Albany Transit System

Transit Development Plan

2015 - 2020

June 1, 2015

RS&H

PREFACE

The Transit Development Plan is required by the Georgia Department of Transportation (GDOT) and the Federal Transit Administration (FTA). This plan is required to be fully updated every five years, along with annual updates to address changing conditions.

This Transit Development Plan for the Albany Transit System in Albany, Georgia, meets all federal and state requirements and is fully compliant.

The City of Albany, Georgia, the Albany Transit System, Dougherty County and the Dougherty-Albany Area Transportation Study (DARTS) which is the Metropolitan Planning Organization for the Albany region are committed to the principle of affirmative action and prohibit discrimination against otherwise qualified persons on the basis of race, color, religion, national origin, age, physical or mental handicap, or disability, and where applicable, sex (including gender identity and expression), marital status, familial status, parental status, religion, sexual orientation, political beliefs, genetic information, reprisal, or because all or part of an individual's income is derived from any public assistance program in its recruitment, employment, facility and program accessibility or services.

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The opinions, findings, and conclusions in this publication are those of the author(s) and not necessarily those of the Department of Transportation, State of Georgia, or the Federal Transit Administration.

This document was prepared in cooperation and coordination with the Georgia Department of Transportation and the Federal Transit Administration.

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CHAPTER 1

INTRODUCTION

Transit Development Plan

The Transit Development Plan, or TDP, is required by the Georgia Department of Transportation (GDOT) and the Federal Transit Administration (FTA). The TDP provides a 10-year planning guide and implementation tool for the Albany Transit System to provide their ridership with the most efficient and effective service possible. This plan must be fully updated every five years and can be updated annually to address immediate needs or changing conditions. This TDP meets the requirement for the major update, with the planning horizon year of 2025 and is fully coordinated with other planning efforts in the region, including the DARTS Long Range Transportation Plan.

The TDP incorporates a review and analysis of the conditions within the City of Albany and the operations of the transit system. The document includes a community profile, developed through the review and update of socio-economic conditions, demographic and population information, land use and development patterns; a review of the existing system; a situational appraisal where the needs, issues, and opportunities are identified; the development of service alternatives; and recommendations which include an implementation plan and a financial plan. The major data sources include the US Census Bureau, DARTS, Albany Transit System and the City of Albany.

Moving Ahead for Progress in the 21st Century

In 2012, Moving Ahead for Progress in the 21st Century, or MAP-21, which is the federal transportation legislation, was signed into law. MAP-21 includes a focus on public transportation, provides the guidelines for formula program distributions and grant programs, and incorporates goals of safety, state of good repair, program efficiency and performance for transit systems. This TDP update is fully compliant with all federal requirements found in MAP-21, as well as all state requirements.

CHAPTER 2

PUBLIC INVOLVEMENT PROCESS

Public involvement is a critical element of any planning process and is particularly true for a transit effort. With the complicated funding scenarios and sources, and the often complex operational issues associated with transit systems, public and stakeholder involvement must also include an educational element, as well as the participation element. The first step in the success of a public participation and outreach effort is the development of a Public Participation Plan, which provides the framework and guidance for successful public outreach and involvement.

Public Participation Plan

For consistency in planning and participation efforts, the Public Participation Plan (PPP) for the Albany Transit System is the same as used for the Dougherty Area Regional Transportation Study (DARTS), or the Metropolitan Planning Organization for the Albany region. This plan was developed to ensure that all members of the public, including minorities and Limited English Proficient (LEP) populations, are encouraged to participate in the decision making process for the Albany Transit System. Policy and service delivery decisions need to take into consideration community sentiment and public opinion based upon well-executed outreach efforts. The public outreach strategies described in the PPP are designed to provide the public with effective access to information about the Albany Transit System services and to provide a variety of efficient and convenient methods for receiving and considering public comment prior to implementing changes to services. The PPP also provides the guidance for all of the administrative and documentation efforts associated with public outreach and participation. The following provides an overview of the outreach efforts; detailed information can be found in the Appendix.

Stakeholder Advisory Committee

The Stakeholder Advisory Committee was formed to function as a working group of transit stakeholders, providing input and guidance throughout the development of the TDP. This committee was engaged over the course of the planning effort and met regularly and at key milestones to ensure the ongoing level of input from the committee members. The Stakeholder Advisory Committee included representatives from a wide range of agencies to ensure that diverse perspectives were integrated throughout the planning process. The Stakeholder Advisory Committee included representatives from the following:

- Albany City Manager
- Albany Chamber of Commerce
- Albany/Dougherty Engineering
- Albany Downtown Manager
- Albany Police Department
- Albany Public Works
- Albany Transit System
- Citizens Transportation Committee
- Citizen Representative
- DHS Region 10 Transportation Coordinator
- Destiny Transportation Group, Inc.
- Dougherty County
- Federal Transit Administration
- Lee County Planning and Engineering
- Private Providers Representative
- Southwest Georgia Regional Airport
- Southwest Georgia Regional Commission
- DARTS MPO Transit Planner
- Albany State University
- Darton College
- Albany Technical College
- Boys and Girls Club
- Albany YMCA
- Easter Seals

The full listing of the agencies and the specific representatives can be found in the Appendix.

STAKEHOLDER ADVISORY COMMITTEE KICK OFF MEETING

The initial meeting of the Stakeholder Advisory Committee was held on October 29, 2014 at 10:00 AM. This kickoff meeting was held to provide the committee with an overview of the study and its components, the project schedule, committee activities and responsibilities, and background information on the existing conditions, which also included an overview of the local context for transit. In addition, the project goals and objectives were also discussed. The outcome of the meeting was Committee consensus on the identified goals and objectives. The committee also agreed to the regularly scheduled meetings, along with location and time. The following meeting materials are found in the Appendix:

- Meeting Flyer
- Meeting Agenda
- Meeting Sign-in Sheet
- Presentation
- Meeting Summary

STAKEHOLDER ADVISORY COMMITTEE MEETING # 2

The second meeting of the Stakeholder Advisory Committee was held on November 20, 2014 at 10:00 AM. To begin the meeting, an overview of the materials presented at the previous meeting were recapped to ensure those stakeholders who were not at the kick-off meeting had the opportunity to receive the same information. The discussion centered on the need for a coordinated approach and the importance of analyzing all of the potential service areas, resulting in valid information regarding potential ridership and transit market. The information presented provided an overview of Albany's demand response and fixed route systems and a comparison of peer agencies, as well as the results from the one day ridership survey conducted on October 3, 2014. It was determined by the committee that the next meeting would be held in January, 2015. All meeting materials are found in the Appendix and include:

- Meeting Agenda
- Meeting Sign-in Sheet
- Presentation
- Meeting Summary

STAKEHOLDER ADVISORY COMMITTEE MEETING # 3

The third Stakeholder Advisory Committee meeting was held on January 22, 2015 at 10:00 AM. At this meeting, the detailed analysis of transit propensity and the evaluation of mobility needs was presented to the group. This presentation included the methodology and the results of the analysis. In addition to the technical analysis and results, a summary of the public meeting was also presented. The detailed meeting materials are found in the Appendix and include:

- Meeting Agenda
- Meeting Sign-in Sheet

- Presentation

STAKEHOLDER ADVISORY COMMITTEE MEETING # 4

The fourth meeting of the Stakeholders Advisory Committee was held on April 29, 2015 at 10:00 AM. The material presented at this meeting included a review of the study to this point; updated transit propensity information; the operational assessment of the fixed route service as well as service alternatives, and the recommendations for the demand response service. The next steps of the process were also identified. Detailed meeting materials are found in the Appendix and include:

- Meeting Agenda
- Meeting Sign-in Sheet
- Presentation

Public Meetings

PUBLIC MEETING # 1

The first round of public meeting was held on Wednesday, January 22, 2015 at 300 West Oglethorpe Boulevard. Two sets of meetings were held, with one in the morning from 10:00 AM – 12:00 PM and an afternoon meeting from 4:00 PM – 6:00 PM. Facts sheets providing details of the TDP update were provided, as well as brochures for new fare media, route maps for interactive comments and mark ups, a TDP presentation, and a GFI smart card demonstration. Ridership surveys were also available for riders to fill out. There were 32 participants for the meetings, with 18 attendees at the morning meeting and 14 attendees at the afternoon meetings. In addition, 18 surveys were obtained by participants and submitted. There were 8 recommendations provided on the interactive maps. Verbal comments were received and documented; these comments focused on a variety of operational and routing suggestions, fare media suggestions, and the need for additional supporting infrastructure/amenities. The detailed list of comments, as well as meeting materials and sign-in sheet are provided in the Appendix.

PUBLIC MEETING # 2

The second public meeting was held on Wednesday, April 29, 2015 at 300 West Oglethorpe Boulevard. Similar to the first meeting, two rounds were held with one meeting occurring in the morning from 9:00 AM – 11:30 AM and a second one held in the afternoon from 3:30 PM – 5:30 PM. Meeting materials provided for participants to review included a TDP update fact sheet, a summary of the recommendations, route maps for interactive comments and mark up, a TDP presentation, and participant comment forms. There were 16 participants at the morning meeting and 5 participants in the afternoon meeting. There were 11 comment cards that were submitted. Comments and feedback included operational and route suggestions, service efficiency, the need for improved ridership behavior and cleanliness. Detailed comments, as well as the meeting materials and sign in sheet are found in the Appendix.

Survey

In order to obtain the maximum amount of input and feedback from the public for the TDP update, a transit survey was developed and administered. This survey was conducted to assess the existing service, provide a better understanding of the public's perception of the transit system, as well as input from riders regarding the service. Information gathered from the survey was used to provide information for the development of service recommendations. The surveys were provided in hard copy and also was available on line.

Of the survey respondents, 66.6% utilized the transit system four or more times per week; 66.1% had no access to an automobile. The primary reason for the transit trip among the respondents was travel to work (55.6%). Of the respondents, 77.0% were between the ages of 46 and 65 and 77.8% walked one or more blocks to a transit stop. Adequate information regarding the transit system is readily available according to 86.7% of the respondents and 86.2% stated that frequent and on-time service were scored as the two most important elements of the transit service. As noted above, these survey responses were utilized to provide additional input for the development of the service recommendations. The survey is found in the Appendix.

CHAPTER 3

SITUATIONAL APPRAISAL

The Albany Transit System provides public transportation in the City of Albany, operating fixed route bus service and the demand response services for eligible customers. The Albany Transit System is a department of the City of Albany with oversight provided by the Albany Transit Board, which is comprised of the members of the Board of City Commissioners. The following sections provide background on the existing conditions that will provide the information for the identification of current deficiencies and needs, which will then be addressed through the recommendations developed in the TDP update process. Information is also included on existing transportation plans and policies; current transit facilities and service; demographic profiles of the community and financial data.

Relationships to Other Plans

The TDP provides the guide for the provision of public transportation services over a five year planning horizon and includes recommendations for service improvements and an implementation plan. The TDP is also the source for projects and priorities for public transportation services included in the Dougherty-Albany Transportation Study (DARTS) Long Range Transportation Plan and Transportation Improvement Program. The plan must be consistent with the adopted local government comprehensive plans, the DARTS MTP, as well as any other locally adopted plans dealing mobility. To ensure the consistency with the other planning documents, a review of the recent transportation planning efforts was undertaken. This review ensures that goals and objectives related to transit services in other planning efforts are understood and incorporation, as well as the identification of any future transit planning strategies that may be included in these other efforts.

DARTS LONG RANGE TRANSPORTATION PLAN

The DARTS Long Range Transportation Plan includes a transit element, which provides an overview of the transit system and its services. The recommendations developed for the TDP are incorporated into the LRTP as part of this transit element. In addition, the goals and objectives developed for the TDP were coordinated with the mobility goals and objective identified in the LRTP to ensure consistency in the planning for efficient mobility in the community.

ALBANY DOUGHERTY COUNTY COMPREHENSIVE PLAN

The locally adopted Comprehensive Plan is required to have a transportation element. This transportation element included in the Comprehensive Plan consists of the DARTS Long Range Transportation Plan. As noted above, the Long Range Transportation Plan includes a transit element based on the recommendations found in the TDP. The goals and objectives identified for the Comprehensive Plan are also coordinated with the DARTS planning efforts to ensure overall consistency among all of the planning efforts.

Existing Conditions

In order to fully assess the system and its operations, an analysis of the existing conditions must be completed. This existing conditions analysis focuses on the existing service to gain a full understanding of the efficiency and effectiveness of the service.

FARES AND REVENUE

The base fare for the Albany Transit System remained unchanged since 2008. In July, 2014, the rate was increased by $0.25 from $1.25 per ride to $1.50 per ride. Seniors and disabled passengers, as well as children ages 6-12, receive a discounted fare of $0.50 per ride and children under the age of 5 ride for free. Weekly and monthly passes are also available, providing unlimited rides for $12.00 and $45.00, respectively. Senior and disabled monthly unlimited ride passes are available for $20.00. Monthly unlimited ride passes are also available to students for $35.00. Paratransit fares are $2.50 one way. Table 1 displays the current fare policy.

Table 1. Fare Policy

Fare Type	Fare
Full Fare – Adult	$1.50
Senior/Disabled	$0.50
Children Ages 6 - 12	$0.50
Children Age 5 or Under	Free
Transfers	Free
Weekly Unlimited Ride Pass - Adult	$12.00
Monthly Unlimited Ride Pass - Adult	$45.00
Monthly Unlimited Ride Pass – Senior/Disabled	$20.00
Monthly Unlimited Ride Pass – Student	$35.00
Paratransit – One way	$2.50

The total fare revenue collected has risen steadily between 2008 and 2012, with a percent increase in slightly over 33%. The exception of this rise occurred in 2010, where the fare revenue experienced a decline from 2009; however the upward trend was renewed between 2010 and 2011. The fare revenues comprised almost 15% of the total operating funds expended in 2008 and increased to 19.25% in 2012. Table 2 depicts the fare revenues earned from 2008 to 2012. Table 3 displays the fare revenues earned, sources of operating and capital funds and total expenditures from 2008 to 2012.

Table 2: Fare Revenues 2008 - 2012

	2008	2009	2010	2011	2012	% Change 2008-2012
Fare Revenues Earned	$ 409,000	$ 472,900	$ 457,200	$ 503,800	$ 545,900	33.47%

Table 3: Fare Revenues and Expenditures

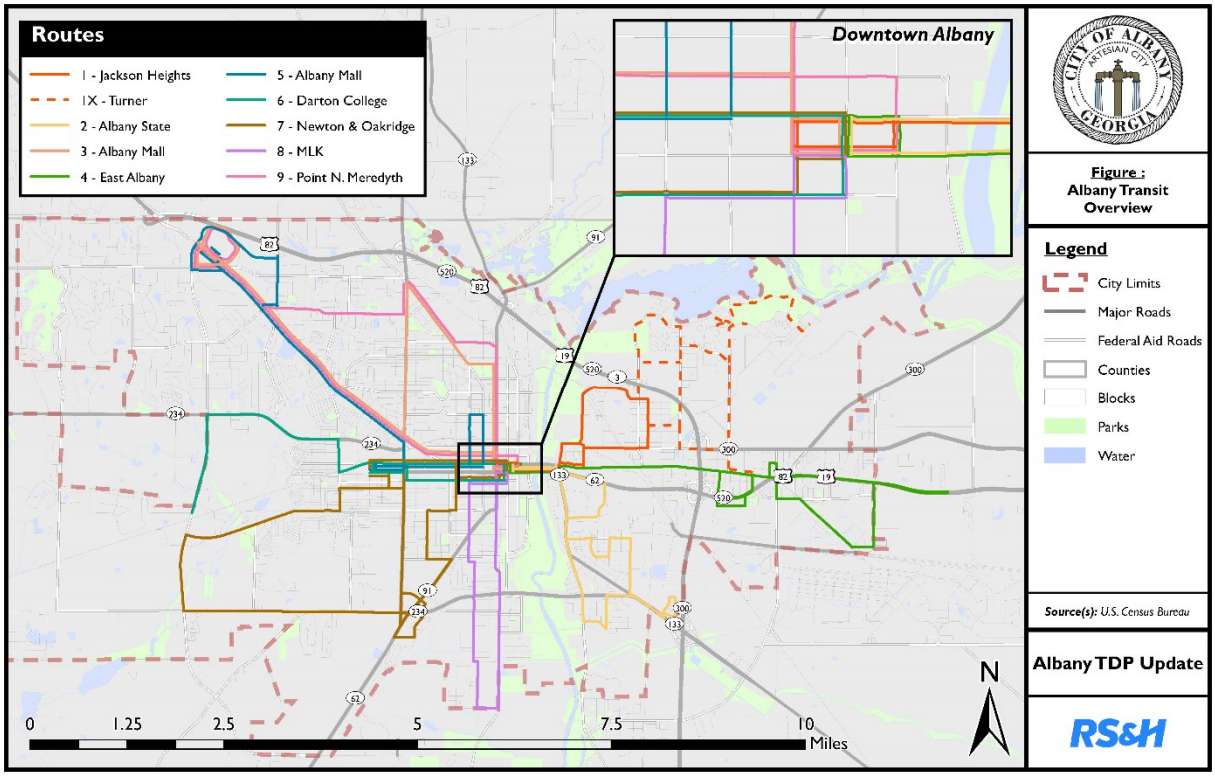
		2008	2009	2010	2011	2012
Fare Revenues Earned		$ 409,000	$ 472,900	$ 457,200	$ 503,800	$ 545,900
Sources of Operating Funds Expended						
	Fare Revenues	$ 409,000	$ 472,900	$ 457,200	$ 503,800	$ 545,900
	Local Funds	$ 1,246,900	$ 867,400	$ 959,200	$ 905,000	$ 1,155,800
	State Funds	$ 19,500	$ 18,500	$ 31,700	$ 28,700	$ 32,600
	Federal Assistance	$ 1,015,600	$ 963,400	$ 1,068,800	$ 1,106,000	$ 1,090,400
	Other Funds	$ 59,700	$ 33,200	$ 19,000	$ 21,700	$ 11,700
Total Operating Funds Expended		$ 2,750,700	$ 2,355,400	$ 2,535,900	$ 2,565,200	$ 2,836,400
Percent Fare Revenues of Operating Funds		14.87%	20.08%	18.03%	19.64%	19.25%
Sources of Capital Funds Expended						
	Local Funds	$ 142,000	$ 33,400	$ 48,900	$ 30,200	$ 143,900
	State Funds	$ 137,300	$ 33,600	$ 80,400	$ 30,200	$ 158,100
	Federal Assistance	$ 1,098,700	$ 267,900	$ 517,200	$ 241,800	$ 2,380,800
	Other Funds	$ -	$ -	$ -	$ -	$ -
Total Capital Funds Expended		$ 1,378,000	$ 334,900	$ 646,500	$ 302,200	$ 2,682,800

Source: National Transit Database

ALBANY TRANSIT SYSTEM SERVICE AREA AND ROUTES

The urbanized area of Albany has remained relatively flat from 2008 to 2012, with over 95,000 in population. At the same time, the square miles of the urbanized area has grown slightly over that time from 66.0 square miles to 71.0 square miles. The Albany Transit System (ATS) operates nine routes within the City of Albany and Dougherty County. These routes provide coverage to major activity centers throughout the City, including several routes serving the downtown area. The service area and the routes are shown in Figure 1.

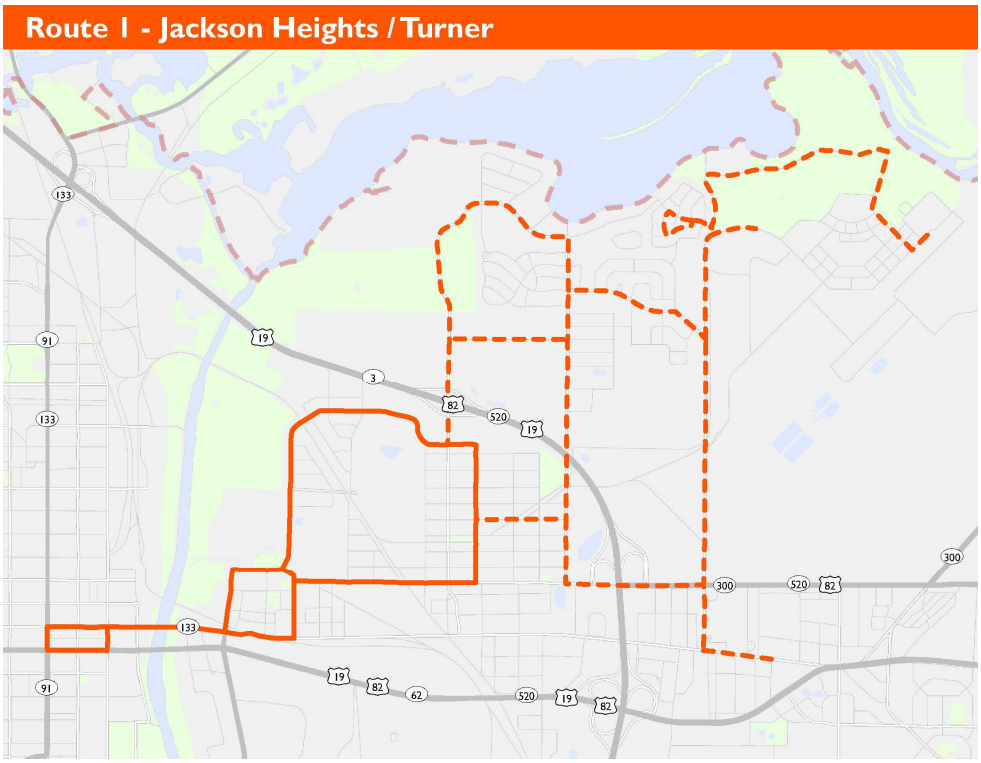
Figure 1: ATS Service Area and Routes



EXISTING FIXED ROUTE SERVICES

Route 1 – Red: Jackson Heights

This route serves the northeast neighborhoods of Albany and downtown. The line operates between 5:15 am and 8:12 pm Monday through Friday and from 6:00 am to 8:12 pm on Saturday. The bus leaves the transfer facility at 15 minutes past the hour every hour. The exception is the bus leaves the transfer facility at 7:15 and 7:45 pm. This route is also paired with the Route 2 – Gold: Albany State route.

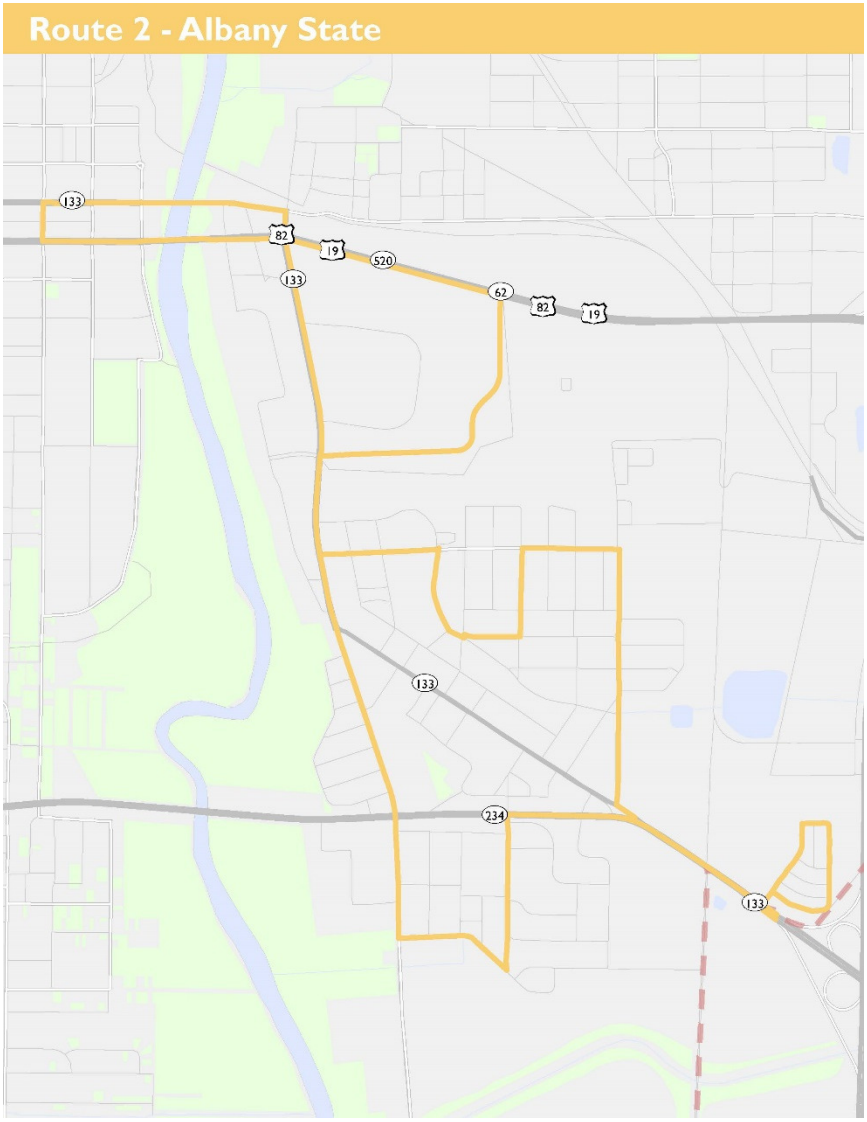


Route 1X - Red: Turner

This route serves the farthest northeastern area of Albany, including the Paul Eames Sports Complex and the Job Corps. The route runs between 5:00 am and 6:30 pm Monday through Friday, with Saturday service beginning at 6:00 am. This route is paired with Route 4X – Green: Cooper Tire.

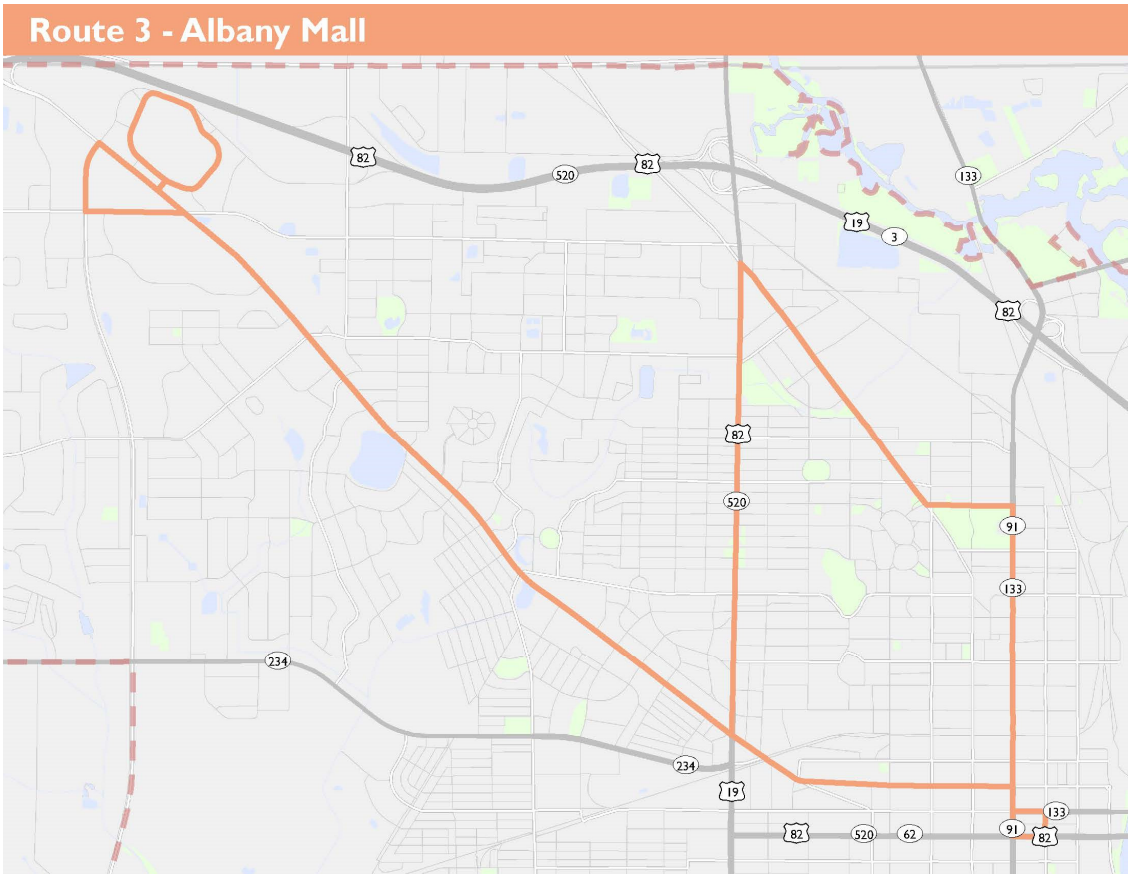
Route 2 – Gold: Albany State

Route 2 operates Monday through Saturday and runs from 5:45am to 7:12pm, with service beginning at 6:45 am on Saturday. The bus is scheduled to leave the transfer facility at 45 minutes past the hour and serves downtown, the southeastern area of Albany, and Albany States. The bus also provides direct service to the Oak Grove Estates Mobile Home Community and a shopping center. This route is paired with Route 1 – Red: Jackson Heights.



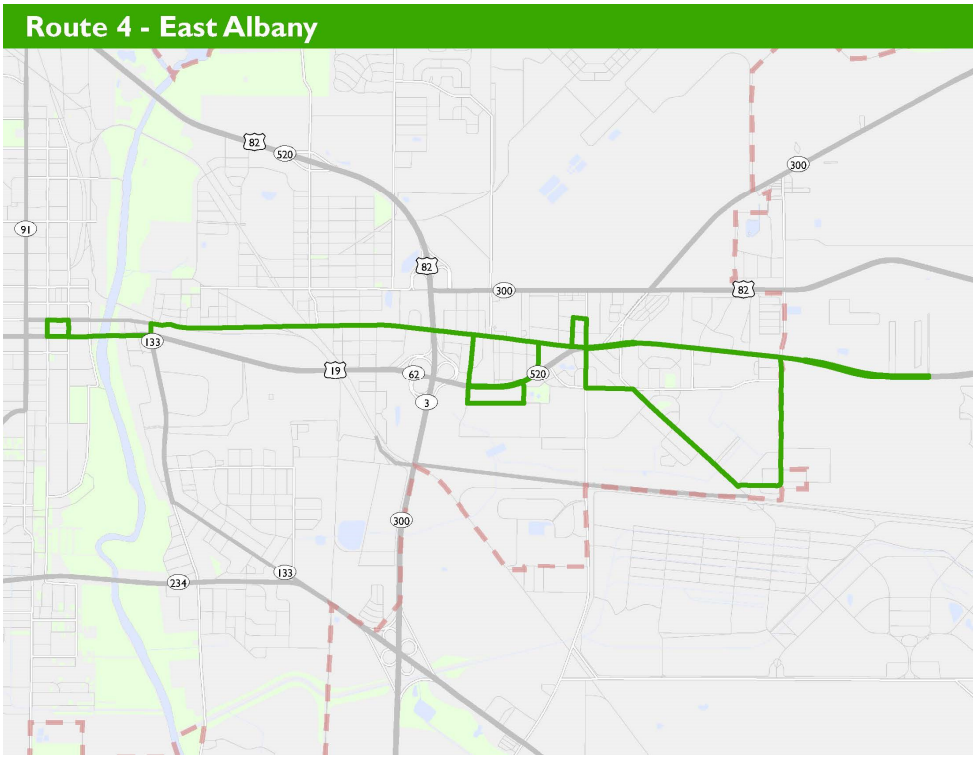
Route 3 – Orange: New Orange

This route, recently restructured, leaves from the transfer facility. The line provides service to the Chamber of Commerce and runs northwest to the Albany Mall. The service, which runs Monday through Saturday, begins at 5:15 am and ends at 7:10 pm. Saturday service begins at 6:15 am.



Route 4 – Green: East Albany

This route begins at the transfer facility and runs Monday through Saturday. Service begins at 5:15 am and ends at 8:12 pm; the Saturday service begins at 6:15 am. The route provides service to several schools in eastern Albany and also provides service to Five Points.

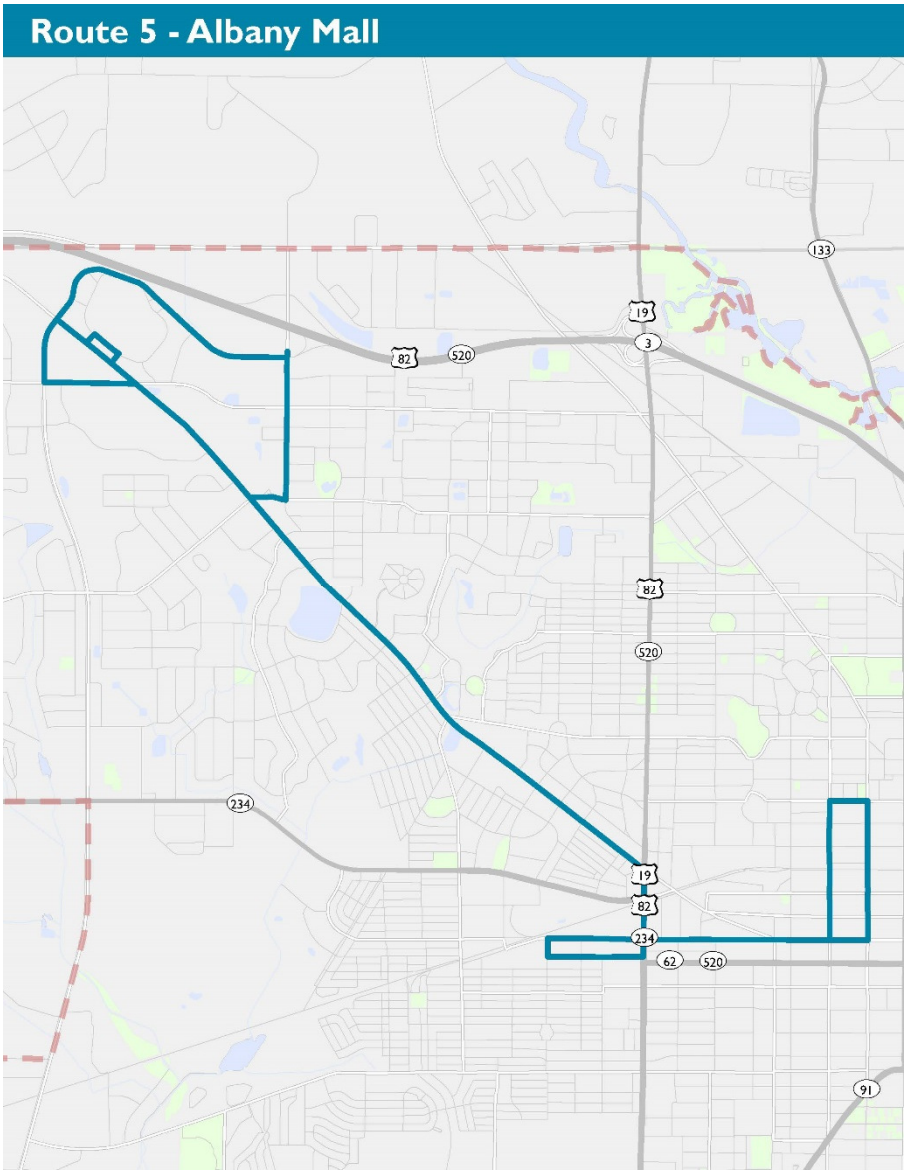


Route 4X – Green: Cooper Tire

This route begins at Five Points and runs Monday through Saturday from 5:30 am to 6:56 pm, with Saturday service beginning at 6:30 am. The route provides services to the farthest eastern areas of Albany and served the Cooper Tire plant prior to its closing. This route is paired with Route 1X – Red: Turner.

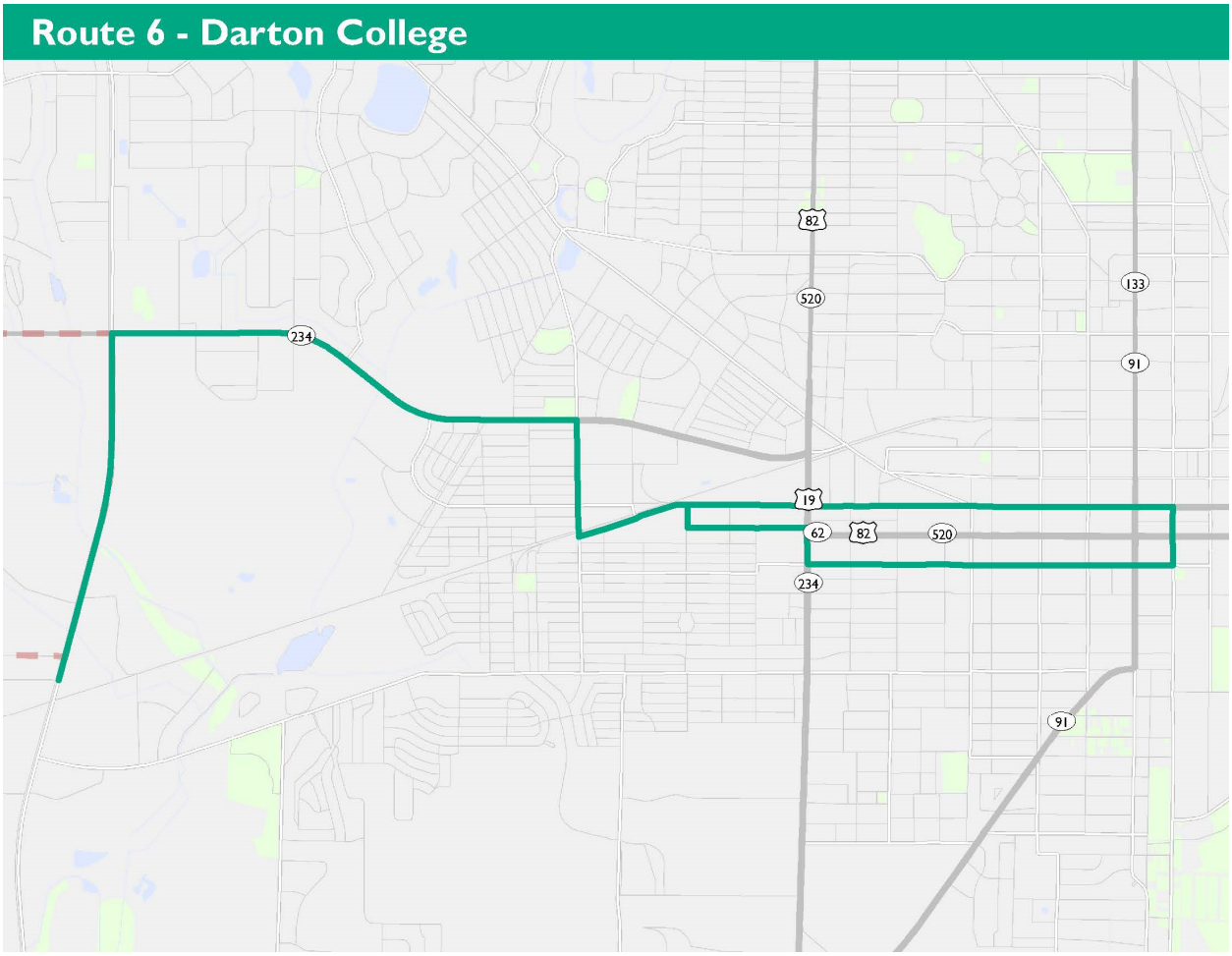
Route 5 – Blue: Albany Mall

Route 5 begins at the transfer facility at 5:45 am and provides service to Brooks Plaza and the Albany Mall, as well as one of the hospitals located in the downtown area. Service ends at 6:43 pm. The route runs Monday through Saturday, with Saturday service beginning one hour later than Monday through Friday at 6:45 am.



