

March 2010

# REGIONAL TRANSIT STUDY



## Final Report

*Prepared for:*  
**Capital Region Transportation Planning Agency**  
408 N. Adams Street, 4<sup>th</sup> Floor  
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## Executive Summary

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**CAPITAL REGION TRANSPORTATION PLANNING AGENCY  
REGIONAL TRANSIT STUDY**

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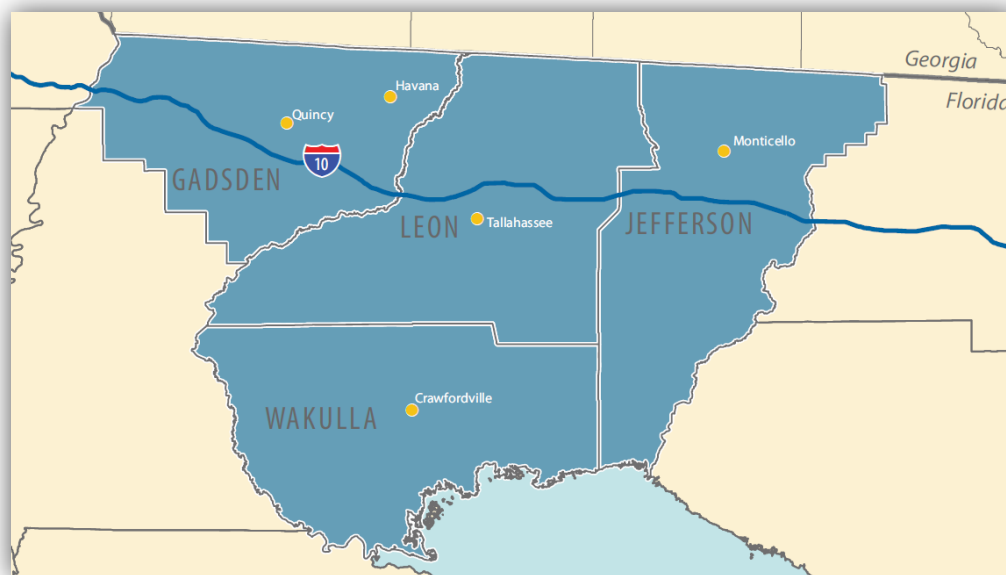
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## 1.0 Introduction

In March, 2009, the Capital Region Transportation Planning Agency (CRTPA), in partnership with StarMetro, began a year-long process to study the viability of a regional transit system in the Tallahassee Region. The goals of the Regional Transit Study (RTS) were to prepare an assessment of current and future transit needs in the four-county region, identify and assess realistic funding strategies, identify an organizational structure that will promote the development of a seamless regional transit system, establish an implementation strategy for advancement of the proposed transit improvements and organizational changes, and define development review guidelines and design policies that are conducive to a transit-oriented community.

**Figure 1: RTS Study Area**



The RTS study area covers the four-county CRTPA planning region, including Leon, Gadsden, Jefferson, and Wakulla counties. The City of Tallahassee is both the geographic and population center of the region, with over 170,000 residents in 2008. The four-county region is home to more than 350,000 residents and approximately 175,000 workers. The Capital Region's economy is primarily driven by the public sector, as Tallahassee is the state capital of Florida and home to two major universities, Florida State University (FSU) and Florida Agricultural and Mechanical University (FAMU).

The Capital Region is served by three public transportation providers: StarMetro, Big Bend Transit, and Wakulla County Transportation. StarMetro is the region's primary fixed-route provider, serving the City of Tallahassee and limited parts of unincorporated Leon County. Big Bend Transit provides consolidated transportation services to Gadsden, Jefferson, and rural Leon counties, while Wakulla County Transportation serves Wakulla County. In 2008, these three operators provided over 4.6 million transit trips in the CRTPA region.

## Regional Transit Study

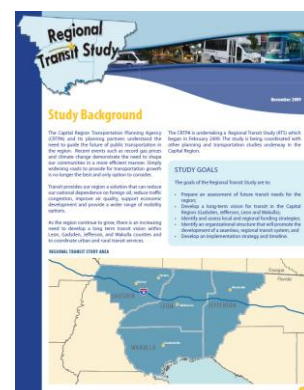
This Regional Transit Study seeks to identify and evaluate alternatives, both service-related and institutional, for improving transit service delivery in the capital region. These alternatives provided the basis upon which a framework for achieving a regional transit system was developed and recommendations made for implementing changes in the coming years.

### 2.0 Public Involvement

A comprehensive public information campaign was central to the success of this study. A multifaceted approach was taken to engage the public in a variety of settings in order to gather a broad cross-section of input. Coordination with other studies being conducted, including the Regional Mobility Plan, was encouraged to achieve maximum public input.

A variety of tools, techniques, and activities were used to solicit public input, including:

- **Stakeholder Group:** A stakeholder group was created to provide policy guidance for all aspects of the project. Group members were representatives from various community and transportation organizations within the study area.
- **Technical Steering Committee:** A technical steering committee was formed to provide technical guidance throughout the project. The committee was comprised of representatives from StarMetro, Big Bend Transit, FDOT, Commuter Service of North Florida, the city of Tallahassee, and the four study area counties.
- **Community Meetings:** Two rounds of community meetings were held to gather input from interested members of the public. The first round of meetings, held in April 2009, involved four public meetings in each of the study area counties to introduce the study and gather public input on transit needs. The second set of meetings, held in November 2009, also involved four public meetings at which the result of the transit needs analysis and draft transit improvement recommendations were presented to obtain feedback from the public.
- **Board Presentations/Briefings:** The consultant team provided regular updates to the CRTPA board regarding the status and findings of this study.
- **Study Brochure and Newsletters:** A study brochure and two newsletters were developed during the course of this project. These provided updates of the study's goals, recommendations, and status.
- **Survey:** A transit needs survey was administered via email, hard copy, and in-person. This 12-question survey was completed by over 340 respondents, and provided critical input to understand current travel behavior and attitudes regarding the need for regional transit for the service and policy recommendations developed during this study.
- **Website:** A project website was created and linked to the region-wide Capital Legacy Project web page. This site was a valuable public engagement tool which provided project information, updates, documents, and contact information.



### **3.0 Baseline Conditions**

Along with input gathered through the public involvement campaign, a baseline conditions analysis provided the foundation upon which recommendations for transit service improvements and alternative institutional arrangements were made. There were two primary aspects of the baseline conditions exercise: an existing conditions analysis and transit potential analysis.

#### ***Existing Conditions***

CRTPA prepared base demographic data derived from 2000 U.S. Census Data, the Florida Department of Transportation (FDOT) and InfoUSA and updated for a base year of 2007. The base demographic data was used to assess existing transit service in the Capital Region and to compare it to future projections to determine the transit market potential inter-county (between counties) and intra-county (within each county). A thorough inventory of key data variables was compiled, including the following:

- Population
- Employment
- Transit Dependent Populations – Zero-Car Households, Elderly, Low Income, Disabled, Student

Additionally, profiles were developed for StarMetro, Big Bend Transit, and Wakulla County Transportation, as the transit providers in the region. Service statistics, productivity metrics, route structure, and service area were all documented within these profiles. Finally, a peer analysis was conducted for StartMetro's operations. This system-level analysis was conducted in order to identify StarMetro's strengths and weaknesses with respect to service productivity, cost effectiveness and efficiency, maintenance productivity, and service coverage.

#### ***Transit Potential Analysis***

A transit potential analysis was performed to determine the level of demand for public transportation services in the region. The region's travel demand model was used to estimate population, employment, and travel demand for the years 2015, 2025, and 2050 by traffic analysis zone (TAZ). This data was used to determine travel patterns within the Capital Region, as displayed in Figures 2 and 3, below. Based on current and projected travel flows, transit markets were determined and improvements were proposed accordingly.

Figure 2: 2007 Trip Flows

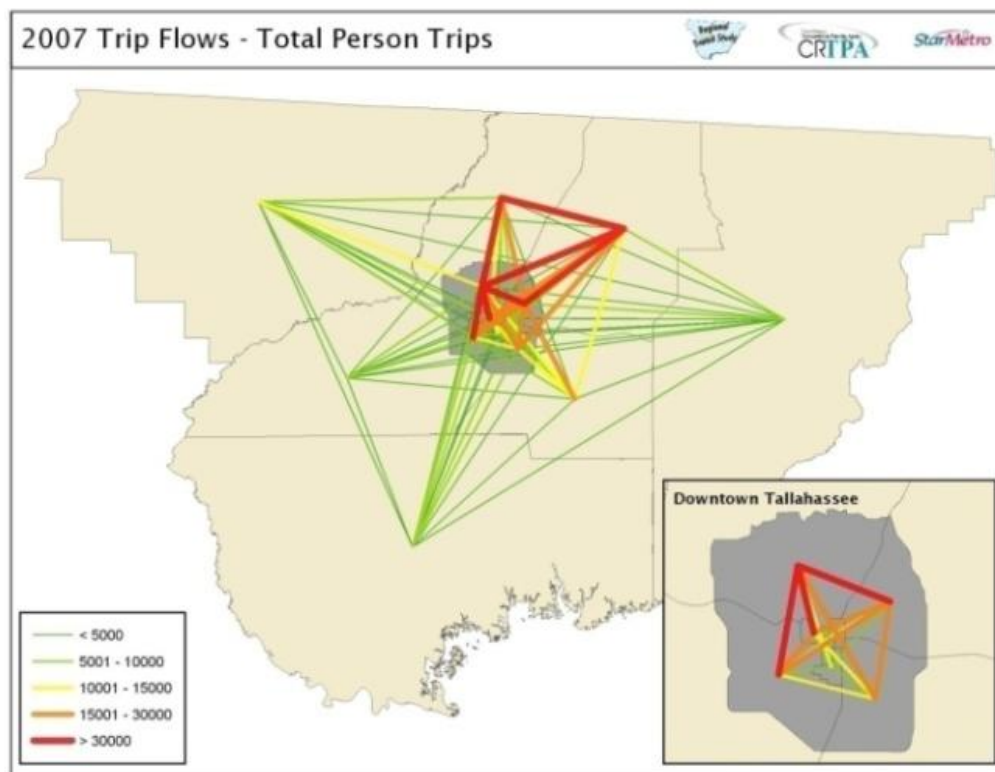
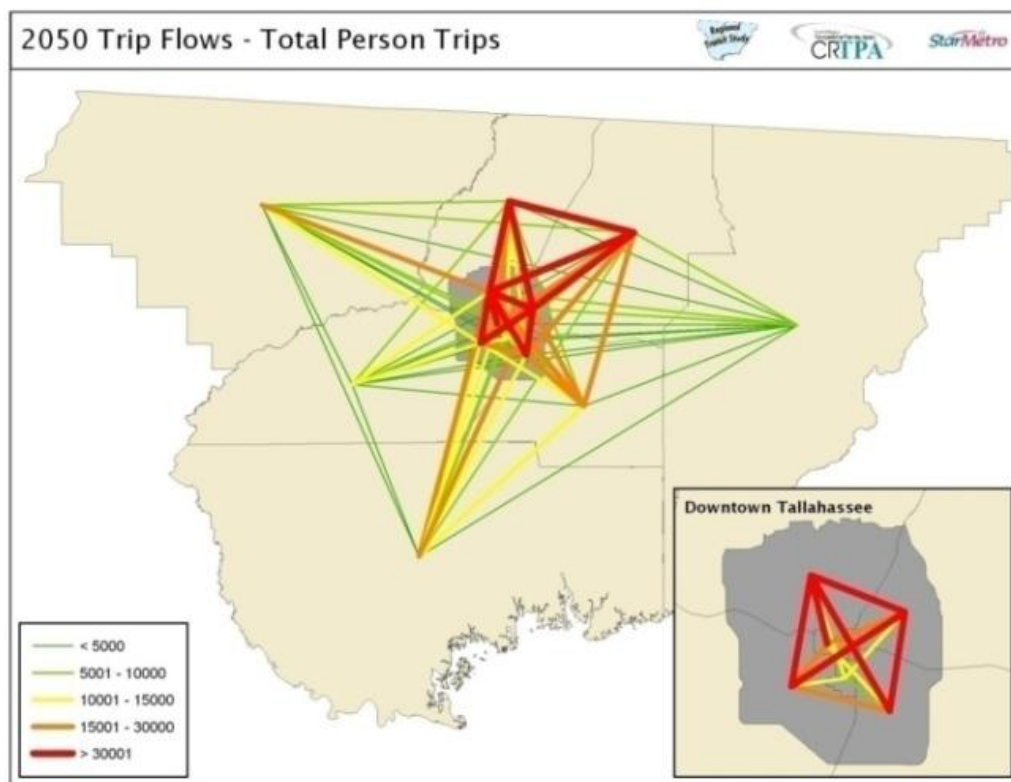


Figure 3: 2050 Trip Flows





## **4.0 Transit Services Improvements**

Based on input received from the public and other project stakeholders as well as data derived from the baseline conditions report and transit potential analysis, a series of transit service improvements was developed and analyzed for ridership potential, capital cost, and operational cost. These improvements were categorized into three timeframes: near-term (2010 – 2014), mid-term (2015 – 2024), and long-term (2025 – 2050). Two types of improvements were proposed: service improvements and capital projects. Service improvements include enhancements and additions to local fixed-route services such as those currently provided by StarMetro as well as rural fixed-route circulator routes. Capital projects are transit improvements which will require significant capital investment to implement. These include fixed-route and fixed-guideway projects such as express bus, bus rapid transit (BRT), streetcar, light rail transit (LRT), and commuter rail transit (CRT). Capital facilities such as transfer centers and park and ride lots are also included in this category.

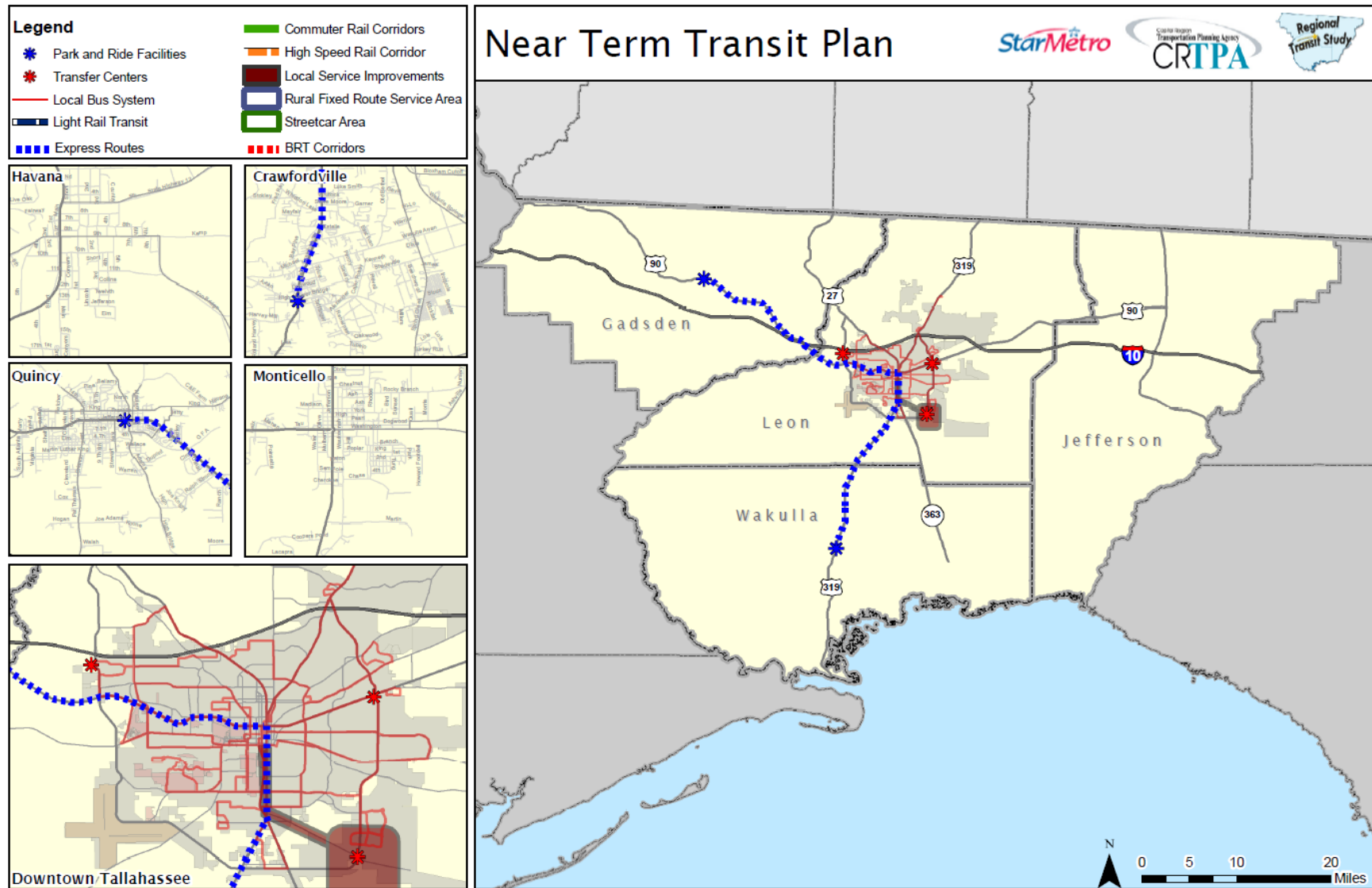
### ***Near Term (2010-2014)***

The proposed transit service improvements in the near-term, as displayed in Figure 4, are as follows:

- Capital Circle Office Complex/Southwood StarMetro Local Bus Service Expansion
- Tram Road StarMetro Local Bus Service Expansion
- Crawfordville Express Bus Service
- Quincy Express (service anticipated to begin early 2010)

## Regional Transit Study

Figure 4: Near-Term Transit Plan (2010-2014)



