your household, could you tell me if it is above or below \$35,000? IF /DK/RF: I understand your reluctance to share this kind of information, but let me assure you that it is completely confidential. It's important for us to collect this type of information so we can be sure we have a representative sample of people in your community.

N =	505	100%
ABOVE	298	59%
BELOW	149	30%
DK/RF	58	11%

=> INCO1

Which of the following income categories best represents your household?

N =		149	100%
Under \$10,000.....01	=> INCO1	23	15%
At least \$10,000 but less than \$15,000.....02	=> INCO1	14	9%
At least \$15,000 but less than \$25,000.....03	=> INCO1	47	32%
At least \$25,000 but less than \$35,000.....04	=> INCO1	54	36%
At least \$35,000 but less than \$50,000.....05	=> INCO1	97	33%
At least \$50,000 but less than \$75,000.....06	=> INCO1	76	26%
At least \$75,000 but less than \$100,000.....07	=> INCO1	60	20%
At least \$100,000 but less than \$150,000.....08	=> INCO1	26	9%
At least \$150,000 but less than \$200,000.....09	=> INCO1	8	3%
Greater than \$200,000.....10	=> INCO1	5	2%
DK/RF.....99	=> REFUA	26	9%

Which of the following ethnic/racial groups best describes you?

N =		505	100%
African American.....1		148	29%
Asian.....2		7	1%
Hispanic.....3		5	1%
Native American.....4		4	1%
White.....5		300	59%
Other, specify.....7 O		29	6%
RF.....9		12	2%

Do you have access to the Internet?

N =		505	100%
YES.....1		389	77%
NO.....2		114	23%
RF.....9		2	0%

Is that at home, at work, or at school? UP TO THREE RESPONSES.

N =		389	100%
HOME.....1		336	86%
WORK.....2		223	57%
SCHOOL.....3		80	21%
LIBRARY.....4		18	5%
OTHER, SPECIFY.....7 O		4	1%
RF.....9 I		0	0%

NOT ASKED - CODED BY OBSERVATION

N =		505	100%
MALE.....1		167	33%
FEMALE.....2		338	67%

The Greensboro Transit Authority is currently in the process of forming the city long-range public transportation master plan. The success of this plan, referred to as Mobility Greensboro, will be influenced by participation from individuals such as yourself. Would you be interested in participating in Mobility Greensboro?

N =		505	100%
YES.....1	=> /THANK213	42%	
NO.....2	=> /THANK292	58%	



Appendix I
Summary of Public Meetings



Executive overview on comments gathered at Greensboro community/public meetings

Three types of groups were scheduled for meetings:

1. Neighborhoods where there either are large numbers of residents who currently ride the bus or the potential to add riders along existing routes
 2. Social service agencies who work with transit dependent clients
- Business group meeting at the Chamber of Commerce.

All three groups complimented GTA on its service improvements that were true even before the Depot was opened. There was also a widespread desire for better information about schedules. That was either something as simple as wanting to have stacks of printed schedules to asking for more schedule information on the signs. Predictability and on-time service will help increase ridership.

A. Neighborhood organizations

Regarding the first group of neighborhood organizations, their suggestions centered both on schedule and/or route changes and specific amenities like benches, shelters, sidewalks and streetlights. Although they were repeatedly told that the GTA consultants were looking for long-range solutions, their suggestions were predominately for immediate needs. The one exception was in Glenwood when an elderly neighbor asked GTA to consider development of a senior shuttle that would go to various neighborhoods on predetermined days of the week or month to allow people to get to medical and other appointments.

B. Social service providers

The social service agencies focused their attention on getting their clients both to and from work and social services. This was especially critical when their own budget cuts had eliminated a van that brought workers back from jobs late at night. Lutheran Services could name specific routes (i.e., Bessemer, Battleground and Wendover) where fast food restaurants were clustered that employed their clients. Attention is called to the report from that meeting. Likewise, the meeting with Urban Ministries offered both compliments and suggestions. They also expressed concern with the relocation of DSS and the prediction that would severely extend the amount of time their clients would need to access needed DSS services.

Given the fact that data collected at these meetings was significantly more useful than what was gleaned from the meetings with the neighborhoods, it might be worthwhile for GTA to consider quarterly meetings with these service providers as well as identification of any other similar groups. Unfortunately, a scheduled meeting with the Housing Authority had to be canceled because of miscommunication on the part of the consultant. Closer communication as GHA sites new public housing is always needed. Likewise knowing where there are large clusters of Section Eight housing would also be important.

C. Chamber/major employers meeting

Thanks is given to Allen Purser for allowing this meeting to be held at the Chamber as well as to

invite his Transportation Committee to attend. As business people, these attendees stressed the need to market GTA's services. Indeed, they felt that a massive public education campaign was needed along the lines of the water conservation effort of the previous summer. Their comments were very specific, even pointed and are included in the report.

They also brought to bear their knowledge of economic development trends, predicting that designating corridors that could support rapid transit could prove difficult given both the Triad's dispersed development patterns and job losses along specific corridors.