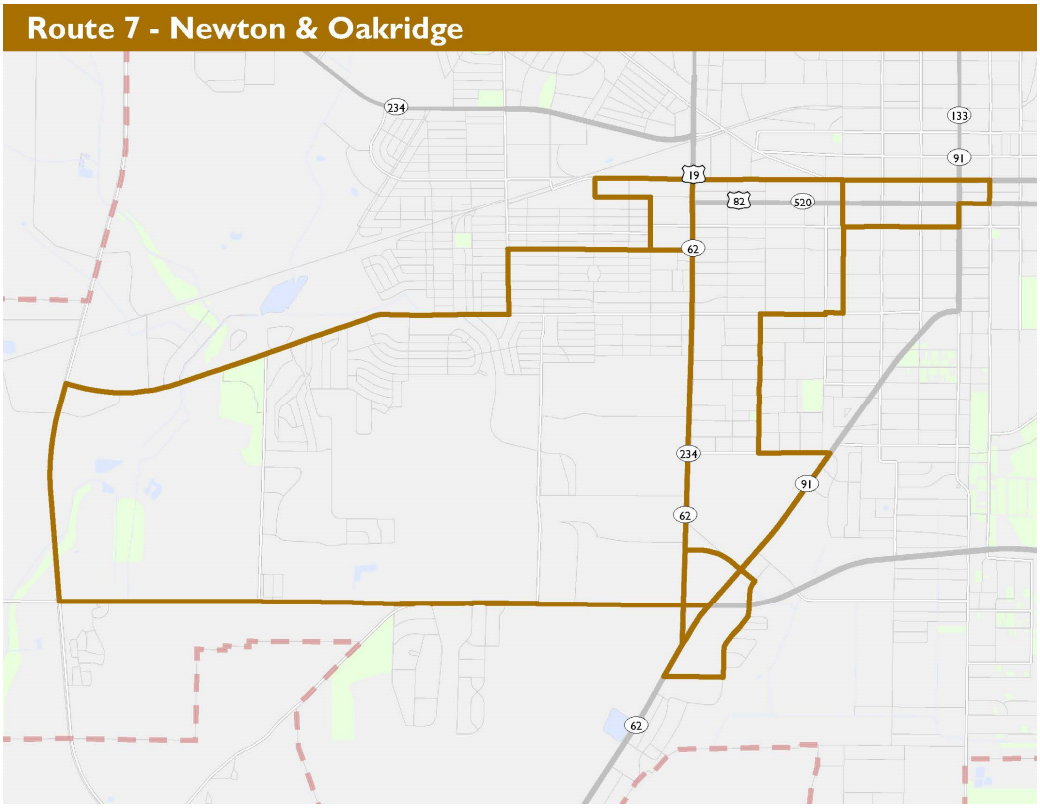
Route 6 – Gray: Darton

Route 6 begins at the transfer facility and runs east-west, serving Brooks Plaza and Darton College. The line begins service at 5:45 am and ends at 7:15 pm Monday through Saturday. Saturday service begins at 6:45 am. Route 6 is paired with Route 8 – Purple: MLK



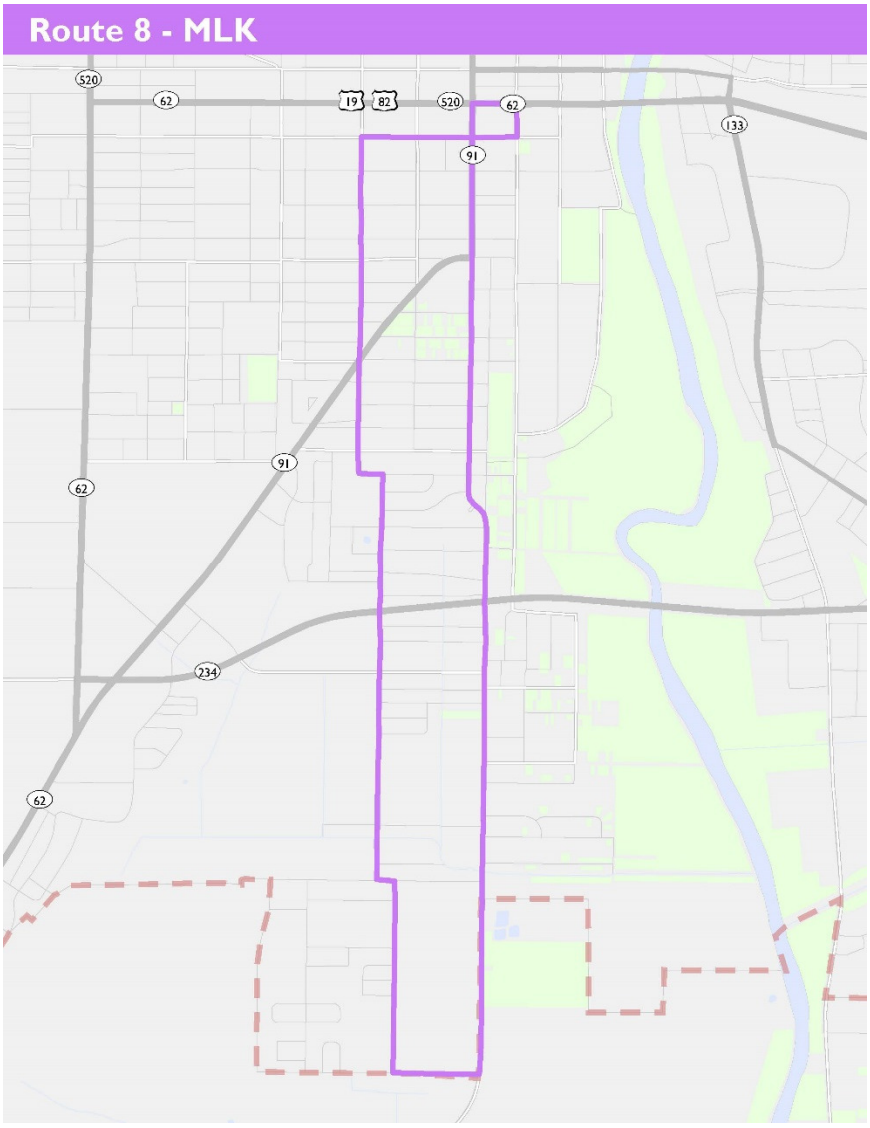
Route 7 – Brown: Newton Road and Oakridge

Route 7 originates from the transfer facility and provides service to southwestern Albany, serving Brooks Plaza, the library and Albany Technical College. The service begins at 5:15 am and ends at 8:12 pm Monday through Saturday, with Saturday service beginning at 6:15 am.



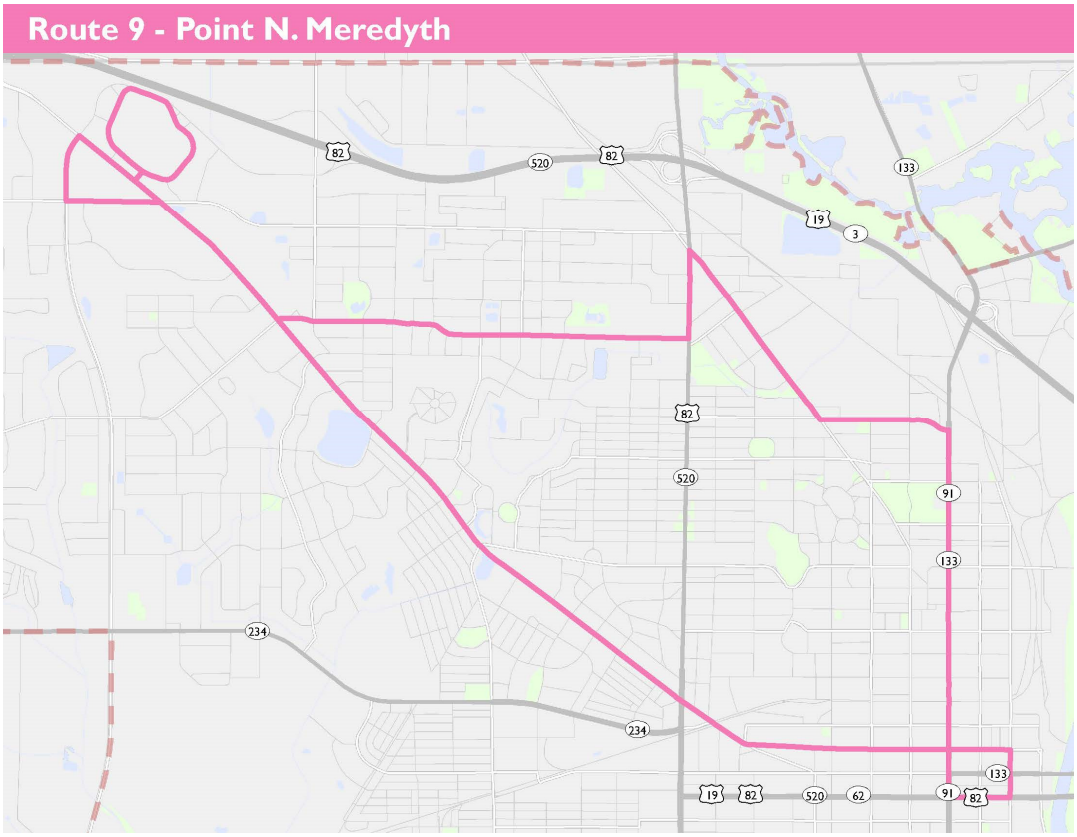
Route 8 – Purple: MLK

The purple route serves the southern portion of Albany, running along MLK Dr./Jefferson and Madison Street. The service, which is paired with Route 6, runs Monday through Saturday from 5:15 am to 8:11 pm. Saturday service begins at 6:15 am.



Route 9 – Silver: Point N. Meredyth

This route originates at the transfer station and provides service to northern and northwestern Albany and the Albany Mall. The service begins at 5:20 am and ends at 7:10 pm and runs Monday through Saturday, with Saturday service beginning at 6:20 am.



PERFORMANCE EVALUATION

The performance evaluation of the transit system provides an assessment of the operational elements based on quantitative measures and data. As noted previously, these data are collected from the National Transit Database (NTD) for the Albany Transit System, as well as its identified peer systems. Transit agencies receiving federal funds are required to report the identified measures annually, although some systems do obtain reporting waivers for some of the required data.

The NTD information provides a consistent data collection effort and the data based performance measures and indicators. The NTD data is supplemented with more qualitative efforts, such as on-board surveys, that can provide insights in the quality of the service from the perspective of the transit rider.

The data tables below provide indicators over time of the performance of the Albany Transit System.

Table 4 depicts the general indicators for the system. The population of the Albany urbanized area remained relatively constant from 2008 through 2012, with a slight increase from 95,450 to 95,779 in

2011. The service area slightly increased also, from 66.0 square miles to 71.0 square miles in 2011 and 2012.

The passenger trips reflected a significant increase from 2008 to 2012, with an increase in 28.35% over that time period. During 2010, a drop in passenger trips was reported, however the passenger trips resumed the upward trend in 2011.

Vehicle miles and revenue miles also exhibited an increase over the time period, with a 24.95% and a 25.85% increase respectively. While Operating and Maintenance expenses also increased, the trend was much lower than the vehicle and revenue miles. Operating expenses increased by 3.12% from 2008 to 2012 and maintenance expenses increased 13.70% over the same time frame. The vehicles available for maximum service decreased over the period from 23 in 2008 to 17 in 2012, or a decrease of 26.09%. Vehicles operated for maximum service remained relatively constant with a slight increase from 11 to 12 over the same time period.

Table 4: General Indicators

	2008	2009	2010	2011	2012	% Change 2008-2012	% Change 2011-2012
Service Area Population	95,450	95,450	95,450	95,779	95,779	0.34%	0.00%
Service Area Size (square miles)	66.0	66.0	66.0	71.0	71.0	7.58%	0.00%
Passenger Trips	792,200	962,400	874,100	1,055,700	1,016,800	28.35%	-3.68%
Passenger Miles	3,801,000	4,617,900	4,195,200	5,165,400	4,981,400	31.05%	-3.56%
Vehicle Miles	549,900	657,800	642,100	651,100	687,100	24.95%	5.53%
Revenue Miles	533,100	642,900	628,700	637,600	670,900	25.85%	5.22%
Vehicle Hours	42,800	41,500	40,500	40,900	43,600	1.87%	6.60%
Revenue Hours	40,700	39,400	38,400	38,900	41,700	2.46%	7.20%
Route Miles	75.3	75.3	75.3	91.3	96.9	28.69%	6.13%
Total Operating Expense	$ 2,750,700	$2,355,500	$2,487,500	$2,565,200	$2,836,400	3.12%	10.57%
Total Maintenance Expense	$ 435,700	$405,500	$548,800	$495,400	$495,400	13.70%	0.00%
Total Capital Expense	$ 1,377,900	$334,900	$646,400	$302,200	$2,682,800	94.70%	787.76%
Federal Contribution	$ 2,393,600	$1,298,300	$1,069,446	$1,347,800	$2,380,800	-0.53%	76.64%
State Contribution	$ 156,800	$ 52,100	$ 112,100	$ 58,900	$ 190,700	21.62%	223.77%
Total Local Revenue	$ -	$ -	$ -	$ -	$ -	N/A	N/A
Local Contribution	$ 1,388,900	$ 929,800	$1,008,100	$ 935,200	$1,299,700	-6.42%	38.98%
Directly Generated Non-Fare Revenue	$ 59,700	$ 33,200	$ 19,000	$ 27,100	$ 11,700	-80.40%	-56.83%
Passenger Fare Revenue	$ 409,000	$ 472,900	$ 457,200	$ 503,800	$ 545,900	33.47%	8.36%
Total Employee FTEs	41.0	40.50	40.00	39.20	48.90	0.1926829	0.247449
Employee Operating FTEs	32.5	31.50	31.00	32.10	37.80	16.31%	0.1775701
Maintenance Employees FTEs	6.5	7.00	7.00	5.10	8.20	26.15%	0.6078431
Administrative Employees FTEs	2.0	2.00	2.00	2.00	2.90	0.45	0.45
Vehicles Available for Maximum Service	23	17	18	17	17	-26.09%	0.00%
Vehicles Operated for Maximum Service	11	11	11	12	12	9.09%	0.00%
Spare Ratio (%)	2.09	1.55	1.64	1.42	1.42	-32.25%	0.00%
Total Gallons Consumed	149,500	142,500	133,300	148,000	141,400	-5.42%	-4.46%
Total Energy Consumed (KW Hours)	N/A	N/A	N/A	N/A	N/A	N/A	N/A

Indicators are also used to identify the effectiveness of the system. These indicators, collected from the NTD data and shown in Table 5, focus on the service supply and consumption, the quality of the service and the availability of the service.

Service Supply, which is measured in Vehicle Miles per Capita, experienced an increase of almost 25% from 2008 to 2012. Service Consumption, which is measured in Passenger Trips per Capita, also experienced a significant increase of almost 28% from 2008 to 2012. Passenger Trips per Revenue Mile

showed a slight increase of approximately 2% over the time period and Passenger Trips per Revenue Hour experienced an increase of approximately 25% during the time period.

Quality of Service, measured in average speed was relatively constant, with a very slight decrease of 1.84%. Other indicators for Quality of Service include the Average Age of the Fleet, which was constant with no change from 2008 to 2012. The Number of Vehicle System Failures fluctuated over the time period with a high in 2008 of 91. Overall, the system experienced a decrease of slightly over 23%.

Availability of Service is measured in Revenue Miles per Route Miles. This indicator was relatively constant from 2008 to 2012, with a slight decrease of 0.86%. Weekday span of service was also constant over the time period with 15.25 hours of service. Route Miles per Square Mile of Service Area was constant from 2008 to 2010 and then experienced an increase in 2011 and 2012, with an overall increase of 19.62%.

Table 5: Effectiveness Measures

	2008	2009	2010	2011	2012	% Change 2008-2012	% Change 2011-2012
SERVICE SUPPLY							
Vehicle Miles Per Capita	5.76	6.89	6.73	6.80	7.17	24.52%	5.53%
SERVICE CONSUMPTION							
Passenger Trips Per Capita	8.30	10.08	9.16	11.02	10.62	27.91%	-3.68%
Passenger Trips Per Revenue Mile	1.49	1.50	1.39	1.66	1.52	1.99%	-8.47%
Passenger Trips Per Revenue Hour	19.46	24.43	22.76	27.14	24.38	25.27%	-10.15%
QUALITY OF SERVICE							
Average Speed (RM/RH)	13.10	16.32	16.37	16.39	16.09	22.83%	-1.84%
Average Age of Fleet (in years)	5.1	5.1	5.1	5.1	5.1	0.00%	0.00%
Number of Vehicle System Failures	91	73	87	54	70	-23.08%	29.63%
AVAILABILITY							
Revenue Miles Per Route Mile	7079.68	8537.85	8349.27	6983.57	6923.63	-2.20%	-0.86%
Weekday Span of Service (in hours)	15.25	15.25	15.25	15.25	15.25	0.00%	0.00%
Route Miles Per Square Mile of Service Area	1.14	1.14	1.14	1.29	1.36	19.62%	6.13%

The efficiency of the system is also measured using specific indicators collected from the NTD. These measures include Cost Efficiency, Operating Ratios, Vehicle Utilization, Labor Productivity, Energy Utilization and Fares. These indicators are shown in Table 6. Cost Efficiency is measured through several indicators, including Operating Expense per Capita. The system showed a small increase from 2008 to 2012 with a 2.76% increase. However, Operating Expense per Passenger Trip showed a significant decrease of almost 20% over the time period, as did Operating Expense per Passenger Mile and Operating Expense per Revenue Mile, with decreases of 21.32% and 18.06% respectively.

Operating Ratios are measured in Farebox Recovery, which showed an increase of over 29% from 2008 to 2012. Operating Revenue per Operating Expense showed an increase of 15.37% over the time period. Indicators for measuring Vehicle Utilization include Vehicle Miles per Peak Vehicle, which showed a 14.54% increase from 2008 to 2012. Vehicle Hours per Peak Vehicle experienced a slight decrease over the time period of 6.62%.

Table 6: Efficiency Measures

	2008	2009	2010	2011	2012	% Change 2008-2012	% Change 2011-2012
COST EFFICIENCY							
Operating Expense Per Capita	$ 28.82	$ 24.68	$ 26.06	$ 26.78	$ 29.61	2.76%	10.57%
Operating Expense Per Peak Vehicle	$250,063.64	$ 214,136.36	$ 226,136.36	$213,766.67	$236,366.67	-5.48%	10.57%
Operating Expense Per Passenger Trip	$ 3.47	$ 2.45	$ 2.85	$ 2.43	$ 2.79	-19.66%	14.80%
Operating Expense Per Passenger Mile	$ 0.72	$ 0.51	$ 0.59	$ 0.50	$ 0.57	-21.32%	14.66%
Operating Expense Per Revenue Mile	$ 5.16	$ 3.66	$ 3.96	$ 4.02	$ 4.23	-18.06%	5.08%
Operating Expense Per Revenue Hour	$ 67.58	$ 59.78	$ 64.78	$ 65.94	$ 68.02	0.64%	3.15%
Maintenance Expense Per Revenue Mile	$ 0.82	$ 0.63	$ 0.87	$ 0.78	$ 0.74	-9.65%	-4.96%
Maintenance Expense Per Operating Exp	$ 0.16	$ 0.17	$ 0.22	$ 0.19	$ 0.17	10.27%	-9.56%
OPERATING RATIOS							
Farebox Recovery (%)	14.9%	20.1%	18.4%	19.6%	19.2%	29.44%	-2.00%
Local Revenue Per Operating Expense (%)	0.0%	0.0%	0.0%	0.0%	0.0%	0.00%	0.00%
Operating Revenue Per Operating Expense	17.0%	21.5%	19.1%	20.7%	19.7%	15.37%	-5.01%
VEHICLE UTILIZATION							
Vehicle Miles Per Peak Vehicle	49,990.91	59,800.00	58,372.73	54,258.33	57,258.33	14.54%	5.53%
Vehicle Hours Per Peak Vehicle	3,890.91	3,772.73	3,681.82	3,408.33	3,633.33	-6.62%	6.60%
Revenue Miles Per Vehicle Mile	0.97	0.98	0.98	0.98	0.98	0.72%	-0.29%
Revenue Mile Per Total Vehicle	23,178.26	37,817.65	34,927.78	37,505.88	39,464.71	70.27%	5.22%
Revenue Hours Per Total Vehicles	1,769.57	2,317.65	2,133.33	2,288.24	2,452.94	38.62%	7.20%
LABOR PRODUCTIVITY							
Revenue Hours Per Employee FTE	992.68	972.84	960.00	992.35	852.76	-14.10%	-14.07%
Passenger Trips Per Total Vehicle	34,443.48	56,611.76	48,561.11	62,100.00	59,811.76	73.65%	-3.68%
ENERGY UTILIZATION							
Vehicle Miles Per Gallon	3.68	4.62	4.82	4.40	4.86	32.11%	10.45%
Revenue Mile Per Kilowatt-Hour	N/A	N/A	N/A	N/A	N/A	N/A	N/A
FARE							
Average Fare	$ 0.52	$ 0.49	$ 0.52	$ 0.48	$ 0.54	3.99%	12.50%

Table 7 depicts the historical financial performance indicators for the system. The revenues earned from fares has consistently risen from $409,000 in 2008 to $545,900 in 2012, with the percent of fare revenues of operating funds rising from 14.87% in 2008 to 19.25% in 2012. Total operating funds have risen from approximately $2.7 million in 2008 to over $2.8 million in 2012, with local and federal dollars comprising the vast majority of funds. Total capital funding has also increased over the time period, with over $1.3 million in 2008 increasing to over $2.6 million in 2012, with federal dollars providing the bulk of the funding.

Table 7: Historical Financial Indicators

	2008	2009	2010	2011	2012
Fare Revenues Earned	$ 409,000	$ 472,900	$ 457,200	$ 503,800	$ 545,900
Sources of Operating Funds Expended					
Fare Revenues	$ 409,000	$ 472,900	$ 457,200	$ 503,800	$ 545,900
Local Funds	$ 1,246,900	$ 867,400	$ 959,200	$ 905,000	$ 1,155,800
State Funds	$ 19,500	$ 18,500	$ 31,700	$ 28,700	$ 32,600
Federal Assistance	$ 1,015,600	$ 963,400	$ 1,068,800	$ 1,106,000	$ 1,090,400
Other Funds	$ 59,700	$ 33,200	$ 19,000	$ 21,700	$ 11,700
Total Operating Funds Expended	$ 2,750,700	$ 2,355,400	$ 2,535,900	$ 2,565,200	$ 2,836,400
Percent Fare Revenues of Operating Funds	14.87%	20.08%	18.03%	19.64%	19.25%
Sources of Capital Funds Expended					
Local Funds	$ 142,000	$ 33,400	$ 48,900	$ 30,200	$ 143,900
State Funds	$ 137,300	$ 33,600	$ 80,400	$ 30,200	$ 158,100
Federal Assistance	$ 1,098,700	$ 267,900	$ 517,200	$ 241,800	$ 2,380,800
Other Funds	$ -	$ -	$ -	$ -	$ -
Total Capital Funds Expended	$ 1,378,000	$ 334,900	$ 646,500	$ 302,200	$ 2,682,800

PEER REVIEW

The peer review analysis compares the performance of Albany Transit with other similar systems. These peer systems were identified for the previous Transit Development Plan and were reviewed to ensure their peer status was still viable. The selected peer systems include:

- Augusta-Richmond County Transit, Augusta, Georgia
- Metra Transit System, Columbus, Georgia
- City of Huntsville, Alabama
- High Point Transit, City of High Point, North Carolina
- City of Alexandria, Louisiana

This peer analysis was conducted utilizing the data extracted from the NTD and focuses on the indicators to measure the efficiency and effectiveness of the peer systems as compared to Albany Transit. Table 8 provides the statistics for the service area. The peer median is shown in the bottom, orange line. Albany is one of the smaller areas both in area and in population; however, the route miles of the system are much closer to the median than both the area size and population.

Table 8: Service Area Comparison 2008 - 2012

Transit System	Service Area Population	Service Area Size (square miles)	Route Miles
Augusta Richmond County Transit Department (APT)	1,780,464	1,112	847
Metra Transit System (METRA)	1,234,176	747	548
City of Huntsville, Alabama - Public Transportation Division	1,213,143	921	945
High Point Transit (Hi Tran)	731,502	508	246
City of Alexandria (Atrans)	401,120	306	582
Albany Transit System (ATS)	477,908	349	414
Peer Median	1,213,143	747	582

Table 9 depicts the system summary for each of the peer systems from 2008 to 2012. These indicators show the operating, staffing and service characteristics for each of the systems, as well as the peer median for each of the indicators.

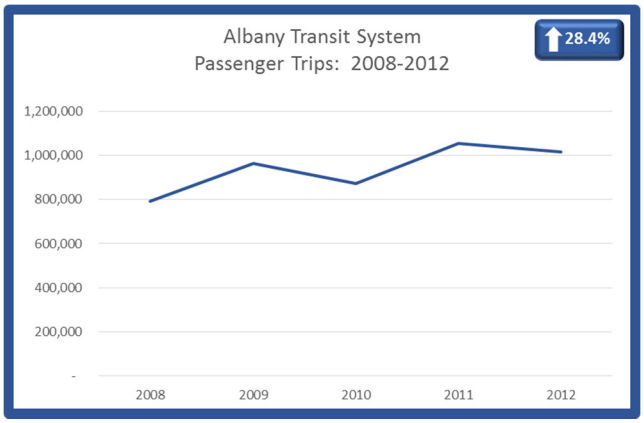
Table 9: Peer System Summary 2008-2012

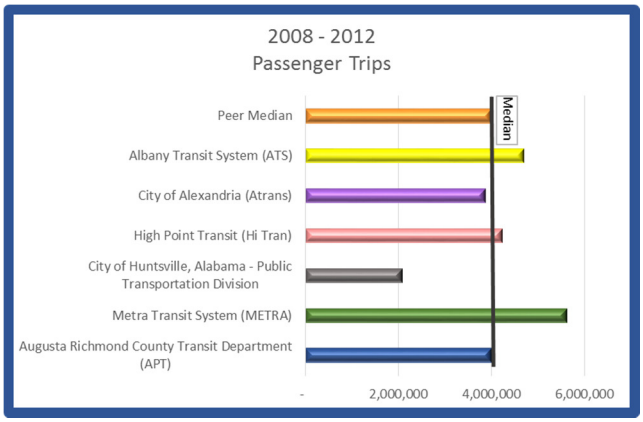
Transit System	Passenger Miles	Passenger Trips	Revenue Hours	Revenue Miles	Route Miles Per Square Mile of Service Area	Adminstrative Employee FTEs	Maintenance Employee FTEs	Operating Employee FTEs	Total Employee FTEs
Augusta Richmond County Transit Department (APT)	17,490,500	4,003,500	260,100	3,160,000	3.9	31.0	63.3	141.0	235.3
Metra Transit System (METRA)	12,654,400	5,617,700	300,478	5,283,600	3.7	6.2	56.0	154.0	216.2
City of Huntsville, Alabama - Public Transportation Division	12,168,300	2,087,300	349,600	4,834,000	5.2	14.2	35.0	301.7	350.3
High Point Transit (Hi Tran)	6,276,200	4,230,300	213,300	2,844,200	2.6	12.5	19.0	88.4	119.9
City of Alexandria (Atrans)	9,508,500	3,863,500	205,400	3,168,100	10.0	21.9	23.9	85.6	131.4
Albany Transit System (ATS)	17,600,865	4,701,200	199,200	3,113,200	5.9	10.9	33.8	164.9	209.6
Peer Median	12,168,300	4,003,500	260,100	3,168,100	3.9	14.2	35.0	141.0	216.2

Table 9 Continued

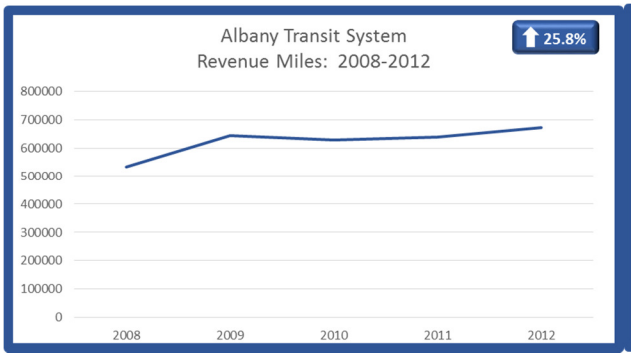
Transit System	Vehicles Available for Maximum Service	Vehicles Operating in Maximum Service	Weekday Span of Service (in hours)	Total Maintenance Expense	Total Operating Expense	Number of Vehicle System Failures	Total Gallons Consumed	Total Energy Consumed (KW-Hours)
Augusta Richmond County Transit Department (APT)	173.0	112	73.5	$ 4,474,000	$ 19,545,200	1,293	736.5	N/A
Metra Transit System (METRA)	125.0	108	54.0	$ 2,448,200	$ 20,231,700	1,299	841.9	N/A
City of Huntsville, Alabama - Public Transportation Division	196.0	141	69.3	$ 2,382,502	$ 16,197,000	1,409	919.9	N/A
High Point Transit (Hi Tran)	71.0	89	41.3	$ 1,228,700	$ 13,678,300	371	311.6	N/A
City of Alexandria (Atrans)	56.0	57	48.0	$ 1,621,400	$ 13,348,400	460	478.3	N/A
Albany Transit System (ATS)	92.0	57	76.3	$ 2,549,500	$ 12,496,500	378	714.8	N/A
Peer Median	125.0	108	54.0	2,382,502	16,197,000	1,293	736.5	N/A

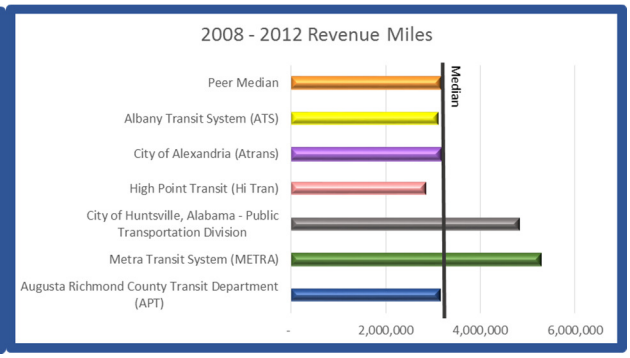
Passenger trips over the period from 2008 to 2012 are an indication of the service utilization. Over the time period, Albany Transit passenger trips has increased by 28.4%, with some downward fluctuations in 2010. The comparison to the peer systems shows that Albany Transit is above the peer median and serves more passengers than the other transit systems, other than METRA, in Columbus, Georgia.

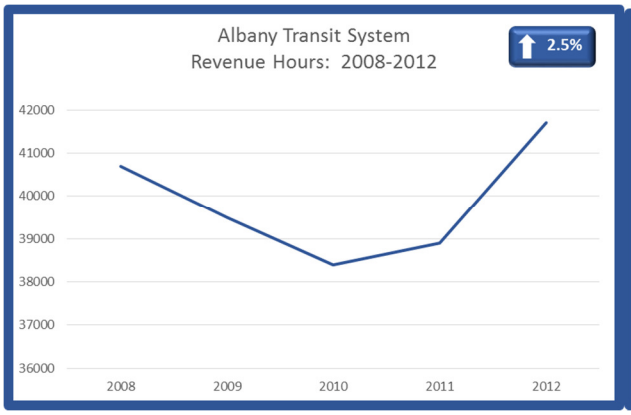


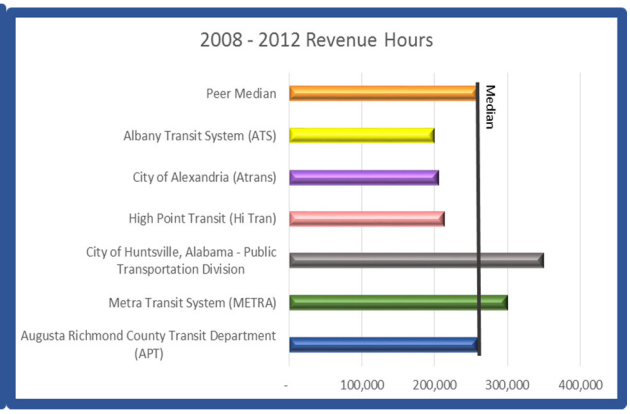


Revenue miles and revenue hours are indicators of the utilization of each vehicle in service. The larger the revenue miles and hours, the more demand on the vehicle. Revenue service is when the vehicle is available to the public for ridership. The Albany Transit revenue miles are slightly below the median for the peer systems, although the system has experienced an increase in revenue miles from 2008 to 2012 of 25.8%. The revenue hours declined in 2010, but began the upward trend in 2011 to result in a 2.5% increase from 2008 to 2012. Albany Transit is below the median, but very comparable to the City of Alexandria and High Point Transit.

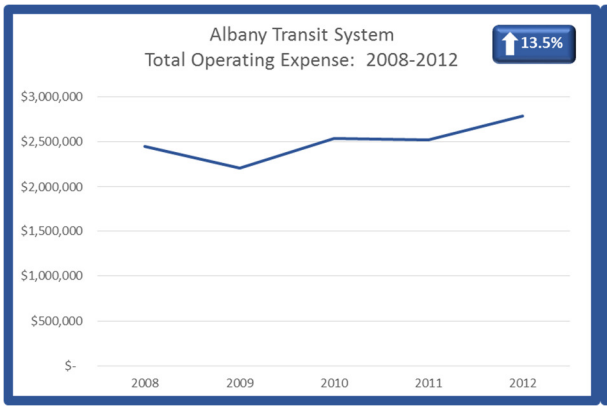








Over this period of time, the operating expenses for Albany Transit have risen by 13.5%. However, as previously shown, their passenger trips have increased by 28.4%. Albany Transit is below the median of the peer systems for operating costs.



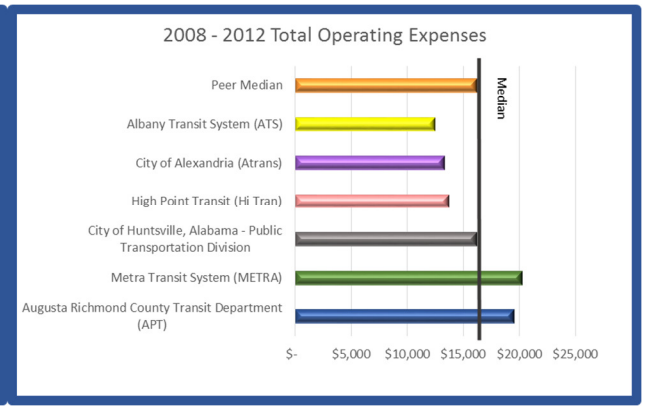


Table 10 depicts the peer comparison with the average financial indicators for each system from 2008 to 2012.

Table 10: Peer Comparison – Financial Indicators

Transit System	Average Operating Expense	Average Maintenance Expense	Average O&M Expense	Average O&M Expense per Passenger Trip	Passenger Trip per Service Area Population	Route Miles per Sq. Mi. Service Area	Revenue Hour per Revenue Mile	O&M Cost per Revenue Mile	O&M Cost per Revenue Hour	Maintenance Cost per Revenue Mile	Vehicle Miles per Gallon Consumed
Augusta Richmond County Transit Department (APT)	$ 3,909,040	$ 894,800	$ 4,803,840	$ 1.20	2.25	0.76	0.08	$ 7.60	$ 75.15	$ 1.42	4692.87
Metra Transit System (METRA)	$ 4,046,340	$ 816,067	$ 4,862,407	$ 0.87	4.55	0.73	0.06	$ 4.29	$ 67.33	$ 0.46	3845.59
City of Huntsville, Alabama - Public Transportation Division	$ 3,239,400	$ 476,500	$ 3,715,900	$ 1.78	1.72	1.03	0.07	$ 3.84	$ 46.33	$ 0.49	6079.57
High Point Transit (Hi Tran)	$ 2,735,660	$ 409,567	$ 3,145,227	$ 0.74	5.78	0.48	0.07	$ 5.24	$ 64.13	$ 0.43	5550.71
City of Alexandria (Atrans)	$ 2,669,680	$ 540,467	$ 3,210,147	$ 0.83	9.63	1.90	0.06	$ 4.73	$ 64.99	$ 0.51	4145.72
Albany Transit System (ATS)	$ 2,499,300	$ 509,900	$ 3,009,200	$ 0.64	9.84	1.19	0.06	$ 4.83	$ 62.73	$ 0.82	4619.89

PEER SUMMARY

As can be seen from the information presented above, Albany Transit is one of the smaller systems in the peer group, both in area size and in population. However, it is well above the peer median in service provided, with the second highest passenger trips and passenger miles among the peer systems. The weekday span of service is the highest among the peer systems, however, the total operating expenses are the lowest. In addition, Albany is also lower than the peer median in all employee (FTE) categories.