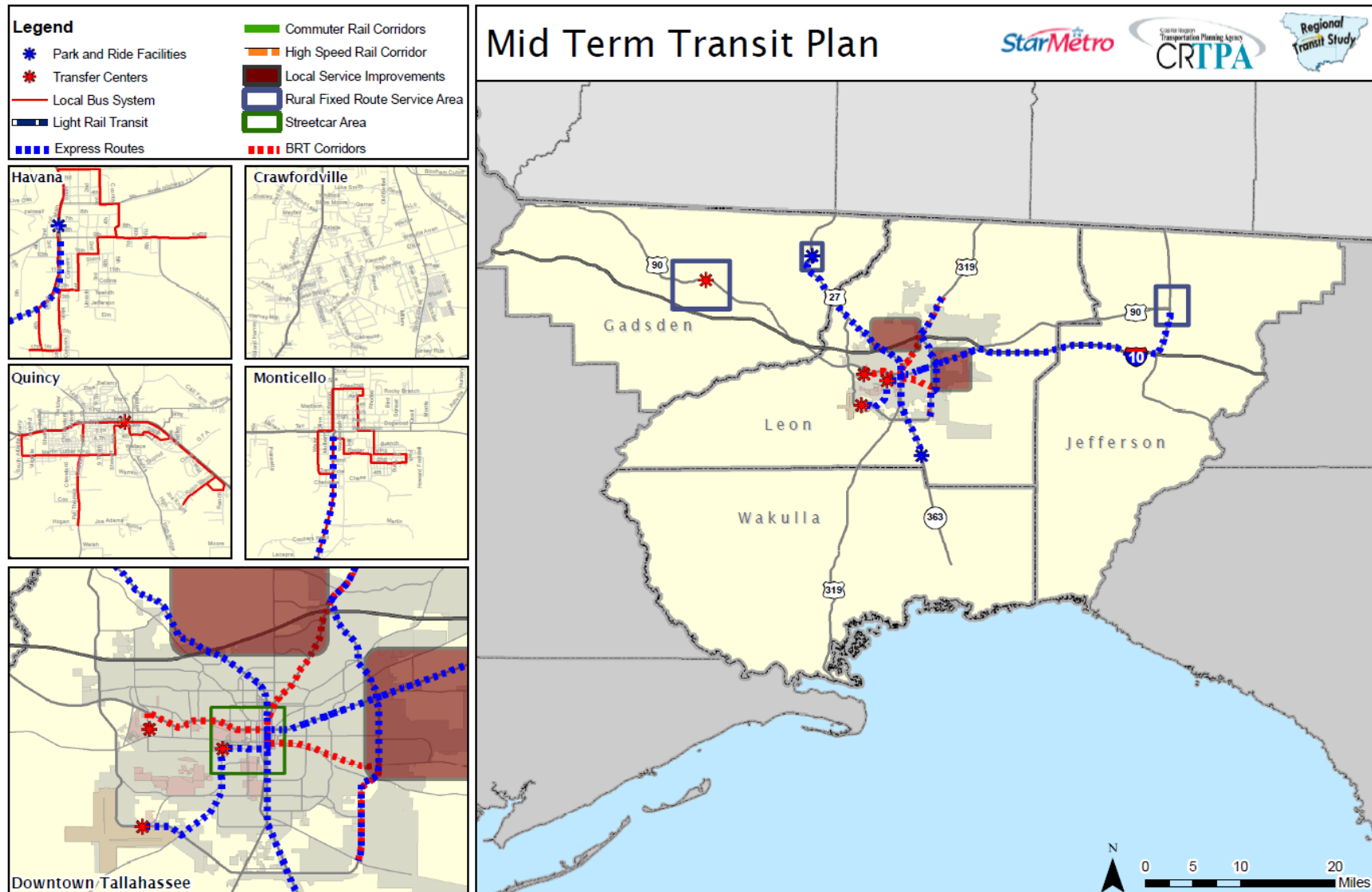
***Mid Term (2015-2024)***

The proposed transit service improvements in the mid-term, as displayed in Figure 5, are as follows:

- North Leon County StarMetro Local Bus Service Expansion
- East Leon County StarMetro Local Bus Service Expansion
- Quincy Fixed Route Expansion
- Havana Fixed Route
- Monticello Fixed Route
- Woodville Highway Express Bus Service
- Capital Circle East Express Bus Service
- Havana Express Bus Service
- Monticello Express Bus Service
- Airport Express Bus Service
- West Tennessee Street Bus Rapid Transit
- Thomasville Road Bus Rapid Transit
- Apalachee Parkway Bus Rapid Transit
- Gaines Street Streetcar Line
- Campus Streetcar Line

## Regional Transit Study

Figure 5: Mid-Term Transit Plan (2015-2024)



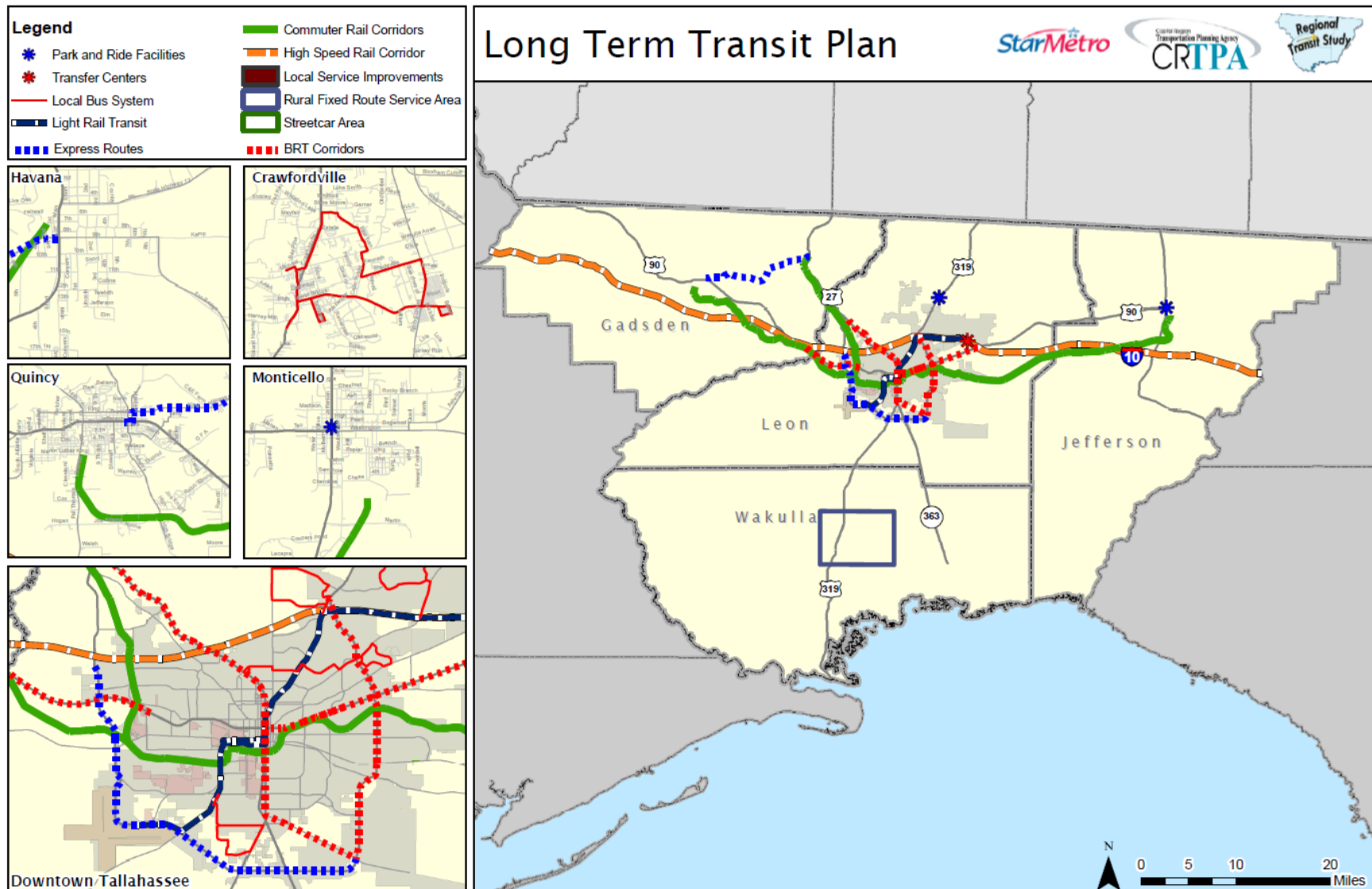
***Long Term (2024-2050)***

The proposed transit service improvements in the long-term, as displayed in Figure 6, are as follows:

- LRT Feeder Bus Service
- Crawfordville Fixed Route
- Quincy Fixed Route Expansion
- Havana Fixed Route Expansion
- Havana/Quincy Express Bus Service
- Capital Service Southwest Express Bus Service
- West Tennessee Street Bus Rapid Transit Extension
- Capital Circle East Bus Rapid Transit
- Monroe Street Bus Rapid Transit
- East Tennessee Street (Mahan Drive) Phase 1 & 2 Bus Rapid Transit
- Airport to Downtown Light Rail Transit
- Downtown to I-10 High Speed Rail Light Rail Transit
- Quincy to Downtown Commuter Rail Transit
- Havana to Downtown Commuter Rail Transit
- Monticello to Downtown Commuter Rail Transit

## Regional Transit Study

Figure 6: Long-Term Transit Plan (2024-2050)



## Regional Transit Study

Estimated capital and operational costs associated with all of the projects are listed in Table 1. After a thorough screening process, the following projects were eliminated from inclusion in the final recommended transit service plan:

- LRT Feeder Service
- Capital Circle Southwest Express Bus
- West Tennessee Street BRT Extension
- Light Rail Transit Service
- Commuter Rail Service

The service above were considered and evaluated, however, because of the projected ridership levels and costs, they were not deemed feasible for implementation within the time horizons of this report. Costs of these improvements are included in Table 1 to show order of magnitude of costs.

## Regional Transit Study

Table 1: Proposed Improvements - Capital and Operations Costs (2009\$)

Improvement	Capital Costs	Annual Operating Cost
<b>NEAR-TERM IMPROVEMENTS (2010-2014)</b>		
StarMetro Local Bus Service Expansion	\$5,784,000	\$4,101,000
Express Bus Service	\$945,000	\$898,000
Satellite Transfer Centers	\$4,563,000	\$30,000
Regional Park-and-Ride Facilities	\$763,000	\$20,000
<b>Subtotal of Near-Term Costs</b>	<b>\$12,055,000</b>	<b>\$5,049,000</b>
Improvement	Capital Costs	Annual Operating Cost
<b>MID-TERM IMPROVEMENTS (2015-2024)</b>		
StarMetro Local Bus Service Expansion	\$3,305,000	\$6,340,000
Rural Local Bus Service	\$868,000	\$2,709,000
Express Bus Service	\$3,464,000	\$4,692,000
Bus Rapid Transit (BRT) Service	\$45,739,000	\$5,421,000
Streetcar Service	\$210,501,000	\$6,739,000
Satellite Transfer Centers	\$6,085,000	\$70,000
Regional Park-and-Ride Facilities	\$763,000	\$40,000
<b>Subtotal of Mid-Term Costs</b>	<b>\$270,725,000</b>	<b>\$26,011,000</b>
Improvement	Capital Costs	Annual Operating Cost
<b>LONG-TERM IMPROVEMENTS (2025-2050)</b>		
StarMetro Local Bus Service Expansion	\$0	\$6,340,000
Rural Local Bus Service	\$868,000	\$5,418,000
Express Bus Service	\$630,000	\$5,377,000
Bus Rapid Transit (BRT) Service	\$76,976,000	\$13,501,000
Streetcar Service	\$0	\$6,739,000
Satellite Transfer Centers	\$0	\$70,000
Regional Park-and-Ride Facilities	\$763,000	\$60,000
<b>Subtotal of Long-Term Costs</b>	<b>\$79,237,000</b>	<b>\$37,505,000</b>
Improvement	Capital Costs	Annual Operating Cost
<b>IMPROVEMENTS NOT INCLUDED IN RECOMMENDED PLAN</b>		
LRT Feeder Service	\$1,440,000	\$1,120,000
Capital Circle Southwest Express Bus	\$630,000	\$694,000
West Tennessee Street BRT Extension	\$14,503,000	\$1,378,000
Light Rail Transit Service	\$994,469,000	\$23,266,000
Commuter Rail Service	\$1,460,000,000	\$29,369,000
<b>Subtotal of Non-Recommended Improvement Costs</b>	<b>\$2,471,042,000</b>	<b>\$55,827,000</b>

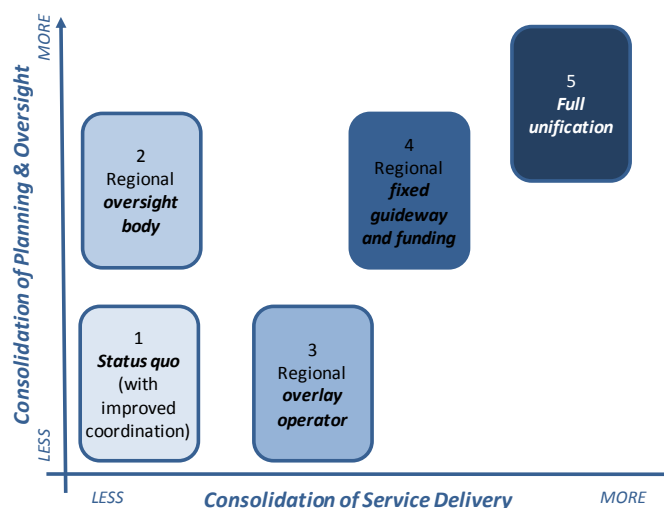


## 5.0 Institutional Structure and Funding

### *Institutional Alternatives*

A set of possible institutional structures for transit operations in the Capital Region were defined based on the existing and proposed transit services. Five broad categories of institutional frameworks were identified as options for the Capital Region: status quo (with improved coordination), regional oversight body, regional overlay operator, regional fixed guideway and funding, and full unification. Within each category are a number of possible variations. As displayed in Figure 7, the organizational scenarios represent a continuum of service delivery and planning, and oversight. At the low-end of service consolidation and planning is the current institutional arrangement (status quo). As the region moves towards increasing unification, services become more consolidated and may take on the form of a regional oversight board or overlay operator. This may include consolidating transportation disadvantaged (TD) / demand response services. A regional fixed guideway system with regionally-based funding would be an interim step prior to full unification, which would eliminate any existing operators and replace them with a single regional transit entity.

**Figure 7: Regional Organization Scenarios**



### ***Status Quo (with Improve Coordination)***

The simplest and least consolidated institutional option would be to continue with the existing arrangement of transit providers (StarMetro, Big Bend Transit, and Wakulla County Transportation). CRTPA would also remain responsible for long-range transportation planning as the MPO. In this arrangement, as new cross-jurisdictional bus services are introduced, counties could decide whether to contract with StarMetro for service or to provide service on their own (either directly or through a third-party contractor).

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### *Regional Transit Oversight Body*

This oversight body could be a new authority, or the responsibilities could be housed within an existing regional entity such as the CRTPA or the Apalachee Regional Planning Council. In this arrangement, the oversight body could be responsible for functions such as medium-term regional transit planning, unified marketing and customer information, and unification of fare policies and fare media. The oversight body could also play a role in the distribution of funding by becoming the “designated recipient” for federal funding and by having responsibility for allocating any new dedicated regional transit funds.

### *Regional Overlay Operator*

A regional “overlay” operator would automatically be responsible for any fixed-route transit service that crossed city or county borders. This operator would be independent of the existing transit providers (in both governance and funding), but it could choose to contract with an existing provider (such as StarMetro) for the actual day-to-day delivery of the service. The overlay operator would also be responsible for future cross-county fixed guideway investments. However, as with the status quo option, any potential BRT or rail projects located entirely within the City of Tallahassee would be controlled by StarMetro.

### *Regional Fixed Guideway and Funding*

In this structure, a new regional transit body would have responsibility for *any* new fixed guideway service in the region (BRT, streetcar, LRT, etc.), even if located entirely within one jurisdiction, as well as any cross-jurisdictional bus services. In addition, it would control functions such as regional service planning, customer information, and fare media and policy, and it would control federal and regional funding distribution. Jurisdictions would still control their own local bus services, and the option would still exist (for example) for the new regional entity to contract with StarMetro for the actual delivery of bus service.

### *Full Unification*

In a fully consolidated option, the existing local transit providers would go away entirely, and a new regional authority would be responsible for all aspects of transit oversight, funding, and delivery, across all modes. The new authority could even take on the long-range transportation planning aspects of CRTPA and become the MPO.

### *Funding Alternatives*

While many funding options were considered and detailed as part of this analysis, two funding sources were identified as being most feasible in the Capital Region for transit: the local option gas tax (LOGT) and dedicated sales tax. By statute, Florida counties are authorized to levy a LOGT of up to 12 cents per gallon on fuel subject to voter approval in the form of three separate levies:

- The first is a tax of 1 cent on every net gallon of motor and diesel fuel sold within a county. Known as the **Ninth-Cent Fuel Tax**, this tax may be authorized by an ordinance adopted by an extraordinary vote of the governing body or voter approval in a countywide referendum. Generally, the proceeds may be used to fund transportation expenditures.

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- The second is a tax of **1 to 6 cents** on every net gallon of motor and diesel fuel sold within a county. This tax may be authorized by an ordinance adopted by a majority vote of the governing body or voter approval in a countywide referendum. Generally, the proceeds may be used to fund transportation expenditures.
- The third tax is a **1 to 5 cents** levy upon every net gallon of motor fuel sold within a county. Diesel fuel is not subject to this tax. This additional tax shall be levied by an ordinance adopted by a majority plus one vote of the membership of the governing body or voter approval in a countywide referendum. Proceeds received from this tax may be used for transportation expenditures needed to meet the requirements of the capital improvements element of an adopted local government comprehensive plan.

Currently, none of the four Capital Region counties (Gadsden, Jefferson, Leon, and Wakulla) have levied any portion of the third tax (the 1 to 5 cent LOGT) described above. If each county were to levy the full 5 cents of the 1 to 5 cent LOGT, given current (2009) fuel sales the full revenue that would be available from a region-wide LOGT is slightly more than \$7 million. As noted earlier, this could fund some significant improvements in local and express bus service, but it is not sufficient to fund the premium transit projects in the med-term and long-term.

A dedicated sales tax is a second option for generating capital and operating funds for transit in the Capital Region. Currently, only Leon and Wakulla counties are statutorily able to assess a sales tax for transit via the existing Charter County Transportation System Surtax. If, however, a 0.5% regional dedicated sales tax was passed, approximately \$19 million could be generated annually. These funds could be used on a “pay-as-you-go” basis for operations or small capital projects, or they could be bonded to support a larger capital project.

Other funding mechanisms used throughout the state for transit capital and operating expenses, such as vehicle rental fees and property taxes, were not seen as viable options due to the relatively small size and political climate of the Tallahassee metropolitan area. While the LOGT and dedicated sales tax are viable funding alternatives, their implementation will likely be met with substantial political and legislative obstacles.

### *Recommendations*

Based on the analyses performed by the consultant team and input from the project steering committee, interviewees, and stakeholders, six recommendations were made regarding regional institutional organization and potential funding:

- **Maintain the existing institutional structure in the near-term.** Current inter-local agreements between StarMetro, the counties, and contracted providers appear to be sufficient in the near-term (next two to three years). It is recommended that the organizational status quo be maintained while inter-jurisdictional express service is developed.
- **Current funding is not sufficient for even modest expansion, so the LOGT should be pursued.** In order to implement any near-term and mid-term service and capital improvements, an additional funding stream should be pursued via a LOGT.
- **Do not create competing local transit providers.** In order to facilitate future consolidation, it is recommended that no additional local transit providers (i.e. county-level) be established. Alternatively, contractual arrangements should be made with

## Regional Transit Study

existing providers to implement new or expanded service outside of existing service areas.

- **Demand response service should be a strong candidate for initial regionalization.** In an effort to build support for an RTA, the counties' existing demand response services should be considered for regionalization in the near to mid-term. This would create a seamless Transportation Disadvantaged (TD) network while laying the political and organizational groundwork for regionalization of fixed route services.
- **Maintain some local control even in the long-term.** Migration to a Regional Transit Agency (RTA) should be approached in an incremental fashion. By maintaining local control of transit services and operations while increasing regional efforts, consensus can be built in the public and legislative arenas. For example, a regional entity could be charged with planning and cross-jurisdictional service in the near term while maintaining autonomy of local service. Over time and as the political climate permits, an increasing level of responsibility will shift from the local to regional level.
- **Long-term funding will be challenging, but a dedicated sales tax is one option.** In order to fund the recommended fixed-guideway projects, a long-term regional funding stream must be secured. A dedicated sales tax provides the most promising revenue source.

## 6.0 Service Development Strategy and Business Plan

### *Implementation Plan*

#### **Near-Term (2010-2014)**

Implementation of the near-term plan involves limited action on the part of local jurisdictions and agencies and should not require the creation of any additional agencies. Rather, it is suggested that the current institutional arrangement for cross-jurisdictional service, whereby counties contract directly via intergovernmental agreements with StarMetro or Big Bend Transit for local and express services, be maintained. Regional planning functions may require the creation of an *ad hoc* committee, and would likely be best suited under the umbrella of CRTPA. In order to fund the proposed transit improvements in the near-term, a new funding source will be required. A local option gas tax is the most feasible regional funding option in the near-term and local officials in each county should begin to pursue legislation enabling such measure.