The assumption had been that getting employees to jobs might be a worthy goal for GTA. However, unlike with the social service agencies, these attendees evidenced less need for such service. One invitee declined to attend, directing the consulting to contact their temporary employment agency. Unfortunately, despite calls, faxes and letters, that agency did not attend. It is in all probably a good suggestion that might be pursued in future work.

By the same token, attendees at the Consensus Building workshops often encourage work with the college campuses. Two representatives were in attendance at the meeting at the Chamber. UNCG felt students had little interest in using the bus even though that campus has a severe parking shortage. GTCC might prove a more promising partner for GTA.

Additional investigation needed:

- Conduct a census of sidewalks leading to current bus stops
- Work with social service agencies to meet the needs of those who are transit dependent
- Continue GTA's work with non-English speaking populations
- Assess bus use for summer school students (one community indicated students who missed their school buses were using GTA)
- As Greensboro builds multifamily, subsidized and affordable housing, especially places where seniors and children live, the City needs to plan together with GTA
- Links between transportation and land use, transit and work, aging population and transportation alternatives all warrant additional study
- Public education to change acceptance of public transportation needs to be undertaken

A. Neighborhood organizations:

Glenwood.

This is a well-organized group in a neighborhood near the Coliseum where issues like event traffic and their own changing demographics as an aging neighborhood factored into their transit concerns. When asked how many rode transit, very few raised their hands. As with Dr. Goldie Wells, the community nevertheless wants access to transit for themselves, their families and their neighbors.

The senior population expressed concern about getting to medical appointments and other errands (drugs, food). An attendees asked if GTA might be able to run a special shuttle service for seniors, at specific times on say Tuesday and Thursday to Glenwood and to other communities on other days. Bruce explained SCAT but we agreed to pass along the concept for consideration.

Attendees said that route maps would be helpful and an admitted night owl asked for later service. Express buses to Jamestown and High Point are also needed, as are more stops in neighborhoods. However another attendee said that streets are not wide enough for bus access particularly where there is on-street parking. Another suggestion was that more information be included on the signage.

Partnership Village.

A group from this area has been pressing for a bench or shelter for some time and has even approached the apartment owner across the street to see if the stop could be sited on his property. Their concern was prompted in part by the fact that an elderly resident had missed the bus and was unable to walk 10 minutes to the next stop to catch the bus or to have a place to rest out of the heat until the next bus came a half hour later.

The heaviest bus usage is in the mornings and late afternoons although it might be used in the evenings. Route #3 changes at night and the street is dark.

It was explained that a field study and site analysis will be needed to ascertain if the shelter would fit across the street not to mention needing permission from adjacent property owners. The need to be wheelchair accessible, particularly if a shelter were added, was also explained. The existing shelters are being repaired and repainted so there would be a longer delay to erect a shelter. When asked if a bench would suffice, the group prefers a shelter but understands the site may not work for a shelter. There was also a request for a trash receptacle, which Bruce said could be done more quickly. He also said he would check with the appropriate City departments to see if sidewalks and street lighting are planned for Greenbrier.

Attendees recounted the challenges of running to catch and/or flag down buses, especially since a large number of neighbors rely on buses for their transportation needs. Often they walk to Flint to catch that bus, although one of the residents in particular cannot make that trek. Bruce gave the caseworker some details on SCAT and the free transportation of a County system that might help Mr. Jones in particular.

This group uses GTA to go to medical appointments, to classes, to visit family members, to get to church. Parents of school-aged children find that when they miss their school bus, they catch GTA. Summer school students also ride GTA.

The group praised the Depot and the GTA service in particular. They expressed an interest in more information on the poles about the schedule as well as a way to call to check on-time service. They added that the service was “so much better than it was.” They want to ride the bus and to know the weekend schedule in particular. Bruce offered to bring brochures to the Partnership Village office and attendees requested a full set since they often transfer. To educate riders, they suggested information be sent to the morning shows on Channels 2, 8 and 12, all of which they watch.

An attendee indicated that calls to the Help line were not helpful; indeed they had been treated rudely when calling that number. The group also expressed some interest in adopting the bus

shelter and asked to receive information on the next Consensus Building workshop so they might send a representative. Bruce will fax a flyer to their office.

It should further be noted that Bruce made a preliminary site visit to the shelter/bench location as he left the meeting.

Ray Warren (first and second meeting)

Our time to talk was severely limited because a school representative spoke for 45 minutes, then took questions. There are a large number of bus riders in the housing complex so they were especially grateful when free passes were distributed to attendees. Riders expressed an interest in shelters to protect them from the winter weather and the summer sun. Unfortunately their preferred stop has been moved, although two other stops remain in Ray Warren. Although they understood why the stop was removed after the new home was built on the formerly vacant lot and the homeowner had been vocal in his complaints, they insisted a stop was needed near that location and that they now had to walk too far to ride GTA. GTA and the consultant offered to return with a map to ascertain where riders lived in relation to the existing sites.

The next meeting fell near July 4 and was cancelled. GTA called to make sure there was a meeting the next month, went to significant trouble to print both one large and multiple small maps to ascertain if the current stops were indeed less convenient. The consultant made a return trip, waiting in vain with GTA and the community police officer. Evidently the meeting had been cancelled without notification, although GTA had called again just the day before.