Demand Response Service

PARATRANSIT PROGRAM REVIEW

The passage of the Americans with Disabilities Act (ADA) in 1990 recognized that people with disabilities have the same rights as other citizens to access services and facilities available to the public, including transportation. The goal of the Paratransit Program is to ensure that all Americans have access to transit in order to meet their basic mobility needs.

Paratransit is a specialized, transportation service for people with disabilities who are unable to ride fixed-route public transportation. This may be due to an inability to:

- board, ride or disembark independently from any readily accessible vehicle on the regular fixed-route system;
- access existing accessible fixed-route transportation because that transportation is not available at the needed time on that route;
- get to boarding/alighting locations of regular public transportation.

Paratransit has a specialized meaning in the context of transportation regulations. The term refers to the complementary paratransit service, comparable to public fixed-route systems, which must be provided.

Since most true paratransit services are subsidized, users must be able to meet one of the following three eligibility requirements:

Category 1: Individuals who are unable, because of a physical or mental impairment, to board, ride or disembark independently from any readily accessible vehicle on the regular fixed-route system. Among others, this category includes people with mental or visual impairments who, due to their disability, cannot

navigate the system. Meaning, if an individual requires an attendant to board, ride or disembark from an accessible fixed-route vehicle (including navigating the system), the individual is eligible for paratransit.

Category 2: Those individuals with a physical or mental impairment who could use accessible fixed-route transportation, but a particular route is unavailable at the needed time (i.e. the accessible vehicle is down for maintenance, the lift cannot be deployed, etc.).

Category 3: Any individual with a specific impairment-related condition that prevents him/her from traveling to or from a boarding or disembarking location on the system. In this case, the impairment must prevent travel to or from a fixed-route stop. Significant inconvenience or difficulty does not form a basis for eligibility under this section. Further, barriers beyond the control of the public entity providing the fixed-route service (such as distance or weather) do not by themselves form a basis for eligibility under this section. These situations are resolved on a case-by-case basis, determined by evaluating the interaction between the impairment-related condition and the barrier in question.

Complementary Paratransit Service must be provided to origins and destinations within corridors with a width of three-fourths of a mile on each side of each fixed route. The corridor must also include an area within three-fourths of a mile radius at the ends of each fixed route. Paratransit service days and hours must mirror the fixed route days and hours of service and the cost per trip cannot be more than double the fixed route fare.

Albany Transit System (ATS) provides Complementary Paratransit Service as required by the Americans with Disabilities Act. ATS paratransit service is a shared ride, curb-to-curb transportation service where reservations are required and is provided to eligible individuals who are not able to use the regular fixed route bus service because of a disability or other limitations.

Paratransit service is provided Monday through Saturday, except on holidays. The fare per one-way trip is $2.50, which is double the fixed route fare. Albany Transit provides approximately 33 paratransit trips per day.

Currently, Albany Transit System has five 2007 Chevrolet – Champion paratransit buses, and one 2008 Chevrolet – Champion bus. Four of the six buses have over 200,000 miles. Based on 2012 NTD Data, Albany Transit uses four paratransit buses in maximum service on a daily basis. Based on four buses used in maximum service and a fleet size of six paratransit buses, the ATS spare ratio is 33%. According to the Federal Transit Administration (FTA) guidelines, the spare ratio should not exceed 20%. However, FTA will consider higher spare ratios under certain circumstances.

Recently, Albany Transit issued an Invitation to Bid for six low-floor CNG or diesel paratransit buses. They are exploring transitioning to compressed natural gas vehicles. This would require the installation of a compressed natural gas fueling station and retrofitting a maintenance bay with the appropriate safety feature to conduct maintenance on the CNG buses.

There are a number of high demand paratransit destinations which include the Dialysis Clinic, East Albany Medical Center, Albany Mental Health, The Veranda, Phoebe Hospital, Phoebe Northwest, Phoebe South, the Marine Base, Employability, Easter Seals, Palmyra Nursing Home, the Red Cross, Red Lobster, the YMCA, Goodwill Pallet, West Town Elementary School, Westover High School, Darton College, Wal-Mart and Harvey's Supermarket.

The complicated nature of providing paratransit service in accordance with ADA guidelines led to the development of sophisticated trip scheduling software. Currently, Albany Transit uses Route Match scheduling software to schedule paratransit trips. Requests for demand and regular subscription trips are entered into Route Match software then scheduled onto assigned vehicles or day runs. Route Match is designed to schedule trips as efficiently as possible, taking into account variables such as vehicle capacity, relative geography, distance of travel, and individual needs, including loading time for riders depending on their mobility.

There continues to be a concern that the software is not scheduling trips efficiently to increase vehicle utilization and cost-effectiveness of the operation. ATS contacted Route Match and modifications were made to the system settings. However, improvements in trip productivity since the modifications are negligible, and questions remain regarding the performance of the software and staffs ability to use it properly.

Albany Transit System paratransit personnel handle multiple functions in the dispatch center. One individual handles both fixed route and paratransit dispatch, takes calls for paratransit trips, schedules paratransit trips, and responds to calls from the general public regarding ATS. ATS does not have a separate customer service department to handle general ATS questions and take customer service complaints.

ATS paratransit passengers occasionally deposit more than the required $2.50 fare and request a credit for a future trip. Since drivers cannot give change for safety reasons, this practice is creating accounting issues and there is currently no method for crediting a passenger with future paratransit trips.

Albany Transit is very passionate about providing quality paratransit service to their paratransit customers. Over time, this passion has led to the acceptance of some operational accommodations that may be negatively impacting paratransit service efficiency. These accommodations include scheduling same day trips, unscheduled stops, and changes in pickup times for return trips.

From a customer service standpoint, the convenience and immediacy of same-day service is huge and some transit systems do provide same day trips. From an operating standpoint, same day trips offer the opportunity to increase productivity by filling holes in schedules left by cancellations and no-shows. However, the key to efficiently accommodating same day trips is in the trip scheduling process. Diverting a bus across town to accommodate a same day trip can throw the entire schedule off and cause the remaining pick-ups and drop-offs to be late leading to excessive time on the bus, and unhappy customers who will likely complain.

Albany Transit recently deployed automatic vehicle location (AVL) on its fleet of paratransit buses as a way to track where vehicles are in the field. Before AVL technology, ATS transit supervisors had no idea where each individual bus and driver was located unless the driver called them on the radio to report. Now supervisors and dispatchers can easily see where all the paratransit buses are which helps them respond better to unplanned service disruptions and allow for the efficient scheduling of same day paratransit trips.

Albany Transit also permits unscheduled stops. For example, Ms. Smith asks the driver to stop at the local pharmacy so she can run in to pickup her prescription. Unless time is built into the operator's regular run schedule for unscheduled stops, this practice can hurt on-time performance.

A third operating characteristic that may be impacting the efficiency of the ATS paratransit operation is changes in return trip pickup times. Some transit systems allow customers to call and request an earlier

return pick-up time, but do not provide customers with a specific pick-up time. They inform the customer that they will attempt to pick them up earlier than their scheduled pick up time, but cannot guarantee an earlier pick up time.

Albany Transit's paratransit service is a shared ride, curb-to-curb service that provides transit service that is comparable or equivalent to the fixed route service. The rider's role in the paratransit program cannot be understated and understanding key program rules is important to promote good customer service. It is equally important for the transit system to apply paratransit program rules consistently. Key program rules include:

1. Cancel your trip as soon as possible.
2. Understand what a pickup window is and confirm your pickup window.
3. Be ready to board the bus throughout the duration of the pickup window.
4. Paratransit service is a shared ride service and not a taxi service.

ATS staff has three primary concerns regarding the paratransit program:

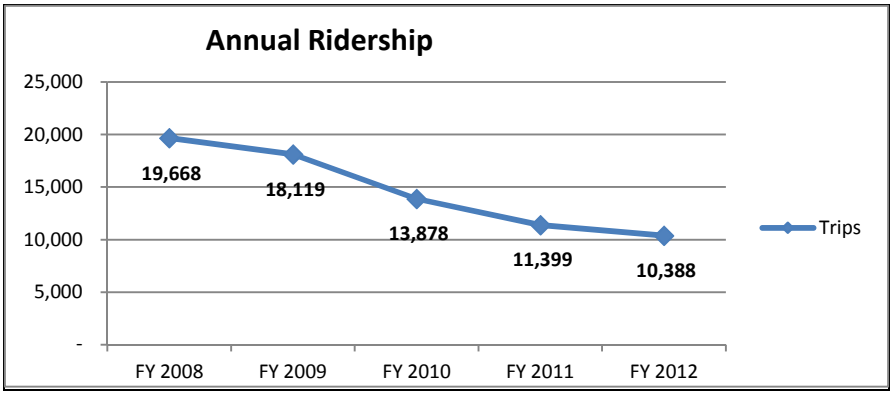
1. Performance: How is the paratransit program performing?
2. Program Operations: Are internal operating procedures impacting service performance?
3. Customer Service: What changes, if any, need to be made to the program to improve customer service?

SYSTEM PERFORMANCE REVIEW

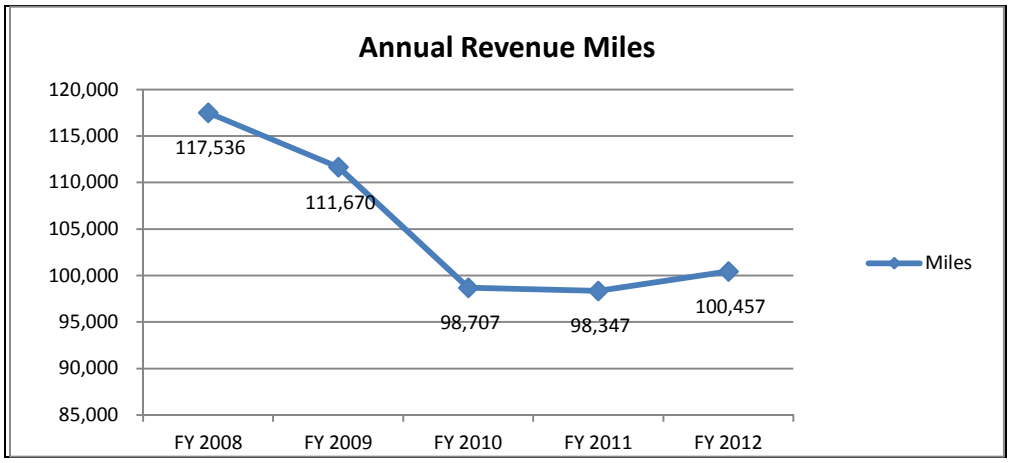
To evaluate ATS paratransit performance, a five-year longitudinal analysis was developed for various performance metrics. Data was compiled based on the National Transit Database (NTD) Annual Operating Reports for the five reporting years from 2008 - 2012. FY 2013 data was not available at the time of this report. It should be noted that while some measures may indicate a negative or positive trend, the trend analysis does not necessarily provide information regarding which aspects of the agency's performance are within the control of the agency. It is only one aspect of the review and should be evaluated together with other aspects of the review. The following bullets summarize the findings:

General Performance Measures

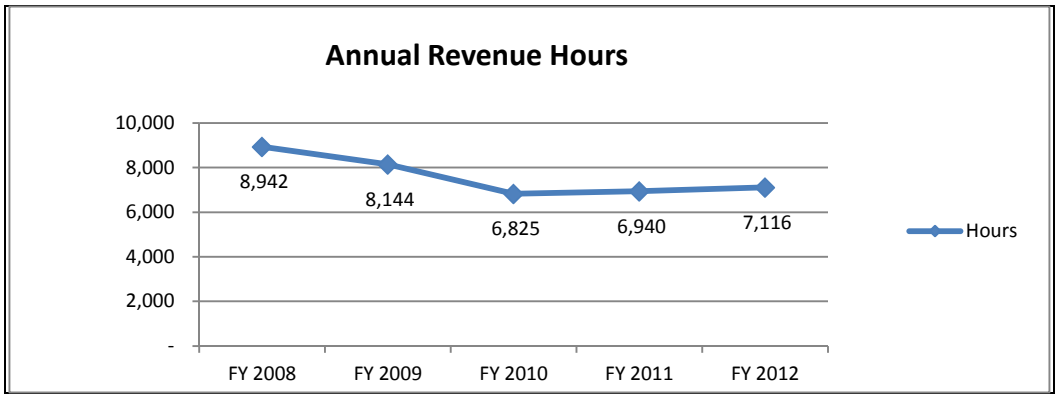
- ADA paratransit annual ridership (unlinked trips) steadily decreased from 2008 through 2012. The decrease for the five-year period is approximately 9,200 trips, a 47% decrease.



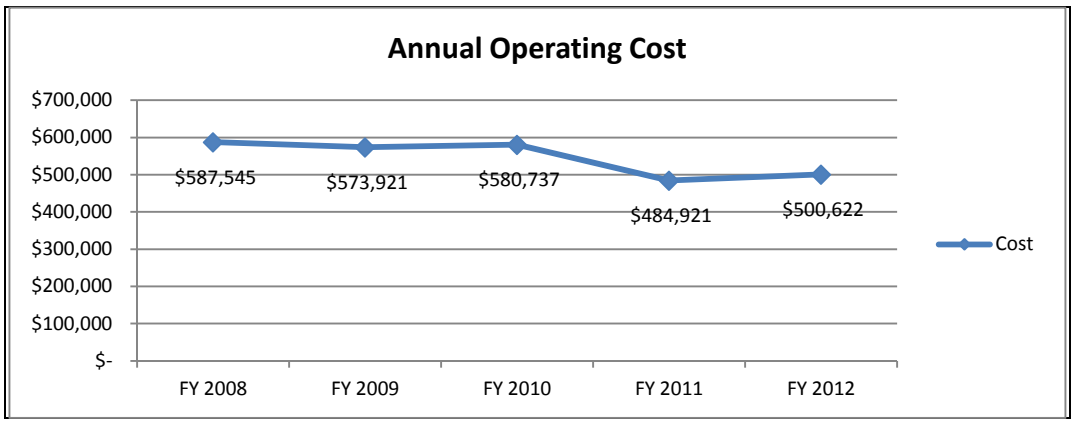
- Annual revenue miles decreased by approximately 17,000 miles from 2008 through 2012, a 15% decrease.



- Annual revenue hours decreased by approximately 1,800 hours from 2008 through 2012, a 20% decrease.



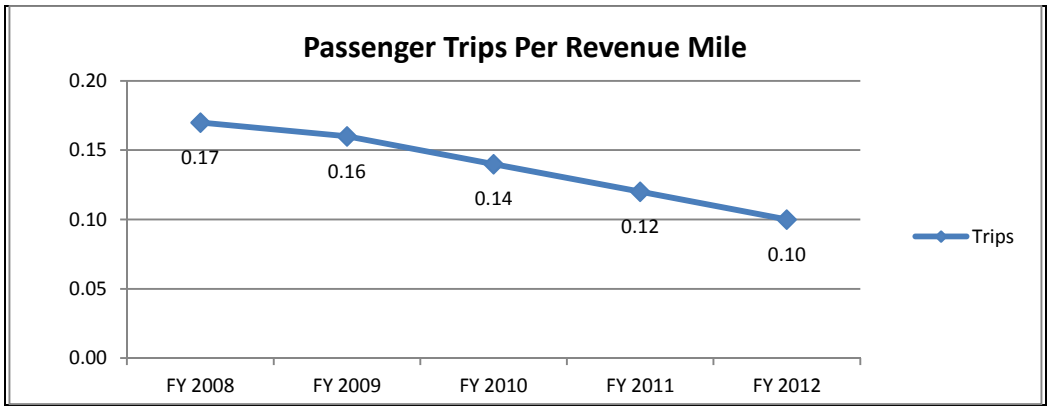
- Annual operating expenses decreased by approximately $87,000 from 2008 through 2012, a 15% decrease. The largest decrease was in FY 2011.



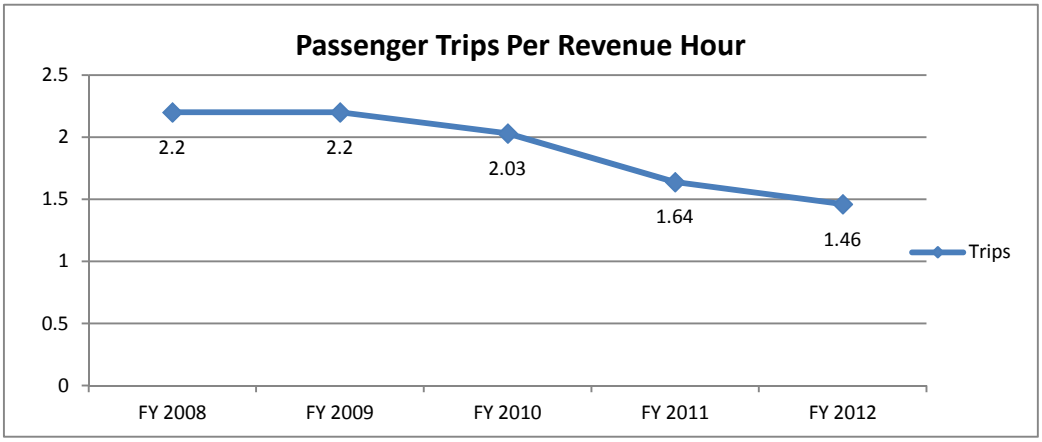
Service Effectiveness Measures

Service effectiveness measures are generally thought of as an indicator of how effective a transit system is in accomplishing its goals. Typically, this is thought of in relation to passengers carried and is measured by such factors as passengers per vehicle revenue hour or mile. Two measures are included in this review and include passenger trips per revenue vehicle mile and passenger trips per revenue vehicle hour. In both cases, higher amounts indicate better performance.

- Passenger trips per revenue mile decreased by approximately 41% from 2008 through 2012



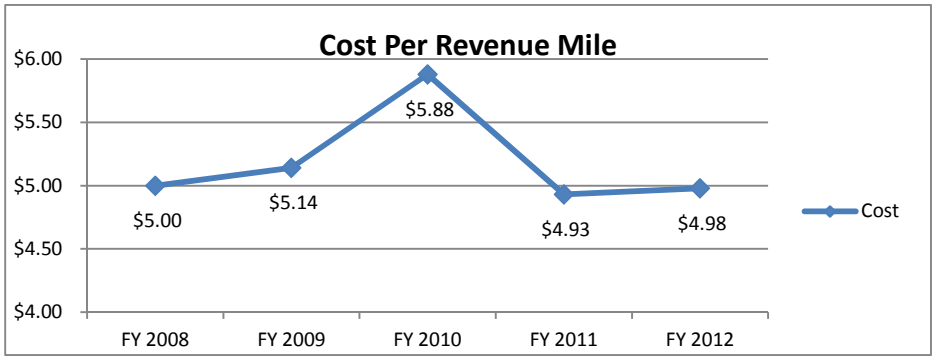
- Passenger trips per revenue hour decreased by approximately 34% from 2008 through 2012.



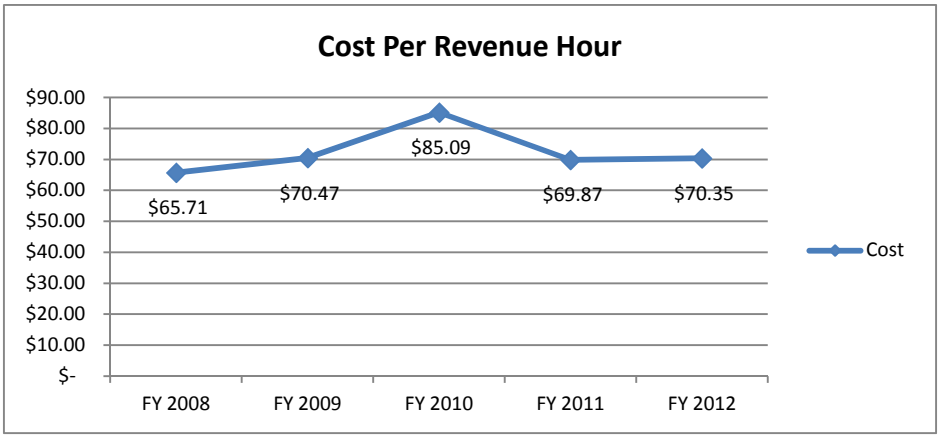
Service Efficiency Measures

Efficiency measures indicate the relationship between work performed and the resources required to perform it. They are usually expressed as a ratio of input to output, often as per unit costs. An example is cost per revenue mile. Three efficiency measures were calculated for this review and include cost per revenue mile, cost per revenue hour, and cost per passenger trip.

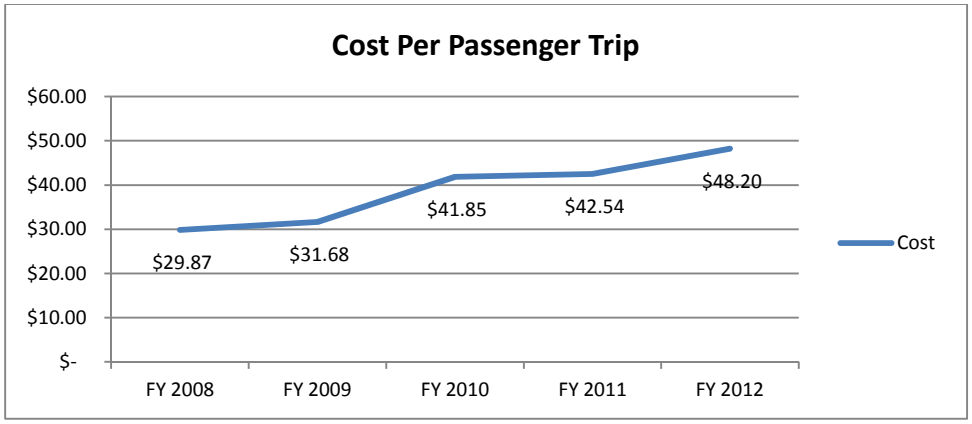
- Cost per revenue mile decreased slightly from 2008 through 2012 with the largest decrease in FY 2011.



- Cost per revenue hour increased by approximately $4.60 from 2008 through 2012, a 7% increase.



- Cost per passenger trip increased by approximately $18.00 for the period 2008 through 2012, an increase of 38% over the five-year period.



PEER REVIEW

A peer review analysis was conducted to compare the performance of the Albany Transit System Paratransit Program with other systems that operate paratransit programs with similar operating characteristics. The peer review was conducted using FY 2012 National Transit Database data for all the selected peers. Peer comparison is especially helpful in transit planning for the benefit gained from knowing how much or how little service is operated in similar areas.

General performance indicators used for the Paratransit peer review include service area population, service area population density, vehicles operated in maximum service, total operating expenses, revenue miles, passenger trips and service area size – square miles.

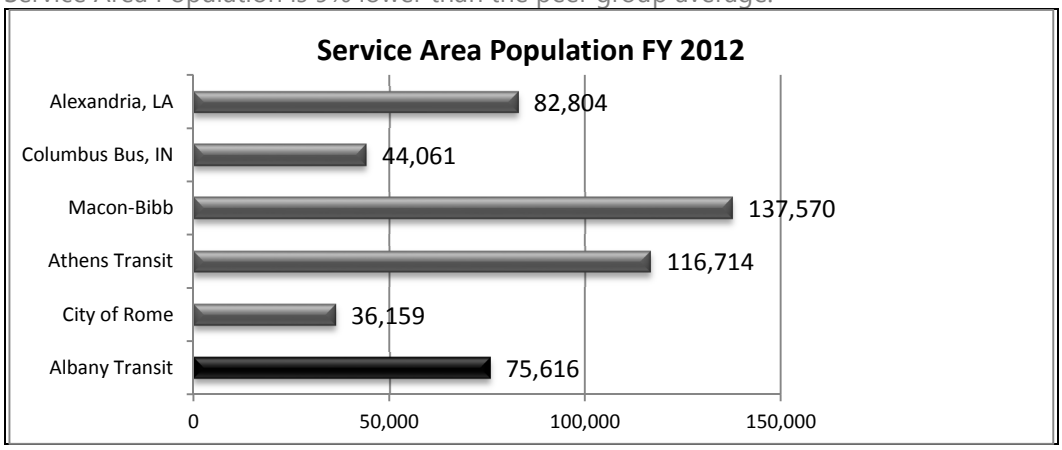
Effectiveness measures used for the peer review analysis include passenger trips per revenue mile and passenger trips per revenue hour. Efficiency measures used for the peer review analysis include cost per revenue mile, cost per revenue hour, and cost per passenger trip.

Table 11: Albany Transit System - ADA Peer Systems

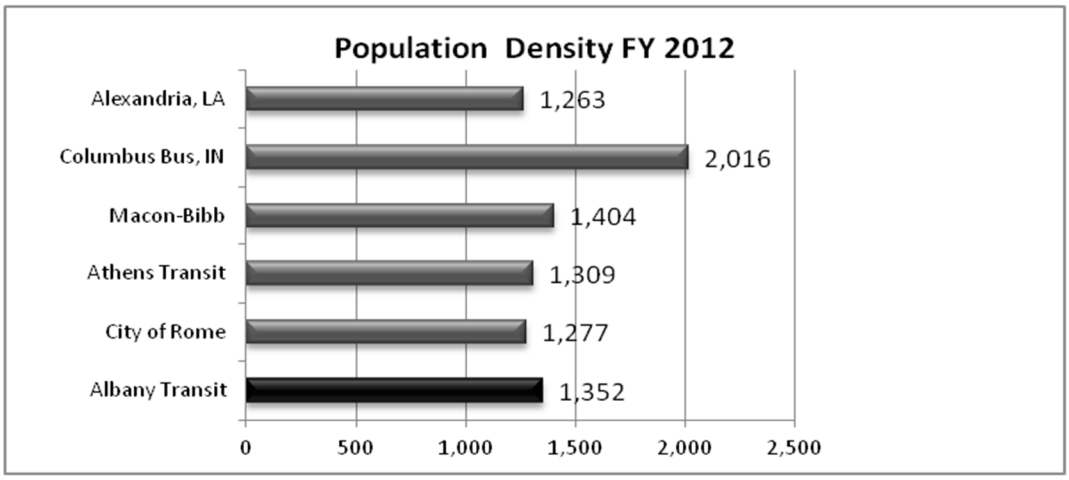
Name	Service Area Population	Population Density	Vehicles Operated in Maximum Service	Total Operating Expenses	Revenue Miles	Passenger Trips	Service Area Size - Sq. Miles
Albany Transit System, Albany, GA	75,616	1,352	4	$500,622	100,457	10,386	17
City of Rome, GA	36,159	1,277	5	$356,700	125,429	24,448	32
Athens Transit System, Athens, GA	116,714	1,309	3	$374,167	70,684	9,234	44
Macon-Bibb County, GA	137,570	1,404	6	$555,136	198,519	19,208	70
Columbus Bus, Columbus, IN	44,061	2,016	4	$407,366	90,603	19,176	27
City of Alexandria, LA	82,804	1,263	3	$373,471	109,321	16,7081	28
Based on 2012 NTD Data							

General Peer Review Performance Measures – NTD FY 2012

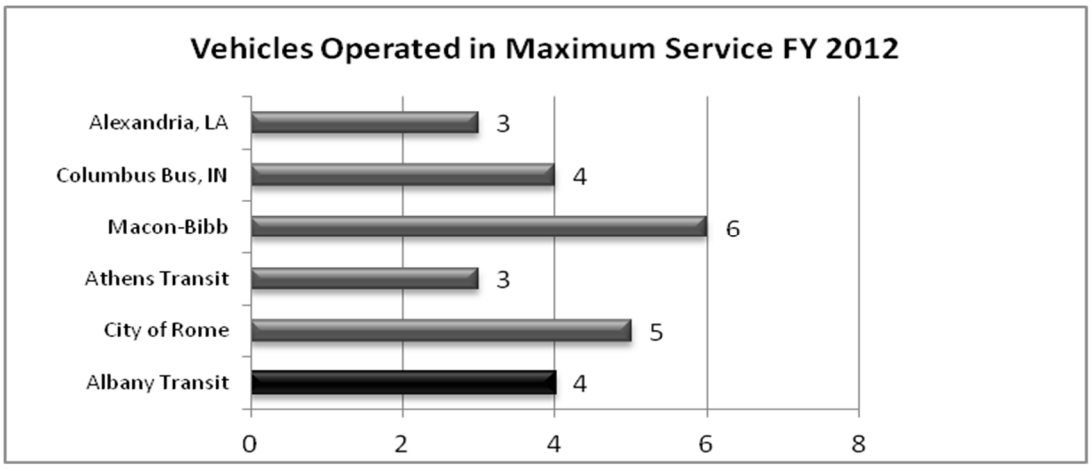
- Service Area Population is 9% lower than the peer group average.



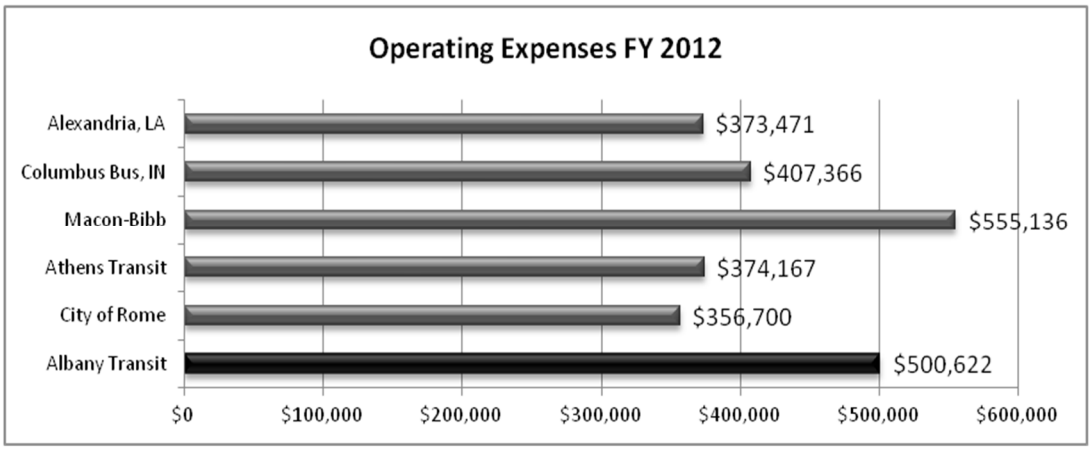
- Population Density is 7% lower than the peer group average.



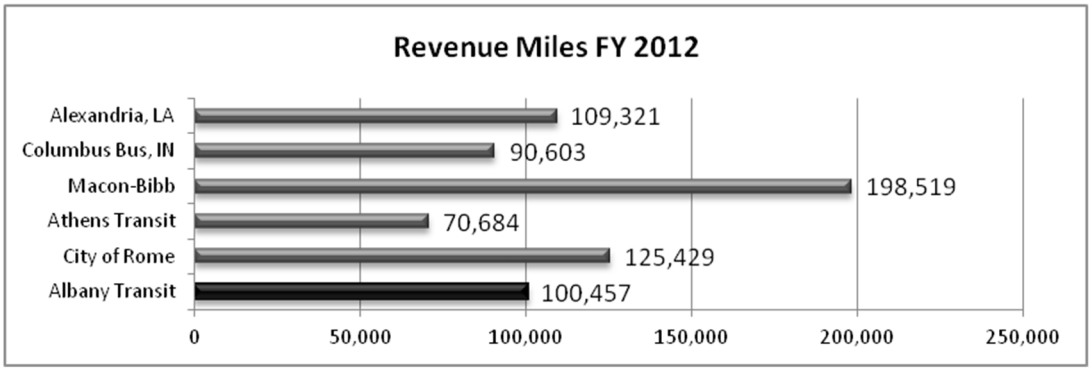
- Vehicles Operated in Maximum Service is 5% lower less than the peer group average.



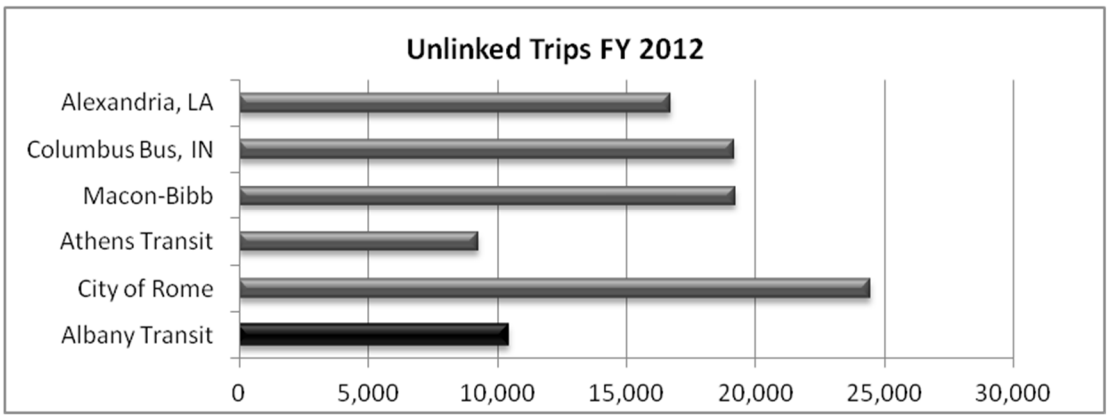
- Operating Expenses are 21% higher than the peer group average.



- Total Revenue Miles are 16% lower than the peer group average.

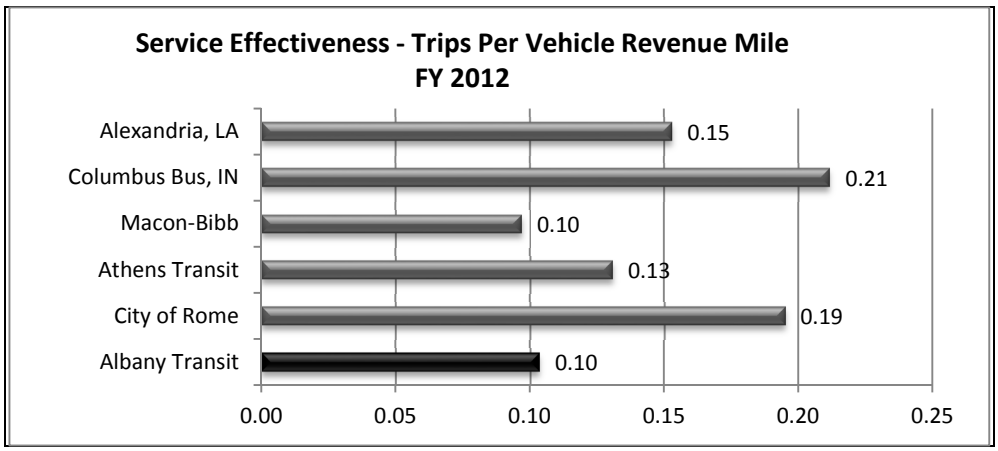


- Passenger Trips are 41% less than the peer group average.

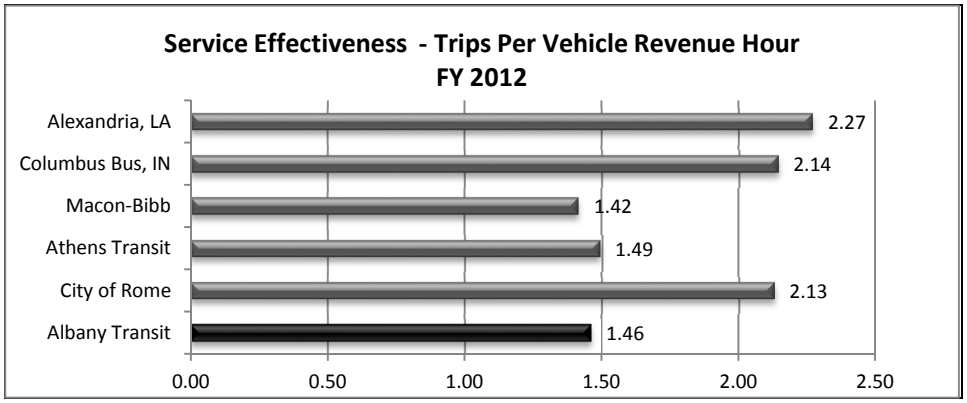


Service Effectiveness Peer Review Measures – NTD FY 2012

- Passenger Trips per Revenue Mile are 34% lower than the peer group average.

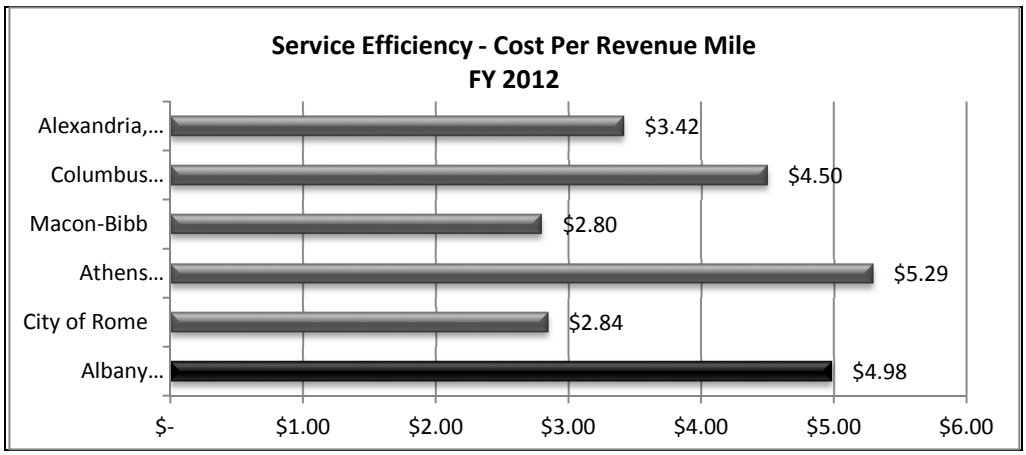


- Trips per Vehicle Revenue Hour are 23% lower than the peer group average.