#### ***Mid-Term (2015-2024) and Long-Term (2025-2050)***

The shift from the current institutional arrangement in the Capital Region to a unified Regional Transit Agency (RTA) should be approached in an incremental fashion. The process will involve a series of key steps over a number of years:

- **Undertake preparatory work with citizens, the business community, and the Legislature:** A comprehensive public information campaign will be required to educate the citizens of the Capital Region regarding the costs/benefits of a Regional Transit Agency. This will lay the groundwork for public buy-in and the eventual voter approval of a Regional Transit Agency.
- **Inaugurate a Capital Region Regional Transit Agency:** The creation of a Regional Transit Agency will require enabling legislation and voter approval. A newly-created

## Regional Transit Study

Regional Transit Agency will have limited powers in the near-term, with its primary functions being planning for the region.

- **Designate the Regional Transit Agency as a regional Community Transportation Coordinator:** Designation of the Regional Transit Agency as the regional Community Transportation Coordinator (CTC) is an appropriate first step in regionalizing transit operations. If successful, this will provide a base of goodwill and expertise required for further regionalization of fixed route services.
- **Dedicate funding to the Regional Transit Agency:** A new regional funding source will be required in order to implement new regional fixed route services. A dedicated regional sales tax, though possibly difficult to implement, is the most promising candidate to fund a regional transit system.
- **Shift cross-jurisdictional bus services to the Regional Transit Agency:** Once a steady funding stream is established, all cross-jurisdictional functions including planning, funding, and operating, will be shifted to the Regional Transit Agency. Local service would remain under the control of local jurisdictions.
- **Deliver regional BRT and streetcar services through the Regional Transit Agency:** The delivery of premium transit such as BRT and streetcar service will mark the culmination of the Regional Transit Agency.

### Business Plan

A high-level projection of costs and revenues was developed based on a set of assumptions regarding farebox recovery, state operating support, federal operating support, local share of capital costs, bond interest rate for local share of capital costs, and bond term. These are as follows:

#### Operating Funding Assumptions

- |  |     |
|--|-----|
| • Farebox recovery rate for new services:                  | 25% |
| • State operating support (% of expenses):                 | 10% |
| • Federal operating support (% of expenses) <sup>1</sup> : | 10% |

#### Capital Funding & Financing Assumptions

- |   |          |
|---|----------|
| • Combined state and federal share of capital costs (%)   |          |
| ○ Streetcar:  | 25%      |
| ○ Bus rapid transit (BRT) corridors:                      | 40%      |
| ○ Other projects (bus, transfer centers, park-and-rides): | 70%      |
| • Bond interest rate for local share of capital costs:    | 5%       |
| • Bond term for local capital costs:                      | 20 years |

The capital funding assumptions reflect the consultant team's assessment of the likelihood of receiving significant state and/or federal grant funding for each particular transit investment category. Given the overall constraints on funding, we assume that a larger state/federal funding share can be achieved on smaller projects. That is, it will be easier for FDOT to support smaller projects, and the region should be able to bring together a range of different federal

<sup>1</sup> Federal operating support is not provided directly, but instead takes the form of 5307 Urbanized Area program funds used for 'preventive maintenance' expenses.

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sources for smaller bus projects (such as 5307 and 5309 formula funds, as well as discretionary 5309 bus funds and other federal earmarks). Thus, the assumed state/federal share for the smaller proposed transit investments is 70%, which means the local share of the capital costs will be 30%.

Conversely, for a very sizable project like the streetcar, unless the region is very successful in the FTA New Starts program, most of the funding will likely come from local sources, so the assumed state/federal share for the streetcar is only 25%. BRT projects occupy somewhat of a “middle ground” for potential grant funding. A federal funding share of 40% is typical for a successful Small Starts or Very Small Starts BRT project. We assume that the Capital Region will be able to compete for and win Small Starts or Very Small Starts funding for some of its BRT corridors, but not all. However, FDOT should also be able to provide state-level funding. Between those two sources, we assume that the combined state and federal funding share for the entire group of BRT projects will average 40%, leaving 60% of the BRT capital costs to be funded locally.

From the available dedicated revenues, the region first must cover any committed debt service expenses from the previous period. After that, the region must fund operating expenses that are not supported by fare revenues or state/federal grant funds. Any funds remaining after that are then available to pay new debt service on the local share of the capital costs for that period. The original dedicated funding amount can then be modified so that all local operating and capital costs are covered and small positive balance remains. Table 2 displays projected costs and revenues, presented in 2009 dollars. It is assumed that gas tax revenues will be utilized to fund near and mid-term improvements, while sales taxes will be used to fund mid and long-term improvements. Auxiliary revenues include local, state, and federal contributions.

**Table 2: Projected Costs and Revenues**

	Near Term			Mid Term			Long Term		
LOGT Revenue (cents)	2.5	\$	3,671,578	5.0	\$	7,343,155	0.0	\$	-
Surtax Revenue (%)	0%	\$	-	0.60%	\$	23,095,324	1.05%	\$	40,416,817
<i>Less: Revenue Already Committed to Debt Service</i>		\$	-		\$	(290,197)		\$	(15,206,572)
<b>Available Annual Dedicated Revenue</b>		<b>\$</b>	<b>3,671,578</b>		<b>\$</b>	<b>30,148,282</b>		<b>\$</b>	<b>25,210,245</b>
Total Annual Operating Costs		\$	5,049,000		\$	26,011,000		\$	37,505,000
<i>Less: Fare Revenue</i>	25%	\$	(1,262,250)	25%	\$	(6,502,750)	25%	\$	(9,376,250)
<i>Less: State Support</i>	10%	\$	(504,900)	10%	\$	(2,601,100)	10%	\$	(3,750,500)
<i>Less: Federal Support</i>	10%	\$	(504,900)	10%	\$	(2,601,100)	10%	\$	(3,750,500)
<b>Local Annual Subsidy Required</b>		<b>\$</b>	<b>2,776,950</b>		<b>\$</b>	<b>14,306,050</b>		<b>\$</b>	<b>20,627,750</b>
<b>Remaining Dedicated Revenue</b>		<b>\$</b>	<b>894,628</b>		<b>\$</b>	<b>15,842,232</b>		<b>\$</b>	<b>4,582,495</b>
Total Capital Costs		\$	12,055,000		\$	270,725,000		\$	79,237,000
<i>Less: State/Federal Capital Grants</i>	70%	\$	(8,438,500)	30%	\$	(81,217,500)	40%	\$	(31,694,800)
<b>Local Share of Capital Costs</b>		<b>\$</b>	<b>3,616,500</b>		<b>\$</b>	<b>189,507,500</b>		<b>\$</b>	<b>47,542,200</b>
<b>Required Annual Debt Service (20 years @ 5%)</b>		<b>\$</b>	<b>290,197</b>		<b>\$</b>	<b>15,206,572</b>		<b>\$</b>	<b>3,814,909</b>
<b>Annual Surplus / (Deficit)</b>		<b>\$</b>	<b>604,430</b>		<b>\$</b>	<b>635,660</b>		<b>\$</b>	<b>767,586</b>

**Policy Decisions**

The final question for the Capital Region is a practical one. Given the recommendations and strategies and options presented in this Regional Transit Study, how should the region proceed? CRTPA, StarMetro, and the region's local elected officials face a number of key policy decisions in the coming months and years.

- **What existing and/or new funding sources are available?** The proposed transit improvements will require dedicated funding to operate and maintain the new services. Additional funding will be required to pay for the planning, engineering, construction of the premium transit services. Existing and new funding sources will need to be identified to fund these improvements.
- **Will the region pursue near-term bus improvements?** The proposed local bus, express bus, and park-and-ride/transfer improvements will improve transit options for commuters and begin to raise the profile of transit in the region. But these improvements cannot be undertaken using existing funding sources. The three policy options are: fund the improvements with a local option gas tax (LOGT); fund the improvements with a different funding source (such as general funds); or defer the improvements.
- **Is an *ad hoc* coordinating committee needed?** As express bus services and cross-jurisdictional services are implemented in the region, greater coordination among the local governments may be needed. A decision should be made about creating a committee (under the umbrella of the CRTPA or another regional body) where regional bus service planning issues can be formally raised and addressed.
- **Should the region begin to pursue enabling legislation for a Regional Transit Agency (RTA)?** If the answer is yes, this pursuit will need to include legislative efforts and formal exploration of options for organization, governing board composition, functional responsibilities, and legal requirements. It also will have to include extensive citizen and business community outreach in the form of town hall meetings, opinion polling, public relations and media efforts.
- **Should the designation of a regional CTC (Transportation Disadvantaged service provider) be pursued?** If the regional stakeholders believe that the potential gains to riders will outweigh the potential costs, then this designation should be explored at the State level with the Commission for the Transportation Disadvantaged (CTD). This would need to be examined in greater detail to determine if regionalizing the TD service would create additional costs or potential savings due to the potential consolidation of functions of the individual CTC's.
- **Can the region begin a feasibility study and/or alternatives analysis (AA) for any of the proposed premium transit investments?** The lead time on major transit capital projects can stretch many years from project conception to the first shovel actually going in the ground. If the Capital Region is serious about pursuing a streetcar or a major BRT corridor in the mid-term timeframe, these studies need to begin in earnest now.
- **How will the region pay for the proposed transit improvements?** All new transit services will require dedicated funding from identified sources. LOGT funds are recommended to support the proposed capital and operating expenses of the transit improvements in the near-term. If the Capital Region is to successfully pursue a streetcar or major BRT corridor,



## Regional Transit Study

dedicated funding will absolutely be needed. A dedicated sales tax is by no means a perfect funding source, but it has many positive qualities. Yet it would be very difficult to implement a true regionwide dedicated sales tax given the current statutory and political environment. The region's stakeholders need to achieve consensus on whether to begin the difficult work of changing that environment.

### 7.0 Development Review Guidelines and Design Standards

Supportive land use policies are instrumental in fostering transit ridership. The consultant team assessed current land use policies, including comprehensive plans, land development codes, and review guidelines, in the Capital Region and developed recommendations for amending these policies to create transit-supportive design standards at the local level. The following key design issues were evaluated:

1. Density/Intensity
2. Location and size
3. Uses (type, mix, diversity)
4. Dimensional standards (e.g., height, setbacks, lot width, maximum coverage)
5. Design and development standards (e.g., parking, landscaping, open space, mobility, building design)
6. Administration/development review

While a diagnostic exercise found that some transit-oriented policies currently exist within the Capital Region, these codes can be enhanced to set policy mandates and incentives for creating sustainable, transit-friendly communities. Policy guidelines for the above-mentioned design standards, as well as bicycle, pedestrian, and transit facilities, were provided.

### 8.0 About This Report

There are five technical memoranda that detail the analyses and subsequent findings that comprised this study. Technical Memorandum 1 – Public Information Plan describes the public involvement component that accompanied and influenced the technical analyses. Technical Memorandum 2 – Baseline Conditions details the key data variables that drove the analysis and ultimate recommendations reported in this study. Technical Memorandum 3 – Transit Service Improvements includes the transit potential analysis and travel demand forecasting documentation along with the proposed transit service recommendations and cost projections. Technical Memorandum 4 – Institutional Structure and Funding Options proposes a series of recommendations for organizational arrangements and funding options that would support the implementation of the transit service recommendations. Technical Memorandum 5 – Service Development Strategy and Business Plan details the recommended steps required for implementation as well as the projected revenues and expenditures for the Near, Mid, and Long-Term plans. Finally, Technical Memorandum 6 – Development Review Guidelines and Design Standards evaluates current land use policy in the Capital Region as it relates to transit, and proposes design standards that can be adopted in order to create places that are conducive to transit ridership.



June 2009

# REGIONAL TRANSIT STUDY



## Technical Memorandum #1 Public Information Plan

*Prepared for:*  
**Capital Region Transportation Planning Agency**  
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Tallahassee, FL 32301

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**CAPITAL REGION TRANSPORTATION PLANNING AGENCY  
REGIONAL TRANSIT STUDY**

**Technical Memorandum #1  
Public Information Plan**

***Prepared for:***  
***Capital Region Transportation Planning Agency***  
***408 N. Adams Street, 4<sup>th</sup> Floor***  
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***June 2009***



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## **1.0 Project Background**

Recent events such as record gas prices and climate change demonstrate the need to shape our communities in a more efficient manner. Simply widening roads to provide for transportation growth is no longer the best option to consider. Transit provides our region a solution that can reduce our national dependence on foreign oil, reduce traffic congestion, improve air quality, and provide a wider range of mobility options.

The Capital Region Transportation Planning Agency (CRTPA) and its planning partners understand the need to guide the future of public transportation in the region. StarMetro operates fixed route bus and demand response services primarily within the City of Tallahassee (“the City”). As the City and region continue to grow, there is an increasing need to expand mobility options throughout the four-county region and to coordinate urban and rural transit services.

The key elements of this Regional Transit Study (“RTS”) are to prepare an assessment of future transit needs for the four-county area; to identify and assess realistic funding strategies; to identify an organizational structure that will promote the development of a seamless, regional transit system; and to identify an implementation strategy and milestones. The RTS will be closely coordinated with the Regional Mobility Plan (“RMP”) and other regional planning projects that are underway or about to start.

## **2.0 Public Information Plan Overview**

The CRTPA and its consultant team, HDR, recognize that community outreach and local support for the RTS is critical to its development, implementation, and future success. The four-county service area includes an urban core consisting of the City of Tallahassee, fast growing towns and rural areas with increasing development pressures. The transportation needs for each of these areas are unique, as are the attitudes and expectations of the local residents. Gaining the support of these communities is essential to the successful development of a regional transit system. All public involvement activities will use methodology consistent with State requirements for satisfying Title VI of the Civil Rights Act of 1964. Proper documentation will be included on all publicly distributed materials. Any special accommodations for the participation of these populations will be coordinated with the CRTPA.

### **2.1 Purpose of the Process**

The purpose of the Public Information Plan (PIP) is to identify the community and agency outreach and public involvement activities that HDR will conduct to support the RTS. The PIP will define the work to be accomplished for the RTS, the type of informational materials that will be required, and the timeframe for completing the activities.

### **2.2 Coordination with Other Public Involvement Programs**

As mentioned above, several other planning studies are being conducted simultaneously by CRTPA and its partners. Every effort will be made to coordinate with these transportation studies and any others

being conducted within the region. Where appropriate, steering committees, stakeholder committees, and public outreach or participation will be coordinated in order to achieve maximum input and ease of understanding for the general public. It will also be important to standardize data sources and methodology so that the results of all efforts are coordinated, comparable, and defensible. Furthermore, it will be helpful for each study to ensure that their websites are linked through the Capital Legacy Project and CRTPA websites, so that citizens and stakeholders can easily locate/access information from the various studies as they each progress. Information, such as stakeholder lists and ideas for tools and techniques, will be shared with the other study teams.

## **2.3 Public Involvement Approach and Objectives**

To achieve the desired objectives for the PIP, a variety of tools and techniques will be used. They will be monitored throughout the study to ensure their effectiveness. The following objectives will be achieved through the identified public involvement activities:

- Identify the issues and needs for public transit in the four county study area;
- Create awareness about the needs, benefits and cost-effectiveness of transit within the region;
- Build consensus for a regional transit system that reflects the needs identified through input from stakeholders and the public, including the traditionally underserved members of the community.

## **2.4 Public Involvement Activities**

The approaches and techniques included in the RTS public involvement activities will assist in gathering both qualitative and quantitative information as well as maximize public participation and will include the following:

- Stakeholder Group
- Technical Steering Committee
- Community Meetings
- Board Presentations/Briefings
- Study Brochure, Newsletters and Survey
- Website

## **3.0 Stakeholder Group**

### **3.1 Roles and Responsibilities**

The role of the Stakeholder Group is to provide policy guidance for the development of the public involvement plan and outreach activities, assessment of transit needs, development and evaluation of transit service alternatives, development and evaluation of institutional and funding scenarios, and project recommendations.



### **3.2 Identification of Members**

As identified in the project scope of services, the stakeholder group will consist of representatives from various community and transportation organizations within the Study area. This group will include representatives from StarMetro, area universities, and Gadsden, Jefferson, Leon and Wakulla counties.

### **3.3 Meetings**

The HDR team will facilitate up to four (4) Stakeholders Group meetings during the course of the study. Each of these meetings will be held at a milestone defined in the project scope of services such as: 3.0 Baseline Data, 4.0 Transit Service Improvements, 5.0 Funding Options and Strategies, and 6.0 Service Design Strategy and Business Plan. It is recommended that Stakeholder Group meetings be held on the same day as the Technical Steering Committee meetings for the RTS to help maximize project resources.

## **4.0 Technical Steering Committee**

### **4.1 Roles and Responsibilities**

In conjunction with the CRTPA and StarMetro, the Technical Steering Committee will provide technical guidance for the development of the public involvement plan and outreach activities, assessment of transit needs, development and evaluation of transit service alternatives, development and evaluation of institutional and funding scenarios, and project recommendations.

### **4.2 Identification of Members**

The Technical Steering Committee will include staff and representatives from various local governments/agencies including StarMetro, the Florida Department of Transportation – District 3, Commuter Services of North Florida, and Gadsden, Leon, Jefferson and Wakulla counties. For the purposes of this study, the Technical Steering Committee will be comprised of the members of the RMP’s Stakeholder Advisory Committee.

### **4.3 Meetings**

The HDR team will participate in up to four (4) Technical Steering Committee meetings during the course of the study. It is recommended that Technical Steering Committee meetings be held on the same days as Stakeholder Group meetings whenever possible.

## **5.0 Community Meetings**

### **5.1 Coordination, Location, and Schedule**

Two (2) rounds of community meetings will be held during the course of the RTS. Each round will include one meeting in each of the four counties within the study area (Gadsden, Jefferson, Leon and Wakulla) and one in the City of Tallahassee.

The first round of meetings will be held in conjunction and cooperation with the CRTPA – RMP meetings in each of the four counties. They are currently scheduled to occur in April 2009. The first round of meetings will inform the public and other stakeholders of study goals and elicit input on transportation

needs, opportunities and priorities in the region and its communities. Maps and graphics will be on display and informational handouts, newsletters, survey forms, and comment cards will be distributed. Information gathered through the surveys and comment cards will be incorporated into the study's findings.

The second set of community meetings will focus on the draft study findings and recommendations. The second round of meetings will be held in the fall of 2009 and are envisioned to occur in conjunction with an established large scale community event in each of the four counties. Should there not be a community event within the fall 2009 time frame, an alternate location/format will be developed to ensure broad-based and representative participation. The meeting within the City of Tallahassee may be held in conjunction with a regularly scheduled meeting of the Tallahassee/Leon County Council of Neighborhood Associations (CONA). All community meetings will be approved by the CRTPA prior to their occurrence and as appropriate they will also occur in conjunction with established community events, meetings, or at centralized locations.

## **5.2 Advertisement, Format, and Outreach**

HDR will coordinate all meeting notifications including newspaper ads and mailings as requested. CRTPA will be responsible for e-mail blasts to their mailing list to advertise meetings. Meetings are envisioned to be approximately two hours in length and when held jointly with the RMP will be facilitated by both the RMP and RTS teams. At all meetings, HDR will present information on the RTS, as well as staff a table or breakout station with more detailed materials and handouts. HDR planners will prepare all materials related to the RTS project.

## **6.0 Board Meetings / Briefings**

Up to six (6) presentations will be made during the course of the RTS to the CRTPA Board, the City of Tallahassee, and each of the Board of County Commissions from Gadsden, Jefferson, Leon and Wakulla. The CRTPA will schedule presentations to keep the respective boards informed of the Study's progress. HDR will make these presentations and prepare any necessary materials for these meetings.