North East Greensboro

This is a very well organized community group that offers attendees significant data on government services from sanitation and recycling data and summer library programs to community safety. Dr. Wells had made sure they were represented at the Consensus Workshop (that gentleman was at this meeting as well) and that they are made aware of GTA's offerings. While the current ridership was significantly smaller than in Ray Warren Homes, they asked questions about how to get to a GTCC campus, asked that consideration be given to extended hours before new routes were added and had a specific question about a PART route. Sharon Smiley distributed questionnaires with the hope they would be filled out and faxed to GTA.

B. Social service providers:

Lutheran Services

When Sharon Smiley and Mary Hopper visited with these case workers they were told that currently it is better if a bus rider lives and works on the same line because transfers were so time consuming for this population (can take 3-4 hours a day!) Because of that, many will only ride buses if no other means of transportation are available. Since a number are not English proficient and are unfamiliar with the vocabulary to ask for needed directions, using GTA can become daunting. This agency appreciates GTA's willingness to bring buses to educate riders.

They also noted with gratitude the significant improvements that have been made by GTA. They

requested that all buses not hub downtown and asked for greater frequency. The staff was cognizant that this is a chicken and egg situation, that usage must precede expansion and improvements.

One Lutheran Services staff member who works in employing clients expounded on the difficulties of getting workers to and from the few jobs they can locate. He said that the PART shuttle is well overdue and that jobs along the 68 corridors were, in his words, “booming.” He went on to speak of specific schedules including that the High Point service stops at 5 or 6p.m., that Taco Bells were willing to employ workers but that they were unable to get their clients to and from those jobs and that late night service is especially needed along routes like Wendover, Bessemer and Battleground where there were clusters of fast food establishments who would employ more workers. If a worker doesn’t get off until 1 or later, they cannot get home after working. Because they are paid poorly riding cabs is not an option. If they walk, they get blisters on their feet and cannot stand when they return to work. If they miss work, they lose jobs. Other employers mentioned by name include KFC, Chili’s, Chop House, and hotels. Lutheran Services had hired a night driver to get workers to Holden but their funds had cut that service. Returning to a conversation of bus training, Lutheran Services was willing to help with translation for travel training and had printed laminated instruction cards for non-English speakers to use when lost. Additional conversations about Guaranteed Ride Home may be needed, as is information about possible pass rate changes.

Attendees also asked if consideration could be given to extending service to the area of Church Street that is 5-8 miles outside city limits. They had specific places (Huffine Mills?) where some clients needed service. Smiley indicated they were looking at Park and Ride locations in that area.

As has happened in other conversations, this group expressed concerns about client access to the new DSS location and was told that DSS was conferring with GTA. Caseworkers feared this move could add hours of travel to their clients compounded by having a 4-hour wait at DSS. Another preferred GTA purchase more buses instead of spending money opening Depot. Cross-town and more direct lines are needed now. The current connections were termed very confusing. GTA also needs to look at the difficulties of getting to the Social Services office.

UPS off Industrial Drive needs a stop. Folks work 5-10:30 shifts and 11 – 2 as well as a number of college students who work there and may need rides.

Attendees also talked about the challenges of translations of some lesser-known languages. While Spanish works well, transit doesn’t translate well into other languages that have no words to describe these activities. They also asked specific questions about where passes could be purchased and suggested looking at other locations like banks so people could combo errands. They said the CCB that the Montagnards used had a manager who was very helpful.

Although the notes might suggest this group was critical of GTA, which was not the sense one got from them. Indeed they had very specific and useful information. In reality, meeting with the service providers has been more useful than with the neighborhoods.

Urban Ministries

This is another meeting with service providers who have an excellent grasp of the challenges of serving their clients. They were interested in weekend and later night services by both GTA and PART and appreciative of the improvements that have been made. They specifically asked about routes like Depot to Four Seasons and expressed some concern about pass increase although understood the need. They wanted to know how to get someone from Weaver House to the shelter in High Point and were glad to know more about PART's services there as well as to the airport – especially that they now can access airport proper. Printed schedules are needed at the bus stops themselves. As is often the case at such meetings, attendees who have moved from the north have specific questions about certain services (use to transport to schools) as well as why some stops have benches, shelters while others do not. Perhaps it would be useful to explain the ridership numbers that bring extra amenities to a stop. Another person wanted to know if the shelters were flammable. They wanted to know all the points of purchase – unfortunately virtually no one had visited the Depot so all were unfamiliar with that set up. This group also expressed how difficult it was to get to Social Security as well as concerns about access to the new DSS office. They wanted specific fleet information and were glad to know new buses were in service since they knew of mechanical problems. One transplant was appalled at what bus drivers made here since he dad had been a driver in the northeast US.

C. Chamber/major employers meeting

These notes will be broken into participant-specific comments after some generalized comments are noted. They emphasized that transit ridership requires a total change of culture. Allen Purser commented that riding the bus was a cost savings to him personally so that might be a selling point to overcome reluctances. People like to have their car right there. Vanpooling is hard to accept for most who also didn't want to adjust to the schedules of others. In downtown Greensboro, parking is plentiful and inexpensive, particularly with all the City lots. Only exorbitant gas or parking costs may force folks to abandon their autos. There was a strong comment that transit authorities invariably jettison marketing budgets at their own peril. GTA has a good story and must tell it to folks. Attendees were pleased to learn that GTA educates people on how to ride a bus. The City needs to put the same energy into talking about the advantages of riding a bus that they did on curtailing water usage last year. Purser talked about the need in the context of non-attainment of air quality standards and the impact on that emission that comes from mobile sources like cars. Take the bus. Stop building parking decks.