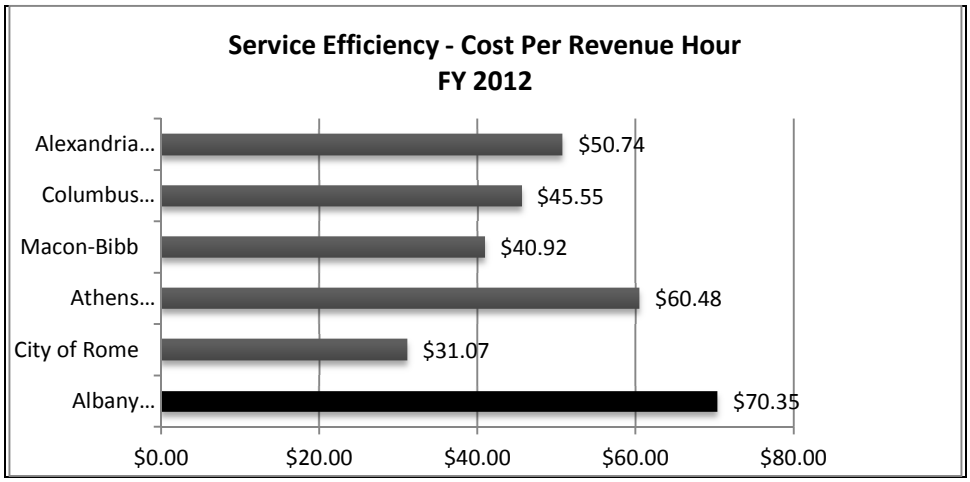


Service Efficiency Peer Review Measures – NTD FY 2012

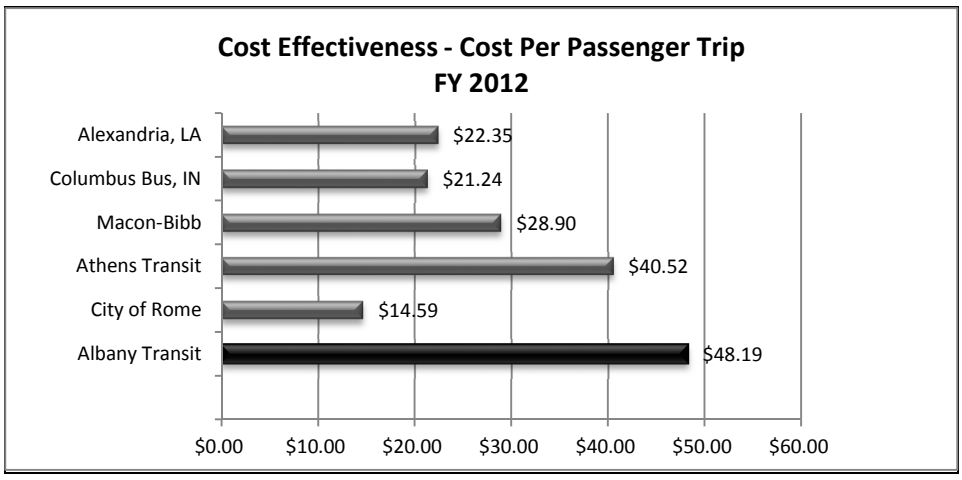
- Cost per Vehicle Revenue Mile is 32% higher than the peer group average.



- Cost per Vehicle Revenue Hour is 54% higher than the peer group average.



- Cost per Passenger Trip is 89% higher than the peer group average.



PUBLIC OUTREACH AND COMMENTS

In addition to the overall TDP public outreach efforts, there were also focused efforts to obtain input exclusively targeted towards the demand response service. Outreach was obtained through interviews with senior staff during meetings on October 29, 2015 and October 30, 2015. During these interviews/meetings, the program issues that were identified can be categorized into three basic categories which include efficiency and performance, operations, and customer service. Detailed senior staff comments are included in the Appendix.

Albany Transit has an active paratransit rider's advocacy group, the Barrier Free Design Board, who meet quarterly. The Board is comprised of seven members from the community appointed by the Mayor and the six City Commissioners. The Board is responsible for advising the Board of Commissioners on plans for barrier free design and accessibility to all buildings and facilities by disabled individuals. Meetings are also a forum to discuss issues related to Albany Transit's fixed route and paratransit service. Minutes from three

meetings were reviewed. The majority of the issues discussed were not related to Albany Transit. A survey targeted specifically for paratransit passengers was also developed. This survey was administered in hard copy as well as on-line. The survey results are found in the Appendix. A site visit was also taken to gain a better understanding and insights into the service and included attendance at a dispatchers meeting held on November 19, 2014. In addition, paratransit operators were interviewed during the same site visit to gain a better understanding of from their perspective. A ride along was also taken to fully understand the system. Observations regarding the service, as well as comments from passengers were gathered. The results of this dispatchers meeting, paratransit operator comments, and the results from the ride alongs are found in the Appendix.

OTHER SERVICE AREA PROVIDERS

The City of Albany has a number of private taxi operators. According to 2012 NTD data, 18% of Albany's overall transit budget was spent on paratransit service. In an effort to reduce paratransit costs, some agencies are using taxi companies to provide paratransit trips. According to Easter Seals Project Action, paratransit service provided by taxi operators is often less expensive than trips provided by the transit agencies. As the City of Albany currently has several taxi companies operating within the City, it might be beneficial to explore outsourcing paratransit trips to one or more taxi companies.

The City of Albany also has several charter operators. Another approach to reducing paratransit costs is to utilize a private contractor to provide paratransit service. Transit agencies enter into service contracts with private for-profit or nonprofit carriers, ranging from local taxi companies to national transportation companies for the provision of paratransit service. The contracts are awarded to the proposer who best meets selection criteria through a competitive bid process. Contracts are awarded for a designated time period of up to 5 years, including renewal options.

Mandatory levels of accident and liability insurance are specified. Vehicles can be privately owned, operated, and maintained, or provided by the transit agency. The contract outlines the specific performance standards, quality indicators, and general conditions. Most include financial penalties for unsatisfactory service and some include financial incentives for superior service delivery. Mandatory reporting and other compliance requirements, as well as monitoring strategies are detailed. Should ATS consider contracting for paratransit service, a thorough cost analysis is recommended as contracting for services may or may not result in cost saving.

The Southwest Georgia Regional Commission operates a regional rural public transit service and provides approximately 400,000 trips annually. As Albany Transit does not provide paratransit service outside of the City of Albany, it might be beneficial to meet with the Southwest Georgia Regional Commission to explore opportunities to provide cross-jurisdictional trips between service areas.

PARATRANSIT REVENUE AND EXPENSE REVIEW

In Fiscal Year 2012, Albany Transit paratransit cash revenues were $22,636. That calculates to a farebox recovery ratio of 5%. The farebox recovery ratio of a passenger transportation system is the proportion of the amount of revenue generated through fares by its paying customers as a fraction of the cost of its total operating expenses. The measure provides a general indication of the extent to which the transit system is self-supporting.

With the exception of Rome Transit, which had an untypically high paratransit farebox recovery ratio, Albany Transit's paratransit farebox recovery ratio was comparable to its peers. In reviewing internal Albany Transit accounting documents for fiscal year 2012, in addition to paratransit cash fares, over $6,600 in bus ticket sales was generated. However, it does not appear that ticket sale revenue is separated by mode.

In Fiscal Year 2012, 18% of Albany's Transit budget was spent on paratransit service. In reviewing the peer systems during the same period, Athens Transit's paratransit expenses were 8% of total operating expenses while Columbus Bus in Columbus, Indiana spent 32% of its total budget on its paratransit service.

The transit industry is labor intensive. According to the 2012 National Transit Summaries and Trends, salaries and fringe benefits account for 74.8% of the total directly operations expenditures while vehicle operations account for 53.6% of total expenses.

In Fiscal Year 2012, Albany Transit salaries and fringe benefits accounted for 73% of paratransit operating expenses slightly lower than the national trend, while vehicle operations accounted for 66% of total paratransit expenses higher than the national trend. In addition to operators' wages and fringe benefits, vehicle operations expenses also include fuel, lubricants, tires, and tubes.

Fuel is one of the most significant items in any transit systems budget. In fiscal year 2012, fuel accounted for 9% of paratransit operating expenses. Fuel for ATS buses is purchased through a vendor that the City of Albany uses for all department fuel purchases. Using a single fuel vendor acquired through a competitive bid process should provide the best value.

Fuel costs can be reduced by reducing bus idling, by improving the driving style of bus operators, and through sound maintenance practices. A safe and economical driving style can reduce variable costs, decrease down time due to repair work and maintenance, mitigate negative environmental impacts, and improve road safety. Similarly, well-maintained buses that are properly tuned and adjusted tend to be cleaner, safer and consume less fuel than poorly maintained vehicles.

The concept of Eco-Driving 101 is changing driver behavior. Eco driving refers to specific driving behaviors that can improve fuel economy, reduce operating expenses, decrease emissions, and promote safe driving. In fact, eco-driving practices, by default, make employees safer drivers by discouraging aggressive driving and speeding. Besides decreasing fuel consumption, eco-driving also helps to lower other operating costs by extending the life of wear items such as tires and brakes.

Basic eco-driving practices include knowing the proper way to accelerate and brake, using synchronized traffic lights to a driver's advantage, driving at the optimum highway speed, and understanding when to use air conditioning. For example, aggressive driving (such as speeding, rapid acceleration, and braking) can lower fuel economy. Minimizing unnecessary idling and maintaining proper tire pressure are other eco-driving practices.

Vehicle maintenance is another significant expense in any transit systems budget. In fiscal year 2012, vehicle maintenance accounted for 19.6% of Albany Transit's paratransit operating expenses. According to the 2012 National Transit Summaries and Trends, nationally, vehicle maintenance accounts for 19.5% of operating expenses, which suggests that Albany Transit vehicle maintenance expenses are in line with national trends.

Community Profile

The City of Albany, which is the county seat of Dougherty County, Georgia, is found in the southwestern portion of the State. The city encompasses 55.87 square miles. The urbanized area of Albany, which includes Dougherty County and portions of neighboring Lee County to the north, is designed as a Metropolitan Planning Organization (MPO). The MPO is tasked with addressing existing transportation issues and planning for future mobility, including coordination with the transit service.

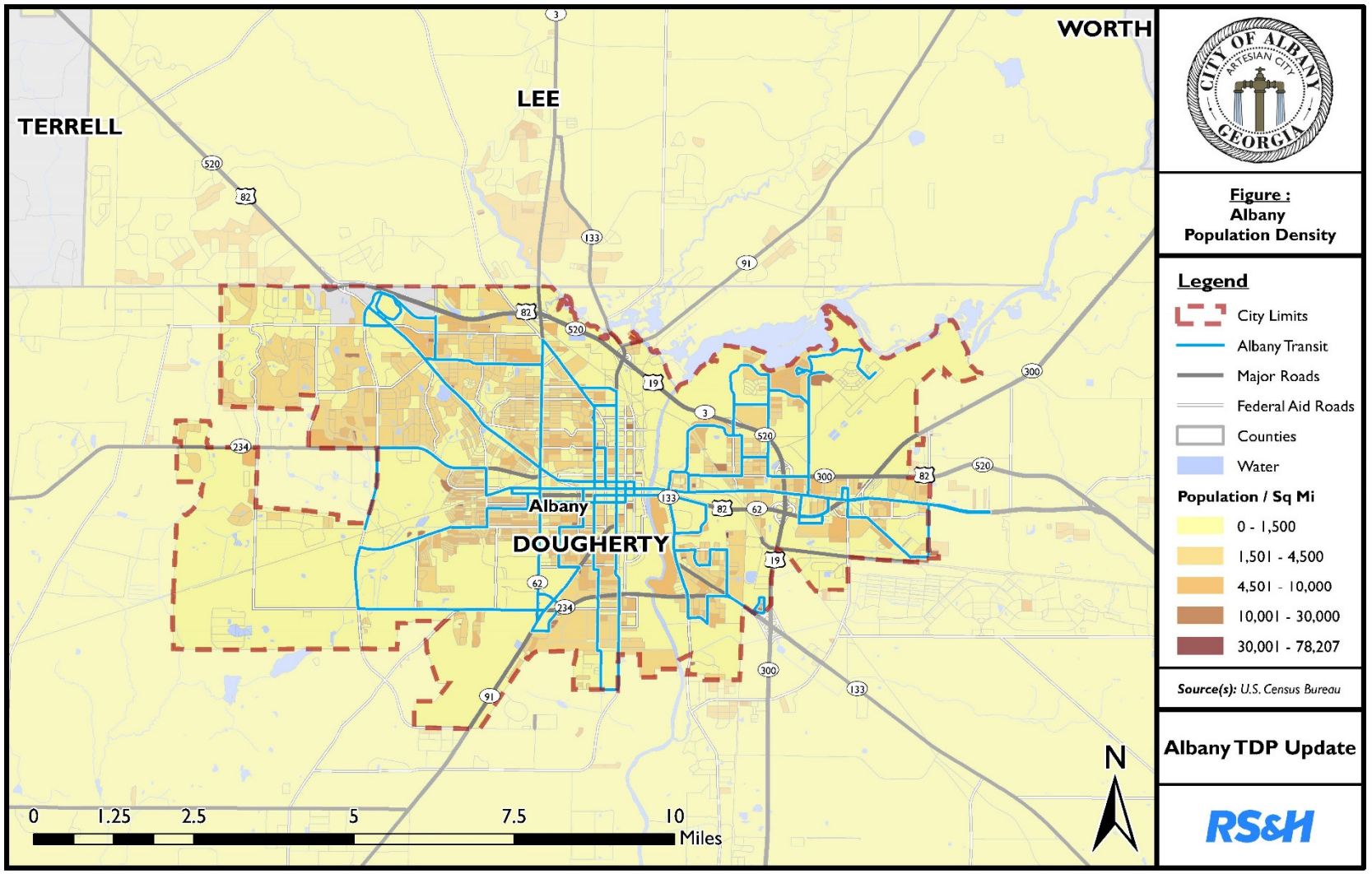
POPULATION CHARACTERISTICS

The 2013 population of the City, according to the US Census, was 76,185. The population age profile is found in the below. The majority of the population in the City is in the cohort of 65 years of age or older with 53.9% of the population which is slightly higher when compared to the State of Georgia at 51.2%. The next highest age cohort is persons under the age of 18 at 26.4%, which is slightly higher than the State of Georgia at 25.7%. The age breakdown of the population and the comparison to the State of Georgia is shown in Table 12. The population density is shown in Figure 2. The unemployment rate in Albany, at 10.4%, is somewhat higher in comparison to the State at 7.8%, and the US at 6.2%.

Table 12. Population Age Profile

Age	City of Albany	State of Georgia
Persons under 5	7.9%	7.1%
Persons between 5 and 18	26.4%	25.7%
Persons between 18 and 65	11.8%	16.0%
Persons 65 and older	53.9%	51.2%

Figure 2. Population Density



Based on the US Census information, the majority of the population of Albany is Black or African American with 71.6% of the population. The next highest demographic is White at 25.2% of the population. Hispanic or Latino category comprises 2.1% of the population and those who describe themselves as two or more races comprise 1.1% of the population. The remaining race categories reported less than 1% of the representative population for Albany. Table 13 displays the demographic information, as well as the State comparison.

Table 13. Population Race Profile

Race	City of Albany	State of Georgia
Black/African American	25.2%	59.7%
White	71.6%	30.5%
Hispanic or Latino	2.1%	8.8%
Two or more races	1.1%	2.1%

The population income profile displays a relatively large percentage of the population below the poverty level and with a median household income significantly less than the State. Persons with high school diplomas over the age of 25 is also less than the state, as well as persons holding a Bachelor Degree or higher. Table 14 displays the population socioeconomic information.

Table 14. Population Socioeconomic Profile

Indicator	City of Albany	State of Georgia
Persons below poverty level	34.2%	17.4%
Median household income	$28,871	$49,604
High school graduate of persons 25 years or older	78.2%	84.4%
Bachelor's Degree or higher of persons 25 years or older	17.3%	27.8%

ENVIRONMENTAL JUSTICE

As defined by the US Department of Transportation, there are three environmental justice principles that are associated with the expenditure of federal funds for transportation projects. These three principles are:

- To avoid, minimize, or mitigate disproportionately high and adverse human health and environmental effects, including social and economic effects, on minority populations and low-income populations.
- To ensure the full and fair participation by all potentially affected communities in the transportation decision-making process.
- To prevent the denial of, reduction in, or significant delay in the receipt of benefits by minority and low-income populations.

Federal environmental justice requirements are found in the Presidential Executive Order 12898 (1994), which states, "Each Federal agency shall make achieving environmental justice part of its mission by identifying and addressing, as appropriate, disproportionately high and adverse human health or environmental effects of its programs, policies, and activities on minority populations and low-income populations." The following terms are defined as presented in the FHWA Order 6640.23 *FHWA Actions to Address Environmental Justice in Minority Populations and Low-Income Populations:*

- Low-income: A household income at or below the Department of Health and Human Services poverty guidelines (According to the 2000 guidelines, the threshold was $8,350 for one person, and $17,050 for a family of four);
- Minority: A person who is black (having origins in any of the black racial groups of Africa), Hispanic (of Mexican, Puerto Rican, Cuban, Central or South American, or other Spanish Culture or origin, regardless of race), Asian American (having origins in any of the original peoples of the Far East, Southeast Asia, the Indian subcontinent, or the Pacific Islands); or American Indian and Alaskan Native (having origins in any of the original people from North America and who maintains cultural identification through tribal affiliation or community recognition).

The population data obtained from the U.S. Census Bureau's Census 2000 determines areas of low-income and minority population. These areas are noted to ensure equitable participation in the planning process, and to avoid disproportionately affecting these communities in the recommendations of the Transit Development Plan.

The following figures display the location and density of the minority population groups, the low income workers, the zero car households, and the elderly population.

Figure 3. Albany Minority Populations

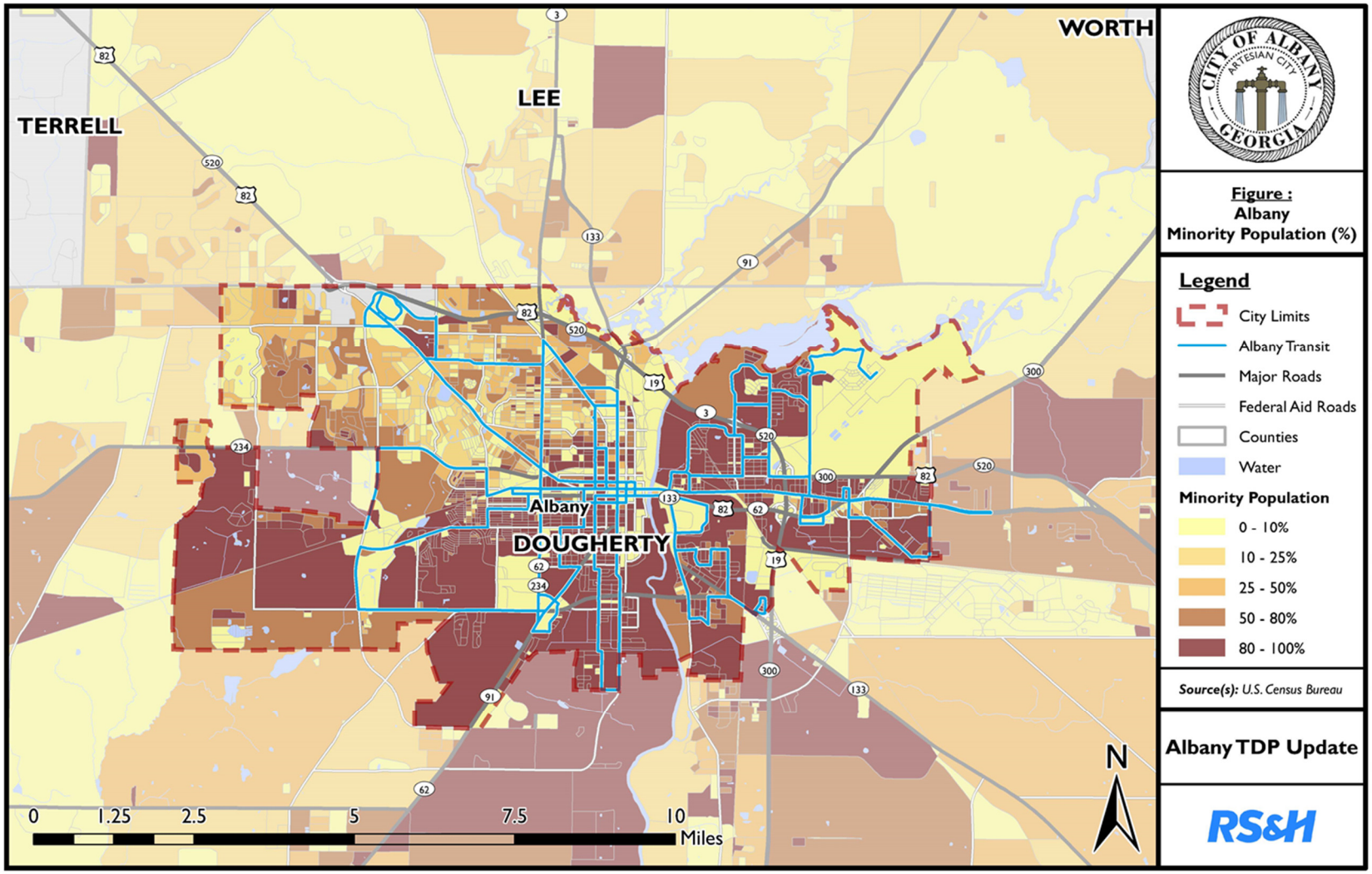


Figure 4. Albany Low Income Workers

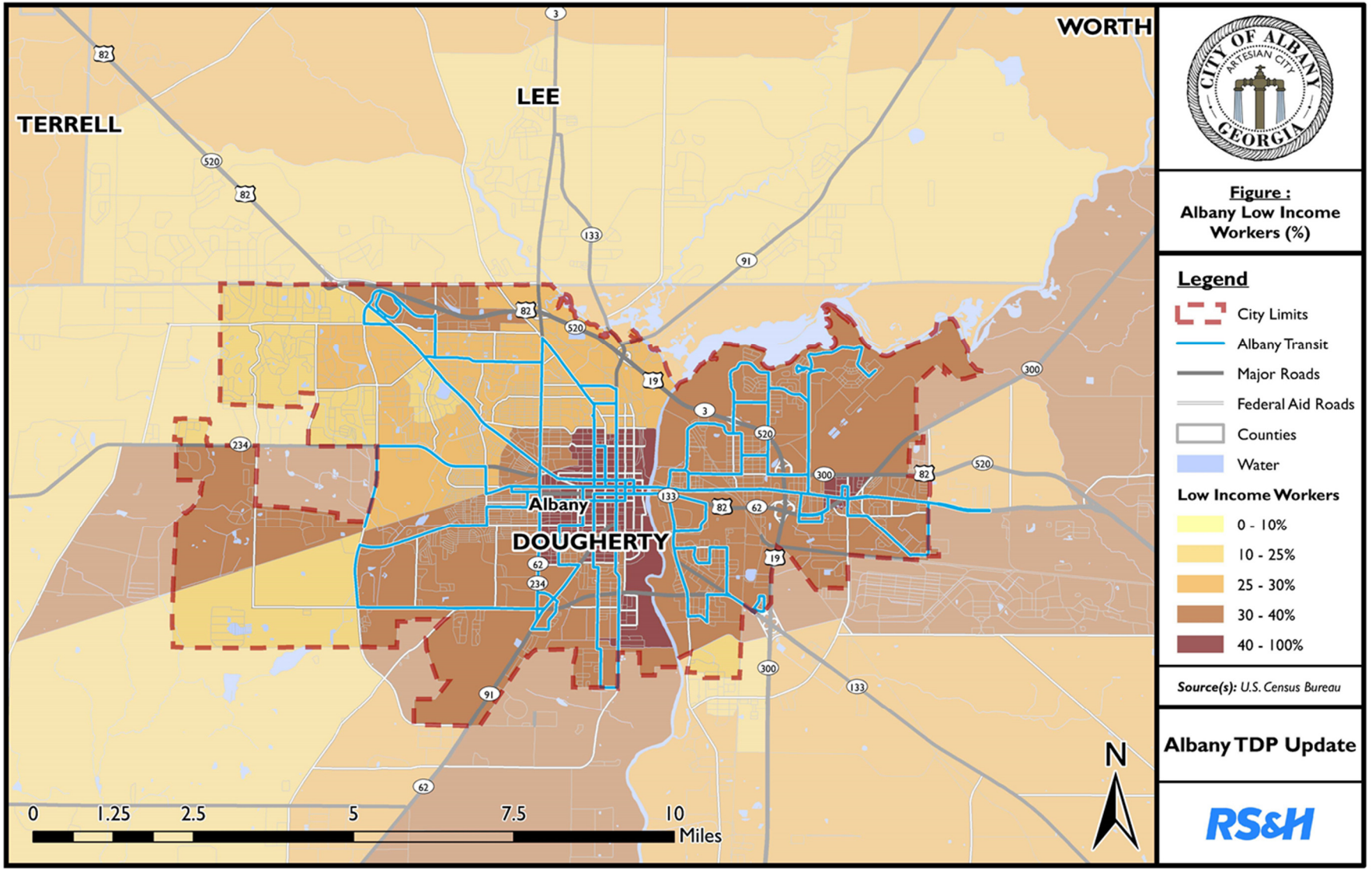


Figure 5. Albany Zero Car Households

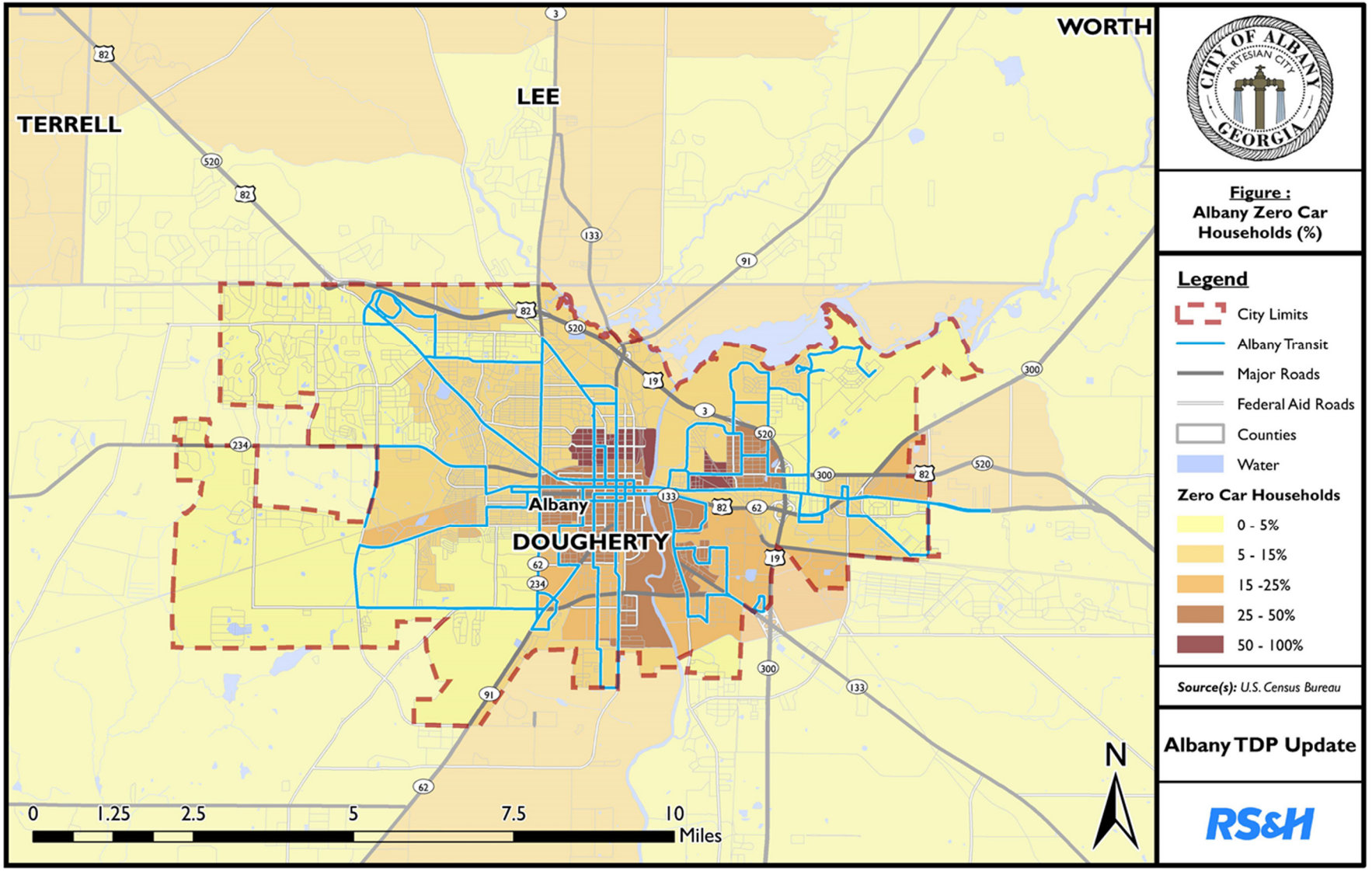
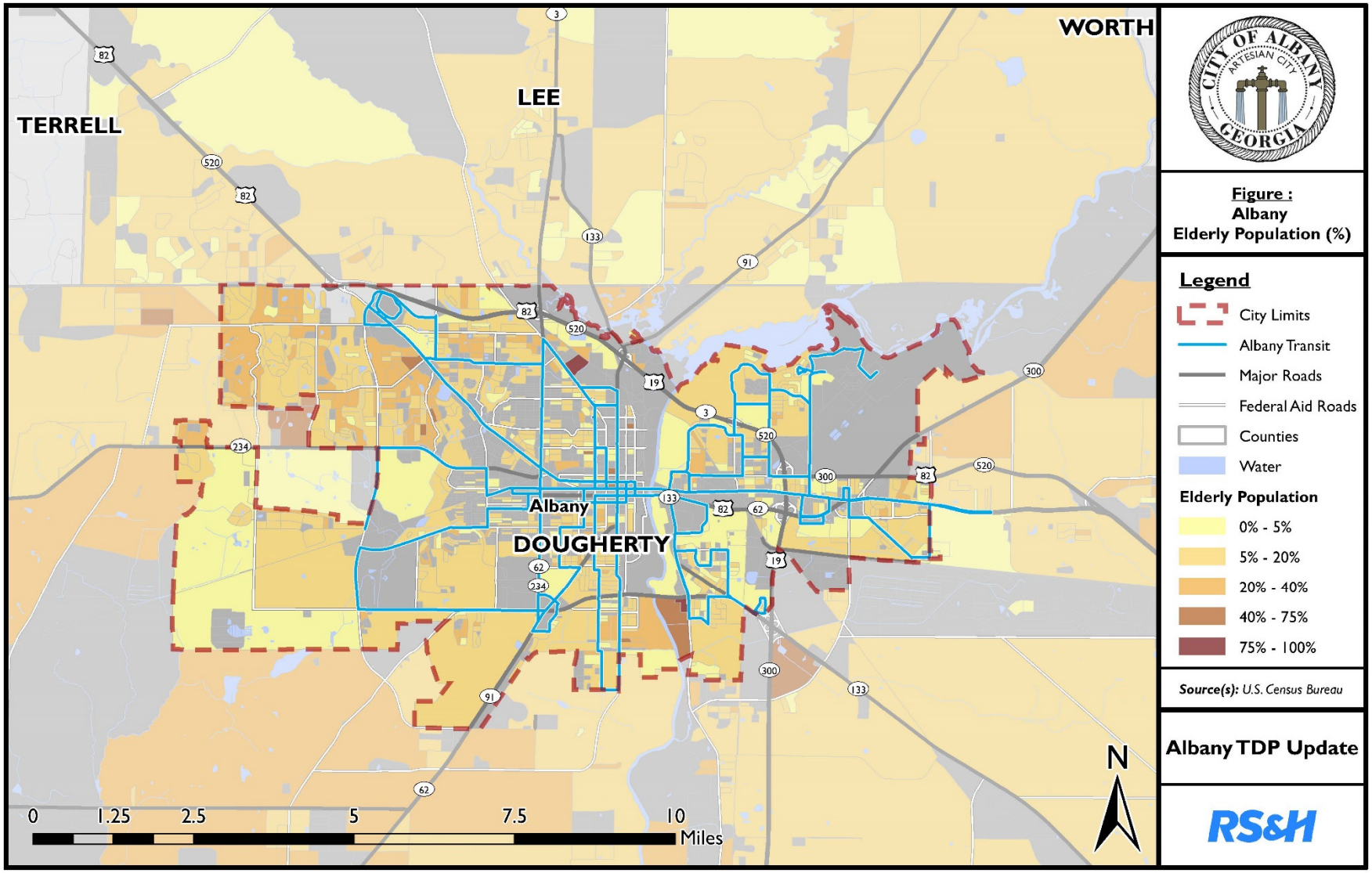


Figure 6. Elderly Population



Based on the demographic and socio-economic information, the transit market in Albany is the traditionally underserved and low income, elderly populations and students, along with a high percentage of transit dependent riders.

DEVELOPMENT AND LAND USE

Major generators are dispersed throughout Albany and as is typical of most cities, the urban core is more dense with the development patterns becoming more and more suburban and auto-centric away from the core which is graphically shown in Figure 7. This results in a large land area with a necessarily broad route structure that must cover significant area. Major employers include healthcare (8,123 jobs), the US Marine Corps and Logistics Base (5,040 jobs) and manufacturing (3,375 jobs). There are also four colleges and universities located in Albany and include Albany State University, Darton State Collect, Troy University and Albany Technical College. In addition to the institutions of higher learning, there are numerous schools scattered throughout the City. The primary pedestrian network is found in the urban core area with fewer to no pedestrian facilities moving away from the urban core. The location of the major employers and activity centers are shown in Figure 7. School locations are shown in Figure 8 and the location of the pedestrian and bicycle facilities are shown in Figure 9.