## **7.0 Study Brochure, Newsletters, and Survey**

### **7.1 Purpose and Number of Pieces**

HDR will be responsible for the preparation and distribution of one study brochure and two (2) newsletters that will inform and update the general public of the RTS throughout the study period. At the beginning of the project, a brochure will be created to serve as an overall guide to the project for the public, stakeholders and elected officials. This piece will include a survey requesting input on transit ridership, routes, and future needs. Two (2) additional newsletters will be created for distribution during the course of the study. The first newsletter will present existing conditions, survey results, and the transit service alternatives under consideration. The second newsletter will present the final study recommendations.

## **7.2 Production & Format**

The format and graphics for the brochure and newsletters will have a consistent appearance that distinguishes these materials as information related to the RTS. The graphics will be tied to website and other RTS informational materials to establish a uniform look throughout. Although the content of the newsletters may include inserts such as a transit ridership survey, the overall layout will conform to 8.5"x11" or 11"x17" folded to letter size. Text will be supplied by HDR with approval from the CRTPA on content, format, and appearance. HDR will be responsible for production of all study brochures and newsletters.

## **7.3 Mailing List Development, Distribution, and Schedule**

A mailing list will be developed and coordinate with the region's agencies, organizations, and individuals, as well as the RMP project to ensure consistency and overall audience capture. The list shall not exceed 1000 entries as defined in the project scope of services. The brochure and newsletters will be distributed to the mailing list, as handouts at public meetings, and on existing transit service as appropriate. The CRTPA will be responsible for distribution of these materials to their existing e-mail list. The study brochure will be produced in April 2009, followed by the first newsletter in the fall 2009 (at or near the time of the public meetings) and the second newsletter in winter 2009 at the completion of the project.

## **8.0 Website**

HDR will create a RTS webpage as part of the Capital Legacy Project website which can be linked to the CRTPA and StarMetro's website. The webpage will include an overview of the study and contact information. From the main project page there will be links to sub pages for information on:

- Study schedule
- Meeting dates/calendar
- Opportunities for online comments and survey participation
- Study materials and resource documents
- Study brochure and newsletters

All webpage material will be prepared by HDR and approved by the CRTPA. The initial page will be set-up by the Capital Legacy Project staff from material provided by HDR. Thereafter, the RTS site will be maintained by HDR. All comments, survey results, and site updates will be the performed by HDR with assistance from the Capital Legacy Project staff as needed.

August 2009

# REGIONAL TRANSIT STUDY



## Survey Methodology and Results Report

*Prepared for:*  
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**CAPITAL REGION TRANSPORTATION PLANNING AGENCY  
REGIONAL TRANSIT STUDY**

**Survey Methodology and Results Report**

***Prepared for:***  
***Capital Region Transportation Planning Agency***  
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***August 2009***



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## 1.0 Introduction

The Regional Transit Study (RTS) was commissioned by the Capital Region Transportation Planning Agency (CRTPA) in conjunction with the local fixed-route transit service provider StarMetro. The purpose of the study is to determine the level of need for expanded transit service in the Capital region. While human services providers currently provide rural demand-response service, recent population growth and aging demographics, in the outer counties have taxed their capabilities to effectively provide this service. Thus, there exists a need to better coordinate the provision of transit services throughout the entire CRTPA region.

The key elements of the Regional Transit Study are to prepare an assessment of future transit needs for the four-county area; identify and assess realistic funding strategies; identify an organizational structure that will promote the development of a seamless, regional transit system; and identify an implementation strategy and milestones.

In order to supplement other planning efforts to achieve these goals, a survey was developed to gauge Capital Region preferences regarding the need for regional transit service. The survey was administered to a broad cross-section of current transit riders, non-riders and other area stakeholders. Below is a copy of the survey:

## Regional Transit Study

### Study Survey

We would like to better understand your current travel patterns and attitudes about mobility options between Leon, Gadsden, Jefferson and Wakulla counties and the City of Tallahassee. Please take a moment and complete the following survey. Thank you!

1. Which of the following types of transportation do you typically use for your commute to work or school?
 

<input type="radio"/> Drive alone in a car or truck	<input type="radio"/> Bicycle
<input type="radio"/> Ride or drive with others in a car or truck (carpool)	<input type="radio"/> Walk
<input type="radio"/> Ride or drive in a vanpool	<input type="radio"/> Bus
<input type="radio"/> Other _____	
2. Which of the following transit providers, if any, do you use? (Please check all that apply)
 

<input type="radio"/> StarMetro (Bus)	<input type="radio"/> Wakulla County Transportation
<input type="radio"/> StarMetro (Dial-A-Ride)	<input type="radio"/> None of the above
<input type="radio"/> Big Bend Transit	<input type="radio"/> Other _____
3. How many days during the week do you typically ride transit?
 

<input type="radio"/> 1-2 days	<input type="radio"/> 3-4 days	<input type="radio"/> 5-7 days	<input type="radio"/> Never
--------------------------------	--------------------------------	--------------------------------	-----------------------------
4. Do you have convenient access to transit near your home?
 

<input type="radio"/> Yes	<input type="radio"/> No
---------------------------	--------------------------
5. Do you have convenient access to transit near your work or school?
 

<input type="radio"/> Yes	<input type="radio"/> No
---------------------------	--------------------------
6. Which of the following would encourage you to use transit more often? (Please check all that apply)
 

<input type="radio"/> Availability & improved access to transit	<input type="radio"/> More affordable than driving
<input type="radio"/> Travel time savings compared to driving	<input type="radio"/> More frequent service
<input type="radio"/> Better connections between transit systems	
<input type="radio"/> Other _____	

7. Is there a need for regional transit service between Leon, Gadsden, Jefferson and Wakulla counties and the City of Tallahassee?
 

<input type="radio"/> Not at all	<input type="radio"/> Not now, but it might be needed in the future
<input type="radio"/> Yes, it is needed	<input type="radio"/> Yes, it is needed, but only for riders with special needs (i.e. elderly & persons w/ disabilities)
8. How often would you use public transit services, if available, for trips between Leon, Gadsden, Jefferson and Wakulla counties and the City of Tallahassee?
 

<input type="radio"/> Very often; I would use it daily for work or school trips	
<input type="radio"/> Somewhat often; I would use it for special trips	
<input type="radio"/> Often; I would use it once or twice a week	<input type="radio"/> Not at all
9. Your Place of Residence (required): City \_\_\_\_\_ Zip Code \_\_\_\_\_
10. Your Place of Work: City \_\_\_\_\_ Zip Code \_\_\_\_\_
11. Other Travel Destinations (i.e. school, medical appointment):  
City \_\_\_\_\_ Zip Code \_\_\_\_\_
12. Please submit your additional questions, comments and suggestions:  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_
13. If you would like to be on our email list to receive updates on the CRTPA Regional Transit Study, please provide your email address:  
\_\_\_\_\_

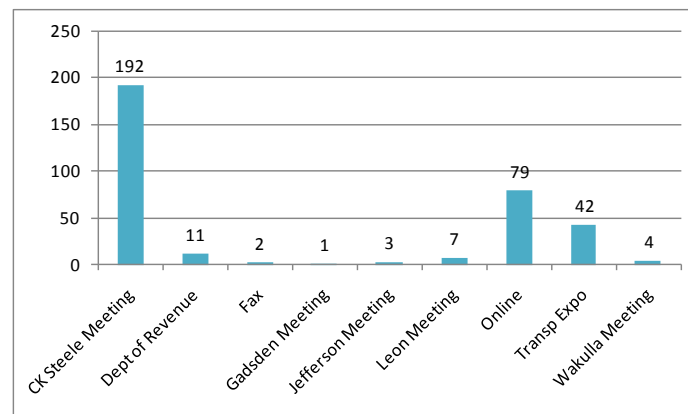
Survey must be returned by May 29, 2009

You may take the survey on line at [www.capitallegacyproject.com/regionaltransitstudy](http://www.capitallegacyproject.com/regionaltransitstudy)



## 2.0 Methodology

The RTS transit survey was administered to a sample of 341 participants in several locations. 192 (56 percent), of the survey participants were randomly selected and interviewed at C.K. Steele Plaza on Wednesday, April 15<sup>th</sup>. 79 (23 percent), of the participants completed a form-based online survey, and 42 (12 percent), took the survey at the Transportation Expo. The remaining 28 participants took the survey in person at various community meetings and through outreach to the Florida Department of Revenue. The following figure displays a breakdown of the survey participants.



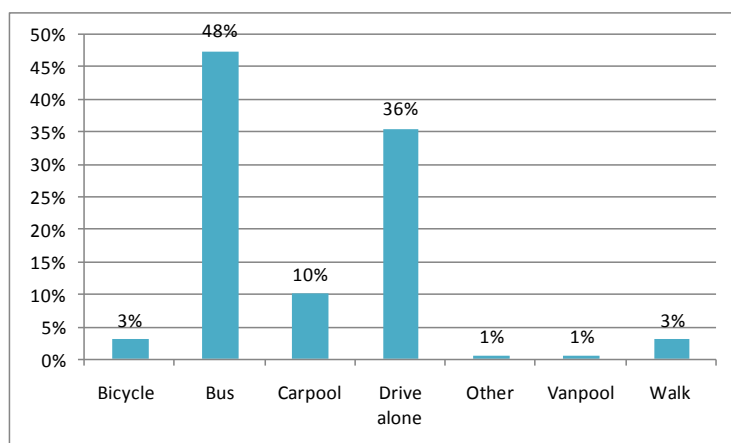
The target population for the RTS survey was a broad sample of existing transit riders and other stakeholders. While the principle goal was to ascertain current travel behavior and attitudes regarding the need for regional transit, additional questions sought to distinguish origins and destinations of transit riders. There were twelve total questions on the survey including an open-response comment section. Additionally, participants were asked to provide their email address, if available.

### 3.0 Results

The following section presents the results of the RTS transit survey. Each section displays the question asked, the response choices, and a statistical breakdown of responses and a brief explanation of results.

***Question 1: Which of the following types of transportation do you typically use for your commute to work or school?***

- *Drive alone in a car or truck*
- *Ride or drive with others in a car or truck (carpool)*
- *Ride or drive in a vanpool*
- *Bicycle*
- *Walk*
- *Bus*
- *Other*

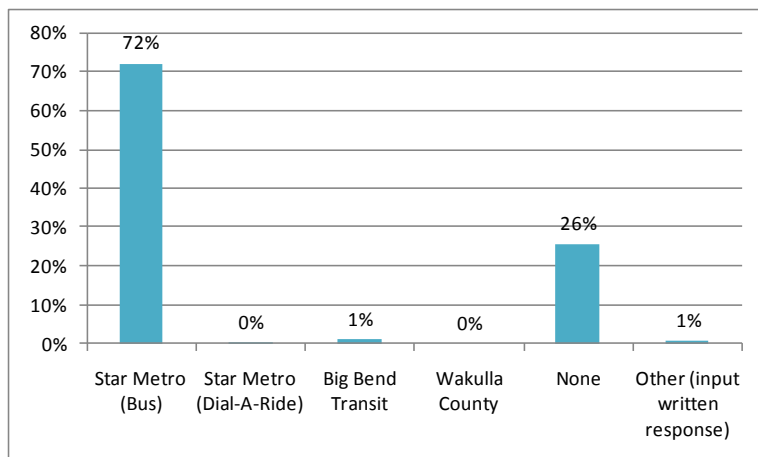


48 percent of survey respondents indicated that they use the bus to commute to work or school, while 36 percent indicated they drive alone in a personal vehicle. Because this survey was administered to a large sample of current transit riders, there were a larger proportion of bus commuters than what is typically found in most communities. 10 percent of commuters surveyed carpool, while the remaining 8 percent bicycle, take a vanpool, or walk.

## Regional Transit Study

### Question 2: Which of the following transit providers, if any, do you use?

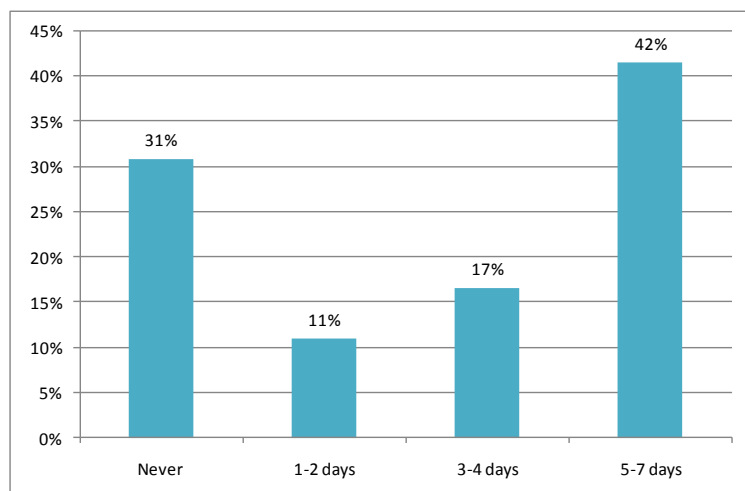
- StarMetro (Bus)
- StarMetro (Dial-A-Ride)
- Big Bend Transit
- Wakulla County Transportation
- None of the above
- Other



72 percent of existing transit riders use StarMetro in Tallahassee, while only two percent use Big Bend Transit or other providers. 26 percent of respondents indicated that they do not use any transit provider in the area.

### Question 3: How many days during the week do you typically use transit?

- 1-2 Days
- 3-4 Days
- 5-7 Days
- Never

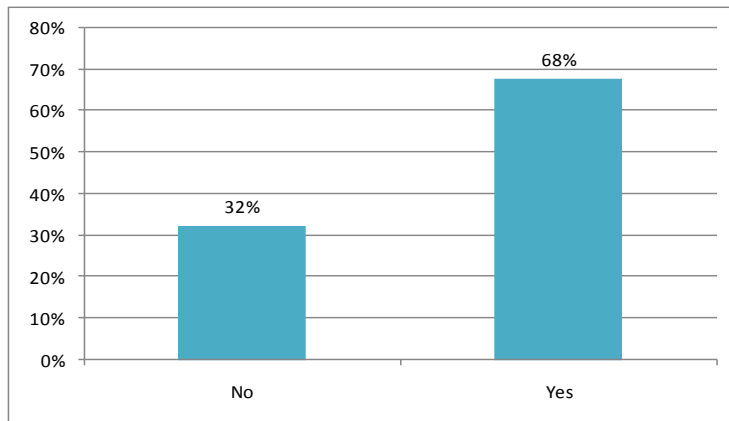


42 percent of transit riders surveyed use transit on five to seven days a week. 17 percent use transit three to four days a week, and 11 percent use transit one to two days per week. 31 percent of survey participants indicate that they never use transit.

## Regional Transit Study

### ***Question 4: Do you have convenient access to transit near your home?***

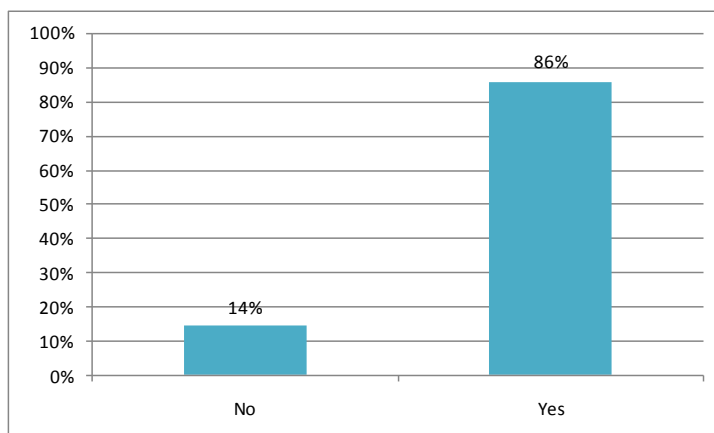
- Yes
- No



68 percent of survey respondents indicated that they have convenient access to transit near their home, while 32 percent said they did feel that their access to transit is convenient. This indicates that, as a whole, StarMetro provides adequate neighborhood transit coverage.

### ***Question 5: Do you have convenient access to transit near your work or school?***

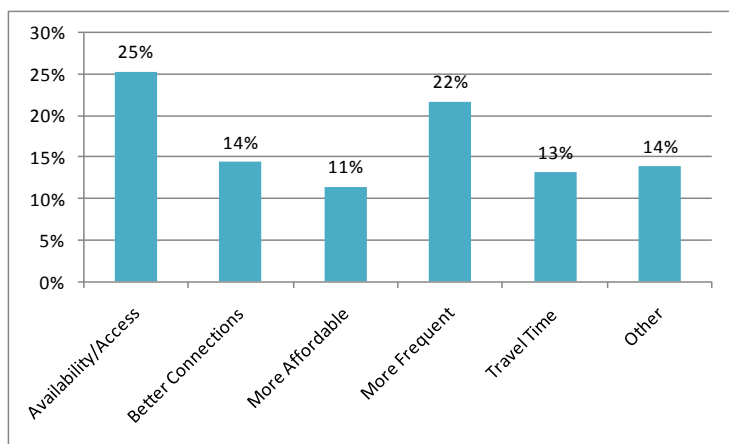
- Yes
- No



86 percent of the survey respondents indicated that they have convenient transit access near their work or school, while 14 percent indicated they do not. This indicates that StarMetro's route system serves most employment centers within its coverage area.

**Question 6: Which of the following would encourage you to use transit more often?**

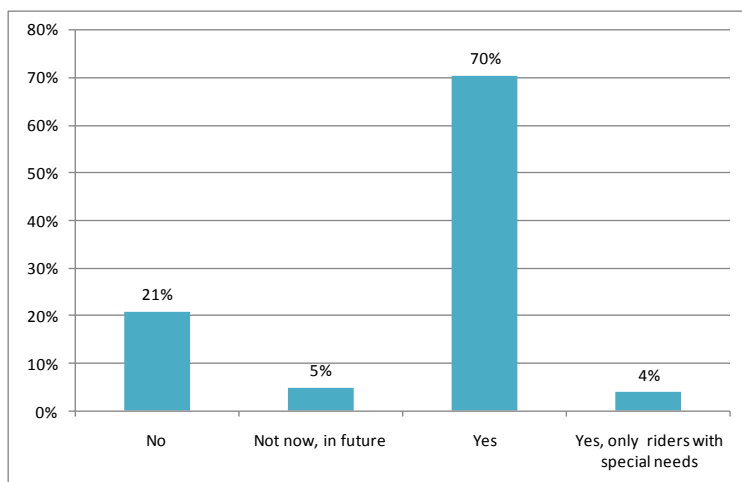
- Availability and improved access to transit
- Travel time savings compared to driving
- Better connections between transit systems
- More affordable than driving
- More frequent service
- Better connections between transit systems
- Other



Better availability and access was cited most often as a factor that would encourage greater transit usage. Better service frequencies was close behind, while all other responses fairly evenly distributed.

**Question 7: Is there a need for regional transit service between Leon, Gadsden, Jefferson and Wakulla counties and the City of Tallahassee?**

- Not at all
- Yes, it is needed
- Not now, but it might be needed in the future
- Yes it is needed, but only for riders with special needs



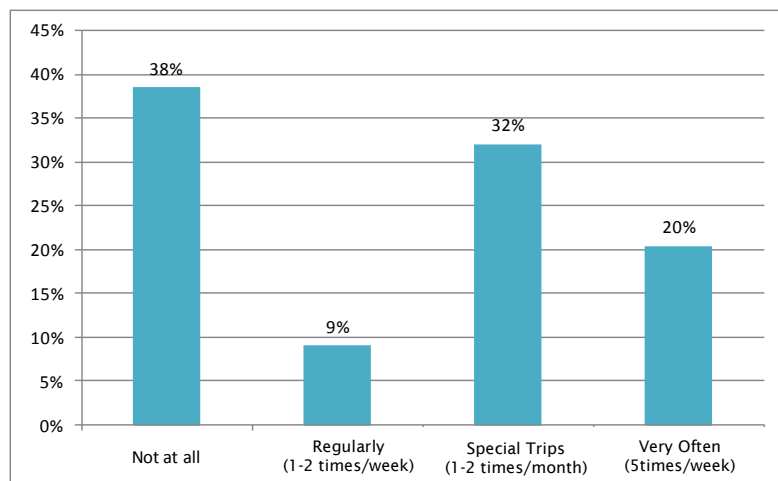
The majority of respondents (70%) indicated that they believe regional transit service is needed between the City of Tallahassee and rural Leon County and Gadsden, Jefferson, and Wakulla counties. 21 percent indicated they do not believe inter-county transit service is needed. The remaining 9% of respondents indicated that inter-county service may be needed in the future or simply for riders with special needs.