While they were happy to hear that ridership numbers were climbing and appreciated the improvements that the Depot brings, they also wanted improvements like color-coded lines for routes to make it easier for the less regular rider to understand (they referred to subway systems they knew) and to start by teaching children in the context of environmental awareness. They cited how aggressively anti-smoking children now were with their parents, so felt early education was important on bus ridership to turn the tide. “Children need to be taught practical things like how riding a bus is better than a car.” Guilt and shame were not ruled out as motivators. They encouraged GTA to sell their own message, perhaps with a sign on the side of a bus that says Ride This Bus for Change. Have folks write letters to the editor and get media coverage. They liked the idea of Try Transit Week. Make using Park n Rides a necessity, not a choice.

Want to see more racks with brochures and repeated the need to have red, blue, yellow, green routes.

When asked about the potential for rapid transit, these attendees felt that traditional routes like the 85/40 corridor had suffered so many closings that finding the correct corridors to support transit was not possible. Indeed they expressed some concerns about the viability of commerce in the Triad and spent some time examining alternative industries like biotech and medicine, envying Durham's new designation as a city of medicine. They said the Triad could no longer look at its traditional industries of textiles, furniture and tobacco – and that the FEDEX opening in 2006 or 2007 would be very helpful.

UNCG comments

An UNC-Greensboro employee affirmed that while transportation was not their mission, dealing with parking was a reality on most campuses. We did learn that the state does not pay for parking decks so that funding is raised with parking fees. There are only 4000 spaces on campus and 14,500 students. Although half of the student body lives within 1/2 mile of campus – a higher percentage than in past years – the requests for parking permits keep climbing. His comment was that “they would have to be forced to use the bus.” UNCG tried to raise the parking fees as a deterrent and all that happened was that the students complained loudly as they paid.

TIMCO

Timco employs 1400, most of who drive to work. They run multiple shifts and the PART schedule does not fit their shift schedule. While they are pleased with the new service to the airport, it does not help them.

GTCC

GTCC has a bus to campus. Their parking requests are over 700-800 of the available spaces. They wish more would ride transit since the cars clog the area and many are late for class because of looking for a place to park. They do market what they have in the way of bus service. The GTCC rep asked if he could commute to work by bus (he lives at Greenwood and Friendly) and was dismayed that it would take an hour and a transfer. GTCC is reeducating people in graphic arts including CAD, culinary, aviation, plumbing, HVAC, nursing, dental, etc, but there is some attrition with many leaving before they finish programs. Their five campuses give students a choice and the new E. Wendover Campus will consolidate some programs and move some trade programs. A new offering is entertainment technology in a new \$8 million facility.



Appendix J
Supporting Information for Security Plan



APPENDIX J-1 FTA Recommended Transit Protective Measures by Threat Level

FTA Recommended Transit Protective Measures: GREEN

Low Condition (Green). This condition is declared when there is a low risk of terrorist attacks.

Measure 1. Refining and exercising as appropriate preplanned Protective Measures.

Measure 2. Ensuring personnel receive proper training on the Homeland Security Advisory System and specific preplanned department or agency Protective Measures.

Measure 3. Institutionalizing a process to assure that all facilities and regulated sectors are regularly assessed for vulnerabilities to terrorist attacks, and all reasonable measures are taken to mitigate these vulnerabilities.

Measure 4. All contractors and visitors must check or sign in and out of designated facilities or areas within the facility that are considered key command, control or communications centers or areas.

Measure 5. Ensure existing security measures are in place and functioning such as fencing, locks, camera surveillance, intruder alarms, and lighting. Identify those additional security measures and resources that can enhance the security at the higher Threat Condition levels, e.g., increased surveillance.

Measure 6. Establish local, regional and system-wide threat and warning dissemination process, emergency communications capability, and contact information with law enforcement and security officials, including local FBI Field Offices, first responders, regional and district US DOT and FTA representatives. Emergency communications should have redundancy in both hardware and means to contact security officials, law enforcement agencies, and mobile field command centers.

Measure 7. Develop terrorist and security awareness and provide information and educate employees on security standards and procedures. Caution employees not to talk with outsiders concerning their facility or related issues.

Measure 8. Advise all personnel at each facility to report the presence of unknown personnel, unidentified vehicles, vehicles operated out of the ordinary, abandoned parcels or packages, and other suspicious activities.

Measure 9. Develop procedures for shutting down and evacuation of the facility. Facilities located near critical community assets should be especially vigilant of security measures.

Measure 10. Incorporate security awareness and information into public education programs and notifications to emergency response organizations.

Measure 11. Survey surrounding areas to determine those activities that might increase the security risks that could affect the facility, e.g., airports, government buildings, industrial facilities, pipelines, etc.

Measure 12. Ensure contingency and business continuity plans are current and include a response to terrorist threats.