Figure 7. Albany Major Activity Centers and Employers

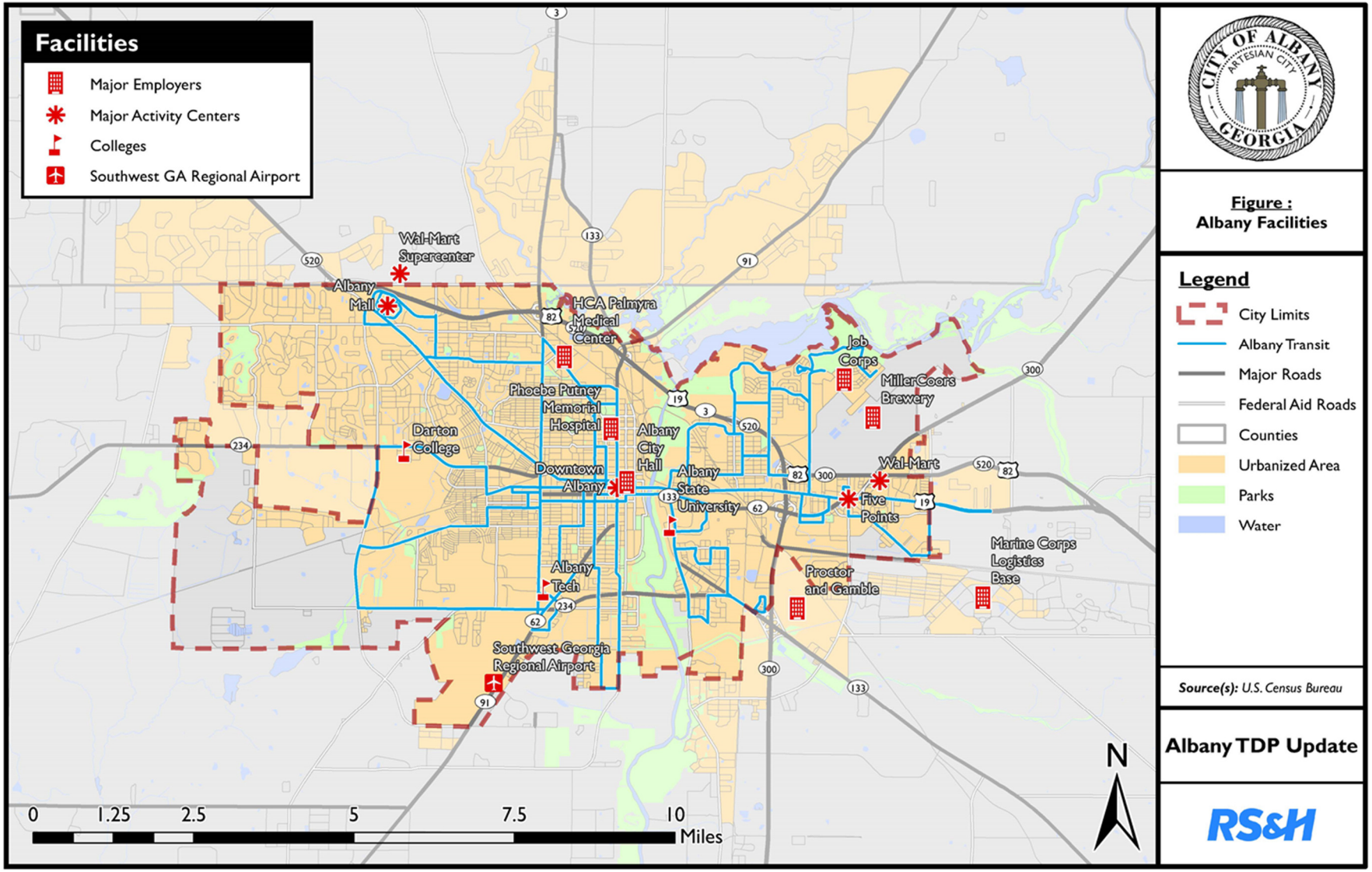


Figure 8. School Locations

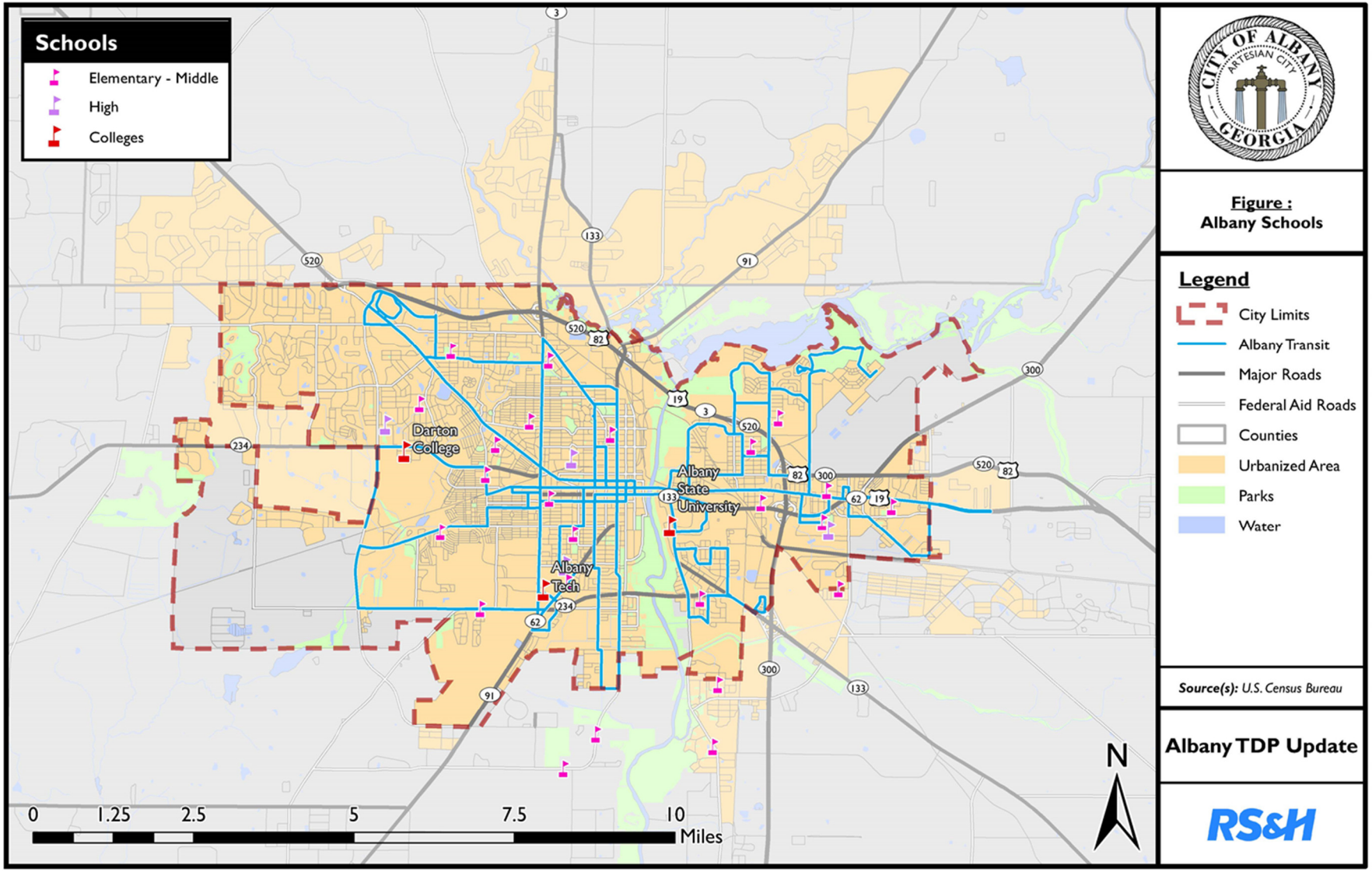
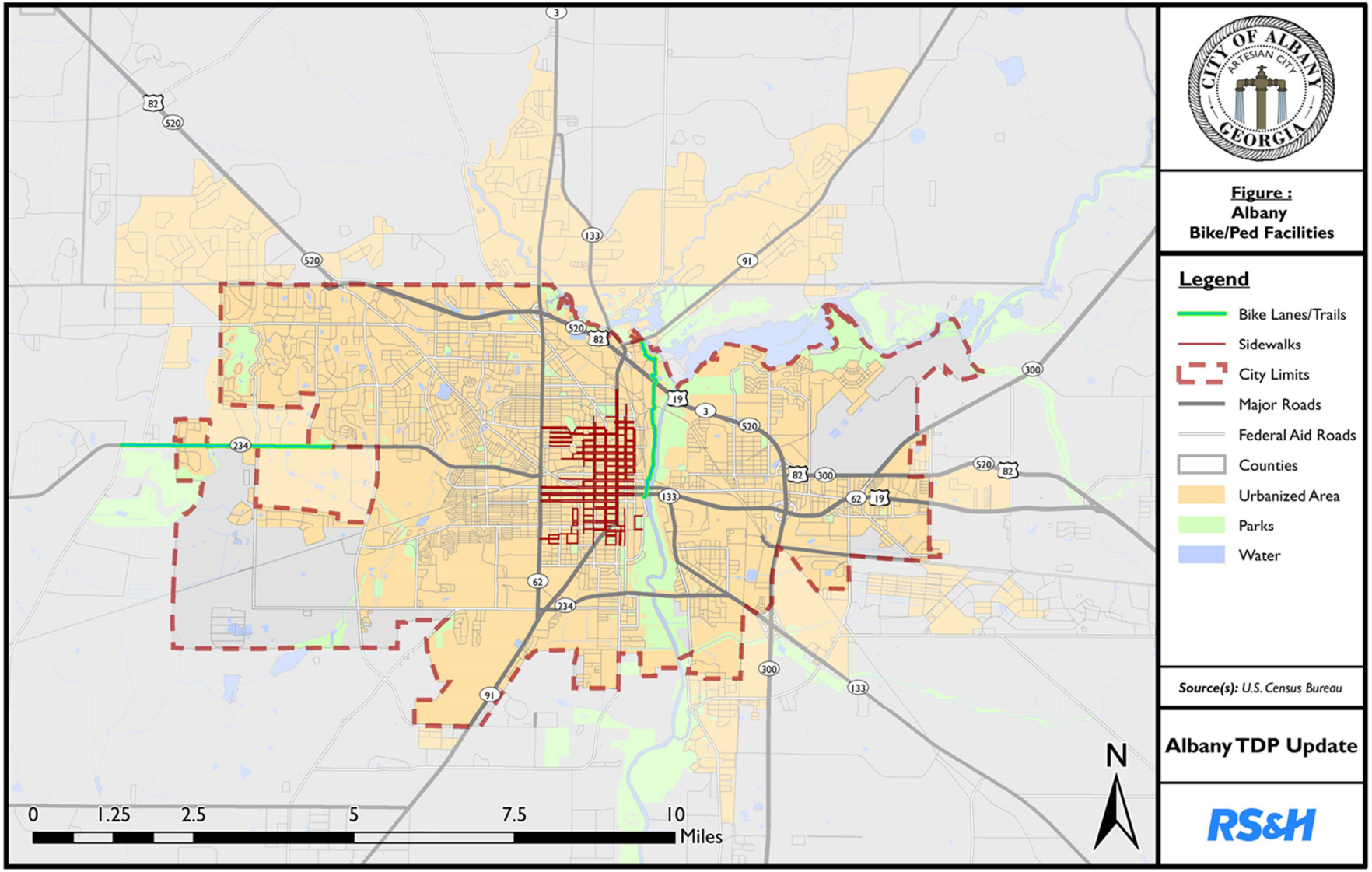


Figure 9. Pedestrian and Bicycle Facilities



Travel Trends

The City of Albany serves as the regional center for Southwest Georgia and is the commercial and employment center for the region. Albany is served by US and state routes, which include US 19 (north-south) and US 82 (east-west), Sate Routes 3, 32, 62, 91, 133, 234, 300 and 520. The routes with the heaviest traffic flows include portions is the US routes particularly near the heavy commercial areas such as the Albany Mall, and the east west movements crossing the Flint River.

According to the DARTS 2040 Long Range Transportation Plan, the counties of residence for persons employed in Dougherty County document Albany's role as the regional center. The ten highest commute trips to Dougherty County by County of Residence are shown in the table below.

Table 15. Commute Trips into Dougherty County

County of Residence (GA)	Count	Percent of Total Trips
Dougherty County	20,133	44.3%
Lee County	6,578	14.5%
Worth County	2,191	4.8%
Mitchell County	978	2.2%
Terrell County	965	2.1%
Colquitt County	758	1.7%
Sumter County	699	1.5%
Lowndes County	505	1.1%
Tift County	495	1.1%
Thomas County	460	1.0%

Source: DARTS 2040 Long Range Transportation Plan; 2010 US Census

From the transit perspective, the Albany Transit System serves the City of Albany with routes designed to serve the major activity centers throughout the City, as well as several routes that serve the downtown Albany area. With its role as regional center, combined with the demographic and socio-economic profile of the area, the transit system is a critical component of the overall transportation system. Many residents are totally transit dependent, with no access to other forms of transportation. Based on the historical trends and future projections, a dependable and efficient transit system will continue to be an important element in providing mobility for residents, as well as visitors.

CHAPTER 4

MISSION AND GOALS

Albany Transit Mission Statement and Goals

The mission statement for the Albany Transit System is:

"Our mission is to improve the quality of life for City of Albany residents by providing reliable, safe and economical public transportation."

The goals for the transit system were developed for this TDP Update. The existing goals of the system were reviewed, along with the overall goals of the DARTS MPO and the City. The goals of this TDP are built on the foundation provided by the previous TDP, as well as the other organizations to ensure a consistent approach. Within this framework, the goals for this TDP were identified; these goals can be categorized into broad categories and were developed to address the existing and future conditions. The table below includes the overall category and the specific goal.

Table 16. Goals

GOAL CATEGORY	GOAL
Safety	Reduce Accident Rates Improve Overall Safety
Service	Increase Ridership Identify New Markets Improve Customer Service
Efficiency	Redefine System Service Area Redefine Service Objectives
Coordination	Establish a Proactive Planning Presence in the Community

These goals were presented to the Stakeholder Committee at the kick-off meeting on October 29, 2015. The members of the committee reviewed and discussed the goals. Through unanimous consensus of the committee members, these goals were accepted as the guiding framework for the transit system and the TDP Update.

CHAPTER 5

ALTERNATIVES ANALYSIS

Alternatives Analysis

This section presents the assessments of fixed-route transit service availability and performance measures. Transit service availability relates to where and when service is provided. Transit service performance then entails the delivery of and ridership response to that service.

The existing conditions section presented earlier describes the transit service area. The first transit service availability measure compares the route coverage with transit-supportive areas. Next, the route coverage is compared with locations with high propensity for transit use based on several demographic variables. A quick look at route directness illustrates the geographic tradeoff between reaching more potential riders with limited routes and compelling other riders to have to spend time deviating before reaching their destination. The temporal availability of transit service is captured by span and frequency of service, which is presented along with a summary of other operational characteristics of the routes.

Service delivery is measured at both the system and route levels. System-level measures include maintenance, safety, and customer service measures. Road calls, spare ratio, and energy consumption measure maintenance performance. Accident rates, incident rates, and complaint rates measure safety and customer service. At the route level, ridership, productivity, on-time performance, and average travel speeds measure service delivery.

TRANSIT SUPPORTIVE DENSITY

One important aspect of transit demand is evaluating where and whether population and employment densities are sufficient to support transit service. *The Transit Capacity and Quality of Service Manual* states, "The more people and the more jobs that are within easy access distance of transit service, the more potential customers there are to support high-quality service."

The *Manual* cites studies pegging transit-supportive population density thresholds as three units per gross acre for hourly bus service, about 4.67 units per gross acre to support buses every 30 minutes, and 10 units per gross acre to support buses every 10 minutes. Alternatively, four jobs per gross acre would support hourly bus service. Operating transit service balances tradeoffs between the provision and utilization of service, which depend in large part on density. The cited thresholds assumes the average transit subsidy in the U.S., 27% fare box recovery ratio of bus operating costs. If one is willing to expend more cost to provide service that is likely to provide less ridership, the thresholds can be relaxed. The traffic analysis zones (TAZ) covering Dougherty and Lee counties with 2010 and 2040 population and employment were used to identify transit-supportive areas.

Areas with density sufficient to support hourly bus service in 2010 were all served by the current bus system. Utilizing the forecast population and employment growth to 2040, some additional transit-supportive areas appear. Those additional areas are also within the service area of the current bus system.

To provide more spatial granularity, transit-supportive areas were examined at the block level by obtaining 2009-2013 five-year American Community Survey population data and Longitudinal Employer-Household Dynamics (LEHD) Origin-Destination Employment Statistics (LODES) employment data were obtained. The results uncovered more transit-supportive blocks within the current service area. Further, some blocks with transit-supportive density outside of the current service area are identified for potential incorporation into system revisions such as potential service expansions.

Figure 10: Transit-Supportive Density 2010 Traffic Analysis Zones

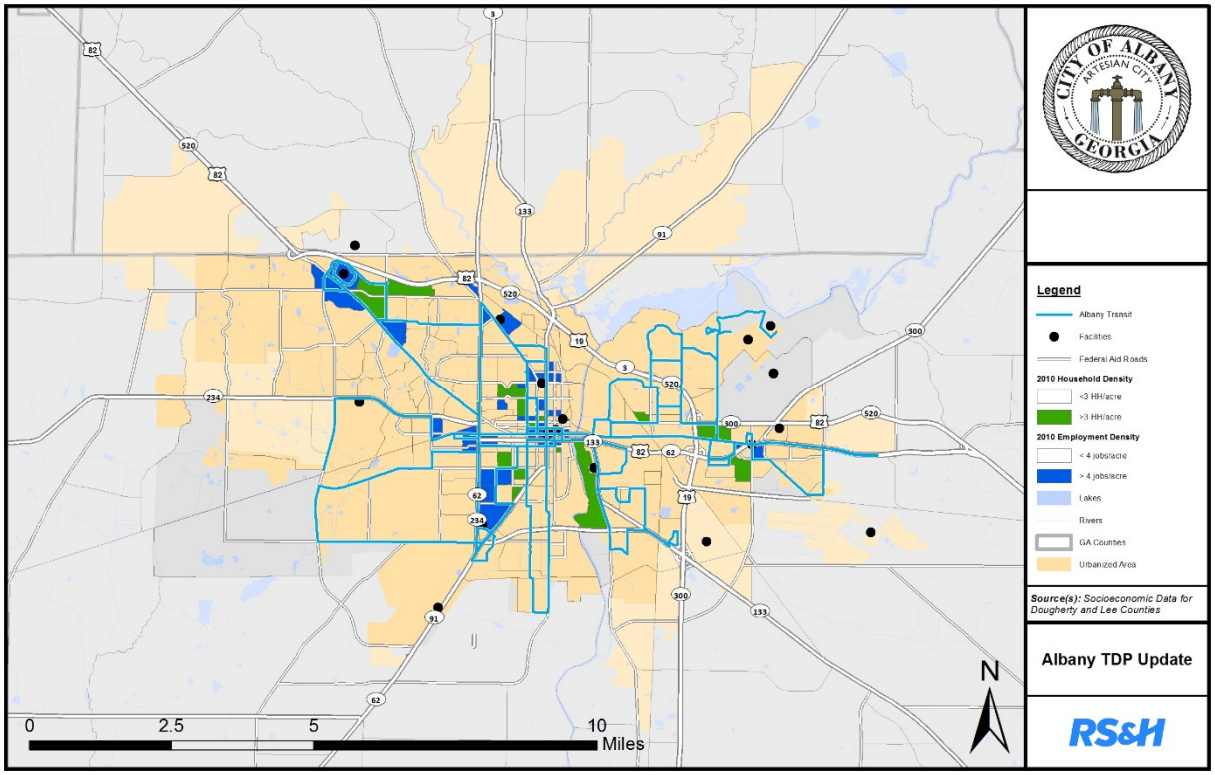


Figure 11: Transit-Supportive Density 2040 Traffic Analysis Zones

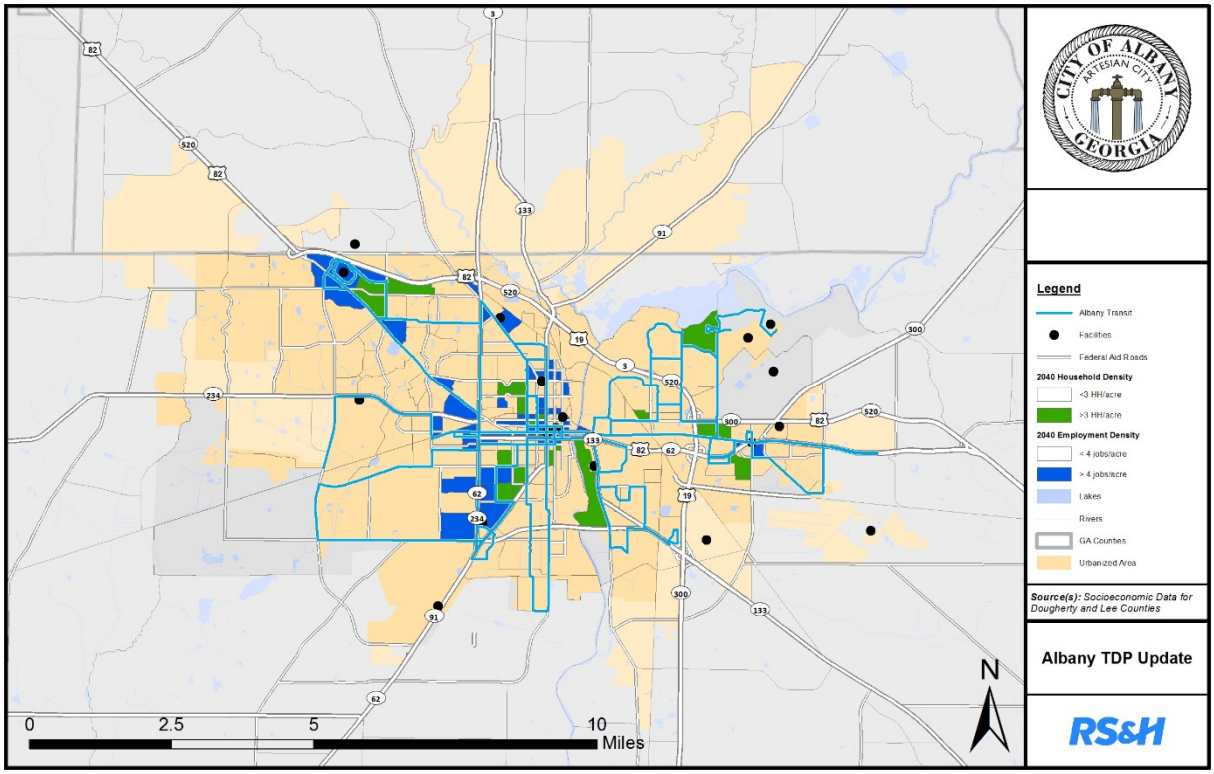
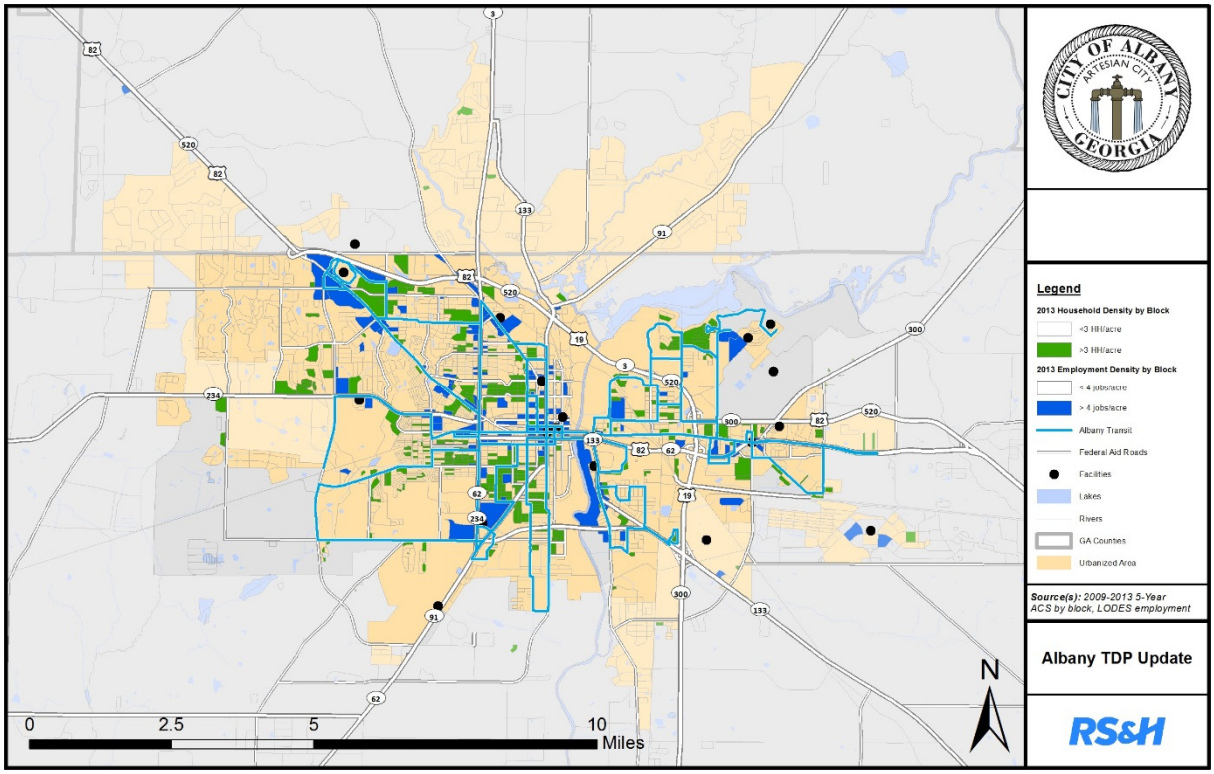


Figure 12: Transit-Supportive Density 2013 Census Blocks



TRANSIT PROPENSITY

To identify the areas exhibiting a propensity for transit, the demographic factors used in this analysis were identified. These consist of Households without Cars, Poverty, Minority, Female, Disability, Mobility Limitations, and Workers 65 and Older. Four of these demographic factors were available at the block group level. The most detailed level available for the other four factors was the tract level.

Households without Cars: Census Table B25044 Tenure by Vehicles Available contains the total number of occupied housing units and households with no vehicle available (owner occupied and renter occupied) at the block group level.

Poverty: Census Table B17017 Poverty Status in the Past 12 Months by Household Type by Age of Householder contains the data of total households and income in the past 12 months below poverty level at the block group level.

Minority: Census Table B03002 Hispanic or Latino Origin by Race contains the data of total population and population white alone, not Hispanic or Latino at the block group level. The percentage of population not "white alone, not Hispanic or Latino" was calculated.

Female: Census Table B01001 Sex by Age contains the data of total population and female population at the block group level.

Disability: Census Table C18120 Employment Status by Disability Status contains total population and population with a disability (by employed in the labor force, unemployed in the labor force, and not in the labor force) at the tract level.

Mobility Limitation: Census Table B18105 Sex by Age by Ambulatory Difficulty contains total civilian noninstitutionalized population 5 years old and over and "with an ambulatory difficulty" by age cohort at the tract level.

Workers 65 Years Old and Older: Census table B23004 Work Status in the Past 12 Months by Age by Employment Status for the Civilian Population 65 Years and Over contains "worked in the past 12 months, 65 to 74 years" and "worked in the past 12 months, 75 years and over" at the tract level. Because the universe for this table is civilian population 65 years and over, the number of other workers was borrowed from Census table C18129. The percentage of workers that are 65 years old or over was calculated.
Density: Distinct from the transit supportive densities above, the composite transit propensity utilizes a population density factor. Density was calculated from the Tiger/LINE block group shapefiles. The total area was calculated from the land area and water area attributes to derive percent land area. The area in square miles of each block group was calculated via Calculate Geometry, and the percent land area was applied to obtain square miles of land. Population was then divided by square miles of land to obtain the density value.

Composite Propensity: Factors that were only available at the tract level were spatially joined from the tract to constituent block groups, resulting in all factors residing at the block group level. The percentage of households or population of each demographic factor (except for older workers) together with the population density in persons per square mile were each individually indexed to rate each block group's factor on a scale from one to 100. The factors were then weighted according to the accepted methodology:

Table 17: Factor Weights

Factor	Weight
Density	370
Zero Vehicle Households	217
Mobility Limitations	174
Work Disability	66
Minorities	65
Recent Immigrants	39
Low Income	38
Female	31
TOTAL	1000

Results

Households without Cars: Clusters of very high concentrations of households without cars, where between one third and two thirds of households are without cars, include between Roosevelt Avenue and Third Avenue east of Van Buren Street, southwest of the intersection of Slappey Boulevard and Gordon Avenue, and Jackson Heights and the corridor between Clark Avenue and Broad Avenue / Sylvester Road.

Poverty: Places with low income, where more than half of households with income below the poverty level, clustered much like households without cars.

Minority: The only area with very low minority population (between 13% and 27%) within the ATS service area is along Dawson Road between Westgate Driver / Whispering Pines Rd and Magnolia Street / Third Avenue.

Female: Areas with over 60% female population include near Turner, Five Points, near Albany State, near Brooks Plaza, near Sherwood Park, Darton State and Ingleside Drive, and north of Ledo Road in Lee County.

Disability: Clusters of very high percentages of population with a disability (between 21% and 27%) include downtown Albany, west Albany, and Putney.

Mobility Limitation: The only cluster of very high percentage of population with ambulatory difficulty (16% - 24%) is in downtown Albany.

Workers 65 Years Old and Older: Very high concentrations of where persons in the workforce aged 65 or older live (5% to 9% of the workers) include Downtown Albany; northwest between Dawson Road, Westover Road, and Gillionville Road; and in rural areas north and east of Putney.

Recent Immigrants: Very high concentrations of recent immigrants (about 2% - 4% of the population) include the vicinity of Albany State University, east Albany and the northeast corner of Dougherty County, and south Lee County along US 19.
Density: Some of the areas with very high population density include near Sherwood Park, Turner, Carver Park, and west of Avalon Park.

Composite Propensity: Areas with the highest transit propensity are served by existing routes. Clusters of areas with very high transit propensity include central Albany concentrated in Jackson Heights and the corridor between Clark Avenue and Broad Avenue / Sylvester Road, east of Mills Stadium, near Carver Park, and west of Avalon Park.

OPERATIONAL ANALYSIS AND SUMMARY

Table 18 presents an operational summary. Albany Transit routes operate at either 30 minute or 60 minute frequencies. They depart the ATS Transfer Station (or Five Points in the case of 1X / 4X) on the hour or on the 15's, 20's, 30's, or 45's. Routes are run in two blocks, with one morning operator and one second shift operator. Three pairs of routes are through-routed to form three combined blocks: 1 Red / 2 Gold, 1X /4 X, and 6 Gray / 8 Purple. Each route or pair operates between 13 and 16 daily runs, expect for route 4 Green, which operates every 30 minutes, is not through-routed, and has 30 daily runs. Routes begin service between 5:15am and 5:45am and go out of service between 6:56pm and 8:12pm, spanning between 13 and 15 hours. Routes range from seven to 17 miles.

Layover or recovery times range from zero minutes to 10 minutes. Route 6 Gray and 1X both have zero minutes of layover time, although the other route in each pair (8 Purple and 4X) has four minutes of layover. Routes 3 Orange, 5 Blue, and 7 Brown all have layover time that is 5% or less of running time. Operating speeds range from 14 miles per hour to 34 miles per hour. All routes have a single bus in service (or one bus split between two routes for the paired routes), and no additional buses are in service during peak periods than at other times of day.

Table 18: Operational Summary

	3 Orange	4 Green	5 Blue	7 Brown	1 Red	2 Gold	6 Gray	8 Purple	1X	4X	Silver
Frequency [minutes]	60	30	60	60	60	60	60	60	60	60	60
Departs	15's	15's & 45's	45's	15's	15's	45's	45's	15's	00's	30's	20's
Block 1 Time	5:00am-1:30pm	5:00am-1:00pm	5:30am-2:00pm	5:00am-1:30pm	5:00am-1:00pm		5:00am-1:00pm		4:30am-12:45pm		5:00am-12:30pm
Block 2 Time	1:00pm-7:30pm	12:30pm-8:30pm	1:30pm-7:00pm	1:00pm-8:30pm	12:30pm-8:30pm		12:30pm-8:30pm		12:00pm-7:30pm		12:00pm-7:30pm
Block 1 Runs	8	15	8	8	8	7	7	8	8	7	7
Block 2 Runs	6	15	5	7	8	7	7	8	6	7	7
Daily Runs	14	30	13	15	16	14	14	16	14	14	
In Service	5:15 AM	5:15 AM	5:45 AM	5:15 AM	5:15 AM	5:45 AM	5:45 AM	5:15 AM	5:00 AM	5:30 AM	5:20 AM
Out of Service	7:12 PM	8:12 PM	6:43 PM	8:12 PM	8:12 PM	7:15 PM	7:15 PM	8:11 PM	6:30 PM	6:56 PM	7:10 PM
Span [hours]	13.95	14.95	12.97	14.95	14.95	13.50	13.50	14.93	13.50	13.43	13.83
Span [hours] Approx	14	15	13	15	15	14	14	15	14	13	14
Route Length [Miles]	16.5	17.0	16.0	19.0	7.0	10.0	12.0	7.3	10.0	10.0	15.0
Running Time [minutes]	57	27	58	57	27	27	30	26	30	26	50
Layover [minutes]	3	3	2	3	3	3	0	4	0	4	10
Layover to Run Time	5%	11%	3%	5%	11%	11%	0%	15%	0%	15%	20%
Cycle Time [Minutes]	60	30	60	60	30	30	30	30	30	30	60
Operating Speed (mph)	16.50	34.00	16.00	19.00	14.00	20.00	24.00	14.60	20.00	20.00	15.00
Buses on Route	1.0	1.0	1.0	1.0	0.5	0.5	0.5	0.5	0.5	0.5	1.0
Buses In Service	1	1	1	1	1		1		1		1

Blocks

The two daily blocks for each route or route pair are shown in greater detail in Table 19 for a typical weekday. All times shown are scheduled departure times from the ATS Transfer Station, except 1X and 4X, which depart Five Points, and Silver, which departs the transfer center at 20 minutes after the hour. For example, the first eight runs of route 3 Orange, departing the ATS Transfer Station every hour from 5:15am to 12:15pm, are within a single block. The second block begins with the 1:15pm run and continues through the 6:15pm run, which goes out of service at 7:12pm. Unless a mechanical problem necessitates a replacement, the vehicle used for the day's first block is also used for the second block. The second block operator clocks in at the ATS maintenance facility and is shuttled out to the ATS Transfer Station or to Five Points to begin the second block.

For most routes, operators have 7.5 minutes to complete the checklist in the morning and then 7.5 minutes to deadhead 1.5 miles each way to the ATS Transfer Station. Routes 1X and 4X have 15 minutes to deadhead 5.1 miles each way Five Points.

Table 20 shows the block assignments to specific operators (1 through 27) by route by day of week. Table 21 lists the total pay hours, including any overtime and fulltime/part time status for each operator. A budget of 838 operator hours per weekday can be used in service alternatives that hold personnel operations costs constant.

In addition to specific route blocks, operators are often assigned as floaters, standby, and relief drivers. Floaters operate between 1:30pm and 5:00pm weekdays and 2:00pm and 8:30pm on Saturdays to support dispatch by answering the phone, help catch up if a route is behind, and help pick up high loads. If these issues arise in the morning between 5:00am and 7:00am, then standby drivers can fill in. Relief drivers provide lunch relief on a rolling schedule throughout the afternoon.

Table 19: Run Times for Typical Weekday

Run Timetable	3 Orange	4 Green	5 Blue	7 Brown	1 Red	2 Gold	6 Gray	8 Purple	1X	4X	Silver
4:30 AM											
4:45 AM											
5:00 AM									1X_R01		
5:15 AM	3_R01	4_R01		7_R01	1_R01			8_R01			S_R01
5:30 AM										4X_R01	
5:45 AM		4_R02	5_R01			2_R01	6_R01				
6:00 AM									1X_R02		
6:15 AM	3_R02	4_R03		7_R02	1_R02			8_R02			S_R02
6:30 AM										4X_R02	
6:45 AM		4_R04	5_R02			2_R02	6_R02				
7:00 AM									1X_R03		
7:15 AM	3_R03	4_R05		7_R03	1_R03			8_R03			S_R03
7:30 AM										4X_R03	
7:45 AM		4_R06	5_R03			2_R03	6_R03				
8:00 AM									1X_R04		
8:15 AM	3_R04	4_R07		7_R04	1_R04			8_R04			S_R04
8:30 AM										4X_R04	
8:45 AM		4_R08	5_R04			2_R04	6_R04				
9:00 AM									1X_R05		
9:15 AM	3_R05	4_R09		7_R05	1_R05			8_R05			S_R05
9:30 AM										4X_R05	
9:45 AM		4_R10	5_R05			2_R05	6_R05				
10:00 AM									1X_R06		
10:15 AM	3_R06	4_R11		7_R06	1_R06			8_R06			S_R06
10:30 AM										4X_R06	
10:45 AM		4_R12	5_R06			2_R06	6_R06				
11:00 AM									1X_R07		
11:15 AM	3_R07	4_R13		7_R07	1_R07			8_R07			S_R07
11:30 AM										4X_R07	
11:45 AM		4_R14	5_R07			2_R07	6_R07				
12:00 PM									1X_R08		
12:15 PM	3_R08	4_R15		7_R08	1_R08			8_R08			S_R08
12:30 PM										4X_R08	
12:45 PM		4_R16	5_R08			2_R08	6_R08				
1:00 PM									1X_R09		
1:15 PM	3_R09	4_R17		7_R09	1_R09			8_R09			S_R09
1:30 PM										4X_R09	
1:45 PM		4_R18	5_R09			2_R09	6_R09				
2:00 PM									1X_R10		
2:15 PM	3_R10	4_R19		7_R10	1_R10			8_R10			S_R10
2:30 PM										4X_R10	
2:45 PM		4_R20	5_R10			2_R10	6_R10				
3:00 PM									1X_R11		
3:15 PM	3_R11	4_R21		7_R11	1_R11			8_R11			S_R11
3:30 PM										4X_R11	
3:45 PM		4_R22	5_R11			2_R11	6_R11				
4:00 PM									1X_R12		
4:15 PM	3_R12	4_R23		7_R12	1_R12			8_R12			S_R12
4:30 PM										4X_R12	
4:45 PM		4_R24	5_R12			2_R12	6_R12				
5:00 PM									1X_R13		
5:15 PM	3_R13	4_R25		7_R13	1_R13			8_R13			S_R13
5:30 PM										4X_R13	
5:45 PM		4_R26	5_R13			2_R13	6_R13				
6:00 PM									1X_R14		
6:15 PM	3_R14	4_R27		7_R14	1_R14			8_R14			S_R14
6:30 PM										4X_R14	
6:45 PM		4_R28	6:43 Out			2_R14	6_R14				
7:00 PM										6:56 Out	
7:15 PM	7:12pm Out	4_R29		7_R15	1_R15			8_R15			7:10 Out

7:30 PM					
7:45 PM	4_R30			1_R16	8_R16
8:00 PM					
	8:12pm		8:12pm	8:12	8:11
8:15 PM	Out		Out	Out	Out

Table 20: Block Assignments by Route by Day of Week

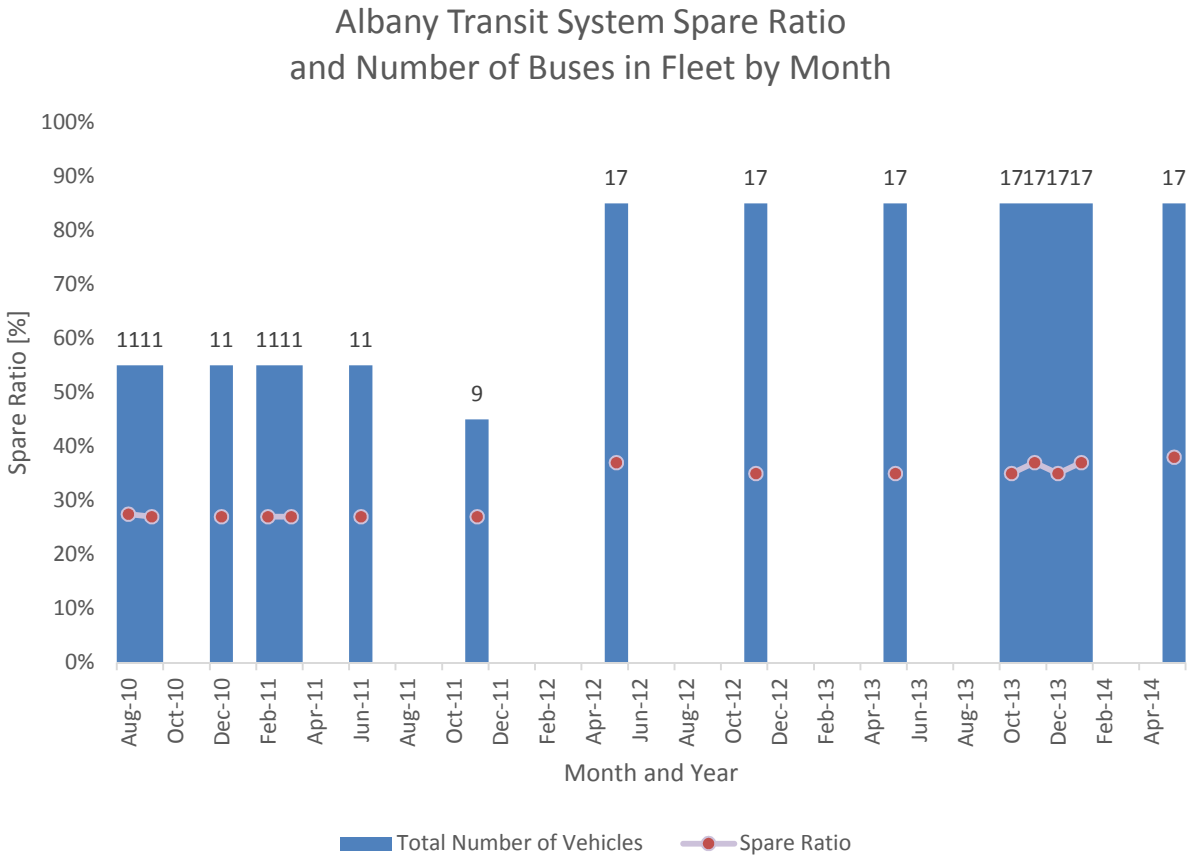
Route	Block	Mon	Tue	Wed	Thu	Fri	Sat
1 Red / 2 Gold	AM	1	1	1	1	1	20
1 Red / 2 Gold	PM	8	8	8	8	15	17
3 Orange	AM	2	2	2	2	2	12
3 Orange	PM	18	14	27	16	14	18
4 Green	AM	3	3	3	3	3	11
4 Green	PM	9	9	9	9	9	22
1X / 4X	AM	4	4	4	4	4	19
1X / 4X	PM	21	12	14	18	13	24
5 Blue	AM	5	5	5	5	5	13
5 Blue	PM	16	17	23	15	22	15
6 Gray / 8 Purple	AM	6	6	6	6	6	14
6 Gray / 8 Purple	PM	10	10	10	12	12	21
7 Brown	AM	7	7	7	7	7	8
7 Brown	PM	13	11	11	11	11	23
Silver	AM	12	24	13	14	10	27
Silver	PM	25	13	17	21	25	16
PT	AM						10, 26
PT	PM						26
Standby	AM	22	25	15	20	26	
Standby	PM						
Relief	AM	26	26	19	19	19	
Relief	PM	24	20	20	23	23	
Floater	AM						
Floater	PM	27	27	22	24	24	25

Table 21: Weekly Operator Pay Hours

FR Block	Total Pay Hours	Overtime Hours	Full Part
1	40.00		F
2	40.50	0.50	F
3	40.00		F
4	40.25	0.25	F
5	40.50	0.50	F
6	40.00		F
7	40.50	0.50	F
8	40.50	0.50	F
9	40.00		F
10	40.00		F
11	40.00		F
12	40.50	0.50	F
13	40.50	0.50	F
14	40.00		F
15	21.00		P
16	19.50		P
17	20.00		P
18	19.50		P
19	24.50		P
20	19.50		P
21	20.00		P
22	20.00		P
23	22.50		P
24	24.75		P
25	22.50		P
26	20.50		P
27	20.00		P
Total	837.50	3.25	
Full	563.25		
Part	274.25		

Maintenance

Maintenance of the transit vehicles is a key element in maintaining the efficiency of the service. The ability to provide alternate vehicles as other vehicles are being regularly serviced or if out of service for an issue is an important component in the approach to maintenance. The graph below depicts the ratio of space buses as compared to the number of buses in the fleet for each month.