## Regional Transit Study

**Question 8: How often would you use public transit services, if available, for trips between Leon, Gadsden, Jefferson and Wakulla counties and the City of Tallahassee?**

- *Very often; I would use it daily for work or school trips*
- *Special Trips; I would use it for special trips*
- *Regularly; I would use it once or twice a week*
- *Not at all*

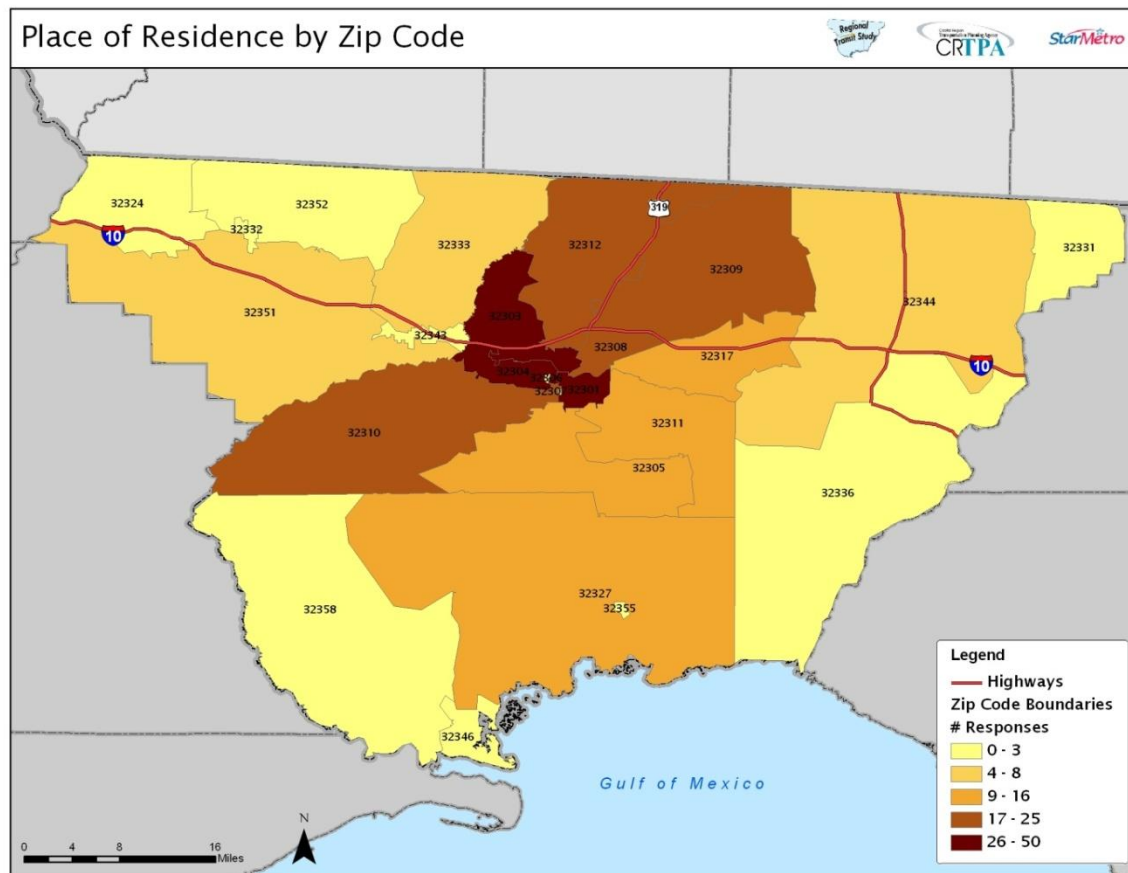


Approximately one-third of respondents indicated they would use inter-county transit service for special trips, while 20 percent indicated they would use it 'very often'. 38 percent said they would not use such a service at all.

## Regional Transit Study

### Question 9: Your place of residence:

- City\_\_\_\_\_
- Zip Code\_\_\_\_\_

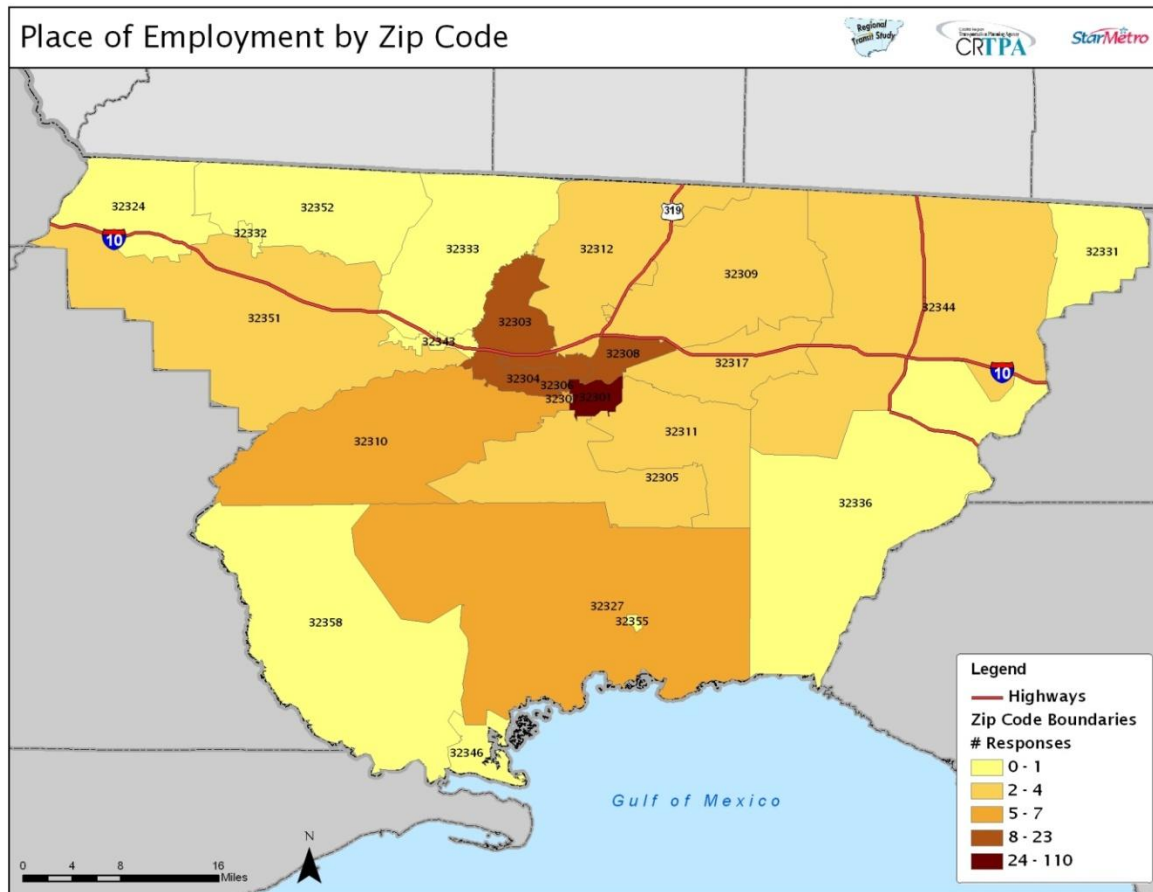


The above map displays the distribution of respondents' place of residence by zipcode. The majority of survey respondents indicated that they reside in zipcode 32301 (15%), which is within the City of Tallahassee. Areas northeast and southwest of Tallahassee also had a high response rate. The fewest respondents indicated they live in the furthest reaches of the outer counties of the CRTPA area.

## Regional Transit Study

### Question 10: Your place of work:

- City\_\_\_\_\_
- Zip Code\_\_\_\_\_

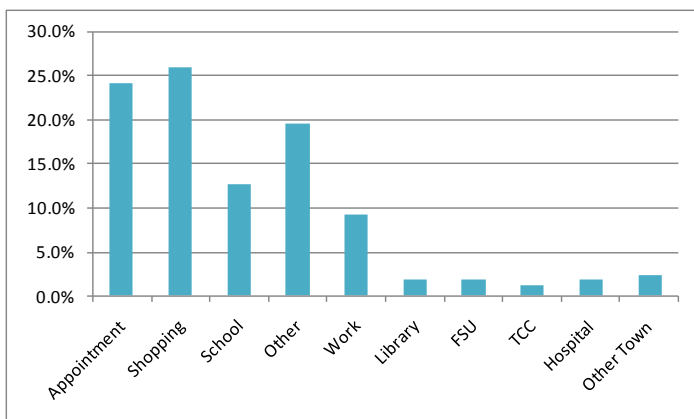


As would be expected, the majority of respondents indicated they are employed within the City of Tallahassee. Respondents' place of employment was more dispersed throughout the remainder of the CRTPA area, with slightly higher densities in Wakulla County and southwest Leon County.

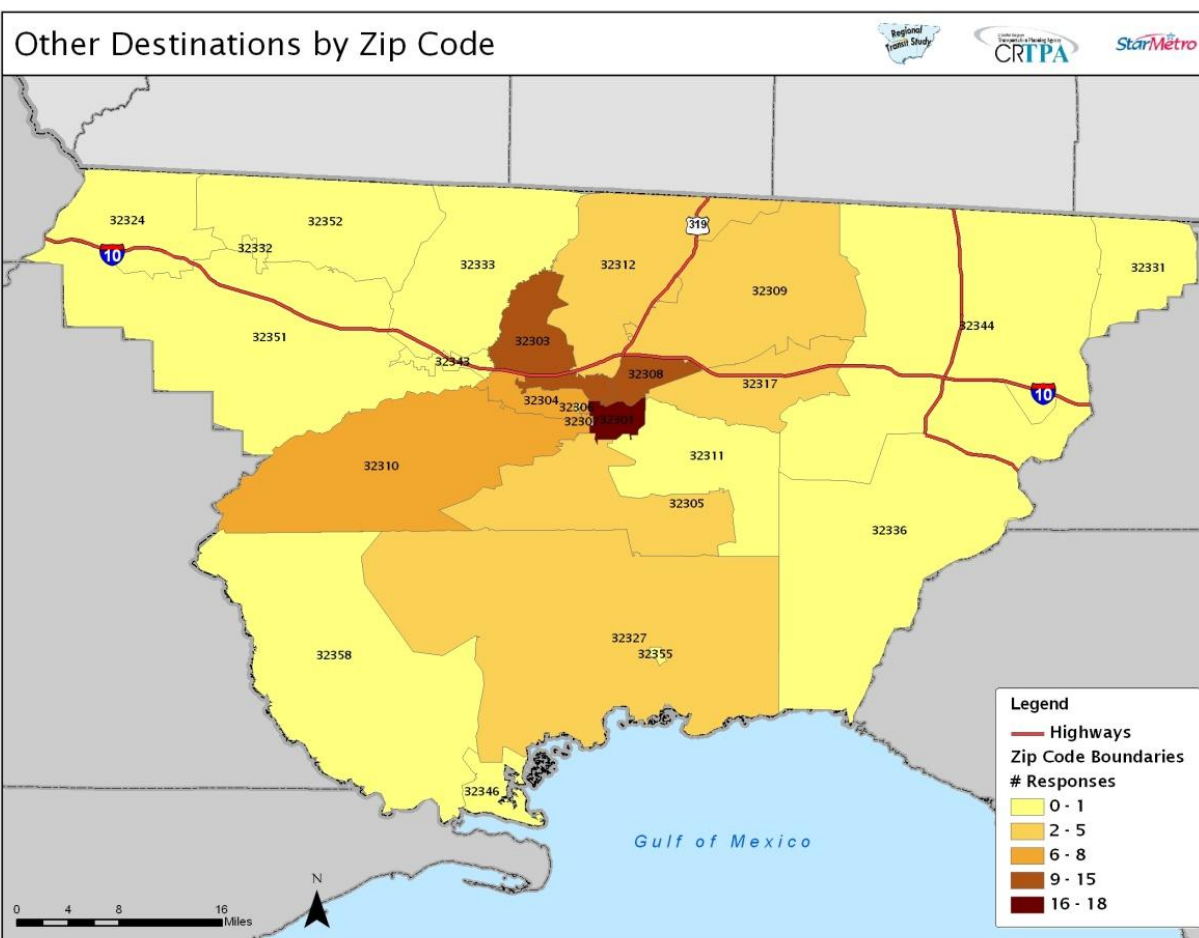
## Regional Transit Study

### Question 11: Other travel destinations (i.e. school, medical appointment):

- City\_\_\_\_\_
- Zip Code\_\_\_\_\_
- Type\_\_\_\_\_



Other destinations that respondents take transit to are typically concentrated within the City of Tallahassee. Shopping was cited most often, while appointments and school trips were also reported as frequent non-employment based destinations.



## Regional Transit Study

### ***Question 12: Please submit your additional questions, comments, and suggestions.***

141 respondents provided written comments and suggestions regarding StarMetro and rural transit providers in the region.

- Economic Development
- Extend Hours past 6pm
- More buses on some routes; very crowded to/from school
- Reduce Transfers
- Pleased with Service
- Reduce Cost
- Dining in transit center
- More buses on Route 20
- Reduce Cost
- Nights; Sunday Service
- Used only in special circumstances
- Nights & Sunday Service to Church and Wal-Mart
- Nights to Wal-Mart; Sunday Service start earlier by 9am
- On time; closer connections times
- Drivers need to be more polite; front seats should be reserved for elderly
- Should run on time; connections are bad; early and late service is needed
- Run bus down Mayhan
- Like it
- Bad connections (don't like Steel Plaza); too crowded; not enough drivers
- Need bus on Thoupe on Sundays
- Route 8 should be 1 hour not 40 min
- More frequent weekend schedule
- Free service - paratransit; bus stop at Abraham Milera Village; Bus Shelter at Meridian/Laure Lee & Meridian/Polk
- New Bus - 30 min + 1 hour
- extend night hours
- Extend night hours on Adam St
- Better planned service
- OK
- drivers are sometimes rude
- OK
- Ok; wheelchair users make bus late
- need more service in Tallahassee; more service in evening & early morning & Saturday; more frequent; OK
- OK, no sidewalk along #19
- Need more service
- OK
- OK
- OK

## Regional Transit Study

- Good service
- Good
- OK
- Small children ride free; more frequent service; Sunday service on #15
- OK
- #3 Pensacola St - missed trips/poor schedule adherence
- On-time
- OK
- Nights #21, 25, 26; Sunday service; Biotech to Bradford Hill
- Voice announcements - can't hear driver
- Later evening service; Extend 26 on Blackstone
- Confusing schedules; need more benches along #5; Bid Bend - poor service; Infrequent service
- Doesn't like radial trips to/from CK State and Transfers; drivers use personal cell phones - not responsive
- Frequency; Later evening
- OK
- Nice drivers, get money ready in advance, young patrons are not too nice
- Would go to Jefferson County everyday if available
- Lighting at stops; better bus shelters - seating/doors; water/rain protection; Sunday Service; more service to parks and recreation
- More at stops; drivers could be nicer
- Occasional use besides work
- More buses on routes - wait between buses is too long
- It would be great to have the service
- Shopping on Sunday service is needed
- Jefferson, Wakulla, and Gadsden are very popular places for people to live, would help reduce traffic on city roads
- Less crowded buses
- More service to Woodville
- Need additional routes other than every hour and better connection times during peak time (i.e. lunchtime and rush hour)
- Run later at nights
- Sunday service ends too early
- Good Service
- Drivers drive too fast
- Quincy
- OK
- Good service; no stop at Mental Health at VA Hospital
- Limited Sunday service
- Killarney, Thomasville Rd, Monroe
- Need service at Thomasville Rd in Gadsden
- Benches at Center Point Rehab Center #18; Winn Dixie Magnolia Drive; Shelters

## Regional Transit Study

- 1/2 mile to bus stop on Woodville Rd
- Bus stop at waffle House Super Center
- Woodville, Crawfordville
- More Frequent Sunday; Later Hours, bus pass expensive; Wakulla
- Quincy
- Monticello, Woodville, Gadsden
- Great as is
- Love Star Metro
- Place survey in Monticello news
- Good luck!
- Translate materials into Spanish for large Spanish-speaking population in Gadsden that commute to Tallahassee
- More commuter routes with minimal transfers/stops; bus rapid transit/separated bus lane projects; regional commuter rail via CSX corridors; peak period express bus to outlying communities
- Priority should be extending transit north of I-10 along Monroe, old Bainbridge Rd Corridor
- Because the communities of Wakulla County are spread out, the biggest benefit of transit would be for options to provide for commuters to work in Leon County
- need mass transit (Crawfordville to Tallahassee); bike lane along 319 Crawfordville to Tallahassee; Panacea to Crawfordville
- we need a mass transit system to be established soon in Wakulla
- Would like route that takes Capital Circle (319) between Kerry Forest Parkway and Park Ave (then down Park Ave into Town)
- Would LOVE to use public transportation if it was offered in my area
- I strongly suggest that transit service provided within the Westover Subdivision in Tallahassee
- Would like to see light rail explored
- Bring health benefits into the discussion
- Route 17 to 80x to CCOC if 2010 map changes take effect it would take 3 transfers to get to work - would never ride again
- An express route to Killeen from Southwood would be great
- Apalachee Parkway should be more pedestrian friendly
- Add bus link between 4 points to and from Southwood
- Rail system would be great for everyone, and our economy
- The buses in Tallahassee think they are a local art supply store or something. They run for all of a few hours a day with hours between buses and arbitrary days off. Tallahassee Buses should actually go places and run at times other than normal business hours. I shouldn't have to wait 3 hours for a bus near a major intersection.
- Would like to see a direct route from N.E. Tallahassee to CCOC complex without having to transfer.
- I've known others who have used the bus and they've said it takes forever to get anywhere because everything is routed through downtown (and downtown traffic). It would be incredible to have bike routes that actually took you somewhere in Tallahassee. That is, along any of the major thoroughfares - Monroe, Appalachee, Adams, Tennessee, Mahan, Capital Circle. It's really impossible to get anywhere in this

## Regional Transit Study

town without a car without having to ride in some very risky situations. Also, I'd love to have the bus route connect to the very northern tip of Leon County - at Monroe and Capital Circle. Or even better have a connector in Gadsden that took the many people that commute into Tallahassee from surrounding areas.