Measure 13. Develop and implement hardware, software, and communications security for computer based operational systems.

FTA Recommended Transit Protective Measures: BLUE

Guarded Condition (Blue). This condition is declared when there is a general risk of terrorist attacks.

Measure 14. Establish liaison with each station or facility served to coordinate measures that may be necessary if the Threat Condition increases.

Measure 15. Ensure that a response can be mobilized and review facility security plans and procedures including bomb threat, chemical, biological or radiological threat and evacuation procedures. Ensure plans incorporate EOD and tactical teams as necessary, including accessibility to explosive detection capabilities such as K-9 teams or electronic sniffers.

Measure 16. Inspect perimeter fencing and repair all fence breakdowns. In addition, review all outstanding maintenance and capital project work that could affect the security of facilities.

Measure 17. Review all operations plans, personnel details, and logistics requirements that pertain to implementing higher Threat Condition levels.

Measure 18. Inspect all CCTV/Video Camera/VCR equipment and intercom systems where applicable to ensure equipment is operational.

Measure 19. Review and ensure adequacy of personnel and ID issuance and control procedures.

Measure 20. Require each visitor to check in at a designated facilities or areas within the facility that are consider key command, control or communications centers or areas and verify their identification - be especially alert to repeat

visitors or outsiders who have no apparent business at the facility and are asking questions about the facility or related issues including the facility's personnel. Be familiar with vendors who service the facility and investigate changes in vendor personnel.

Measure 21. Inspect emergency supplies to ensure equipment is in good working order.

Measure 22. Provide the public with any information that would strengthen its ability to act appropriately.

Measure 23. At regular intervals, remind all personnel to be suspicious and inquisitive about strangers, particularly those carrying suitcases or other containers. Watch for unidentified vehicles on or in the vicinity of facilities. Watch for abandoned parcels or suitcases and any unusual activity.

FTA Recommended Transit Protective Measures: YELLOW

Elevated Condition (Yellow). An Elevated Condition is declared when there is a significant risk of terrorist attacks.

Measure 24. Inform all law enforcement and security officials with an operational need to know of the increased threat. Communicate this information to agency employees who have an operational need to know. Reinforce awareness of responsibilities with employees.

Measure 25. Test security and emergency communications procedures and protocols. Post Security Alert if appropriate. Check communications with designated emergency response or command locations.

Measure 26. Secure all buildings and storage areas not in regular use. Increase frequency of inspection and patrols within the facility including the interior of buildings and along the facility perimeter. Increase surveillance in areas considered key command, control or communications centers and areas such as truck docks, taxi lanes, parking lots, bridges, tunnels, and interlockings, as applicable.

Measure 27. Check designated unmanned and remote sites at more frequent intervals for signs of unauthorized entry, suspicious packages, or unusual activities.

Measure 28. Reduce the number of access points for vehicles and personnel to minimum levels and periodically spot check the contents of vehicles at the access points. Be alert to vehicles parked for an unusual length of time in or near a facility.

Measure 29. Inspect all mail and packages coming into a facility. Do not open suspicious packages. Review the USPS "Suspicious Mail Alert" and the "Bombs by Mail" publications with all personnel involved in receiving mail and packages.

Measure 30. Network with local law enforcement intelligence units, i.e. FBI field offices, and liaison, as appropriate, with other departments.

Measure 31. Ensure that personnel with access to building plans and area evacuation plans be available at all times. Personnel should be able to seal off an area immediately. The Director of Safety and Security and staff required to implement security plans should be on call and readily available.

Measure 32. Increase security spot checks of vehicles and persons entering facilities.

Measure 33. Review and implement security measures for high-risk personnel, as appropriate.

Measure 34. Increase the frequency of warnings by Low Condition (Green) and Guarded Condition (Blue) and inform personnel of additional threat information as available. Implement procedures to provide periodic updates on security measures being implemented.

Measure 35. Ensure that a company or facility response can be mobilized appropriate for the increased security level. Review communications procedures and back-up plans with all concerned.

Measure 36. Review with all facility employees the operations plans, personnel safety, security details, and logistics requirements that pertain to implementing increased security levels. Review notification/recall lists.

Measure 37. Confirm availability of security resources that can assist with 24/7 coverage as applicable.

Measure 38. Step up routine checks of unattended vehicles, scrutiny of packages and vehicles, and monitor critical facilities and key infrastructure (e.g., directed patrol checks of hatches, traction power substations, signal equipment, tracks, switches, rail yards and shops, rights-of-way, parking lots, etc.) are properly secured.

Measure 39. Limit visitor access to key security areas and confirm that the visitor has a need to be and is expected. All unknown visitors should be escorted while in these areas.

Measure 40. Advise local police agencies that the facility is at Elevated Condition (Yellow) and advise the measures being employed. Coordinate emergency plans as appropriate with nearby jurisdictions.

Measure 41. Resurvey the surrounding area to determine if activities near the facility could create emergencies and other incidents that could affect the facility, e.g., airports, government buildings, industrial facilities, railroads, other pipelines, etc.

Measure 42. Instruct employees working alone at remote locations or on the ROW to check-in on a periodic basis.