Energy Consumption

Monthly bus reports provide data on vehicle maintenance and fuel consumption for the entire ATS fleet, including both fixed-route and paratransit. In August 2010, 12,791 gallons of fuel were used to travel 57,337 miles, resulting in 4.48 miles per gallon. In the June 2014 bus report, 13,988 gallons were consumed to cover 53,987 miles, yielding 3.86 miles per gallon. More fuel was used to travel fewer miles.

Ridership

As part of the TDP update, ridership counts were collected in the form of boardings and alightings or "ons" and "offs" for the majority of the runs within a single day. Although future electronic data collection will enable a more robust analysis of ridership patterns and trends, the counts provide a snapshot of the operations of the ATS. The detailed information is contained in the Appendix and is summarized below.

1 Red / 2 Gold

Route 1 Red loops through Jackson Heights from the ATS Transfer Station. Ridership is relatively low, with load maxing out at 10 passengers on board. Ons and offs are distributed throughout Jackson Heights. Ten stops had no ons or offs, including a segment on the inbound including Clark Ave and the Broadway loop.

Route 2 Gold runs past Albany State University and out to Oak Grove Estates, through some residential neighborhoods. Highly utilized stops include the ATS Transfer Station, Sands Dr. at Radium Springs (first Albany State stop), Radium Springs Crossing shopping center, a day care center on Mobile Ave, and downtown at Broad and Chambers. Five stops were not utilized. Minimal activity was observed on Oglethorpe east of Radium Springs and the Sands Drive loop. Route 2 Gold exhibited a radial distributor load pattern, with peak loading on segments near the ATS Transfer Station that dissipated toward Oak Grove Estates. Major peaks occurred outbound in the afternoon at 1:45pm, 5:45pm, and 6:45pm, with the 5:45pm run maxing out at 22 passengers.

1X / 4X

Most riders board 1X at Pic N Sav, with offs distributed out to Turner Job Corps. On the inbound, an afternoon spike as observed with 28 boarding the 5pm run at Turner Job Corps. Other distributed ons have spikes in offs along Broad, at Franklin, Loftus, and at the Five Points time point, especially in the morning. Five stops on 1X had zero observed ons or offs on the survey day. However, no distinct route segment with zero boarding or alighting activity was identified.

High activity locations on 4X include Pic N Sav, residences near Sylvester Rd and Pine Bluff, and the East Albany Walmart. Three stops on 4X had zero observed ons or offs on the survey day. However, no distinct route segment with zero boarding or alighting activity was identified.
1X and 4X max out with about 12 or 13 passengers on board, except for during peak Job Corps shift change times.

3 Orange

One of three routes that serves Albany Mall, route 3 Orange also serves north Albany. Stops with much boarding and alighting activity include the ATS Transfer Station, the Chamber of Commerce, Jefferson St north of downtown (including Phoebe Putney Memorial Hospital), Easter Seals disability center on Palmyra Rd, shopping centers along Slappey Blvd (including Albany Plaza, Goodwill, and the Third Avenue Shopping Center), and the Albany Mall. Seventeen stops had zero observed boarding and alightings. Stops along residential sections of Dawson Rd are less utilized, especially on the inbound trip from the mall.

Loading is heaviest outbound on the 11:15am run, with 27 passengers on board. Over half of surveyed runs have less than half their maximum load remaining by the time route 3 Orange turns from Slappey Blvd onto Dawson, indicating the important function that portions of this route play in circulating through north Albany.

4 Green

Route 4 Green shuttles between the ATS Transfer Station and Pic N Sav, where most of the concentrated boarding and alighting occurs. The East Oglethorpe Blvd is also highly utilized. Peak loading occurs in the late morning, with the 10:15am and 10:45am runs maintaining over 20 passengers on board (up to 24 passengers). Much of the rest of the afternoon, loading holds in the mid tends, and drops to below 10 after 5:45pm.

5 Blue

Route 5 Blue also serves Albany Mall but by way of Brooks Plaza. Much ridership activity occurs at the ATS Transfer Station, Brooks Plaza, near Dawson Rd and Westgate Dr / Whispering Pines Rd, the Albany Mall and vicinity, and residences near Lincoln Elementary School on Blue's brief jaunt into north Albany. Twelve stops are not utilized, including the quiet segment on Dawson Rd observed route 3 Orange and limited activity between the ATS Transfer Station and Brooks Plaza, with the exception of the vicinity of Lincoln Elementary School. Maximum loading generally reaches around 17 passengers in the morning (7:45am) and afternoon (2:45pm), both on the outbound. A spike was observed with 27 passengers from Brooks Plaza coming back toward downtown on the 10:45am run.

6 Gray / 8 Purple

Route 6 Gray serves Darton College by way of Brooks Plaza and extends from Gillionville Rd south on Westover Blvd. Heavily used stops include the ATS Transfer Station and Darton College. The maximum loading occurred on the 7:45am run with up to 17 passengers on board heading out to Darton College. Sixteen stops had no boarding or alighting activity. Few riders use the Brooks Plaza stop on route 6 Gray. The Westover Blvd segment past Darton College also saw minimal activity.

Route 8 Purple runs from the ATS Transfer Station south on Madison St to Story Rd and back on Martin Luther King Jr Dr / Jefferson St. A few stops with many ons or offs include Madison at Lincoln, Madison at Dorsett, MLK Jr Dr at Grant Place, and MLK Jr Dr at Gaines. The loading pattern brought riders inbound in the morning and outbound in the afternoon and spiked midday at 20 riders. Six stops were not utilized, but boarding and alighting was fairly well distributed along the route.

7 Brown

Route 7 Brown runs from the ATS Transfer Station to time points in the vicinity of Albany Tech, Brooks Plaza via Slappey Blvd, Albany Tech via Slappey Blvd again, Brooks Plaza via the Oakridge-Westover-Gordon loop, and back to the ATS Transfer Station. Locations of high boarding and alighting activity include the ATS Transfer Station, Brooks Plaza, Albany Tech, businesses along Slappey Blvd and residences near Gordon Ave at Van Buren St before the first time point. However, there are 17 stops with no boarding or alighting activity. Several of these stops are clustered on two distinct segments that comprise candidates for realignment.

The first underutilized segment is where 7 Brown doubles back down Slappey Blvd from Brooks Plaza. This route likely already picked up passengers waiting along this corridor on its first pass up Slappey Blvd. The second underutilized segment is the outer portion of the Oakridge-Westover-Gordon loop, which can be avoided by taking Willie Pitts Jr Rd instead of Westover Rd.

Route 7 Brown peaks throughout the day, with 21 passengers on the 7:15am run, up to the same on the 10:15am, and similar peaks on the 4:15pm and 7:15pm.

Transfers

Although direct transfer data was not collected, the relative degree of transfer activity can be inferred by observing the number of riders alighting at the ATS Transfer Station relative to other downtown stops, including the Chamber of Commerce on West Broad, Oglethorpe / Jackson St, Broad / Jefferson, and Broad / Jackson. For example, over the course of the day surveyed, 37 riders got off route 1 Red at the ATS Transfer Station and four riders alighted at another downtown stop, implying a 90% transfer rate for the route 1 Red. The actual transfer rate might be lower if riders got off at the ATS Transfer Station but did not board another ATS route. Another caveat is that route 8 Purple does not have another downtown stop other than the ATS Transfer Station. Noteworthy is route 7 Brown, which had a substantial portion of its riders get off downtown before arriving at the ATS Transfer Station. A possible reason for this is trips from Albany Tech or Brooks Plaza to downtown establishments or government offices near the Chamber of Commerce.

Table 22: Inferred Transfer Rate

Route	Off at ATS Transfer Station	Off at Another Downtown Stop	Inferred Transfer Rate
1 Red	37	4	90%
2 Gold	95	11	90%
3 Orange	57	0	100%
4 Green	192	37	84%
5 Blue	68	21	76%
6 Gray	49	7	88%
8 Purple	70	0	100%
7 Brown	59	46	56%
9 Silver	97	9	92%

Productivity

Utilizing the ridership counts and revenue service reports, the productivity of the various routes is presented in Table 23.

Table 23: Route Productivity

Route	Daily Boardings	Daily Revenue Service Hours	Daily Revenue Service Miles	Passengers per Revenue Service Hour	Passengers per Revenue Service Mile	Time Productivity Rank	Distance Productivity Rank
1 Red	81	8	112	10	0.72	11	8
2 Gold	233	7	140	33	1.66	1	1
3 Orange	298	14	231	21	1.29	5	4
4 Green	254	15	510	17	0.50	7	11
5 Blue	132	13	208	10	0.63	10	10
6 Gray	140	7	168	20	0.83	6	7
7 Brown	366	15	285	24	1.28	3	5
8 Purple	190	8	117	24	1.62	4	2
9 Silver	220	14	210	16	1.05	8	6
1X	99	7	140	14	0.71	9	9
4X	205	7	140	29	1.46	2	3

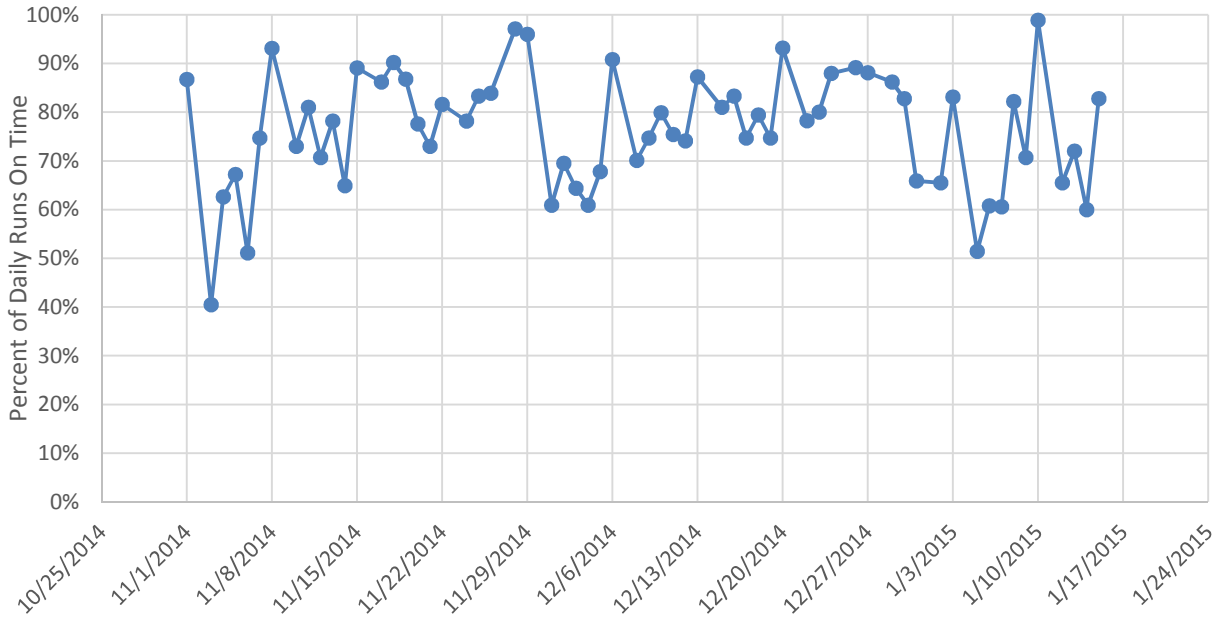
Route 1 Red is ranked last in time productivity and eight of 11 routes in distance productivity. Route 5 Blue is ranked second to last in both time and distance productivity. Route 1X is ranked 9th of 11 routes in both time and distance productivity.

On-time Performance

Fixed-route log sheets were collected between November 1, 2014 and January 15, 2015. Operators logged whether each run departed the ATS Transfer Station on time or not. If the bus was off schedule, the actual time of departure and reason logged. Theses logs provide a valuable source of hand-written, operator-reported on-time performance data, which was used in the following sections.

The percent of daily runs on time are shown for each day of the survey period in Figure 13. The on-time performance does not appear to decrease over time, which would indicate initial operator bias.

Figure 13: On-Time Performance over the Route Log Survey Period



According to the fixed-route log sheets, ATS runs departing the ATS Transfer Station operate on-time 76% of the time. The best performing route is 3 Orange, which is on-time 90% of the time. The most off-schedule is 6 Gray / 8 Purple, which is on time only 63% of the time. A significant degree of variability in on-time performance exists, with almost 100% of runs on time for a few days and as low as 60% of run on time for a few days.

Table 24: On-Time Performance by Route

Route	On-Time Performance
1/2 Red/Gold	83%
1X/4X Red/Green	85%
3 Orange	90%
4 Green	70%
5 Blue	70%
6/8 Gray/Purple	63%
7 Brown	71%
9 Silver	87%
System	**76%**

Saturday is the best day, with 90% of runs departing on time. Less ridership and less traffic on Saturdays should result in better on-time performance than on weekdays. Weekday problems result from the schedule being unresponsive to weekday peaks.

Table 25: On-Time Performance by Day of Week

Day of Week	On Time Performance
Monday	70%
Tuesday	76%
Wednesday	73%
Thursday	73%
Friday	75%
Saturday	90%

Early Runs

Of all runs, 76% were on-time, indicating 24% of runs that were off-schedule. Of these runs, the vast majority (98%) were late relative to the schedule run departure time. However, 2%, or 56 runs were reported as early. Over the survey period, these early runs appeared on the routes and days of week as show in Table 26.

Table 26: Early Runs

Route and Day	Early Runs	Average Minutes Early
1/2 Red/Gold	**13**	**0:05**
Saturday	13	0:05
1X/4X Red/Green	**1**	**0:26**
Tuesday	1	0:26
4 Green	**26**	**0:05**
Monday	6	0:06
Tuesday	4	0:04
Wednesday	1	0:15
Thursday	1	0:15
Friday	1	0:15
Saturday	13	0:03
5 Blue	**6**	**0:10**
Wednesday	1	0:18
Saturday	5	0:09
6/8 Gray/Purple	**4**	**0:10**
Monday	1	0:02
Thursday	1	0:05
Friday	1	0:20
Saturday	1	0:14
7 Brown	**1**	**0:10**
Thursday	1	0:10
9 Silver	**7**	**0:13**
Saturday	7	0:13
Grand Total	**58**	**0:07**

The remainder of this on-time performance section reports on late runs.

Reasons for Delay

The top 5 distinct categories reasons for delay were traffic, recovery from an earlier delay, waiting on another ATS bus, passenger loading and maintenance.

Table 27: Reasons for Delay

#	Row Labels	Runs
1	Traffic	622
2	Recovery	503
3	Waiting	464
4	Loading	367
5	Maintenance	131

On average, delayed runs citing traffic as a major reason were delayed by nine minutes. The prevalence of traffic impacting on-time performance indicates run times should be relaxed to better reflect operation conditions. Over 80% of the delayed runs citing traffic did not provide further detail. Of those that did, 29 cited traffic signals, 26 referenced weather, 23 indicated school buses, 14 related to construction, and five involved accidents (e.g., emergency vehicles on the road). When accidents were encountered, the average delay was substantially longer than other types of traffic delays.

Table 28: Traffic Delay Reasons

Traffic Reason	Runs	Average Delay [minutes]
General	519	0:09
Traffic Signal	29	0:05
Weather	26	0:05
School Bus	23	0:05
Construction	14	0:07
Accident	5	0:27
Traffic Total	**619**	**0:09**

Primary reasons cited in loading delay included wheelchairs, walkers, high ridership, and cash fares. Cash fare issues related to passengers not having money ready and loading bills into the meter. Runs involving wheelchairs were delayed by eight minutes on average, compared to six minutes for walkers, and four minutes for cash fares.

Table 29: Loading Delay Reasons

Loading Reason	Runs	Average Delay [minutes]
Wheelchair	138	0:08
General	118	0:11
Ridership	44	0:07
Cash Fare	26	0:04
Walker	24	0:06
Bike	6	0:10
Passenger delay	6	0:01
Loading Total	**367**	**0:08**

Operators often reported they were waiting on other routes to arrive at the ATS Transfer Station before they could depart, in line with the practice of radioing ahead to request holds for transferring passengers.

Table 30: Number of Runs Delayed Waiting on another Route

		Route Waited For													
		Red/Gold	Red	Gold	Orange	Green	Blue	Gray/Purple	Gray	Purple	Brown	Silver	Multiple	Unspecified	Total
Route Waiting	**Departure**	15's, 45's	15's	45's	15's	30's	15's	45's, 15's	45's	15's	15's	20's			
1/2 Red/Gold	15's, 45's				1	11	17	24	2		8		5	6	74
1X/4X Red/Green	00's, 30's					63								10	73
3 Orange	15's		1			1		5		2	4	1	3	1	18
4 Green	30's	5	9	1	1		2	7	4	5	6	8	9	63	120
5 Blue	15's					15		8		4	2		5	5	39
6/8 Gray/Purple	45's, 15's	1	8	7	2	33	4		1	1	6	2	5	8	78
7 Brown	15's	3	4			4		6				2	11	8	38
9 Silver	20's	4	2		1	3		7			1		3	3	24
Grand Total		13	24	8	5	130	23	57	7	12	27	13	41	104	464

Cells highlighted in grey do not have any delays due to waiting, which is to be expected due to differing route pulse times. Green cells involved routes that had the same or similar pulse times but that did not have any delayed runs. This is either due to good on-time performance or lack of transfers between routes. All routes waited on Green, especially Gray/Purple and 1X/4X. Many runs also waited on Gray/Purple, especially Red/Gold. This indicates much cross-regional transfer activity, as well as operational challenges on Green and Gray/Purple.

Maintenance delays averaged 15 minutes. General maintenance delay (20 minutes) was skewed by one "slow bus" on one day that had reported run delays ranging from one to two hours. Aside from this issue, general maintenance delays averaged around 12 minutes. Delay due to changing buses was reported 32 times and averaged about 10 minutes. Breakdowns were reported 10 times with 17 minutes of average delay. Doors and meters were other reported causes of maintenance delay.

Table 31: Maintenance Delay Reasons

Maintenance Reason	Runs	Average Delay [minutes]
General	58	0:20
Change Bus	32	0:10
Doors	14	0:09
Meter	13	0:06
Breakdown	10	0:17
Farebox	4	0:08
Total Maintenance	**131**	**0:15**

Delay by Route

Table 31 above evaluated the on-time performance of the routes, expressed as the percentage of runs that were on-time. However, magnitude of delay is also important. Table 32 presents the average delay of each route, as well as the late performance (percentage of runs that were not on time). The average delay on each route is also compared to the route's cycle time. The delay ratio expresses how much of an impact the average delay is likely to have on the route's operation.

Routes with runs delayed by at least 10 minutes on average are 9 Silver (17 minutes), 5 Blue (16 minutes), and 3 Orange (13 minutes). Figure 14 shows the number of runs by degree of delay for each route. Several route 9 Silver runs delayed over an hour on one day due to traffic and recovery increase route 9 Silver's average delay. Other than that spike, most route 9 Silver delays are 15 minutes or less. Routes 3 Orange and 5 Blue have quite a few moderate delays. Other routes tend to have most delays in the five or ten minute range.

Route 5 Blue is of the greatest concern, with 27% of runs are delayed by an average of 16 minutes. Although 5 Gray / 8 Purple is late more often (36% of runs), it is only late by seven minutes on average. The significant delay on routes serving Albany Mall (3 Orange, 5 Blue, and 9 Silver) suggests a need to modify these long routes.

Table 32: Average Delay by Route

Route	Average Delay	Late Performance	Cycle Time	Delay Ratio
1/2 Red/Gold	0:07	19%	0:30	23%
1X/4X Red/Green	0:07	16%	0:30	23%
3 Orange	0:13	10%	1:00	22%
4 Green	0:07	26%	0:30	23%
5 Blue	0:16	27%	1:00	27%
6/8 Gray/Purple	0:07	36%	0:30	23%
7 Brown	0:08	26%	1:00	13%
9 Silver	0:17	13%	1:00	28%
Grand Total	0:09	23%		

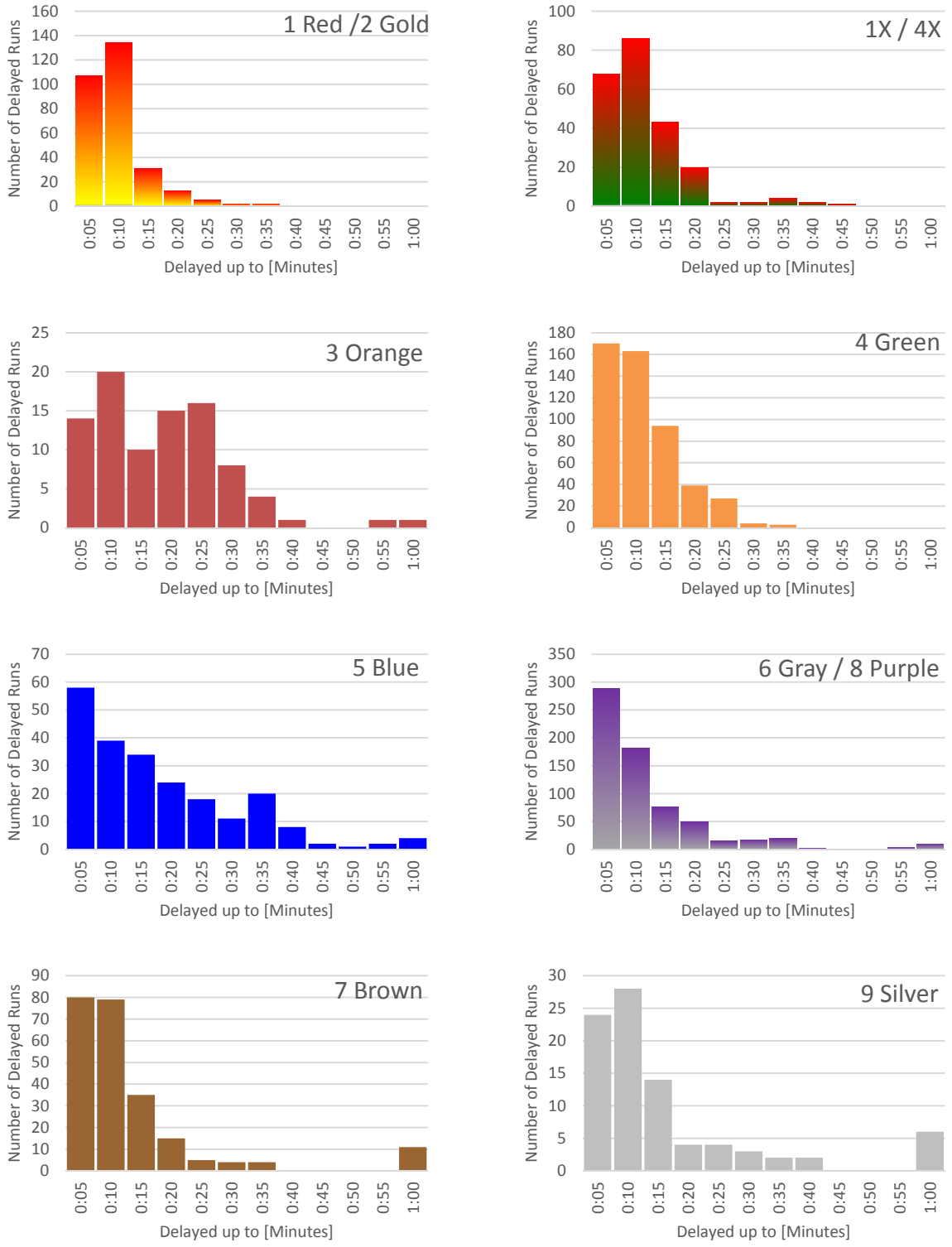


Figure 14: Distribution of Delay Magnitude by Route (11/1/14 - 1/15/15)

Delay by Scheduled Time

Table 33 shows average delay by route by the time the run was scheduled to depart the ATS Transfer Station. The later in the day, the greater the delay becomes, reflecting the cascading effect of earlier delays propagating forward. Schedules are too tight and recovery time is insufficient to recover. Consistent with the previous section on route delay, Table 33 indicates routes 3 Orange, 5 Blue, and 9 Sliver experience the greatest delay, with the last run of the delay behind by 17 minutes. Routes 3 Orange and 5 Blue are behind by more than 10 minutes from 10am onward.

Table 33: Delay by Scheduled Time by Route

Scheduled Time	1/2 Red/Gold	1X/4X Red/Green	3 Orange	4 Green	5 Blue	6/8 Gray/Purple	7 Brown	9 Silver	System
5:00 AM		0:07							0:07
5:15 AM	0:13			0:01		0:12	0:05		0:07
5:30 AM		0:04							0:04
5:45 AM	0:15			0:02	0:07	0:03			0:05
6:15 AM	0:09		0:10	0:04		0:07			0:06
6:30 AM		0:03							0:03
6:45 AM	0:06			0:05	0:03	0:04			0:04
7:00 AM		0:03							0:03
7:15 AM	0:05					0:04	0:06		0:04
7:20 AM								0:01	0:01
7:30 AM		0:05							0:05
7:45 AM	0:05			0:02	0:07	0:04			0:04
8:00 AM		0:05							0:05
8:15 AM	0:06		0:03	0:03		0:05	0:09		0:06
8:20 AM								0:07	0:07
8:30 AM		0:05							0:05
8:45 AM	0:05			0:06	0:06	0:06			0:06
9:00 AM		0:04							0:04
9:15 AM	0:06		0:03	0:05		0:05	0:10		0:06
9:20 AM								0:02	0:02
9:30 AM		0:05							0:05
9:45 AM	0:04			0:06	0:08	0:05			0:06
10:00 AM		0:04							0:04
10:15 AM	0:05		0:18	0:04		0:07	0:09		0:07
10:20 AM								0:03	0:03
10:30 AM		0:06							0:06
10:45 AM	0:04			0:05	0:11	0:09			0:08
11:00 AM		0:04							0:04
11:15 AM	0:06		0:12	0:06		0:07	0:12		0:07
11:20 AM								0:07	0:07
11:30 AM		0:04							0:04
11:45 AM	0:04			0:06	0:15	0:10			0:09
12:00 PM		0:09							0:09
12:15 PM	0:08		0:14	0:08		0:06	0:10		0:08
12:20 PM								0:06	0:06
12:30 PM		0:08							0:08
12:45 PM	0:07			0:06	0:17	0:06			0:09
1:00 PM		0:08							0:08
1:15 PM	0:10		0:13	0:09		0:08	0:12		0:09
1:20 PM								0:18	0:18
1:30 PM		0:07							0:07
1:45 PM	0:09			0:09	0:17	0:09			0:12
2:00 PM		0:08							0:08
2:15 PM	0:09		0:17	0:10		0:10	0:11		0:11
2:20 PM								0:13	0:13
2:30 PM		0:06							0:06
2:45 PM	0:10			0:11	0:17	0:14			0:13
3:00 PM		0:08							0:08
3:15 PM	0:10		0:16	0:09		0:13	0:10		0:11
3:20 PM								0:12	0:12
3:30 PM		0:07							0:07
3:45 PM	0:07			0:08	0:16	0:14			0:12
4:00 PM		0:08							0:08
4:15 PM	0:05		0:15	0:08		0:12	0:10		0:11
4:20 PM								0:12	0:12
4:30 PM		0:09							0:09
4:45 PM	0:10			0:08	0:17	0:17			0:13
5:00 PM		0:08							0:08
5:15 PM	0:09		0:19	0:10		0:10	0:12		0:12
5:20 PM								0:13	0:13
5:30 PM		0:11							0:11
5:45 PM	0:11			0:10	0:17	0:14			0:13
6:00 PM		0:12							0:12
6:15 PM	0:05		0:17	0:10		0:09	0:11		0:11
6:20 PM								0:17	0:17
6:30 PM		0:14							0:14

6:45 PM	0:08		0:09	0:13		0:10
7:00 PM		0:06				0:06
7:15 PM	0:05		0:10	0:05	0:04	0:06
7:45 PM			0:06	0:07		0:07

Ridership and Revenue (Monthly Reports)

Monthly reports display considerable month-to-month variation in ridership, revenue, and transfers. This data is found in Table 34.

Table 34: Summary of Ridership, Revenue, and Transfers

	07_July	08_Aug	09_Sept	10_Oct	11_Nov	12_Dec	Total
Ridership Total	91,323	67,272	80,898	82,187	61,153	61,107	443,940
Transfers Total	19,841	19,630	10,004	23,714	17,737	17,896	108,822
Revenue Total	$ 50,346.03	$ 39,719.76	$ 48,625.47	$ 31,036.19	$ 47,420.13	$ 45,262.08	$ 262,409.66
Days Operated	26	26	25	27	29	26	159
Ridership per day operated	3,512	2,587	3,236	3,044	2,109	2,350	2,792
Transfers per day operated	763	755	400	878	612	688	684
Revenue per day operated	$ 1,936.39	$ 1,527.68	$ 1,945.02	$ 1,149.49	$ 1,635.18	$ 1,740.85	$ 1,650.38

Figure 15 shows the revenue by fare type for various months in 2014. The majority of revenue comes from fares paid in cash. Student monthly passes are the next major source of income, depending on the month, followed by single tickets and monthly senior and disabled passes. The cash farebox collections do not track directly with the number of days operated.

Figure 15. Revenue by Fare Type by Month (2014)

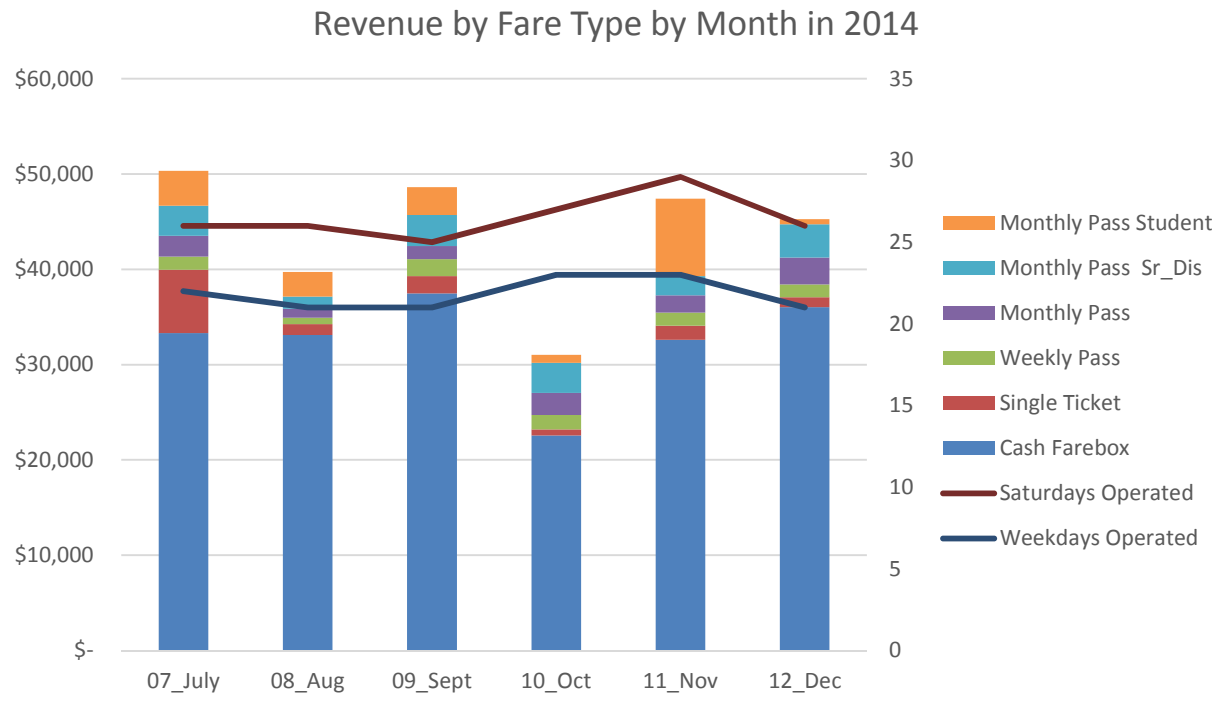


Figure 16 shows the ridership by month by fare category. In some months (July, September, and October), riders with passes take many more trips than riders paying cash. However, this relationship does not hold.

Figure 16: Ridership by Fare Category by Month in 2014

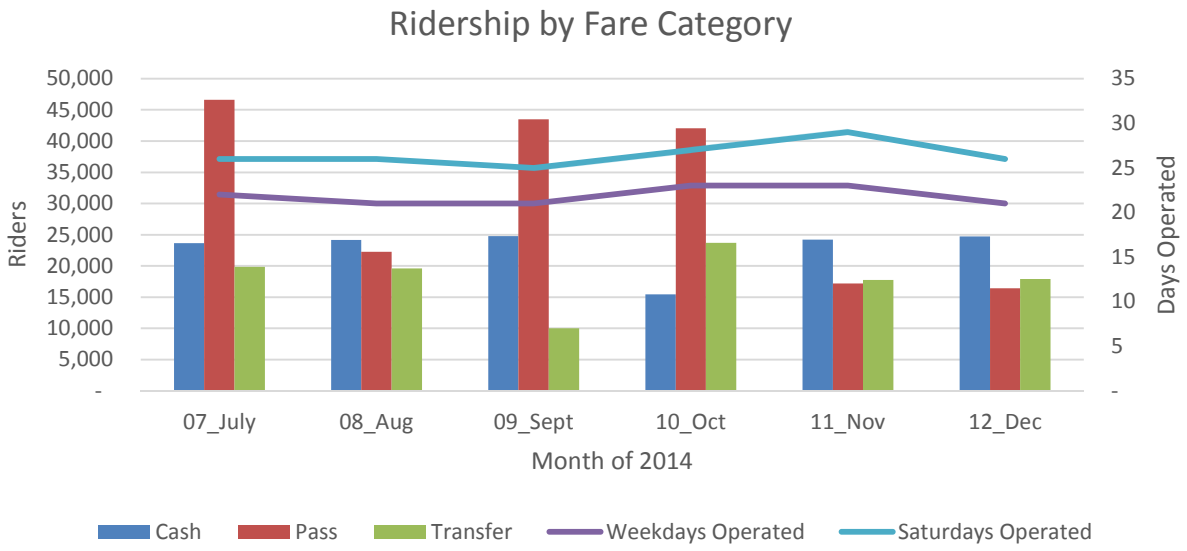


Figure 17: Ridership by Fare Type by Month in 2014

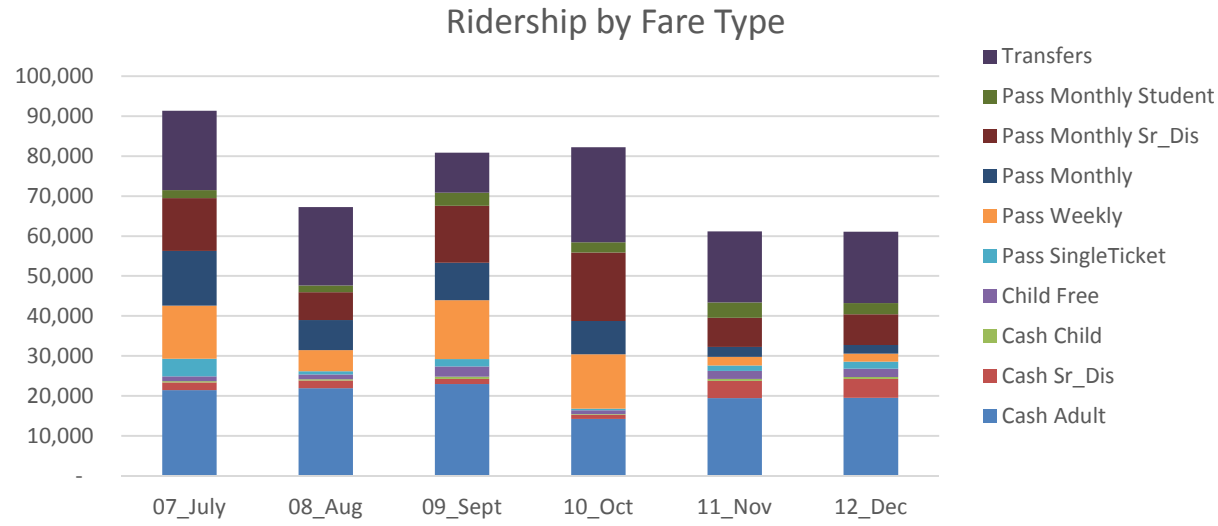


Table 35 shows the reported system deadhead and revenue miles. Zero lost miles were reported in August and December.