- Travel times are slow, but one of the biggest hurdles for me in the past was it would be nearly impossible for me to take my child to daycare and get to work using transit. I don't know if there is a solution to that seems fairly unsolvable though.
- I mentioned the need for regional transit service because I have several coworkers who live outside Tallahassee and say they would ride a bus if it were available. The StarTran buses are usually hot and often needing a bit of clean up (floors, seats); I have been using the 80X quite a bit and have found it useful. It cut my automobile expense by half. I don't know how to accomplish a reduction of transit time, but that is a factor for me. Using the bus adds an hour to my day. On time departures from the Steele Center would help some.
- Would like to see a focus on improving ride times and connections in Tallahassee as a major priority before bringing more people into the main station from outside the county.
- I have not ridden StarMetro in over a year. I rode it when gas prices were high and the PARC program was being promoted.
- I used to cycle as my primary mode of transportation and use mass transit as my secondary until moving to Tallahassee where there are no connecting bike routes or public transportation options. Instead of cutting down much needed forest to pour more concrete for single auto transportation I would like to see improved mass transit and (safer) bike routes.
- I would love to see public transit connecting Crawfordville to Tallahassee - even if it were just a one stop in Crawfordville to the downtown terminal in Tallahassee. In addition to the gas expenses from driving each day, I also pay for parking. The savings for me would be hundreds of dollars a month. Well worth it ...
- Continue to replace the older buses with smaller, greener ones. Majority of the time when I see the buses, they have not had many (if any) people on them. Personally, I would be interested in riding the bus if you had an earlier schedule. The 1st stop closet to my house doesn't get there until about 7:20 AM. With me starting work at 7:30 that doesn't allow me enough time to get to Strozier at FSU. A small shuttle or van to a couple of places at FSU from the hub would also be nice.
- I would be interested in: 1) a monthly pass that offered a cost savings over buying individual rides, and/or 2) a pass like a gift card that I could use at my convenience, which also offered a cost savings over buying individual rides.
- Regular (& ideally, frequent) bus service along Capital Circle, and outside it in developed areas, would be very useful. Starmetro's route 80X is a step in the right direction.
- I tried to ride StarMetro to work, but it added more than an hour to my commute each way because my bus to the downtown connector arrived 15 minutes after my bus that takes me to my office. I do not have the desire to spend an extra two or more hours of my day commuting just to save a few dollars. A park and ride system would be a major improvement with lines that go to specific areas of town.
- The old buss schedule was better for me - I can't leave my downtown office until 5:00 p.m. and do not care to wait until 5:30 for a bus. See if there is any way to get the busses to leave downtown at 5:10 or 5:15 and not 5:00!
- Even a daily rapid transit from Crawfordville to some of the state agencies would help
- I didn't know we had a service in Wakulla County? Is there a van pool in Crawfordville?



## Regional Transit Study

- I live in the City and it will take over two hours to get from my house to work using Star Metro. This is an 8.9 mile bike ride and a 10 mile Car ride. (one way) I would really like to see routes that don't go to and from the plaza. Loops that are routine, reliable and consistent. I live in the City limits and would like to see City Residents served before expanding to other areas.
- If the MPO is truly supportive of a multi-modal approach it should be willing to address biking infrastructure and biking educational issues. All the City and County Commissioners should try biking to work for a two week period to see how much more needs to be done.
- I have been riding the city bus (from Target to W. Pensacola) for over a year. Had to quit (temporarily) about a month ago because we work four ten-hour days during the summer. Will go back to riding the bus the middle of August. I enjoy riding the bus - read lots of books, interact with interesting people -
- I would use public transportation more if it provided more service into the evening hours when I work. The schedule on the 80X route during rush hour is problematic and causes difficulties in making connections at the Steel Plaza. Also, why not have a stop available on this route for the Mall?
- Zone improvement. It would be a waste to go all the way to CK Steele from east Leon County when I work on Capital Medical Blvd. Having a transfer point say at Publix 3111 Mahan or similar then continuing on to Capital Medical Blvd. would make more sense for me. Thanks!! Park and Ride areas might be cost effective from East Leon county and other outlying areas.
- Better ability to transfer between buses/routes other than CK Steel Plaza. While I do not travel to Jefferson, Wakulla or Gadsden counties for work, I know of many who commute from there into Tallahassee. A program like the 80X should encourage them to ride.
- In future, your surveys could benefit from maps to better define destinations. The closest StarMetro stop is 3/4 mile from my house. I would use StarMetro if it picked up more frequently from my area and had direct routes on the main arteries of the city. Why isn't there a bus that runs repeatedly from Havana down North Monroe to downtown Tally? Why isn't there a bus that runs from Killearn Lakes directly down Thomasville Road to downtown Tally? Why isn't there a bus that runs directly from downtown Tallahassee down Monroe Street to Woodville? A bus from my Fred George/Crowder road neighborhood to Tallahassee Mall, a distance of 4 miles, takes an hour because I have to take a bus downtown and then another back out to the mall. Right now, it's cheaper and faster to drive and almost fast to walk. The perceived benefits don't out way to inconveniences.
- Need a direct connection from the area around Indianhead Acres to Southwood without having to go to the hub. I think you would get a lot of riders if it was available.
- I ride a bike to work 5 days per week. I am virtually stuck in my building because of that. The only time that I drive is when I have an appointment outside of work. I would like to use the bus for this but frankly don't have the time to figure out the bus route schedule, and find it difficult to plan not knowing how long it will take to travel. If there was an interactive way to input start and destination addresses (sort of like Mapquest for bus routes) with the resulting bus schedule as the output, I think that would be very helpful!

## Regional Transit Study

- I am fairly happy with my StarMetro service, but I think it works out well for me because I happen to live near a bus line and I happen to work at FSU and the pickup times happen to work with what time I have to be at work, so I have no problem getting to and from work. However, there are a few things that I would like to see.

  1. More frequent service. I might be able to use the StarMetro more to go to medical appointments and other things besides just to and from work if buses came more often. As it is, I'd have to take off 3, 4 or more hours of work to get to and from a doctor's appt, when taking the car I'm only out of the office for about 2 hours. So on the days I have to leave work and come back, the bus is not an option, and I end up driving my car to work on those days. If more bus routes ran more than once an hour, short trips like this would be more convenient.
  2. More routes that go farther out in Leon County. I could visit friends and family who live farther out of the city than I do. I also have family and friends who say they would use the bus if there were a route to pick them up. In general, the destinations I could reach on the bus would be increased and I would use it more.
  3. Possibly a few more transfer stations. It would help a lot of people. For example, I know a family that lives in eastern Leon County. The husband works in one of the State offices in Southwood. Technically, he could have his wife drive him a mile or so to catch the nearest bus, ride it all the way downtown where he could catch the 80X to Southwood, but that would be a huge waste of time. He would probably spend at least an hour of travel time on that, whereas using his own vehicle I believe it takes him 20-25 minutes to get to work. Perhaps there could be more routes transferring at Governor's Square? Right now the 25 and 26 go there, but they both serve a small area that has some overlap. If an express shuttle like the 80X could take off from there and go to Southwood and other destinations, and several bus lines from the eastern part of town drop off there, it might make it more convenient to a lot of the people living in the suburban areas of eastern Leon County to get to work via StarMetro.
  4. StarMetro service needs to start earlier on Sundays. No one can ride the bus to church because the buses don't start running until around noon!
  5. I would like it if StarMetro service ran just another hour or two later at night. I suppose you might run into security issues here, so it may not be plausible, but if it were possible, I could also use the bus to come home from evening activities. The condensed night routes are all well and good, but if the closest I can get to home at 8:30 pm is a mile from home, I don't consider that an option because walking alone late at night can be dangerous, particularly for a woman. Some riders live even farther from a night route than I do and I think the safety issue could be keeping a lot of them from using StarMetro.
  6. I would love it if the 80X ran on weekends. I could take it out to Target and some of the restaurants and other stores on the 80X northbound without having to drive waaaaay out north of town. Despite my many suggestions, the bus is convenient for me as a way to get to and from work, although it does add some time to my commute, but I would like to see more people in our community have this available to them. I think public transportation is great, and at this time of high gas prices and economic uncertainty, public transit has a great chance of drawing more customers than it might otherwise, and if it then shows its new customers how easy and economical riding the bus is, things could really change for the better. Right now is the time to attract riders who DO have cars, but would like an alternative. StarMetro has a captive audience in those who don't have any other way to get around, but there is a largely untapped market in the people who own cars, but are looking for ways to cut costs. I hope this study contributes to expansion of the public transit system in this region, not just for my own personal convenience, but because it would help so many people, as well as help the environment. Thanks for doing this!
- Given the opportunity, I would take the bus to work at least 3 days a week. Even a park and ride spot in Woodville would be great.

## Regional Transit Study

- Three-four days per week, I drive to a shopping mall parking lot near my home, ride bus 80X to the Steele Plaza, and then walk to my office. In the afternoon I ride bus 26 to the Steele Plaza, transfer to bus 80X for the ride to my car and then I drive home. My biggest issues are (1) the majority of routes operate only hourly, and (2) many do not operate on weekends. If they were more frequent (30 minutes maximum) I could use the bus to go to medical and other appointments. I would also use them occasionally on weekends.
- StarMetro should decentralize routes to superstops throughout city. Transit service must be reliable. Current transit is not reliable and don't meet demand.
- In addition to my husband and I, we have a disabled adult family member living with us who is unable to drive. She is totally dependent on us for her transportation for we do not have any type of transit services available for her.
- If residents could purchase a monthly card for a reduced fare and transit was more readily available my husband would probably use it to get to work which is 2-3 miles from the house instead of driving.
- Please have StarMetro make 1 additional stop on Paul Dirac Drive. There is a recess in the road right outside of the Don Fuqua Research Complex that is ideal for a new bus stop location. Service to this location does not need to be frequent - maybe 1 per hour is fine, but they should also run later in the evening - maybe a 6PM/7PM last run back to the downtown headquarters. The #20 bus could easily be extended to service this new stop if some of the stops in Alumni village were eliminated. However, this would then require the X80 bus to SouthWood to make a later run at 7:30PM.
- I can ride the bus to work easily, but if I have any meetings after work or other activities, the bus stops running after general work hours. I carpool on the days I have other activities when I could simply take a later bus. I would like service to extend into the evenings. This would also be better for people who have the option of taking the bus at night instead of drinking and driving. PLEEEAAASSE do not let the City Commission cut services. I use route 9 frequently. If we are planning for the future, we need to have a better transportation system and convince commuters that it is a viable alternative to driving. There are too many Single Occupant Vehicles in Tallahassee and future development may make it worse if we do not improve bus service now. Some households are dependent on the bus and cutbacks in services will seriously affect them. Route 9 is a corridor of employment centers (Monroe St). People in the many apartments and affordable rentals along route 9 would have to take an hour to get to work (including a stop at the station) instead of the convenient 15 minutes it takes them now. Please do everything you can to encourage the City Commission not to cut services but expand services!!!! Thank you!
- I would love to be able to ride the bus to places that have bad parking. I sometimes have business at FSU and would love to be able to ride from the Lagniappe Wal-Mart area into town. I would not be against riding the bus for errands either, if I could catch it within walking distance of my house.
- I enjoy using the bus system, however on my side of town most of us who catch the early bus have to walk at least a mile from our places of residence to the nearest stop. I stay in Cedar West and have to walk to Godby every morning to be to TMH by 7. This commute is dangerous for me because not only is there no early morning bus but there are also no sidewalks or lights. If there was maybe one early morning bus that could do something of a 'sweep through' round the outer parts of town it would be greatly appreciated.

## Regional Transit Study

- There is no bus service in my area, Indianhead. I am legally blind. That means I don't get a chance to take part in any after-hours activities. The bus doesn't come near me and Dial A Ride won't go where the bus doesn't go. I can't even get a ride to church. This borders on discrimination. But, I do understand the economics. I was forced to sell my home in Wakulla where I'd lived for over 20 years because there is no public transportation between Wakulla and Leon Counties. I would use the bus daily if it were available to me. Now I use a cab service for after-hours activities which is dreadfully expensive, but it is the only choice available. I would like to see train service to various destinations within Florida such as Jacksonville, Orlando, et al. Also, the bus terminals need to be in safe, well-lit, and accessible areas. I think way too much time, money, and energy is being spent on roadways and individual driving when mass transit has been woefully neglected.
- I walk 1.25 miles from nearest 80X bus stop in the Koger Center to my house. I really appreciate you extending the 80X service to my work and my children's school. I understand that certain extensions may not be economically feasible, but can only be met when there becomes a demand for the service. Keep up the great work! If there could be a closer connection from the bus stop to neighborhoods or at least more sidewalks on roads like Apalachee Parkway & Richardson Rds for walking from the last bus stop to the nearest neighborhood.
- I would also use a park and ride from a central Wakulla County location if it were available; While carpooling has certainly been a great savings, public transit would be an even better solution if it provided an acceptable schedule for 8-5 work days
- How much would the bus fare be? What time schedule would it keep? How long would it take to get a bus route for Lake Lafayette on Apalachee Parkway? Buses would reduce wear and tear, accidents, other advantages over single people in cars
- need to switch to small vans and get rid of the big buses

## **4.0 Summary**

Based on the sample size and location of the respondents that completed the survey, some preliminary conclusions can be made to better understand the transit needs in the region. Most respondents indicated that their place of work in the following zip codes: 32399 (24%) and 32301 (21%). Most respondents indicated that they travel to other destinations in the following zip codes: 32301 (18%), 32308 (16%) and 32303(14%). The highest home to work origin to destination pattern indicated in the survey was travel within zip codes of 32304 and 32309 (both 5%).

The results of the survey did show that there were respondents that reside outside of Leon County and the City of Tallahassee that travel to in-town for work and for other related trips, with very few respondents making the reverse commute. Very few respondents make trips from one outer county to another outer county.

The survey also gauged the attitudes of respondents regarding existing transit and their needs. Some common themes that were derived from comments and suggestions from the survey, which included:

- Extend hours of service during the evenings and Sundays
- More frequent service
- Extend StarMetro service outside of City of Tallahassee and Leon County
- Provide more transfer opportunities between bus routes
- Improve travel time on buses
- Develop park & ride and express routes to serve outer counties

A majority of survey respondents, 74%, indicated that they would indeed like to see regional transit service provided between the City of Tallahassee and the counties of Gadsden, Jefferson, and Wakulla. Further, a majority of respondents, 64%, said they would use the service occasionally often. However, 38 percent indicated they would not use such a service at all. This may be due to lack of the existing need to use service outside of the City of Tallahassee. Given that the majority of survey respondents are current StarMetro transit riders, their attitudes towards regional transit might negatively skew the true amount of respondents that would use regional transit. A greater need may exist for residents in outer counties making trips to the City of Tallahassee and Leon County for work, school, medical appointments and shopping related trips.

June 2009

# REGIONAL TRANSIT STUDY



## Technical Memorandum #2 Baseline Data

*Prepared for:*  
**Capital Region Transportation Planning Agency**  
408 N. Adams Street, 4<sup>th</sup> Floor  
Tallahassee, FL 32301

*Prepared by:*  
**HDR Engineering, Inc.**  
1180 Peachtree Street, Suite 2210  
Atlanta, Georgia 30309-3531





**CAPITAL REGION TRANSPORTATION PLANNING AGENCY  
REGIONAL TRANSIT STUDY**

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***June 2009***





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## **1.0 Introduction**

This technical memorandum documents baseline demographic and transit operator data and assesses existing and future transit needs and opportunities in the four-county Capital Region (Gadsden, Jefferson, Leon and Wakulla counties). The identification of transit service needs and opportunities will provide a basis for development of transit service options and institutional structures to be included in short and long range transit service plans for this study.

Included in this report is a compendium of demographic indicators and existing plans relating to transit. An inventory of existing transit providers and profiles were developed to describe the services provided. Finally, a peer analysis was undertaken to compare transit services in the Capital Region to other transit systems in the U.S., comparable in size and service type.



## **2.0 Base Data and Existing Plans**

CRTPA prepared base demographic data derived from 2000 U.S. Census Data and updated for a base year of 2007. The base demographic data was used to assess existing transit service in the Capital Region and to compare it to future projections to determine the transit market potential inter-county (between counties) and intra-county (within each county). This section also includes a review of existing plans that were summarized to determine near and long-term transit initiatives and goals in the region.

### **2.1 Demographics**

Current population, employment, and other demographic variables (elderly, populations; disabled; dwelling units by type; auto ownership; employment by type; and median household income) data was collected to understand the existing conditions in the study area for comparison to future forecasts in Technical Memorandum 3 to determine transit potential.

#### **2.1.1 Existing Population**

Population estimates for year 2007 were updated by the CRTPA using the U.S. Census Bureau by block group datasets. Data was aggregated to the TAZ level by determining which block groups fell within each TAZ. The base population data will be projected to a future year and analyzed in Section 4.0. Figure 2-1 displays population by TAZ in the study area. Figure 2-2 displays 2007 population density at the TAZ level for the Capital Region.

#### **2.1.2 Existing Employment**

Employment estimates for year 2007 were obtained from the Florida Department of Transportation (FDOT) and InfoUSA, geocoded and aggregated to the TAZ level by CRTPA. The base employment data will be projected to a future year and analyzed in Technical Memorandum 3. Figure 2-3 displays 2007 employment by TAZ in the study area.

#### **2.1.3 Other Demographic Indicators**

Other demographic estimates were prepared at the TAZ level. Socioeconomic data was collected from the 2000 U.S. Census Bureau. Auto ownership data was collected from the U.S. Census Bureau and interpolated for Year 2007. Figure 2-4 provides a percentage of zero auto ownership for single-family dwelling units. Figure 2-5 displays the percentage of zero auto ownership for multi-family dwelling units. Figure 2-6 displays the median household income for Year 2000, which divides households into two equal segments with the first half of households earning less than the median household income and the other half earning more. Figure 2-7 provides a map of the disabled population for Year 2000, which includes all disabled persons that have mental, physical, self-care, sensory, employment, or a go-outside-of home disability. Figure 2-8 displays the student population that includes those persons enrolled in a public or private university, for graduate or undergraduate study, for the Year 2000. Figure 2-9 displays the elderly population (persons over the age of 65) for the Year 2000 in the four-county region.