Measure 43. Check to ensure all emergency telephone, radio, intercom, and satellite communication devices are in place and they are operational.

Measure 44. Direct all personal, company, and contractor vehicles at the facility are secured by locking the vehicles. Remind Bus drivers to lock vehicles and check vehicles before entering or driving.

Measure 45. Interface with vendors and contractors to heighten awareness and report suspicious activity. Post signs or make routine public announcements that emphasize the need for all passengers to closely control baggage and packages to avoid transporting items without their knowledge.

Measure 46. Assign canines to visible patrols in stations where applicable.

Measure 47. Alert bus and helicopter units, if applicable.

Measure 48. Increase special foot patrols, bicycle patrol, and bus and train boardings as appropriate. Use canine patrols if available.

Measure 49. Develop and implement a schedule for increasing the frequency of inspection including specific areas and item such as; telephone booths, garbage containers, and all public areas.

Measure 50. Assessing whether the precise characteristics of the threat require that further refinement of preplanned Protective Measures.

Measure 51. Implementing, as appropriate, contingency and emergency response plans.

Measure 52. Keep all personnel involved in implementing antiterrorist contingency plans on call.

Measure 53. Secure and regularly inspect all buildings, rooms, and storage areas not in regular use.

Measure 54. At the beginning and end of each workday and at other regular and frequent intervals, inspect the interior and exterior of buildings in regular use for suspicious packages.

Measure 55. Examine mail (above the regular examination process) for letter or parcel bombs.

Measure 56. Check all deliveries to facility and loading docks.

Measure 57. Make staff and dependents aware of the general situation in order to stop rumors and prevent unnecessary alarm.

Measure 58. At an early stage, inform members of local security committees of actions being taken. Explain reasons for actions.

Measure 59. Operate random patrols to check vehicles, people, and buildings.

Measure 60. Implement additional security measures for high-risk personnel as appropriate.

FTA Recommended Transit Protective Measures: ORANGE

High Condition (Orange) A High condition is declared when there is a high risk of terrorist attacks.

Measure 61. Move cars and objects (e.g., crates, trash containers) at least 25 meters from buildings (Where possible) particularly highly populated, mission related, or high profile buildings. Consider centralized parking. Move automobiles and other non-stationary items from station and terminal perimeters and other sensitive buildings or areas. Identify areas where explosive devices could be hidden.

Measure 62. Close and lock gates and barriers except those needed for immediate entry and egress. Inspect perimeter fences on a regular basis. Ensure that other security systems are functioning and are available.

Measure 63. Increase security manpower for additional surveillance, to act as a deterrent and prevent unauthorized access to secure areas, deploy specialty/technical resources, and enact local tactical plans, if applicable. The areas recommended for additional patrols should include railroad terminals, on trains and busses, at bus stops, parking areas, loading docks, ticket counters, secure areas, bridges, tunnels and interlockings. Increasing surveillance of critical locations.

Measure 64. Arrange for and deploy plainclothes law enforcement or security officials for surveillance in terminals, stations and other location as appropriate.

Measure 65. Physically inspect visitors and randomly inspect their suitcases, parcels, and other containers.

Measure 66. Continue Low, Guarded and Elevated measures or introduce those that have not already been implemented.

Measure 67. Activate emergency response plans.

Measure 68. Reduce facility access points to the absolute minimum necessary for continued operation. Restrict threatened facility access to essential personnel only.

Measure 69. Advise local police agencies that the facility is at a High Condition (Orange) and advise the measures being employed.

Measure 70. Consult with local authorities about control of public roads and accesses that might make the facility more vulnerable to terrorist attack if they were to remain open. Take additional precautions at public events and possibly consider alternative venues or even cancellation.

Measure 71. Erect barriers and obstacles to control direction of traffic flow and protect that terminal, station or other key area/facility from an attack by a parked or moving vehicle - company vehicles may be used for this purpose. Implement centralized parking and shuttle bus service where feasible.

Measure 72. Schedule more frequent visits to remote sites and other locations that are potentially impacted.

Measure 73. Increase the frequency of call-ins from remote locations. Employees should not work alone in remote areas.

Measure 74. Check all security systems such as lighting and intruder alarms to ensure they are functioning. Install additional, temporary lighting if necessary to adequately light all suspect areas or decrease lighting to detract from the area.

Measure 75. Identify the owner of all vehicles parked at key command, control, or communications areas or other critical areas/facilities/ and have all vehicles removed which are not identified.

Measure 76. Strictly enforce control of entry. Inspect all vehicles entering key areas/facilities including the vehicle's cargo areas, undercarriage, glove boxes, and other areas where dangerous items could be concealed.

Measure 77. Limit access to designated facilities to those personnel who have a legitimate and verifiable need to enter the facility. Implement positive identification of all personnel - no exceptions. Evacuate all non-essential personnel.

Measure 78. Implement frequent inspection of key areas or facilities including the exterior and roof of all buildings and parking areas. Increase patrolling at night and ensure all vulnerable critical points are fully illuminated and secure.

Measure 79. If threat is region specific, alert connecting region(s) of potential need for additional manpower and/or equipment; commanding officers of connecting region(s).