Table 35: Reported System Deadhead and Revenue Miles

	07_July	08_Aug	09_Sept	10_Oct	11_Nov	12_Dec
Scheduled Revenue Miles	49,662.80	69,385.80	55,960.80	60,482.40	64,724.40	58,081.80
Actual Revenue Miles	49,564.80	69,385.80	55,915.80	60,422.40	64,634.40	58,081.80
Lost Miles	98.00	-	45.00	60.00	90.00	-
Deadhead Miles	686.40	967.20	780.00	842.40	904.80	811.20
Total Miles	50,251.20	70,353.00	56,695.80	61,264.80	65,539.20	58,893.00

Hours and Trips Operated (Hours Reports)

The hours and trips operated are found in the Hours Reports. This data is shown in the tables below, by route.

Table 36: Hours and Miles per Run

Route	Revenue Hours per Run	Revenue Miles Per Run	Hours per Deadhead Leg	Miles per Deadhead Leg
1	0.5	7	0.125	1.5
2	0.5	10	0.125	1.5
3	1	16.5	0.125	1.5
4	0.5	17	0.125	1.5
1X	0.5	10	0.25	5.1
4X	0.5	10	0.25	5.1
5	1	16	0.125	1.5
6	0.5	12	0.125	1.5
7	1	19	0.125	1.5
8	0.5	7.3	0.125	1.5
9	1	15	0.125	1.5

Table 37: Runs per Day

Route	Runs per Weekday	Runs per Saturday	Deadhead Legs per Day
1	16	15	1
2	14	13	1
3	14	13	2
4	30	29	2
1X	14	13	1
4X	14	13	1
5	13	12	2
6	14	13	1
7	15	14	2
8	16	15	1
9	14	13	2

Table 38: Hours and Miles per Day

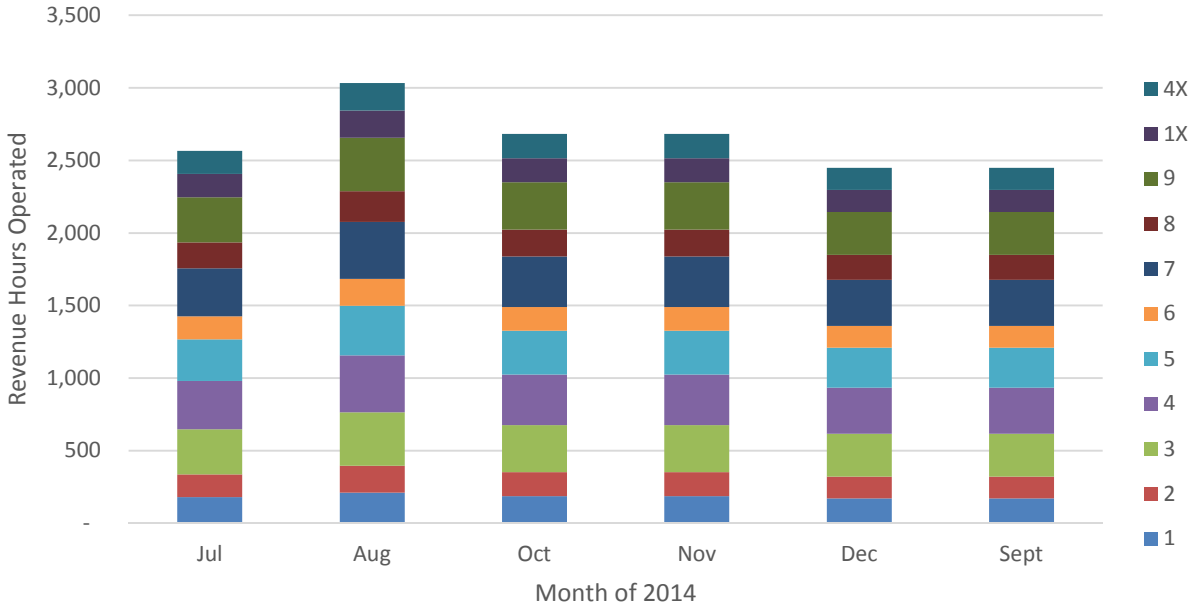
Route	Revenue Hours per Weekday	Revenue Hours per Saturday	Revenue Miles per Weekday	Revenue Miles per Saturday	Deadhead Hours per Day	Deadhead Miles per Day
1	8	7.5	112	105	0.125	1.5
2	7	6.5	140	130	0.125	1.5
3	14	13	231	214.5	0.250	3.0
4	15	14.5	510	493	0.250	3.0
1X	7	6.5	140	130	0.250	5.1
4X	7	6.5	140	130	0.250	5.1
5	13	12	208	192	0.250	3.0
6	7	6.5	168	156	0.125	1.5
7	15	14	285	266	0.250	3.0
8	8	7.5	116.8	109.5	0.125	1.5
9	14	13	210	195	0.250	3.0

Table 39: Reported Number of Days Operated per Month

Month	Weekdays	Saturdays
Jul	22	4
Aug	26	5
Sept	21	4
Oct	23	4
Nov	23	6
Dec	21	5

From these data, summaries such as the number of revenue hours operated by route and month, as shown in Figure 17, can be produced.

Figure 17. Revenue Hours by Month



ALTERNATIVES

To improve the transit service in the future, six alternative scenarios were developed and assessed. These alternative scenarios, developed within the framework of the identified goals, include:

- *Alternative One: Maintain the System*

  Operations:
  - Reroute fixed routes away from speed bumps and minimize railroad crossing to improve safety and maintenance performance
  - Reduce risk by ensuring sufficient merging distance, i.e., eliminating the last bus stop before a left turn
  - Coordinate routes and schedules with school buses, based on the high volume of reports of delay due to school buses
  - Remove underperforming stops without significantly modifying timetables or routes
  - Consider banning the ATS support vehicles from parking in the bus loading bays at the ATS transfer station

  Maintenance
  - Utilize relationships with manufacturers to maintain standards
  - Coordinate with other operators to determine best practices in identifying and addressing problems early

  Establish/Communicate Policies
  - If and for how long operators wait for riders approaching stops on foot
  - If operators start driving before riders are fully seated
  - If passengers with strollers are required to sit in the back of the bus
  - If change will be made from larger bills at the ATS Transfer Station

Update ATS Literature
- Update ATS literature
- Ensure route maps reflect current operations
- Label time points on maps
- Adopt consistent messaging and terminology (e.g., "ATS Transfer Station")
- Update posted information, such as fare information signage

Continue future planning efforts
- Incorporate new transfer station
- Study costs and benefits of moving toward an operations management contract

- *Alternative Two: Trim the System*

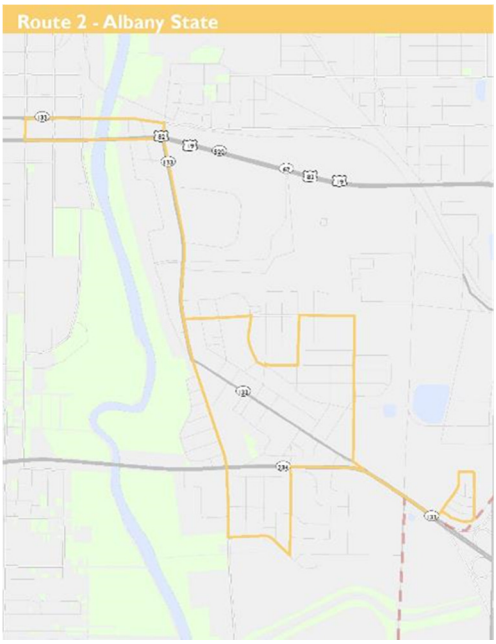
Changes
- Trim route segments to reduce miles traveled
- Keep overall schedule and time points unchanged

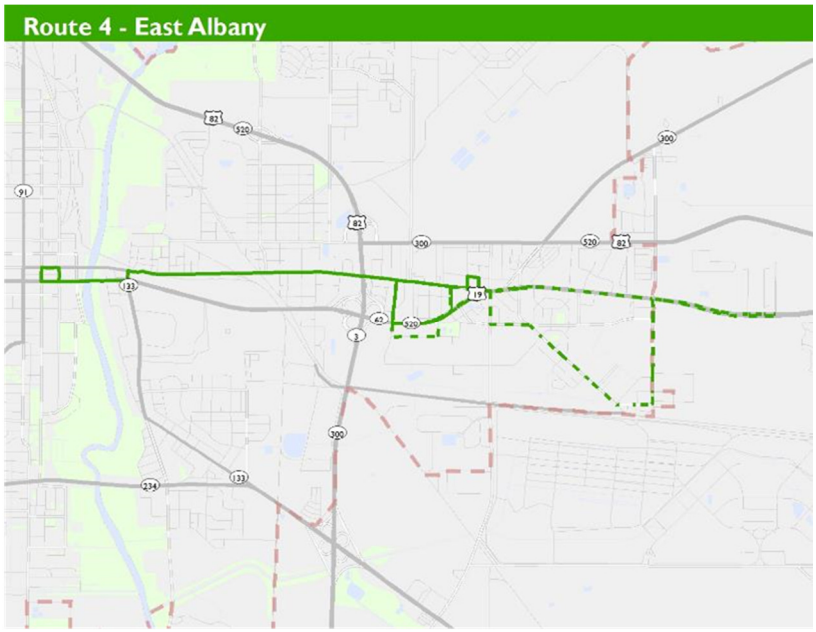
Advantages
- Quicker routes & more recovery time
- Improved on-time performance
- Increased route directness

Disadvantages
- Reduced service area
- Increased walking distance (or eliminated access) for some riders

Route	Locations to Trim	Rationale	Other Options
2 Gold	Oglethorpe Blvd and Sands Rd Loop	Moderate need (late 19% of the time by 7 minutes)	
4 Green	Dewey St / Wheeler Ave / Adkins St mini loop	All routes are delayed by Green	Walk a few blocks to 1 Red
5 Blue	Monroe St / Society Ave / Madison St loop	Blue is very late (by 16 minutes on average)	Walk one or two blocks east to Orange/Silver on Jefferson
6 Gray	End route at Darton College and do not go down Westover Blvd	Late often (more than a third of runs)	
7 Brown	Habersham Rd & Randolph St.	Is very rushed - only has 3 minutes layover on a 60 minute cycle	Walk to new routing
	Use Willie Pitts Jr Rd instead of Westover Blvd from Oakridge Dr. to Gordon Ave.		

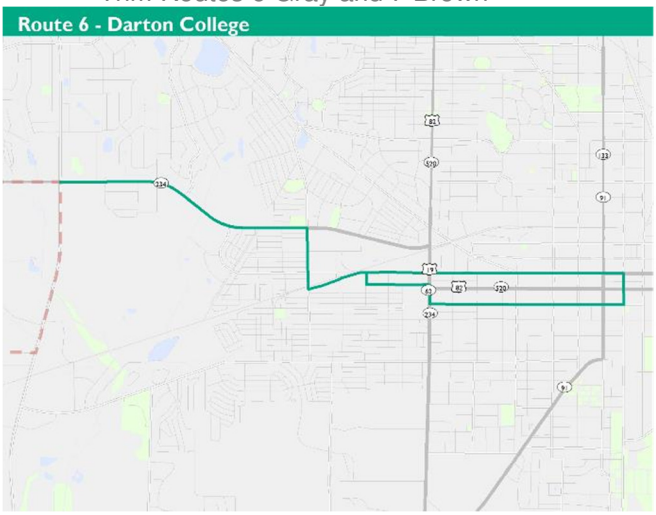
Trim Routes 2 Gold and 4 Green

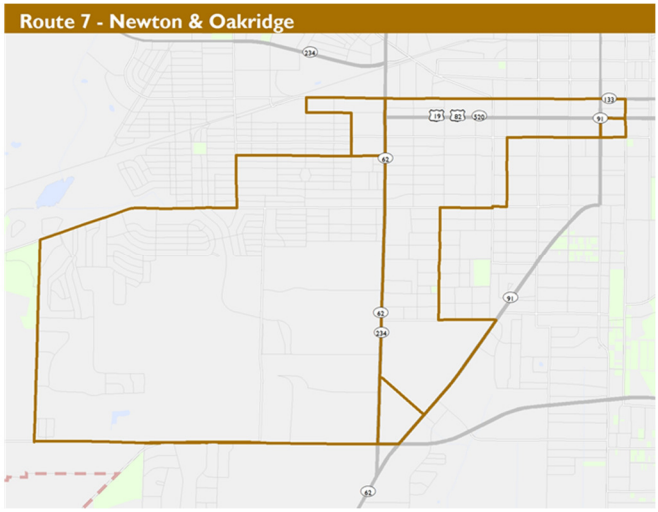




Route	Locations to Trim	Rationale	Other Options
2 Gold	Oglethorpe Blvd and Sands Rd Loop	Moderate need (late 19% of the time by 7 minutes)	
4 Green	Dewey St / Wheeler Ave / Adkins St mini loop	All routes are delayed by Green	Walk a few blocks to 1 Red

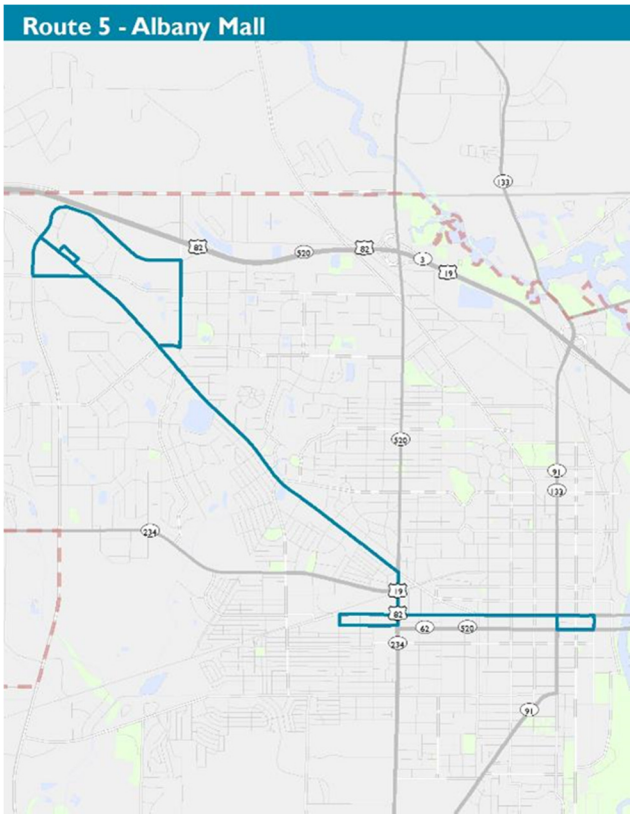
Trim Routes 6 Gray and 7 Brown





Route	Locations to Trim	Rationale	Other Options
6 Gray	End route at Darton College and do not go down Westover Blvd	Late often (more than a third of runs)	
7 Brown	Habersham Rd & Randolph St.	Is very rushed - only has 3 minutes layover on a 60 minute cycle	Walk to new routing
	Use Willie Pitts Jr Rd instead of Westover Blvd from Oakridge Dr. to Gordon Ave.		

Trim Route 5 Blue



Route	Locations to Trim	Rationale	Other Options
5 Blue	Monroe St / Society Ave / Madison St loop	Blue is very late (by 16 minutes on average)	Walk one or two blocks east to Orange/Silver on Jefferson

- *Alternative Three: Relax the Schedule*

  Changes
  - Keep routes the same
  - Extend layover time
  - 20% of running time
  - Push back run times
  - Cycle times: 40, 60, and 70 min

  Advantages
  - Better on-time performance

  Disadvantages
  - Less intuitive staggered pulse transfer times

Example Revised Timetable of Runs Departing ATS Transfer Station

Run	3 Orange	5 Blue	7 Brown	1 Red	2 Gold	6 Gray	8 Purple	9 Silver
1	5:00 AM	5:00 AM	5:00 AM	5:00 AM	5:40 AM	5:40 AM	5:00 AM	5:00 AM
2	6:10 AM	6:10 AM	6:10 AM	6:20 AM	7:00 AM	7:00 AM	6:20 AM	6:00 AM
3	7:20 AM	7:20 AM	7:20 AM	7:40 AM	8:20 AM	8:20 AM	7:40 AM	7:00 AM
4	8:30 AM	8:30 AM	8:30 AM	9:00 AM	9:40 AM	9:40 AM	9:00 AM	8:00 AM
5	9:40 AM	9:40 AM	9:40 AM	10:20 AM	11:00 AM	11:00 AM	10:20 AM	9:00 AM
6	10:50 AM	10:50 AM	10:50 AM	11:40 AM	12:20 PM	12:20 PM	11:40 AM	10:00 AM
7	12:00 PM	12:00 PM	12:00 PM	1:00 PM	1:40 PM	1:40 PM	1:00 PM	11:00 AM
8	1:10 PM	1:10 PM	1:10 PM	2:20 PM	3:00 PM	3:00 PM	2:20 PM	12:00 PM
9	2:20 PM	2:20 PM	2:20 PM	3:40 PM	4:20 PM	4:20 PM	3:40 PM	1:00 PM
10	3:30 PM	3:30 PM	3:30 PM	5:00 PM	5:40 PM	5:40 PM	5:00 PM	2:00 PM
11	4:40 PM	4:40 PM	4:40 PM	6:20 PM	7:00 PM	7:00 PM	6:20 PM	3:00 PM
12	5:50 PM	5:50 PM	5:50 PM					4:00 PM
13	7:00 PM	7:00 PM	7:00 PM					5:00 PM
14								6:00 PM

Example: Route 4 Green Timetable

Run	ATS Transfer Facility	Five Points	ATS Transfer Facility
1	5:00 AM	5:15 AM	5:32 AM
2	5:40 AM	5:55 AM	6:12 AM
3	6:20 AM	6:35 AM	6:52 AM
4	7:00 AM	7:15 AM	7:32 AM
5	7:40 AM	7:55 AM	8:12 AM
6	8:20 AM	8:35 AM	8:52 AM
7	9:00 AM	9:15 AM	9:32 AM
8	9:40 AM	9:55 AM	10:12 AM
9	10:20 AM	10:35 AM	10:52 AM
10	11:00 AM	11:15 AM	11:32 AM
11	11:40 AM	11:55 AM	12:12 PM
12	12:20 PM	12:35 PM	12:52 PM
13	1:00 PM	1:15 PM	1:32 PM
14	1:40 PM	1:55 PM	2:12 PM
15	2:20 PM	2:35 PM	2:52 PM
16	3:00 PM	3:15 PM	3:32 PM
17	3:40 PM	3:55 PM	4:12 PM
18	4:20 PM	4:35 PM	4:52 PM
19	5:00 PM	5:15 PM	5:32 PM
20	5:40 PM	5:55 PM	6:12 PM
21	6:20 PM	6:35 PM	6:52 PM
22	7:00 PM	7:15 PM	7:32 PM
23	7:40 PM	7:55 PM	8:12 PM

Example: Route 1X Timetable

Run	Five Points	Turner Job Corps	Five Points
1	5:20 AM	5:29 AM	5:55 AM
2	6:40 AM	6:49 AM	7:15 AM
3	8:00 AM	8:09 AM	8:35 AM
4	9:20 AM	9:29 AM	9:55 AM
5	10:40 AM	10:49 AM	11:15 AM
6	12:00 PM	12:09 PM	12:35 PM
7	1:20 PM	1:29 PM	1:55 PM
8	2:40 PM	2:49 PM	3:15 PM
9	4:00 PM	4:09 PM	4:35 PM
10	5:20 PM	5:29 PM	5:55 PM
11	6:40 PM	6:49 PM	7:15 PM

Example: Route 4X Timetable

Run	Five Points	Cooper Tire	Five Points
1	6:00 AM	6:20 AM	6:30 AM
2	7:20 AM	7:40 AM	7:50 AM
3	8:40 AM	9:00 AM	9:10 AM
4	10:00 AM	10:20 AM	10:30 AM
5	11:20 AM	11:40 AM	11:50 AM
6	12:40 PM	1:00 PM	1:10 PM
7	2:00 PM	2:20 PM	2:30 PM
8	3:20 PM	3:40 PM	3:50 PM
9	4:40 PM	5:00 PM	5:10 PM
10	6:00 PM	6:20 PM	6:30 PM
11	7:20 PM	7:40 PM	7:50 PM

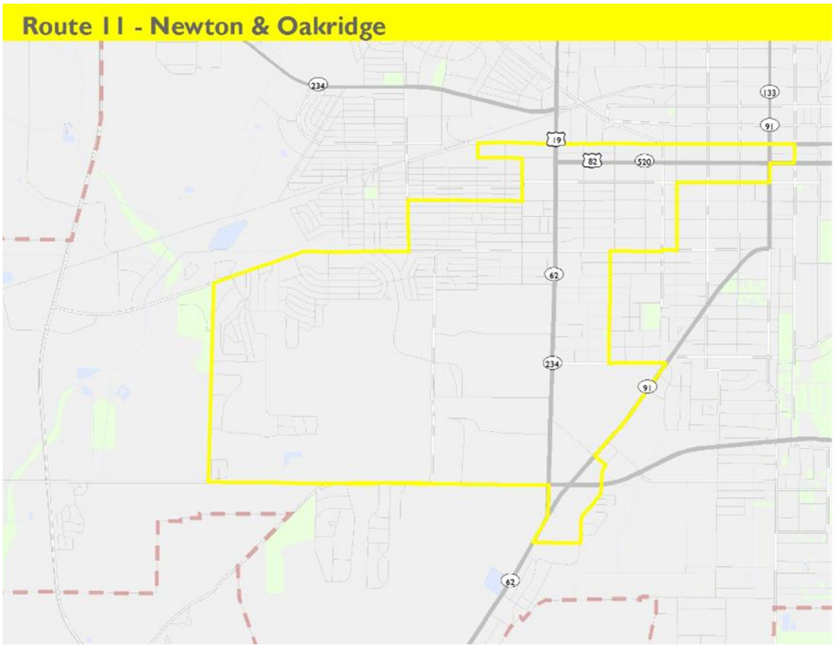
- *Alternative Four: Reroute*

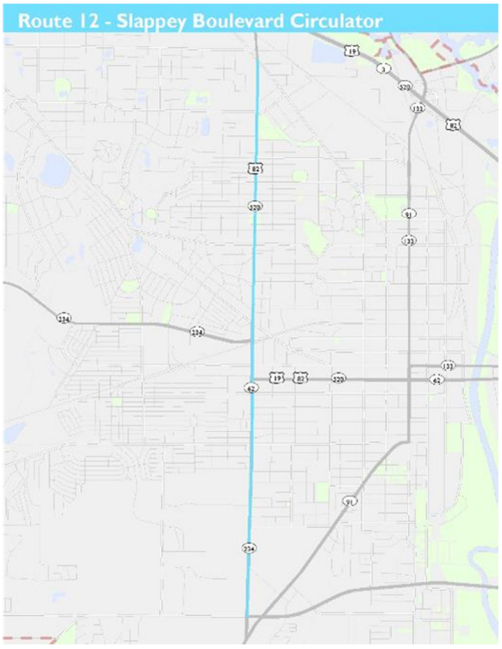
  Changes
  - Separate route 7 Brown into two routes, with one dedicated to Slappey Blvd
  - Reconfigure routes 3 Orange, 5 Blue, and 9 Silver serving Albany Mall
  - Switch route pairs through-routed at the ATS Transfer Station

  Advantages
  - Simplified, more direct routes
  - Easier single-seat, cross-regional transfers

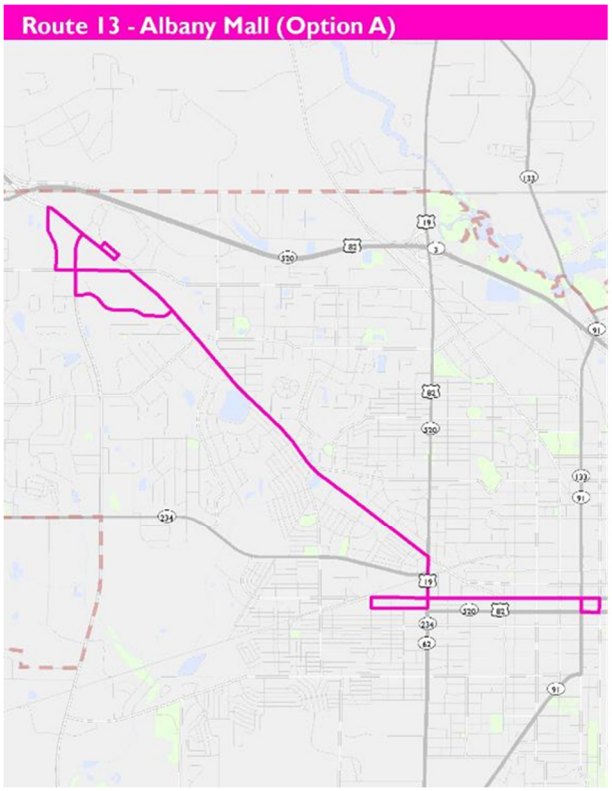
  Disadvantages
  - Time required for riders to adjust

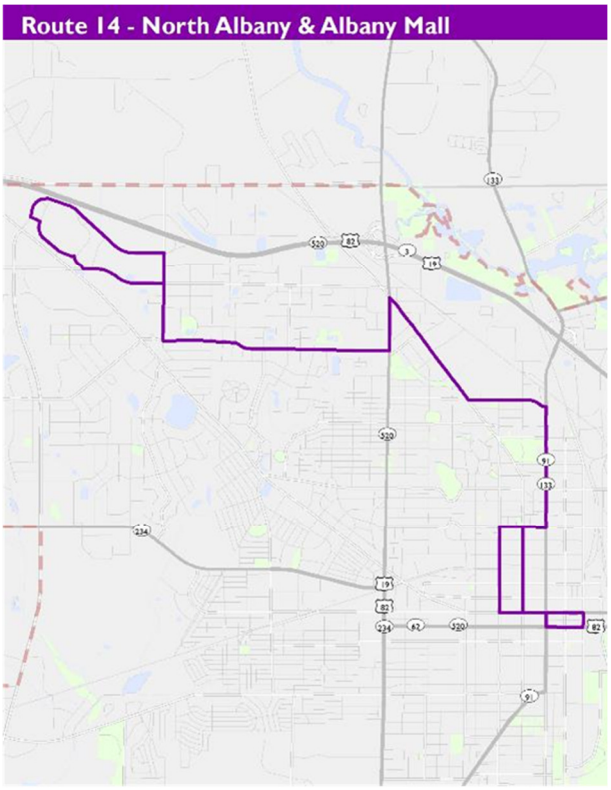
Reroute Route 7: Separate Route 7 Brown into two routes with one dedicated to Slappey Boulevard



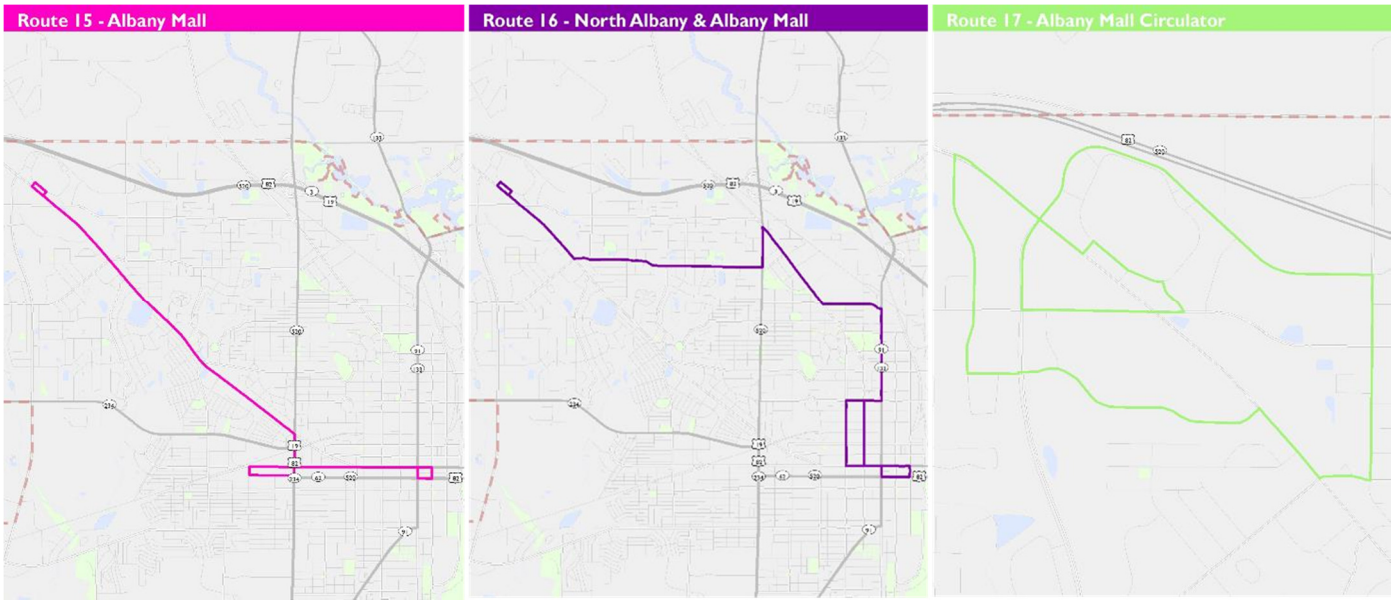


Reroute Mall Option A – 2 Routes: Reconfigure Routes 3 Orange, 5 Blue, and 9 Silver serving Albany Mall

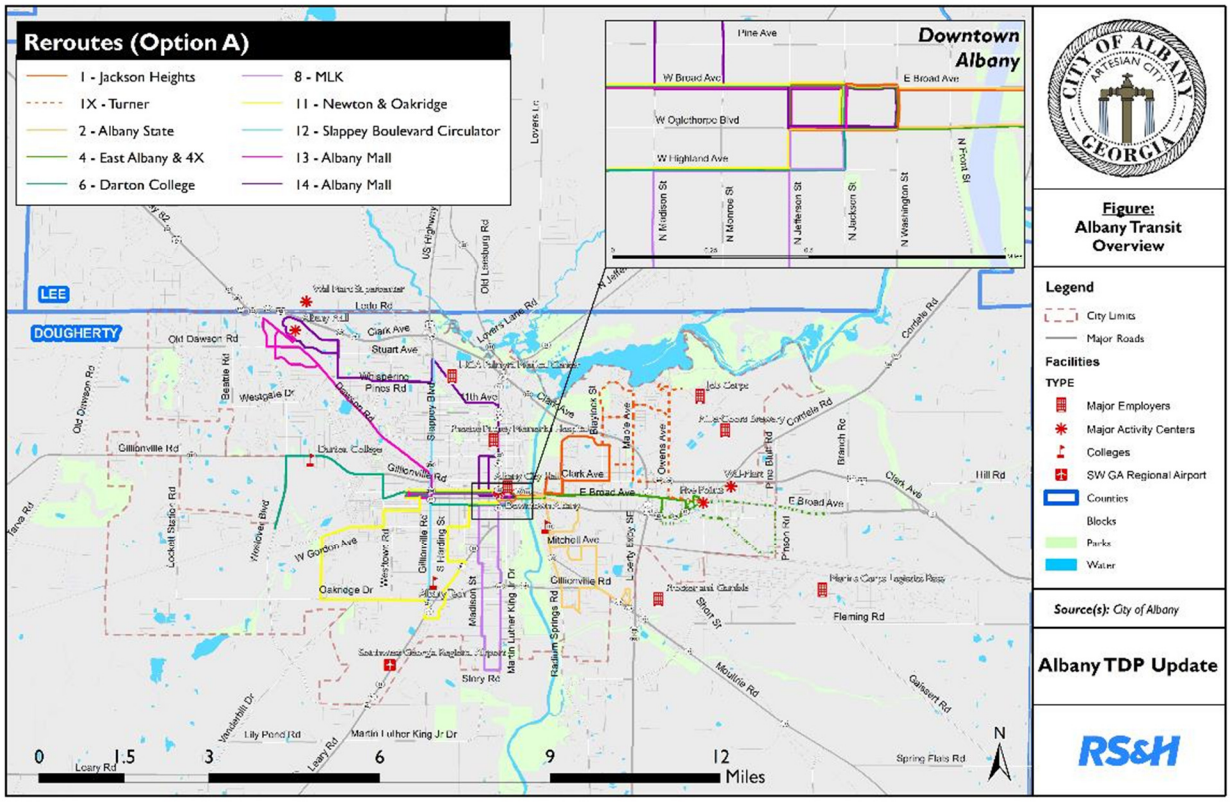




Reroute Mall Option B – 2 Routes: Reconfigure Routes 3 Orange, 5 Blue, and 9 Silver serving Albany Mall



Reroute System Map with Option A



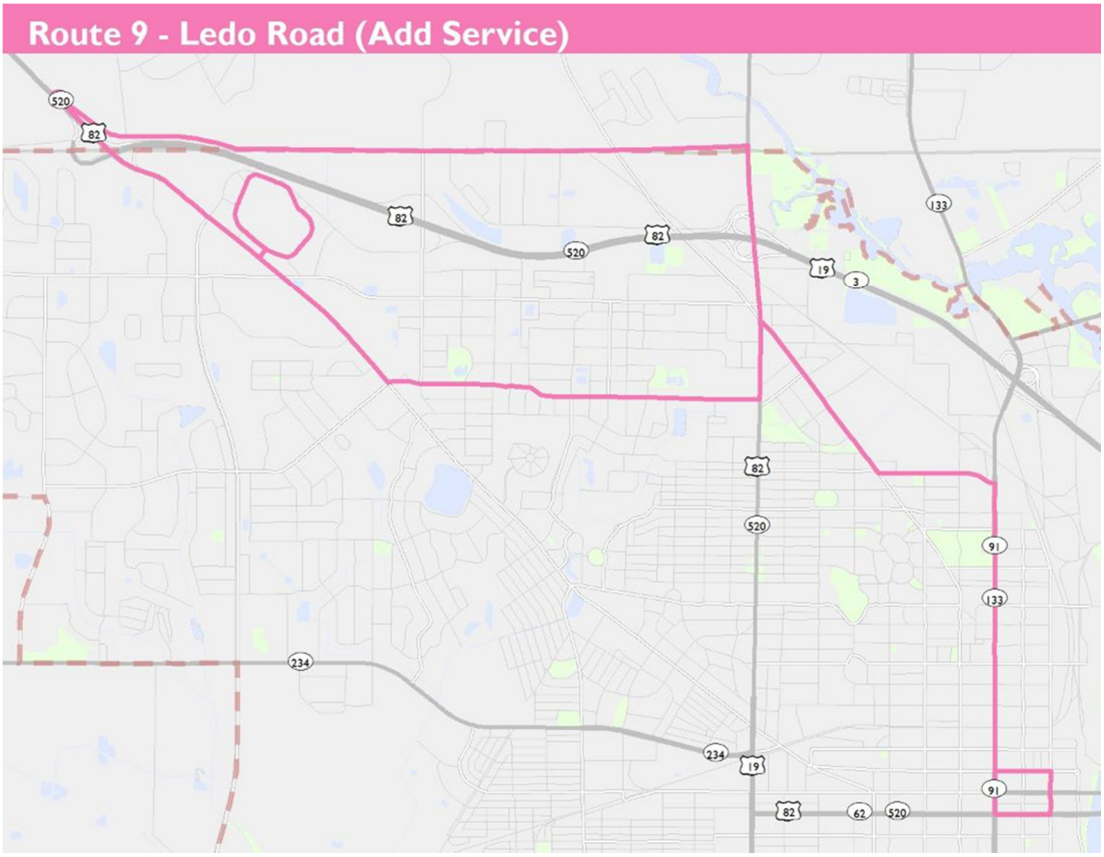
- *Alternative Five: Add Service*

  Changes
  - Increase Service Area
  - Route 6 Gray to the West
  - Route 9 Silver to Ledo Rd
  - Increase frequencies from 60 to 30 minutes
  - 3 Orange and 7 Brown by adding 1 bus each
  - 1 Red, 2 Gold, 1X, 4X by adding 1 bus to each pair
  - Extending service span by ending 1 hour later
  - Increase operating speed through traffic signal priority for buses

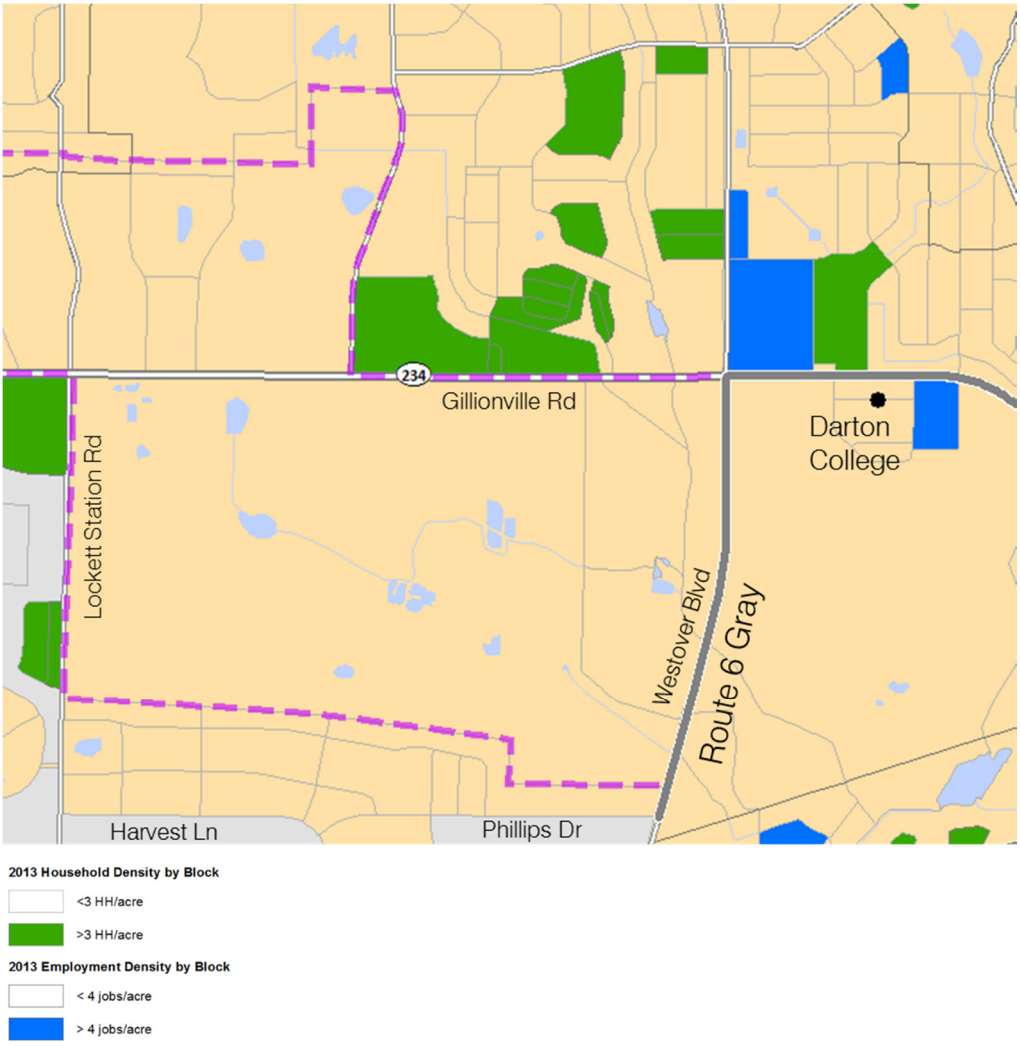
  Advantages
  - Service available to development along Ledo Rd and dense blocks along Gillionville Rd
  - Shorter waits
  - Trips possible later in the day
  - Less waiting at red lights