Figure 2-1: Year 2007 Total Population

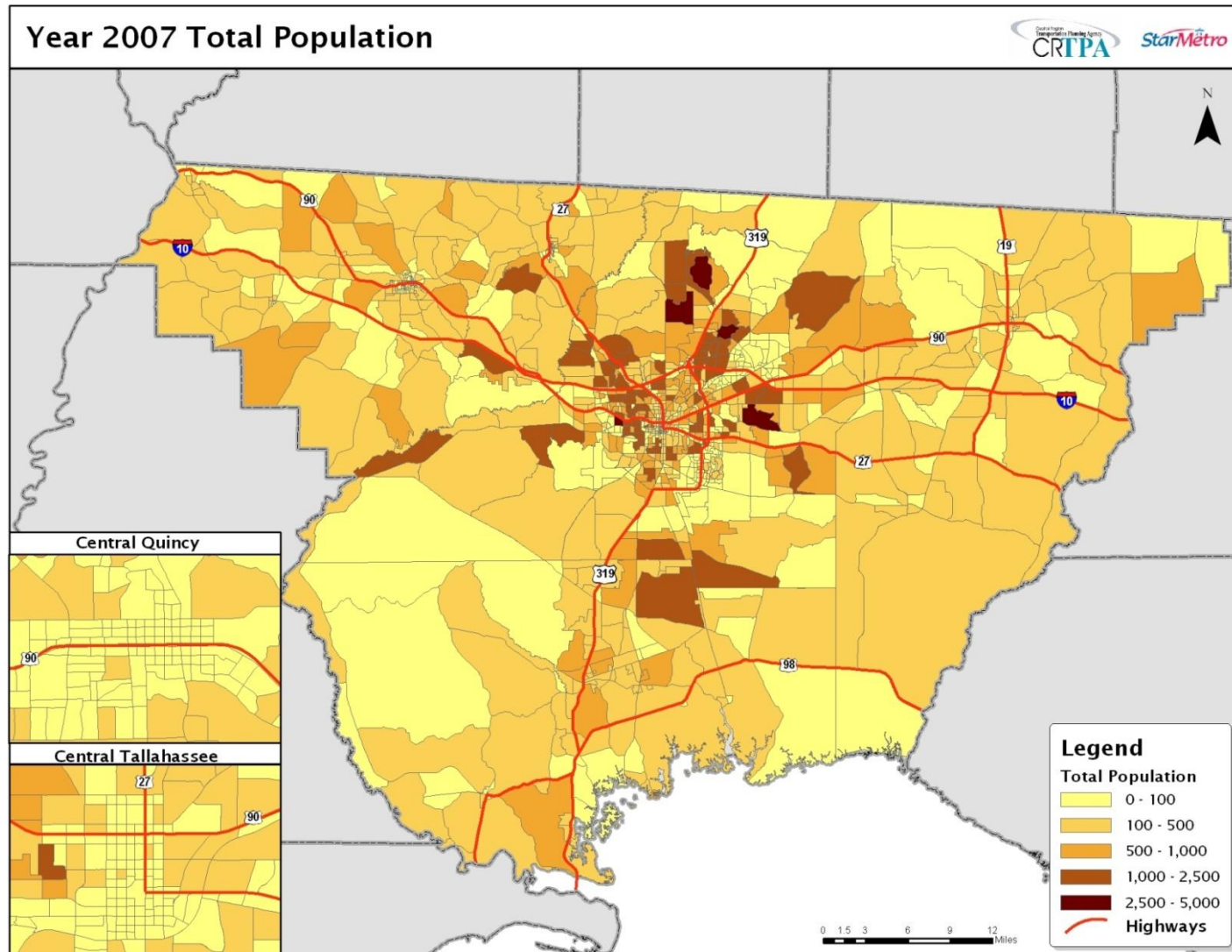


Figure 2-2: Year 2007 Population Density

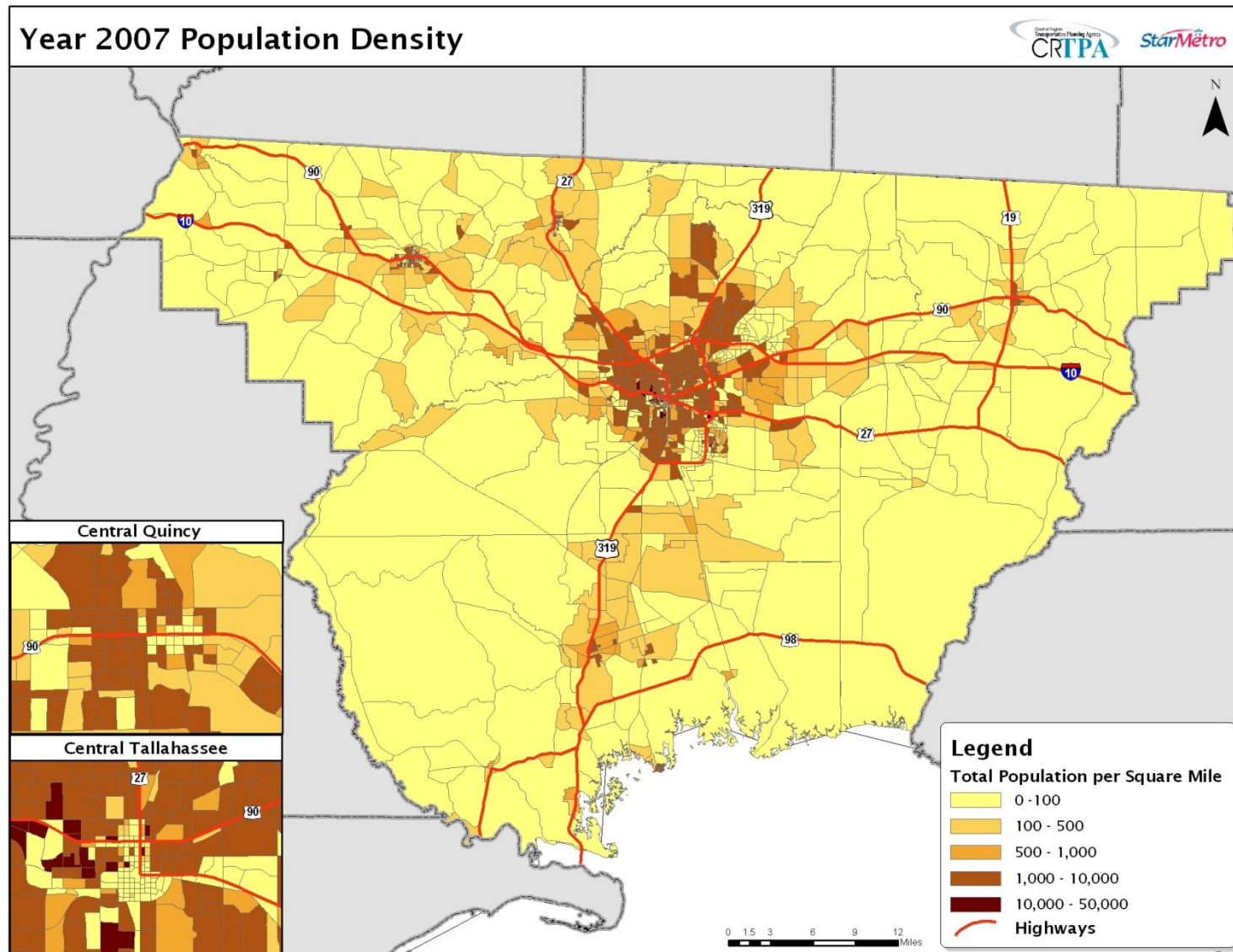


Figure 2-3: Year 2007 Total Employment

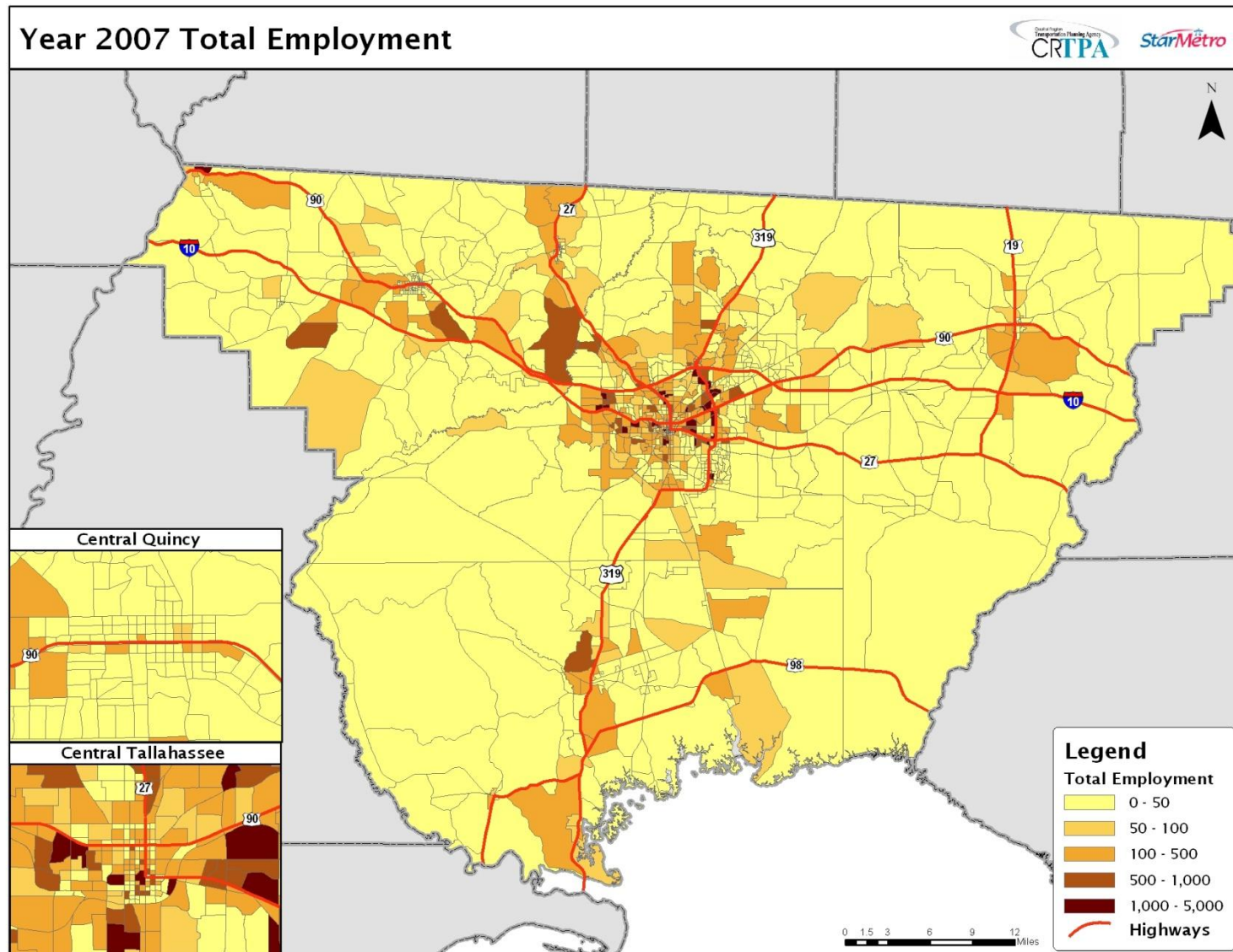




Figure 2-4: Year 2007 Zero Auto Single-Family Dwelling Units

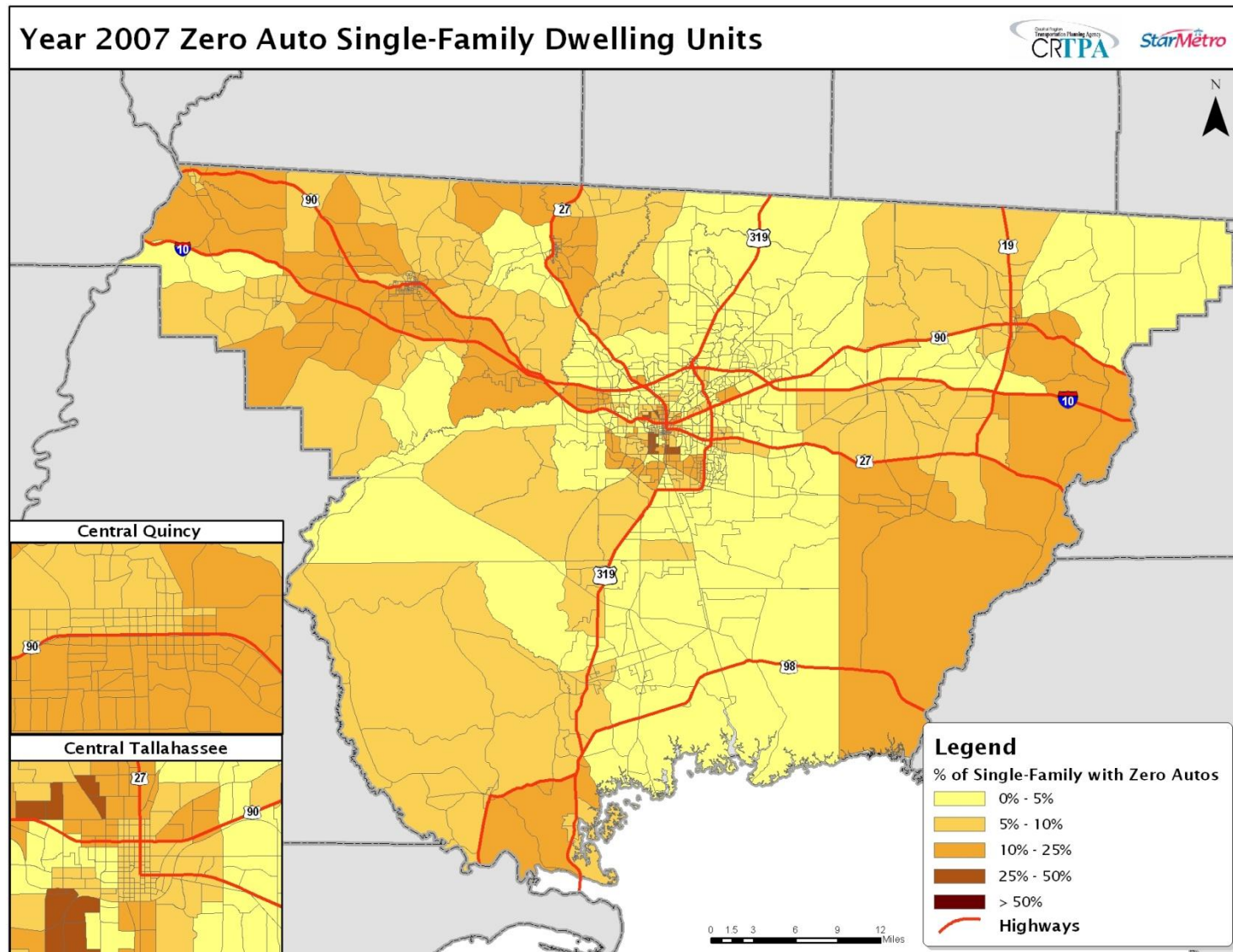


Figure 2-5: Year 2007 Zero Auto Multi-Family Dwelling Units

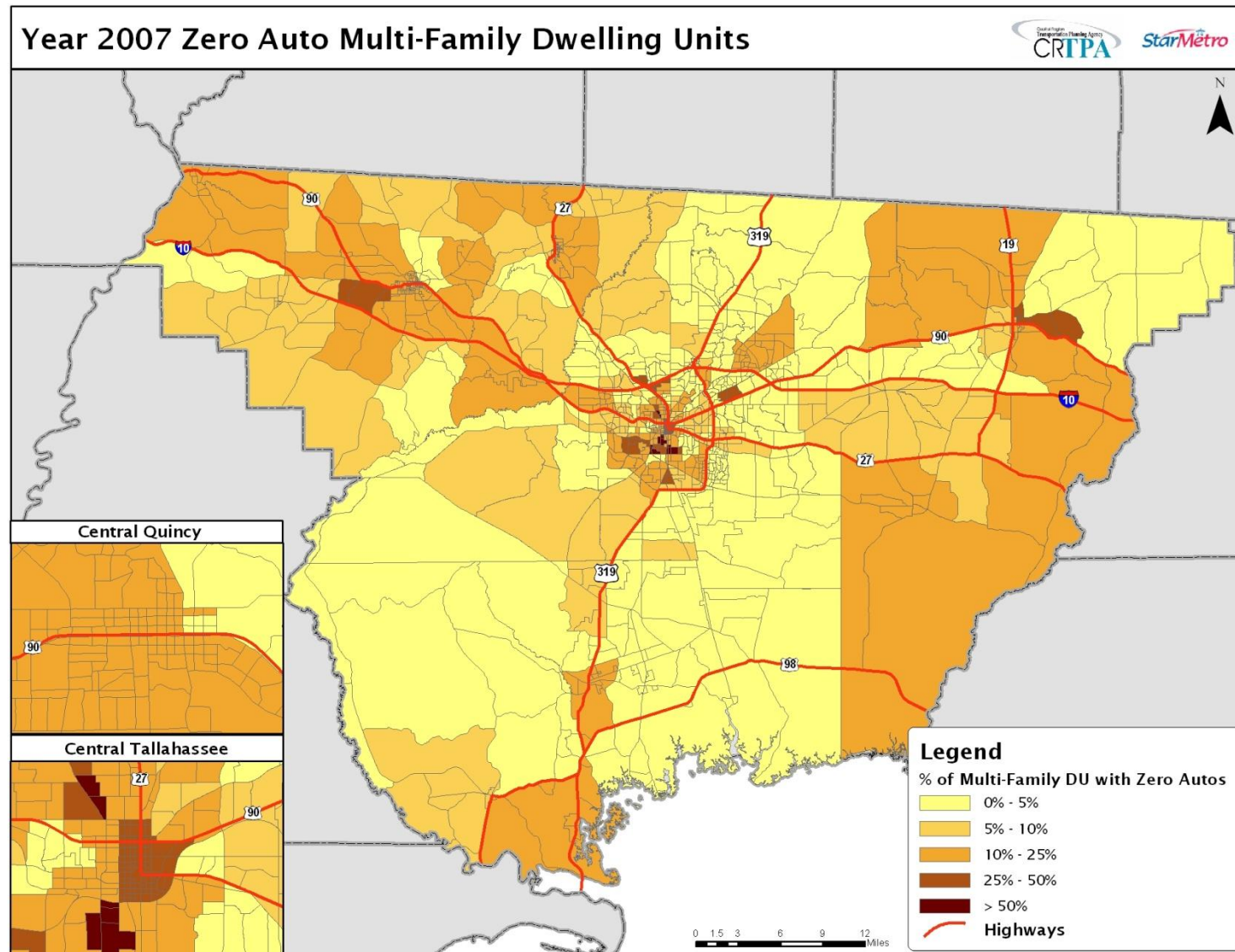


Figure 2-6: Median Household Income, 2000

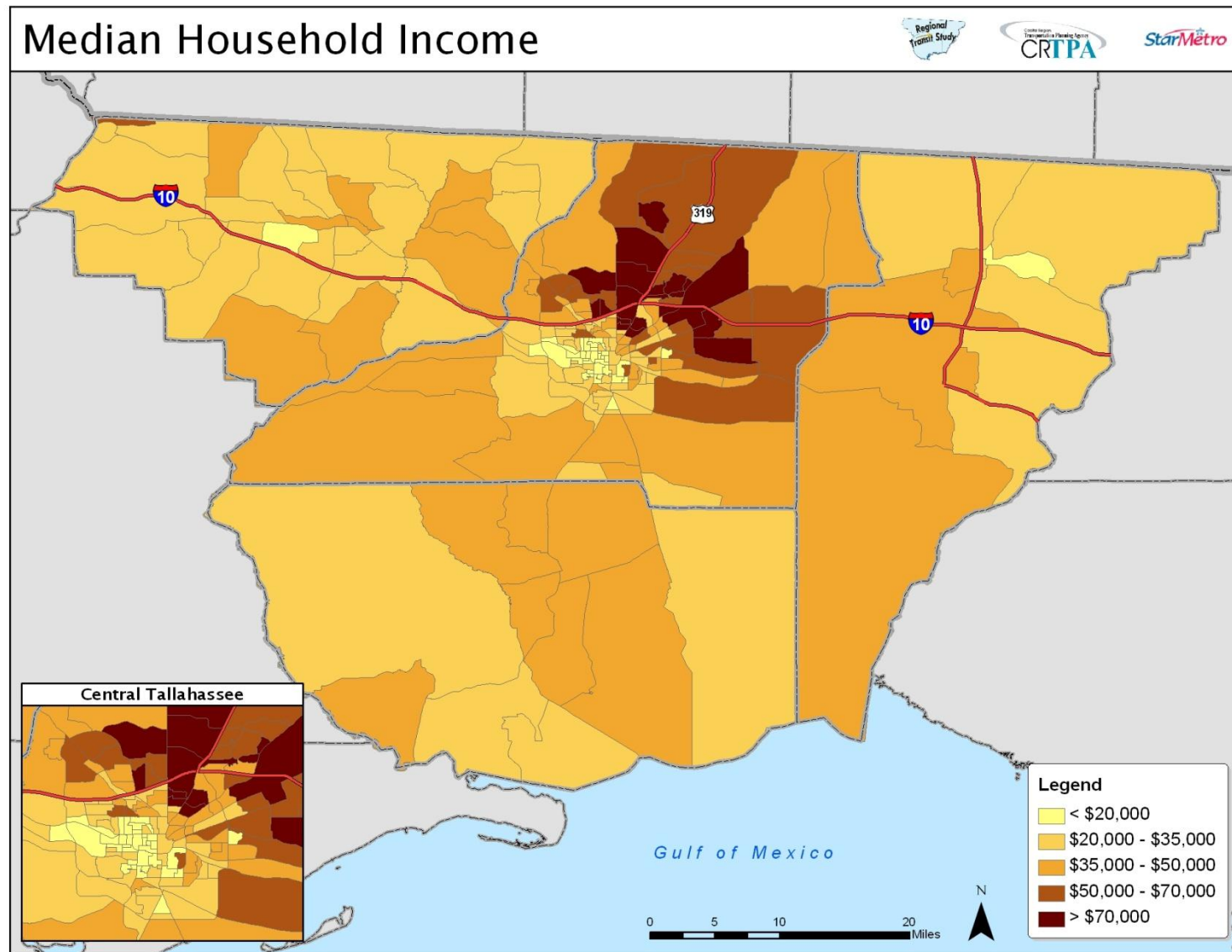




Figure 2-7: Persons with Disabilities per Total Population, 2000

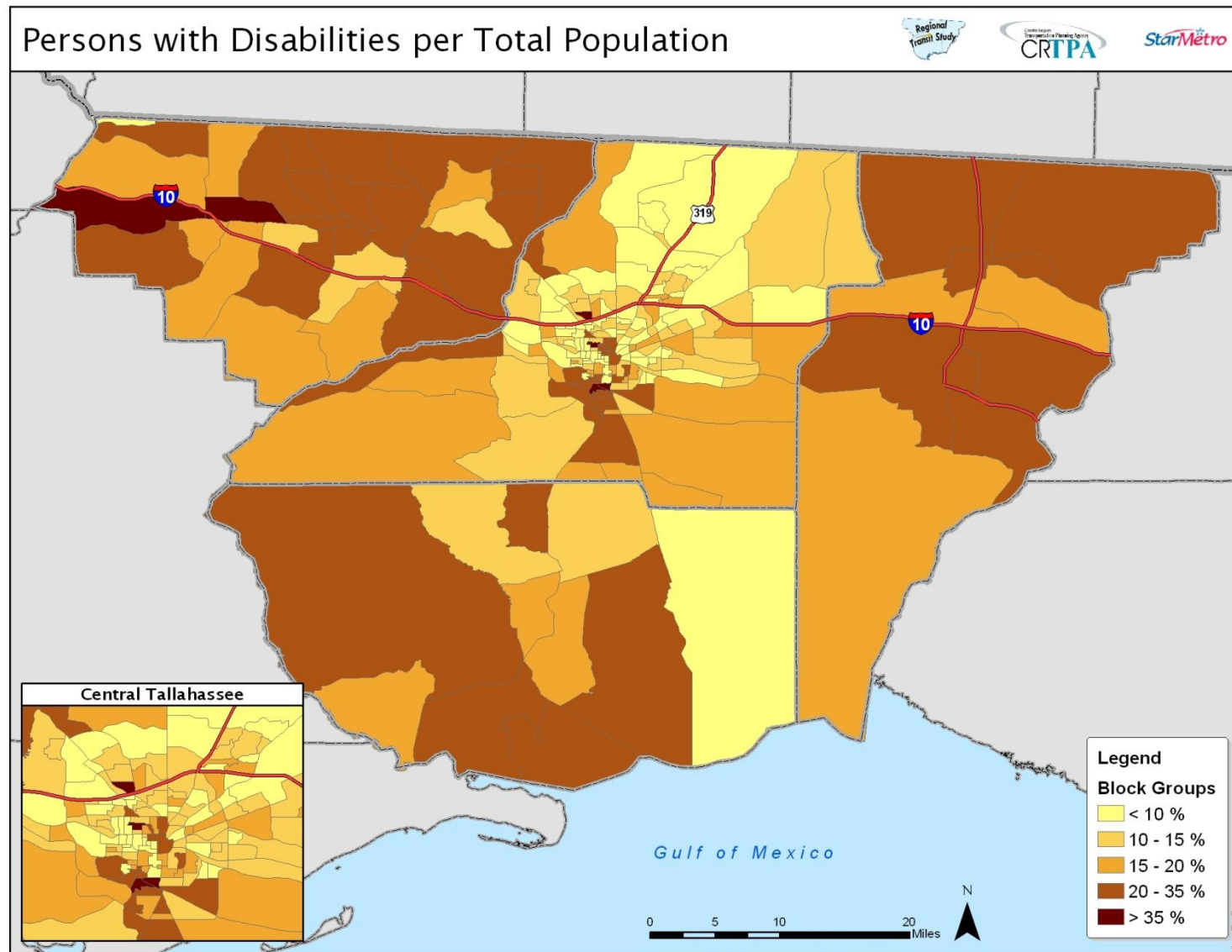


Figure 2-8: Student Population per Total Population, 2000

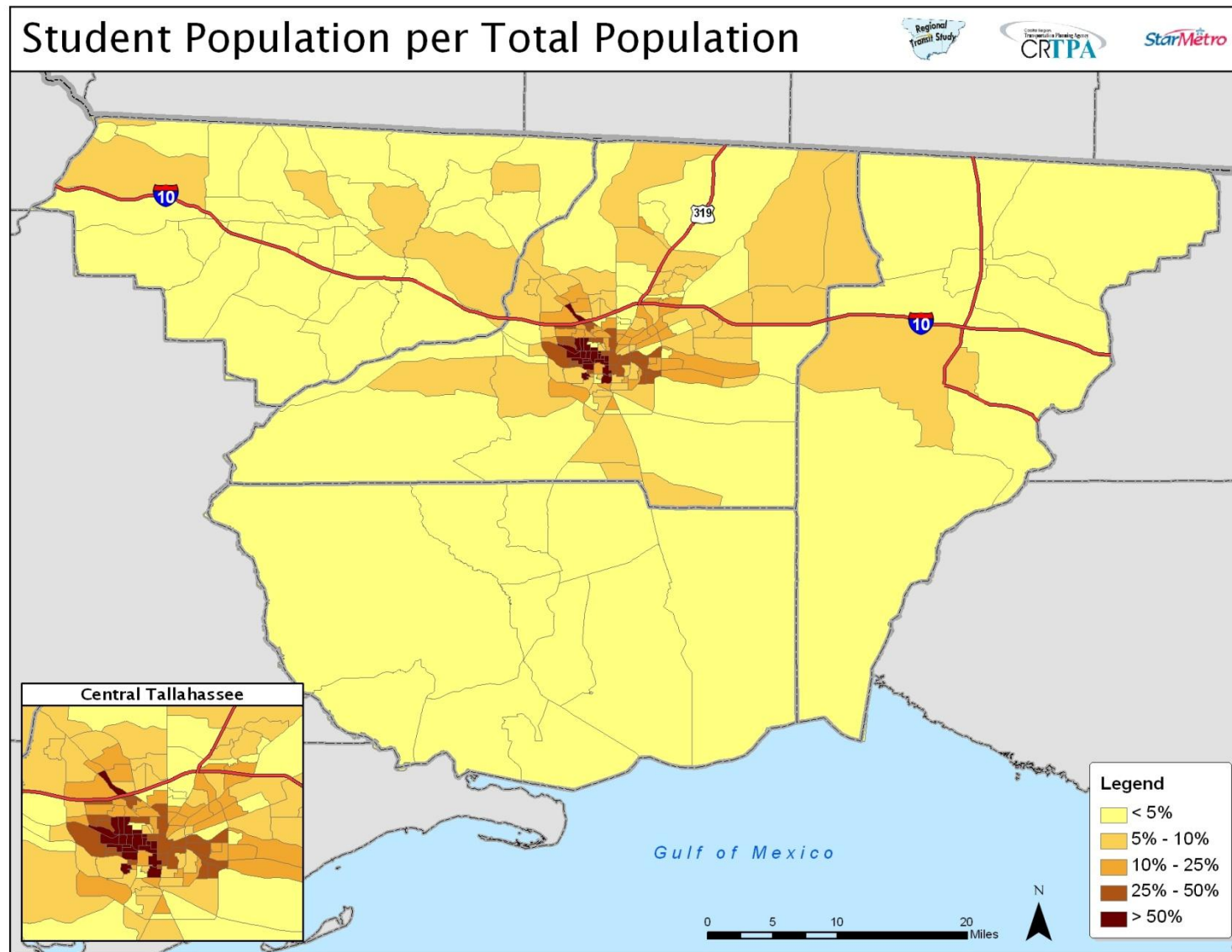
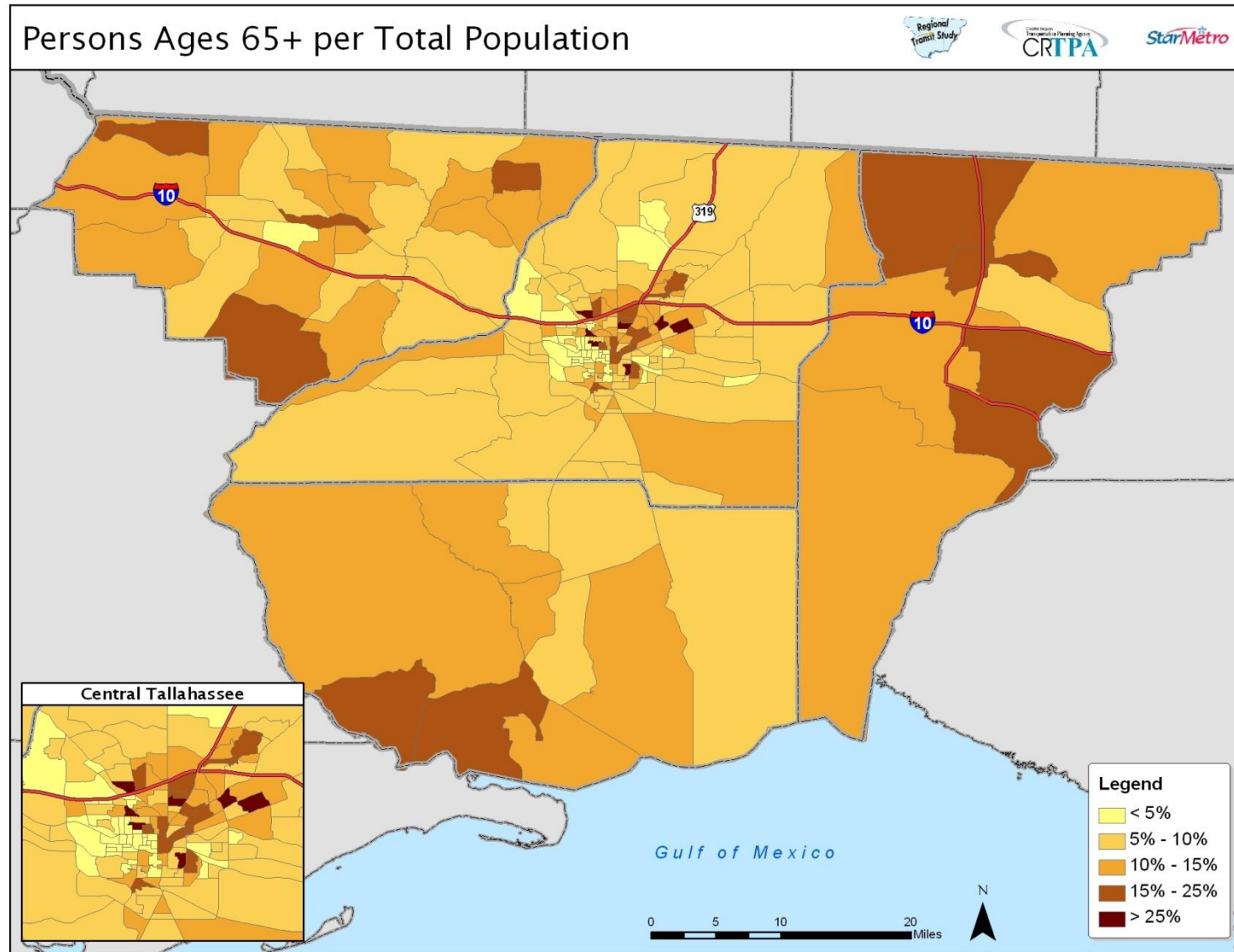




Figure 2-9: Persons Ages 65+ per Total Population, 2000



## Regional Transit Study

### 2.2 Existing Transit Plans

The following transit plans were reviewed for consistency with the Regional Transit Study and identify future transit needs and service in the four-county Capital Region:

- *City of Tallahassee Transit Development Plan Major Update: 2006-2015*
- *Tallahassee-Leon County Comprehensive Plan*
- *Capital Region Transportation Planning Agency Year 2030 Long-Range Transportation Plan*
- *Commission for Transportation Disadvantaged 5 Year/20 Year Plan*
- *Apalachee Regional Planning Council Strategic Regional Policy Plan*
- *Florida State University Campus Master Plan*
- *FAMU Campus Master Plan*

#### 2.2.1 City of Tallahassee Transit Development Plan Major Update: 2006-2015

The Center for Urban Transportation Research (CUTR) produced a ten-year Transit Development Plan (TDP) in November 2005 for the City of Tallahassee as a guide in the future development of the transit system. The TDP identified the projected transit needs and recommendations in order to meet those needs. Below are goals, policy objectives and recommendation developed in the TDP to address future transit needs:

##### Goals and Policy Objectives

- *Goal 1 – Consistently provide and constantly improve effective, safe, and reliable public transit services to the residents and visitors of Tallahassee*
  - *Provide bus service at appropriate times, frequencies, and locations*
  - *Identify the appropriate service area for TalTran*
  - *Improve access for person dependent on transit*
  - *Consider markets for new and/or expanded transit service, particularly at employment sits and major trip generators*
  - *Establish ongoing driver training programs*
- *Goal 2 – Maximize efficiency of the TalTran fixed-route system*
  - *Develop routes and transfer locations that decrease travel time*
  - *Monitor overall system performance, as well as individual route performance*
  - *Coordinate transit service with the Community Transportation Coordinator (CTC)*
  - *Evaluate appropriate technologies to enhance service delivery*
- *Goal 3 – Improve financial stability and secure adequate funding for the transit system*
  - *Communicate financial position to government and businesses*
  - *Identify taxing alternatives for transit*
  - *Review maintenance efficiency*
  - *Initiate advertising programs for shelters, buses, and the downtown transfer*

## Regional Transit Study

*facility*

- *Increase non-tax-based revenue*
- *Goal 4 – Add new amenities and maximize the use of existing passenger amenities*
  - *Provide bus shelters with information kiosks and/or benches at highly used bus stops and transfer locations*
  - *Develop a bus stop inventory to assess the accessibility of existing stops and catalog existing amenities (e.g., telephones, lighting, shelters, benches) at each stop)*
- *Goal 5 – Improve the image and increase marketing strategies of TalTran*
  - *Increase the visibility of TalTran through creative marketing efforts*
  - *Promote advertising in and on the buses and shelters, and at C.K. Steele Plaza*
  - *Update logo and color scheme*
  - *Increase user-friendliness, availability, and distribution of route and schedule information*
- *Goal 6 – Build and maintain a knowledgeable and motivated employee team*
  - *Instill organizational responsibility*
  - *Increase employee proficiency and reliability*
  - *Improve hire techniques and practices*
  - *Improve visibility of management*
  - *Maximize diversity in job tasks*
- *Goal 7 – Coordinate the transit system with planning efforts of all government entities and institutions of higher learning*
  - *Integrate transit needs into the land use planning and development process*
  - *Coordinate with local governments for the construction of accessible sidewalks, bus stops and other bus stop improvements along existing roadways*