Measure 80. Review procedures and make necessary preparations to establish Command Center(s) where applicable; make necessary preparations to dispatch Mobile Command Centers and/or Air Wings in the event of an actual emergency; prepare to initiate an incident command system or similar incident management structure for organizing the response to emergencies. Prepare to execute contingency procedures, such as moving to an alternate site or dispersing the workforce.

Measure 81. Disable all baggage lockers where applicable.

Measure 82. Restrict access to boarding areas to ticketed passengers only.

Measure 83. Coordinate necessary security efforts with Federal, State, and local law enforcement agencies or any National Guard or other appropriate armed forces organizations.

Measure 84. Keep all personnel responsible for implementing antiterrorist plans on call.

Measure 85. Enforce centralized parking of vehicles away from buildings.

Measure 86. Increase patrolling of the facilities.

Measure 87. Protect all designated vulnerable points.

FTA Recommended Transit Protective Measures: RED

Severe Condition (Red). A Severe Condition reflects a severe risk of terrorist attacks.

Measure 88. Increase security patrol activity to the maximum level sustainable. Increase perimeter patrols and inspections of facility.

Measure 89. Cancel or delay all non-vital facility work conducted by contractors, or continuously monitor their work with company personnel as applicable.

Measure 90. Continue all Low, Guarded, Elevated and High Condition measures or introduce those that have not already been implemented.

Measure 91. Implement emergency and continuity plans as appropriate. Reduce restricted area access points to an operational minimum.

Measure 92. Augment security forces to ensure absolute control of key command, control or communications centers or areas and other potential target areas. Establish surveillance points and reporting criteria and procedures.

Measure 93. Limit schedule or routing.

Measure 94. Remove unattended, unauthorized vehicles parked within 300 feet of a terminal building or station where passengers load or unload.

Measure 95. Increase or redirect personnel to address critical emergency needs.

Measure 96. Assign emergency response personnel and pre-position and mobilize specially trained teams or resources.

- Measure 97.** Monitor, redirect, or constrain transportation systems.
- Measure 98.** Close public and government facilities.
- Measure 99.** Identify all vehicles within operational or mission support areas.
- Measure 100.** Search all vehicles and their contents before allowing entrance to facilities.
- Measure 101.** Control access and implement positive identification of all personnel.
- Measure 102.** Search all suitcases, briefcases, packages, etc., brought into the facility.
- Measure 103.** Frequent checks of building exteriors and parking areas.
- Measure 104.** Minimize all administrative journeys and visits.
- Measure 105.** Coordinate the possible closing of public roads and facilities with local authorities.

FTA Recommended Transit Activities: BLACK

A Black (Attack) condition means that a terrorist attack has occurred.

Measure 106. Activate Immediate Action Drills (IAD) and Emergency Responses to a Terrorist Attack (there are 10 essential IAD's)

Measure 107. Report the attack immediately to all emergency response organizations

Measure 108. Provide for security of the site and other transit system assets during the emergency and be alert to possible secondary attacks.

Measure 109. Assist response to any Casualties

Measure 110. Activate measures to mitigate the effects of the Attack

Measure 111. Assess immediately impact of the attack on transit service and facilities and adjust or terminate services as required.

Measure 112. Advise FTA and FBI immediately of all know information regarding the nature of the attack so that FTA, FBI and others may immediately disseminate that information to other transit properties nationwide.

Measure 113. Provide Internal and Public Information ASAP

Measure 114. Designate the Incident Commander and Activate Transit Emergency Response (or Operations) Center and/or dispatch representatives to appropriate Emergency Operations Centers

Measure 115. Mobilize and provide transit assets (communications links, equipment, facilities and personnel) in support of the overall incident response effort.

Measure 116. Identify Attackers for Responders if witnesses and/or surveillance can provide timely and relevant information

Measure 117. Activate "on-call" external contractors or other special support as required

FTA Recommended Transit Activities: PURPLE

A Purple condition designates business recovery activities after an attack.

Measure 118. Activate (or hastily develop) Business Recovery Plan

Measure 119. Restore Transit System capabilities

Measure 120. Restore the Scene of Attack to functionality

Measure 121. Guard against secondary Attacks

Measure 122. Evaluate why Attack succeeded and update Threat and Vulnerability Analysis

Measure 123. Identify and implement corrective measures

Measure 124. Restore Public confidence by announcing new measures

Measure 125. Return to an appropriate preventative level of GREEN thru RED

Measure 126. Coordinate funding and other needs for transit system restoration with FTA

Measure 127. Identify Short and Long Term Capital replacement needs, develop plans and detailed designs

Measure 128. Complete an After Action report

APPENDIX J-2

Top 20 Security Program Action Items for Transit Agencies

Management and Accountability

1. Written security program and emergency management plans are established.
2. The security and emergency management plans are updated to reflect anti-terrorist measures and any current threat conditions.
3. The security and emergency management plans are an integrated system program, including regional coordination with other agencies, security design criteria in procurements, and organizational charts for incident command and management systems.
4. The security and emergency management plans are signed, endorsed, and approved by top management.
5. The security and emergency management programs are assigned to a senior level manager.
6. Security responsibilities are defined and delegated from management through to the front line employees.
7. All operations and maintenance supervisors, forepersons, and managers are held accountable for security and emergency management issues under their control.