  Disadvantages
  - Increased cost

Add New Service on Ledo Road



Add to Serve Residential Density to the West: Flip from Westover to Gillionville Road OR Loop via Phillips Drive, Harvest Lane and Lockett Station Road



- *Alternative Six: Hybrid*

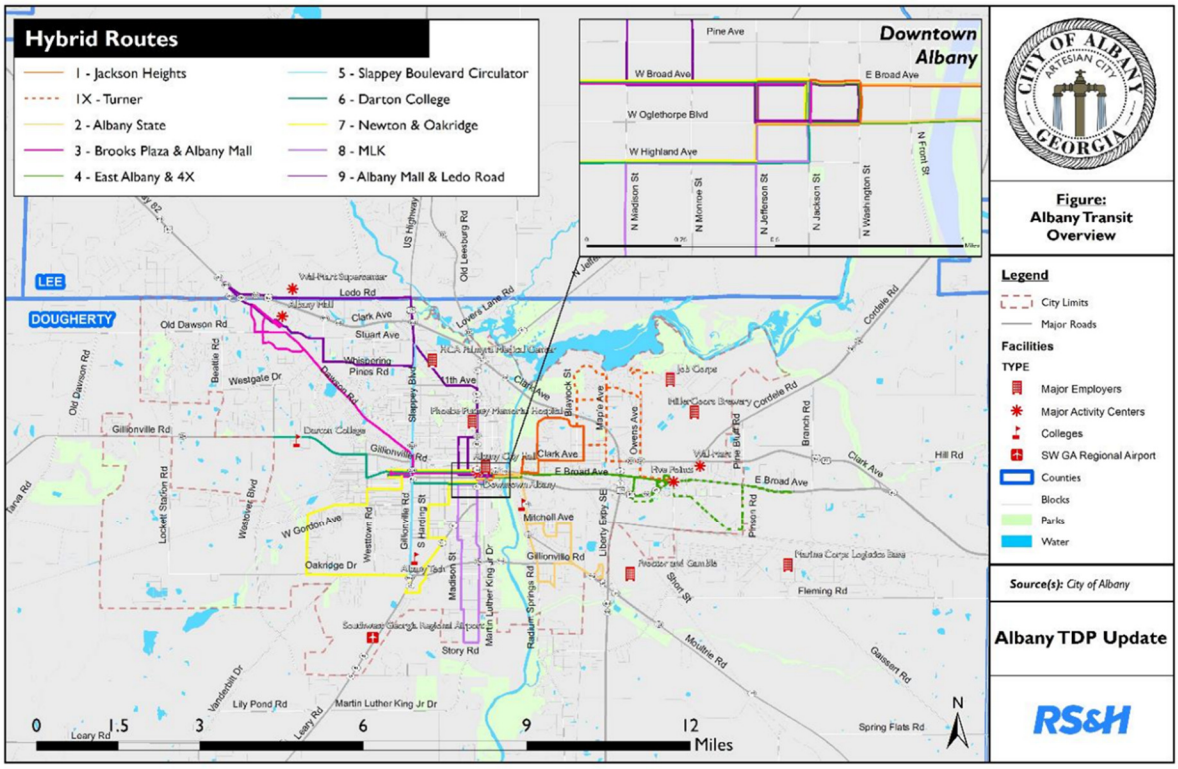
  Changes: Alternative 1 measures
  - Trim:
    - 2 Gold, 4 Green, 6 Gray, 7 Brown
    - Reroute
    - Split 7 Brown resulting in a Slappey Blvd route
    - Consolidate Mall into 2 routes
  - Increase Service Area
    - Route 6 Gray to the West
    - One mall route to serve Ledo Rd
  - Increase frequencies from 60 to 30 minutes
    - Mall and 7 Brown loop by adding 1 bus each
    - 1 Red, 2 Gold, 1X, 4X by adding 1 bus to each pair
  - Extend service span by ending 1 hour later

Advantages

- Quicker routes & more recovery time
- Improved improving on-time performance
- Increased route directness
- Simplified, more direct routes
- Easier single-seat, cross-regional transfers
- Service available to development along Ledo Rd and dense blocks along Gillionville Rd
- Shorter waits
- Trips possible later in the day

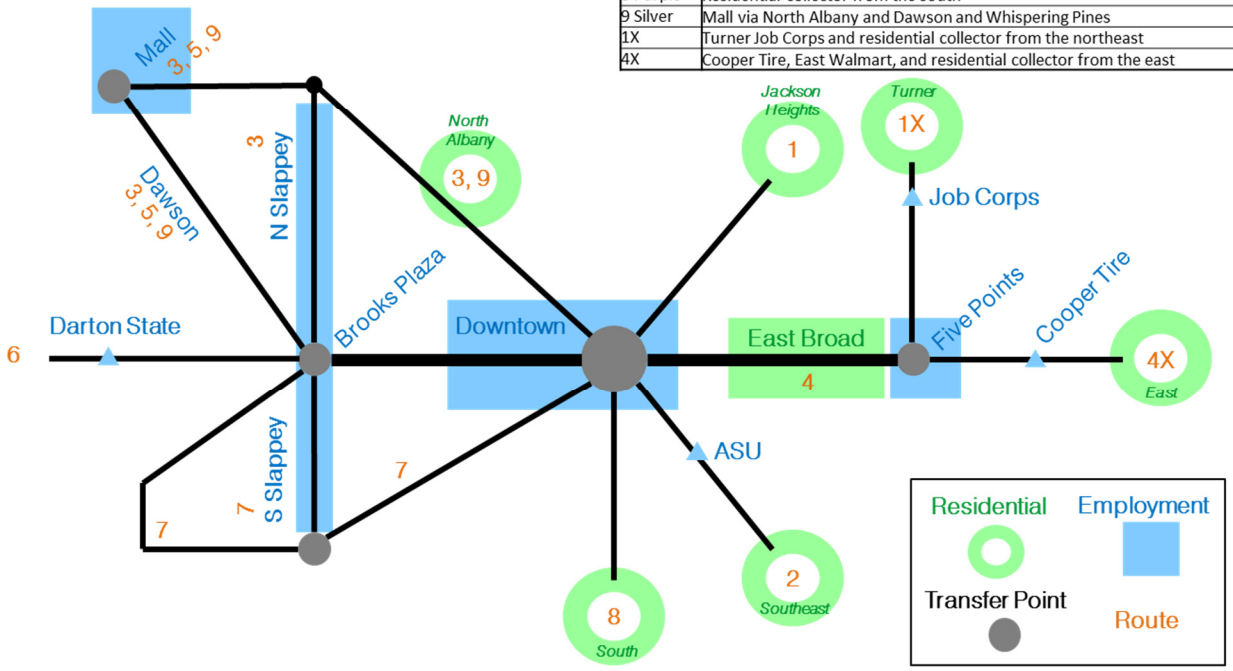
Disadvantages

- Increased cost
- Reduced service area
- Increased walking distance (or eliminated access) for some riders
- Time required for riders to adjust

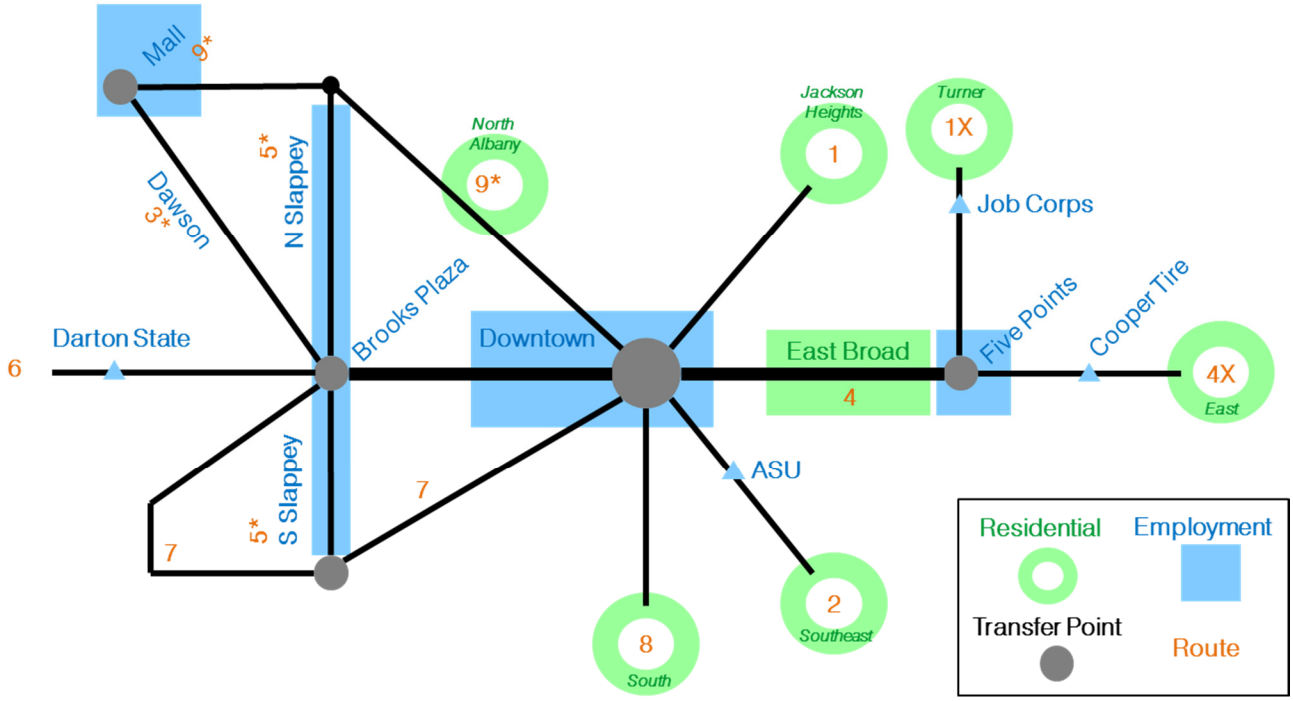


Existing System Function

1 Red	Residential collector from Jackson Heights
2 Gold	Residential collector from the southeast, with access to ASU
3 Orange	Mall via North Albany and Dawson
4 Green	Five Points - ATS Transfer Station trunk
5 Blue	Mall via Brooks Plaza and Dawson, with Society loop
6 Gray	Darton State via Brooks Plaza, with points west
7 Brown	Oakridge/Gordon loop via Brooks Plaza, with S Slappey
8 Purple	Residential collector from the south
9 Silver	Mall via North Albany and Dawson and Whispering Pines
1X	Turner Job Corps and residential collector from the northeast
4X	Cooper Tire, East Walmart, and residential collector from the east



System Function: Hybrid Alternative



CHAPTER 6

RECOMMENDATIONS

Implementation Plan

This section includes the management, operations, and planning recommendations for the planning period.

Maintenance

- Utilize relationships with manufacturers to maintain standards
- Coordinate with other operators to determine best practices in identifying and addressing problems early

Establish/Communicate Policies

- If and for how long operators wait for riders approaching stops on foot
- If operators start driving before riders are fully seated
- If passengers with strollers are required to sit in the back of the bus
- If change will be made from larger bills at the ATS Transfer Station

Update ATS Literature

- Update ATS literature
- Ensure route maps reflect current operations
- Label time points on maps
- Adopt consistent messaging and terminology (e.g., "ATS Transfer Station")
- Update posted information, such as fare information signage

Continue future planning efforts

- Incorporate new transfer station
- Study costs and benefits of moving toward an operations management contract
- Undertake studies to promote and increase services and ridership such as commuter/park and ride study and/or transit oriented development feasibility study
- Development of performance measure
  - Develop a standard ridership count collection schedule and identify count collection options and costs for these options.
  - Develop standard operating metrics (maintenance cost, frequency and duration of vehicles out of service for repair, fuel efficiency, missed runs, etc.)
  - Develop tools to efficiently measure system performance and thresholds for corrective actions
  - Develop presentation and report templates to promote ATS branding

PREFERRED ALTERNATIVE – SHORT TERM

The near-term, cost-neutral components of the preferred alternative include several route changes:

- Trimming Route 2 Gold and Route 6 Grey
- Rerouting Route 5 Blue to run from Brooks Plaza to the Albany Mall instead of from the ATS Transfer Station
- Rerouting Route 9 Silver to serve the Albany Mall from the ATS Transfer Station via North Albany
- Converting the bus and operators from Route 3 Orange and dedicating them to a new route to serve Slappey Blvd from Palmyra Rd to Albany Tech, the southern portion of which was previously served by Route 7 Brown
- Rerouting the remainder of Route 7 Brown to run the rest of a trimmed Oakridge/Gordon loop

Routes with substantial changes are renumbered with new route numbers. In preparation for additional future routes, colors are no longer utilized in route names.

These changes result in the following advantage and disadvantages:

- Advantages
  - Quicker routes & more recovery time
  - Improved on-time performance
  - Increased route directness
  - Simplified, more direct routes
- Disadvantages
  - Adjustment period
  - Reduced service area
  - Increased walking distance (or eliminated access) for some riders

The current routes, changes, and are summarized in the following table.

Table 40: Current Routes and Changes

Current Route	Change	New Route
1 Red - Jackson Heights	No change	1 - Jackson Heights
2 Gold - Albany State	Trim	2 - Albany State
6 Gray - Darton College	Reroute	6 - Darton College
8 Purple - MLK	No change	8 - MLK
4 Green - East Albany	No change	4 - East Albany
1X - Turner	No change	1X - Turner
4X - Cooper Tire	No change	4X - Sylvester Rd
5 Blue - Albany Mall	Begin at Brooks Plaza	11 - Mall via Dawson
3 Orange - Albany Mall	Combine into a single route	12 - Mall via North Albany
9 Silver - Albany Mall		
7 Brown - Newton and Oakridge	Split into two routes	7 - Newton & Oakridge
		13 - Slappey Blvd

Note that no changes have been made to routes 1, 8, 4, 1X, and 4X. The reopening of the Broad St Bridge is expected to improve performance of Route 4. However, additional changes, such as trimming route segments, may be necessary to further enable the system to stay on schedule. The same is true for the route 1X, 4X pair, especially given the lack of any layover time in Route 1X's schedule.

Routes

For each of the routes that were changed, stop lists and turn sheets were created. In addition to turns, signalized or stop-controlled intersections routes traversed through were also listed. The type of control for each turn or through (signal, stop sign, or uncontrolled) was also identified. Route miles and railroad crossings were also counted. Bus stops were categorized as major (generally with 10 or more daily ons or offs) or other.

Time Points

Based on the detailed route information, statistics on route segments between time points were summarized. Assumptions regarding the time associated with each route component were made.

Table 41: Delay Assumptions

Assumptions	Value	Unit
Signalized Intersections Delay	15	sec.
Stop Sign Delay	15	sec.
Other Turn (Uncontrolled) Delay	10	sec.
Railroad Crossing Delay	10	sec.

Table 42: Route Running Speed Assumptions

Route Speed	Value	Unit
Low	25	mph
Medium	30	mph
High	35	mph

Table 43: Bus Stop Dwell Time by Route Ridership Level

	Dwell Time [Seconds]	
Route Boardings	Major Bus Stop	Other Bus Stop
High	45	15
Medium	30	10
Low	15	5

The dwell times and delays can capture both the probability and magnitude of time incurred. For example, the fifteen seconds per signalized intersection would equate to waiting for one minute at every four traffic lights.

Applying these assumptions to the segment statistics, time point spacing could be determined. These assumptions are intended to help relax the schedules and improve the ability of operators to maintain them. Adding recovery time further helps provide a buffer to allow the bus to recover from any additional delay before departing on the next run.

Based on the cycle constrains of paired routes (30 minutes) and applying reasonable recovery times on the other modified routes, the time points and cycle times were created. The rerouting and rearrangement of two routes removed enough distance to enable them to improve their headways from 60 minutes to 45 minutes, even with more recovery time included. Route 12 Mall via North Albany (the longest new route) remains at a 60 minute headway. Despite removing Slappey Blvd from Route 7, forty-five minutes are not quite enough. Therefore, Route 7 remains on a 60 minute headway as well.

Table 44: Current and New Route Cycle Times

Current Route	New Route	Current Cycle Minutes	New Cycle Minutes
1 Red - Jackson Heights	1 - Jackson Heights	30	
2 Gold - Albany State	2 - Albany State	30	30
6 Gray - Darton College	6 - Darton College	30	30
8 Purple - MLK	8 - MLK	30	
4 Green - East Albany	4 - East Albany	30	
1X - Turner	1X - Turner	30	
4X - Cooper Tire	4X - Sylvester Rd	30	
5 Blue - Albany Mall	11 - Mall via Dawson	60	45
3 Orange - Albany Mall	12 - Mall via North Albany	60	60
9 Silver - Albany Mall		60	
7 Brown - Newton and Oakridge	7 - Newton & Oakridge	60	60
	13 - Slappey Blvd		45

Blocks

The short-term preferred alternative for the most part utilizes the same operational profile as the current system. The buses and operators used to run route 5 Blue are assigned to route 11 Mall via Dawson. The resources used for Route 9 Silver are reassigned to route 12 Mall via North Albany. Route 3 Orange becomes Route 13 Slappey, and the new Route 7 Newton & Oakridge retains its bus and operators. Only a few adjustments to the operator blocks were made. Due to the 45 minute cycle times on routes 11 Mall via Dawson and 13 Slappey, the shift change between block one and block two needed to be adjusted. The change moved 30 minutes earlier on Route 11 and 30 minutes later on Route 13, resulting in a transfer of operator hours between those blocks. Also, assuming 15 minute increments are permissible in the block times, Route 11 ended 15 minutes earlier and Route 13 ended 15 minutes later than routes 5 and 3, respectively. This shifted 0.5 operator hours between the afternoon blocks for Routes 13 and 15. However, the total weekday operator hours remained constant at 123.75 operator hours. Additional figures related to the bus and operator hour budget of the current system and held constant through the short-term preferred alternative are given in Table 45.

Table 45: Bus and Operator Hour Budget

Item	Value	Unit
Buses in service	8	Buses
Weekly Operator Pay Hours - Regular	837.5	Hours
Weekly Operator Pay Hours - Overtime	3.25	Hours
Weekly Operator Pay Hours - Total	840.75	Hours
Total Operator Hours per Weekday	123.75	Hours
Total Operator Hours per Saturday	115.75	Hours
Total Operator Hours per Week	734.5	Hours

PT Operator Hours per Week	16.5	Hours
Standby Operator Hours per Week	10	Hours
Relief Operator Hours per Week	52.5	Hours
Floater Operator Hours per Week	24	Hours
Other Total Operator Hours per Week	103	Hours
Grand Total Operator Hours	837.5	Hours

Table 46: Current System Statistics

	5 Blue	9 Silver	3 Orange	7 Brown	1 Red	2 Gold	6 Gray	8 Purple	1X	4X	4 Green
Frequency [minutes]	60	60	60	60	60	60	60	60	60	60	30
Departs	45's	20's	15's	15's	15's*	45's	45's	15's*	00's	30's	15's & 45's
Block 1 Time Start	5:30 AM	5:00 AM	5:00 AM	5:00 AM	5:00 AM		5:00 AM		4:30 AM		5:00 AM
Block 1 Time End	2:00 PM	12:30 PM	1:30 PM	1:30 PM	1:00 PM		1:00 PM		12:45 PM		1:00 PM
Block 2 Time Start	1:30 PM	12:00 PM	1:00 PM	1:00 PM	12:30 PM		12:30 PM		12:00 PM		12:30 PM
Block 2 Time End	7:00 PM	7:30 PM	7:30 PM	8:30 PM	8:30 PM		8:30 PM		7:30 PM		8:30 PM
Block 1 Runs	8	7	8	8	8		7		8		15
Block 2 Runs	5	7	6	7	8		7		6		15
Block 1 Operator Hours	8.50	7.50	8.50	8.50	8		8		8		8.00
Block 2 Operator Hours	5.50	7.50	6.50	7.50	8		8		8		8.00
Total Operator Hours	14.00	15.00	15.00	16.00	16		16		16		16.00
Daily Runs	13	14	14	15	16		14		14		30
In Service	5:45 AM	5:20 AM	5:15 AM	5:15 AM	5:15 AM	5:45 AM	5:45 AM	5:15 AM	5:00 AM	5:30 AM	5:15 AM
Out of Service	6:43 PM	7:10 PM	7:12 PM	8:12 PM	8:12 PM	7:15 PM	7:15 PM	8:11 PM	6:30 PM	6:56 PM	8:12 PM
Out of Service (round)	6:45 PM	7:10 PM	7:15 PM	8:15 PM	8:15 PM	7:15 PM	7:15 PM	8:15 PM	6:30 PM	7:00 PM	8:30 PM
Span [hours] (round)	13.00	13.83	14.00	15.00	15.00	13.50	13.50	15.00	13.50	13.50	15.25
Route Length [Miles]	16.0	15.0	16.5	19.0	7.0	10.0	12.0	7.3	10.0	10.0	17.0
Running Time [minutes]	58	50	57	57	27	27	30	26	30	26	27
Layover [minutes]	2	10	3	3	3	3	0	4	0	4	3
Cycle Time [Minutes]	60	60	60	60	30	30	30	30	30	30	30
Layover to Run Time	3%	20%	5%	5%	11%	11%	0%	15%	0%	15%	11%
Buses In Service	1	1	1	1	1		1		1		1

Table 47: Short-Term Preferred Alternative System Statistics

	11 Mall via Dawson	12 Mall via North	13 Slappey	7 Newton & Oakridge	1 Jackson Heights	2 Albany State	6 Darton	8 MLK	1X	4X	4 East Albany
Frequency [minutes]	45	60	45	60	60	60	60	60	60	60	30
Departs	Various	15's	Various	15's	15's*	45's	45's	15's*	00's	30's	15's & 45's
Block 1 Time Start	5:30 AM	5:00 AM	5:00 AM	5:00 AM	5:00 AM		5:00 AM		4:30 AM		5:00 AM
Block 1 Time End	1:30 PM	12:30 PM	1:00 PM	1:30 PM	1:00 PM		1:00 PM		12:45 PM		1:00 PM
Block 2 Time Start	1:00 PM	12:00 PM	12:30 PM	1:00 PM	12:30 PM		12:30 PM		12:00 PM		12:30 PM
Block 2 Time End	6:45 PM	7:30 PM	7:45 PM	8:30 PM	8:30 PM		8:30 PM		7:30 PM		8:30 PM
Block 1 Runs	10	7	10	8	8	7	7	7	7	7	15
Block 2 Runs	7	7	9	7	8	7	7	7	7	7	15
Block 1 Operator Hours Calc	8.00	7.50	8.00	8.50	8		8		8		8.00
Block 2 Operator Hours Calc	5.75	7.50	7.25	7.50	8		8		8		8.00
Total Operator Hours	13.75	15.00	15.25	16.00	16		16		16		16.00
Daily Runs	17	14	19	15	16	14	14	14	14	14	30
In Service	5:45 AM	5:15 AM	5:15 AM	5:15 AM	5:15 AM	5:45 AM	5:45 AM	5:15 AM	5:00 AM	5:30 AM	5:15 AM
Out of Service	6:24 PM	7:12 PM	7:23 PM	8:01 PM	8:12 PM	7:15 PM	7:15 PM	8:11 PM	6:30 PM	6:56 PM	8:12 PM
Out of Service (round)	6:30 PM	7:15 PM	7:30 PM	8:00 PM	8:15 PM	7:15 PM	7:15 PM	8:15 PM	6:30 PM	7:00 PM	8:15 PM
Span [hours] (round)	12.75	14.00	14.25	14.75	15.00	13.50	13.50	15.00	13.50	13.50	15.00
Reduction in Span [hours]	0.25	-0.17	-0.25	0.25	0	0	0	0	0	0	0
Reduction in Operator Hours	0	0	0	0	0	0	0	0	0	0	0
Route Length [Miles]	11.3	15.9	9.8	11.9	7	8.2	9.1	7.3	10	10	17
Running Time [minutes]	39	57	36	46	27	27	27	26	30	27	27
Layover [minutes]	6	3	7	14	3	3	3	4	0	3	3
Cycle Time [Minutes]	45	60	43	60	30	30	30	30	30	30	30
Layover to Run Time	15%	5%	19%	30%	11%	11%	11%	15%	0%	11%	11%
Buses In Service	1	1	1	1	1		1		1		1

Pulse Times and Transfers

In addition to laying out the timetables and blocks for each route, it is important to check the interaction of the routes at transfer points. The Albany Transit System functions as a pulse system with routes departing the ATS Transfer Station at certain times of the hours. Though the preferred alternative improves service by reducing headways on two routes from 60 minutes to 45 minutes, the introduction of 45 minute headways causes some deviation from the clock face headways of the current system.
A possible adjustment would be to shift a route's blocks to start earlier or later in the day to better align with other routes. However, using the existing blocks as a starting points, with minor adjustments described in the previous section, no further adjustments were deemed necessary. Table 48 shows how the pulse times and transfers are affected by the new timetables. Transfer points include the ATS Transfer Station, Brooks Plaza, Albany Plaza, and N Slappey at Palymra. Because no changes were made to routes 4 East Albany, 4X, or 1X, transfers at Five Points are not affected by the preferred alternative.

Table 48: Minutes after the Hour of Runs Departing Transfer Points

Transfer Point	Route	Run Times
AT Transfer Station	1 - Jackson Heights	15's
	4 - East Albany	15's
	7 - Newton & Oakridge	15's
	8 - MLK	15's
	12 - Mall via North Albany	15's
	2 - Albany State	45's
	4 - East Albany	45's
	6 - Darton College	45's
Brooks Plaza	13 - Slappey Blvd	00, 15, 30, or 45's
	11 - Mall via Dawson	00, 15, 30, or 45's
	6 - Darton College	52's
	7 - Newton & Oakridge	52's
Albany Mall	11 - Mall via Dawson	07, 22, 37, or 52's
	12 - Mall via North Albany	46's
N Slappey / Palmyra (Red Lobster)	12 - Mall via North Albany	31's
	13 - Slappey Blvd	12, 27, 42, or 57's

All routes serving the ATS Transfer Station depart at 15 or 45 minutes after the hour. Because none of the routes with 45 minute headways serve the ATS Transfer Station, the run times (15's or 45's) stay constant for each route throughout each hour of the day.

The southbound stop at Slappey and Palmyra (Red Lobster) is identified, which is served by Route 12 continuing on to the mall and Route 13 continuing southbound on Slappey. Though not specifically

identified, another possible transfer point near N Slappey and Palmyra is northbound at Albany Plaza. This stop could serve potential transfers from Slappey on Route 13 to North Albany on Route 12.

Routes with 45 minute headways operate on three hour cycles, with run times cycling through three different values. For example, Route 13 Slappey departs Brooks Plaza at 6:00 AM, 6:45 AM, 7:30 AM, 8:15 AM, and 9:00 AM. This run time drift creates different transfer opportunities at different times of the day. When additional buses and operators are made available through additional funding in the long-term portion of the preferred alternative, additional service can be added to improve transfer opportunities with shorter waits, creating more viable transfer hubs.

Route 13 could conceivably be modified to run into Brooks Plaza after running to Albany Tech and back before proceeding on the northern portion of Slappey. This would enable transfers from Albany Tech and southern Slappey to the mall or Darton College. This might involve converting Route 13 from 45 minutes to 60 minute headways if necessary to maintain adequate recovery time. Another factor affecting the viability of Route 13 is acquiring the ability to turn around on Stuart Ave. The right turn from Palmyra to Stuart is currently prohibited. However, coordinating with the city to enable bus only right turns would provide a quick turnaround and layover location. One example of a transfer possibility is from Dawson and the Mall on Route 11 arriving at Brooks Plaza at 5:45 AM to Darton College on Route 6 or to the ATS Transfer Station on Route 7, both departing at 5:52 AM. The seven minute wait grows to 22 minutes on the next run before resetting after three hours. Turn sheets for these routes are found in the Appendix.

PREFERRED ALTERNATIVE – LONG TERM

The preferred alternative long-term measures impacting cost are increased frequencies on some routes, additional service to Ledo Road, and extending service span by one hour. Frequencies can be increased on the paired routes (1/2, 6/8, 1X/4X) by decoupling the pairs by adding one bus to each (+3 buses in service). The frequency on Route 7 can be decreased from 60 minutes to 30 minutes by adding another bus in service (+1 bus). Route 12 Mall via North Albany would likely require two additional buses to improve headways from 60 minutes to 30 minutes and also extend service out to Ledo Rd (+2 buses).

If further improvements are desired (bringing all routes to 30 minute headways), one bus can be added to both Route 11 Mall via Dawson and 13 Slappey, which have 45 minute headways in the short term (+2 buses). There would be ample slack in the system, with possible opportunity to provide more frequent service than 30 minute headways on these two routes, at the cost of less intuitive headways. These long-term improvements would add eight buses in service, doubling the current eight.
The existing bus and operator hour budget is shown again in Table 49.

Table 49: Bus and Operator Hour Budget

Item	Value	Unit
Buses in service	8	Buses
Weekly Operator Pay Hours - Regular	837.5	Hours
Weekly Operator Pay Hours - Overtime	3.25	Hours

Weekly Operator Pay Hours - Total	840.75	Hours
Total Operator Hours per Weekday	123.75	Hours
Total Operator Hours per Saturday	115.75	Hours
Total Operator Hours per Week	734.5	Hours
PT Operator Hours per Week	16.5	Hours
Standby Operator Hours per Week	10	Hours
Relief Operator Hours per Week	52.5	Hours
Floater Operator Hours per Week	24	Hours
Other Total Operator Hours per Week	103	Hours
Grand Total Operator Hours	837.5	Hours

Based on the doubling of the buses in service, we can generalize and assume the total operator hours per weekday would double also (disregarding any minor differences in blocks). This would only apply to the regularly scheduled hours, not any overboard (PT, standby, relief, or floater). The current 123.75 weekday operator hours would double to 247.5 hours. It is assumed that the doubling would apply to the weekend as well, resulting in a grand total of 1,572 weekly operator hours, up from 837.5 hours (an 88% increase). Without considering detailed operator scheduling (e.g., additional overtime required), extending service by one hour each day for 16 buses would increase 16 operator hours each day. The weekly operator hours would increase to 1,684 hours.

PARATRANSIT

The following recommendations were developed based on the review and assessment of the current service.

- Meet with RouteMatch to further discuss software performance and to review the menu of reports available.
- Track paratransit NTD data on a daily basis to ensure that daily and monthly data correspond. Currently, only tracking NTD data monthly.
- Audit paratransit fareboxes on a daily basis and compare actual cash and ticket revenue collected by operator to projected revenues based on actual ridership.
- Separate paratransit and fixed route ticket sale revenue to ensure that revenue generated through the sale of paratransit tickets is included in paratransit revenue not fixed route.
- Meet with RouteMatch to further discuss software performance and to review the menu of reports available.
- Track paratransit NTD data on a daily basis to ensure that daily and monthly data correspond. Currently, only tracking NTD data monthly.
- Audit paratransit fareboxes on a daily basis and compare actual cash and ticket revenue collected by operator to projected revenues based on actual ridership.

- Separate paratransit and fixed route ticket sale revenue to ensure that revenue generated through the sale of paratransit tickets is included in paratransit revenue not fixed route.
- Meet with RouteMatch to further discuss software performance and to review the menu of reports available.
- Track paratransit NTD data on a daily basis to ensure that daily and monthly data correspond. Currently, only tracking NTD data monthly.
- Audit paratransit fareboxes on a daily basis and compare actual cash and ticket revenue collected by operator to projected revenues based on actual ridership.
- Separate paratransit and fixed route ticket sale revenue to ensure that revenue generated through the sale of paratransit tickets is included in paratransit revenue not fixed route.
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- Audit paratransit fareboxes on a daily basis and compare actual cash and ticket revenue collected by operator to projected revenues based on actual ridership.
- Separate paratransit and fixed route ticket sale revenue to ensure that revenue generated through the sale of paratransit tickets is included in paratransit revenue not fixed route.
- Meet with RouteMatch to further discuss software performance and to review the menu of reports available.
- Track paratransit NTD data on a daily basis to ensure that daily and monthly data correspond. Currently, only tracking NTD data monthly.
- Audit paratransit fareboxes on a daily basis and compare actual cash and ticket revenue collected by operator to projected revenues based on actual ridership.
- Separate paratransit and fixed route ticket sale revenue to ensure that revenue generated through the sale of paratransit tickets is included in paratransit revenue not fixed route.

Financial Plan

REVENUES

The five year financial plan is presented below. This constrained financial plan was developed based on the identified recommendations and the anticipated revenues and costs from 2015 through 2020. Table 50 shows the anticipated operating and capital revenues over the planning period. Future revenues are shown in Year of Expenditure.

Table 50. Operating and Capital Revenues (2015 -2020)

TRANSIT CATEGORY	2015	2016	2017	2018	2019	2020	5 Year Total (2015 - 2020)
Fixed Route							
Operating							
FTA 5307	$ 1,169,341	$ 1,198,575	$ 1,228,539	$ 1,259,252	$ 1,290,734	$ 1,323,002	**$ 7,469,442**
GDOT Grant Funds	$ -	$ -	$ -	$ -	$ -	$ -	**$ -**
Local	$ 1,169,341	$ 1,198,575	$ 1,228,539	$ 1,259,252	$ 1,290,734	$ 1,323,002	**$ 7,469,442**
Fare Revenues	$ 535,516	$ 548,904	$ 562,626	$ 576,692	$ 591,109	$ 605,887	**$ 3,420,735**
Total Fixed Route Operating Revenues	**$ 2,874,198**	**$ 2,946,053**	**$ 3,019,704**	**$ 3,095,197**	**$ 3,172,577**	**$ 3,251,891**	**$ 18,359,620**
Capital							
FTA 5307	$ 1,836,240	$ 1,882,146	$ 1,929,200	$ 1,977,430	$ 2,026,865	$ 2,077,537	**$ 11,729,418**
GDOT Match	$ 229,530	$ 235,268	$ 241,150	$ 247,179	$ 253,358	$ 259,692	**$ 1,466,177**
Local Match	$ 229,530	$ 235,268	$ 241,150	$ 247,179	$ 253,358	$ 259,692	**$ 1,466,177**
Total Fixed Route Capital Revenues	**$ 2,295,300**	**$ 2,352,683**	**$ 2,411,500**	**$ 2,471,787**	**$ 2,533,582**	**$ 2,596,921**	**$ 14,661,772**
Planning							
FTA 5307	$ 60,000	$ 61,500	$ 63,038	$ 64,613	$ 66,229	$ 67,884	**$ 383,264**
GDOT Match	$ 7,500	$ 7,688	$ 7,880	$ 8,077	$ 8,279	$ 8,486	**$ 47,908**
Local	$ 7,500	$ 7,688	$ 7,880	$ 8,077	$ 8,279	$ 8,486	**$ 47,908**
Total Planning Revenues	**$ 75,000**	**$ 76,875**	**$ 78,797**	**$ 80,767**	**$ 82,786**	**$ 84,856**	**$ 479,080**
Total Fixed Route Revenues: Operating/Capital/Planning							
Federal	$ 3,065,581	$ 3,142,221	$ 3,220,776	$ 3,301,295	$ 3,383,828	$ 3,468,424	**$ 19,582,124**
State	$ 237,030	$ 242,956	$ 249,030	$ 255,255	$ 261,637	$ 268,178	**$ 1,514,085**
Local	$ 1,406,371	$ 1,441,530	$ 1,477,569	$ 1,514,508	$ 1,552,370	$ 1,591,180	**$ 8,983,528**
Total Fixed Route Operating/Capital/Planning Revenues	**$ 4,708,982**	**$ 4,826,707**	**$ 4,947,374**	**$ 5,071,059**	**$ 5,197,835**	**$ 5,327,781**	**$ 30,079,737**
Demand Response Operating							
FTA 5310	$54,313	$55,671	$57,063	$58,489	$59,951	$61,450	**$346,937**
GDOT Match	$356,178	$365,082	$374,210	$383,565	$393,154	$402,983	**$2,275,171**
Local	$13,579	$13,918	$14,266	$14,623	$14,989	$15,363	**$86,739**
Fare Revenues	$35,880	$36,777	$37,696	$38,639	$39,605	$40,595	**$229,192**
Total Demand Response Operating Revenues	**$459,950**	**$471,449**	**$483,235**	**$495,316**	**$507,699**	**$520,391**	**$2,938,040**
Demand Response Capital Financial Impacts							
New Demand Response Buses Already Ordered	$ -	$ -	$ -	$ -	$ -	$ -	**$ -**
No Additional Buses for Five Year Planning Period	$ -	$ -	$ -	$ -	$ -	$ -	**$ -**
Total Demand Response Capital Impacts	$ -	$ -	$ -	$ -	$ -	$ -	**$ -**

COSTS

The short term recommendations were structured to function within the existing transit budget. As a result, there are no financial impacts to the costs of operating the system.

From the long term perspective, CNG buses have been ordered. For this planning period, the assumption has been made that these CNG buses will supplement the existing fleet and no current vehicles will be decommissioned. Based on this assumption, Albany Transit System will have the fleet necessary to implement the recommendations. Any change in the fleet and/or services resulting in financial impacts to the system are likely to occur outside of this planning period. In addition, the Multimodal Transit Facility project is currently in the environmental assessment stage and any construction will likely occur outside of this planning period. The operating and capital costs for the long term recommendations and the transit facility should be addressed in the next TDP update as more defined details are available.