Security Problem Identification

8. A threat and vulnerability assessment resolution process is established and used.
9. Security sensitive intelligence information sharing is improved by joining InfraGuard, the FBI Regional Task Force, and the Surface Transportation Intelligence Sharing & Analysis Center (ISAC); security information is reported through the National Transit Database (NTD).

Employee Selection

10. Background investigations are conducted on all new front-line operations and maintenance employees.
11. Criteria for background investigations are established.

Training

12. Security orientation or awareness materials are provided to all front-line employees.
13. Ongoing training programs on safety, security, and emergency procedures by work area are provided.
14. Public awareness materials are developed and distributed on a system-wide basis.

Audits and Drills

15. Periodic audits of security and emergency management policies and procedures are conducted.
16. Tabletop and functional drills are conducted at least once every six months and full-scale exercises, coordinated with regional emergency response providers, are performed at least annually.



Document Control

17. Access to documents of security-critical systems and facilities is controlled.
18. Access to security-sensitive documents is controlled.

Access Control

19. Background investigations are conducted of contractors or others who require access to security-critical facilities, and ID badges are used for all visitors, employees, and contractors to control access to key critical facilities.

Homeland Security

20. Protocols have been established to respond to the Office of Homeland Security Threat Advisory Levels.

APPENDIX J-3

APTA Checklists for Emergency Response Planning and System Security

December 2001

(This checklist is provided as guidance only and should be expanded or modified to meet individual transit agency needs.)

Emergency Response Planning, Coordination, Training

- Emergency Response planning, coordination, and training is formalized and documented
- Emergency Response Plan identifies responsibilities of employees by function
- Emergency Response planning includes preparedness for multiple concurrent events
- Service continuation, restoration / recovery plan developed
- Emergency drills and table-top exercises scheduled on a regular basis
- Coordination with security / transit police
- Coordination and training with outside agencies
 - Fire / rescue units
 - Hospitals
 - Police
 - Hazardous materials / Environmental agencies / Regional Office of Emergency Management
- Media relations / information control procedures and policies established (internal and external to agency)
- Documentation of drills maintained; drill critiques held; recommendations recorded with follow-up
- Emergency procedures reviewed by Safety Management Team on a regular basis and updated as needed
- Procedure revisions and updates incorporated into evacuation procedures; SOPs developed for signature(s) and distribution
- Regular assessments of employee proficiency conducted
- Emergency contacts list developed / current / and responsibility for call-outs identified
- Procedure exists for alternate Operations Control Center in the event of evacuation
- Emergency evacuation routing for transit vehicles developed
- Employees issued quick reference guidelines for emergency situations
- Support systems developed to provide post-incident support to customers and employees
- Regular functional testing / inspection of emergency support equipment and systems (e.g., emergency phones, CCTV, alarms, onboard/in-vehicle equipment, two-way radios, fans, pumps, generators, etc.)
- Pre-determination of factors that would require partial or full service shut-down
- Standard Operating Procedures for HVAC operations in various emergency conditions
- Contingency plans for loss of electrical power and radio or phone communications
- Development of appropriate pre-determined public address announcements for station platforms and on-board vehicles

Security

- Security Plan established
- Security Plan addresses all operations modes and contracted services

- Contingency plans developed to address multiple concurrent security incidents
- System security responsibilities and duties established
- Security task force established
- Personal safety awareness/education programs for passengers and employees and community outreach
- Security equipment regularly inspected, maintained and functionally tested; including personal equipment issued to security personnel
- Contingency SOPs developed; drills and table-top exercises conducted for extraordinary circumstances
 - Terrorism (including chemical/ biological agents/ weapons of mass destruction)
 - Riot / Domestic unrest
 - Catastrophic natural events
 - System-wide communications failure
- Coordination between Safety department and Security department
- Planning, coordination, training and mutual aid agreements with external agencies (state, local police, FBI and other federal agencies)
- Transportation Operations coordination with security; communications established and joint procedures/SOPs established
- Security SOPs reviewed on a regular basis and updates made as needed to Security Plan
- Security equipment installed, inspected, and maintained to monitor trespass activities
- Safety and security coordination on trespass issues
- Trespass awareness programs, including education and signage
- Data collection established for all security issues / incidents; analysis performed and recommendations made; document control established, including follow-up
- Security risk/vulnerability assessments conducted, documented and reviewed
- Contingency plans for loss of electrical power and radio or phone communications
- Standard Operating Procedures for critical incident command, control, and service continuation/ restoration
- Security training provided to all staff levels (from front-line "eyes and ears" concept to professional level security training)
- Background checks on employees and contractors (where applicable)
- Regular assessments of employee security proficiencies conducted
- Employees issued quick reference guidelines for security situations
- Emergency contacts list developed / current / and responsibilities for call-outs identified
- Visitor, deliveries and contractor facility access procedures developed / visible identification required
- Concepts of crime prevention through environmental design (CPTED) applied in reviews of facilities and in new design and modifications
- Security checklists developed and regularly used for verifying status of physical infrastructure and security procedures
- Agency employees identifiable by visible identification and/or uniform
- Policy and procedures in place for facilities key control