  - *Continue to coordinate with state and local agencies regarding the integration of transit in land use planning and development process*
  - *Work with local government to require developers to include public transportation-compatible designs in their projects*
- *Goal 8 – Comply with governmental regulations*
  - *Adhere to all applicable local, state and federal procedures, rules and regulations*
  - *Collect and submit accurate, timely data*
  - *Comply with all requirements of the Americans with Disabilities Act of 1990 (ADA)*
  - *Coordinate transit planning with state, regional, and/or local transportation plans*

## Regional Transit Study

### **Recommendations**

*Recommendations were developed for TalTran to help achieve the goals and objectives and prioritized over a ten-year period.*

#### ***Within a Year***

- *Continue the bus replacement program and purchase new expansion buses as needed*
- *Implement enhancements to the TalTran fixed-route bus system as recommended in the Comprehensive Operations Analysis*
- *Continue to address the mobility needs of Tallahassee residents, particularly those in transit-dependent and/or growth areas, as is financially feasible*
- *Continue to maximize the use of the fixed-route bus system*
- *Evaluate scaling back the ADA coverage area to within  $\frac{3}{4}$ -mile of the fixed-route service*

#### ***Within 1 to 2 Years***

- *Renovate C.K. Steel Plaza*
- *Update and expand the current bus stop inventory and ensure its regular maintenance and utilization*
- *Work towards establishing a standard policy for bus stop placement and the instillation of bus shelters, benches, and other bus stop amenities*

#### ***Within 2 to 3 Years***

- *Provide additional transfer locations to improve system connectivity*
- *Seek to improve the frequency of TalTran's busiest routes*
- *Seek to improve weekday and Saturday evening service route coverage*
- *Seek to improve the level of weekend service*
- *Provide limited-stop bus tripper service to the State of Florida Satellite Office Complex in Southwood*
- *Work with Leon county officials/agencies to explore the feasibility of expanding TalTran service beyond the Tallahassee city limits*
- *Support the establishment of a formal vanpool program*

#### ***Within 4 to 5 Years***

- *Pursue the construction of a multimodal facility in Downtown Tallahassee*
- *Explore the possibility of establishing express bus service along major corridors*
- *Establishment of a long-term dedicated funding source for TalTran*

#### ***Beyond 5 Years***

- *Explore further route network enhancements*

## Regional Transit Study

### **Financial Plan**

A financial plan was developed in the TDP based on identified and unidentified funding sources for recommended improvements. Table 2-1 provides estimated costs based on recommendations from the TDP.

## Regional Transit Study

Table 2-1: Estimated Costs of Recommendations from TDP

Estimated Costs of Funded Recommendations from TDP							
Action	Unit Cost (2006 \$)	Number of Units	Annual Operating Cost (2006 \$)	Annual Ridership Impact	Annual Farebox Revenue (2006 \$)	Total Capital Cost	FYs Affected
Bus replacement -- 35- & 40-foot vehicles	\$300,000	27	n/a	n/a	n/a	\$8,100,000	FYs 2006-2010
Paratransit vehicle replacement -- 22-foot cutaways	\$80,000	17	n/a	n/a	n/a	\$1,360,000	FYs 2006-2010
New uniforms	n/a	n/a	n/a	n/a	n/a	\$16,000	FY 2006
AVL Smart Bus System	n/a	n/a	n/a	n/a	n/a	\$3,000,000	FYs 2006-2007
C.K. Steele Plaza renovation	n/a	n/a	n/a	n/a	n/a	\$8,500,000	FYs 2006-2008
Admin/Operations/Maintenance Facility	n/a	n/a	n/a	n/a	n/a	\$1,500,000	FYs 2006-2008
Transit planning software	n/a	n/a	n/a	n/a	n/a	\$200,000	FY 2006
New fareboxes	\$11,508	65	n/a	n/a	n/a	\$748,020	FY 2006
Bus Operations Safety Awareness ("yield to bus decals")	\$10	100	n/a	n/a	n/a	\$1,000	FY 2006
New staff positions							
Financial Analyst	\$52,000	1	\$52,000	n/a	n/a	n/a	FYs 2006-2015
Business Systems Analyst	\$49,400	1	\$49,400	n/a	n/a	n/a	FYs 2006-2015
Safety & Training Officer	\$57,200	1	\$57,200	n/a	n/a	n/a	FYs 2006-2015
Bus Supervisors	\$57,200	3	\$171,600	n/a	n/a	n/a	FYs 2006-2015
Estimated Costs of Unfunded Recommendations from TDP							
Action	Unit Cost (2006 \$)	Number of Units	Annual Operating Cost (2006 \$)	Annual Ridership Impact	Annual Farebox Revenue (2006 \$)	Total Capital Cost	FYs Affected
Increase Frequency							
Route 7	\$48/hour	3276	\$157,248	58,734	\$40,527	\$300,000	FYs 2006-2015
Route 9	\$48/hour	3059	\$146,815	171,561	\$118,377	\$300,000	FYs 2006-2015
Route 11	\$48/hour	3145	\$150,958	63,025	\$43,487	\$300,000	FYs 2006-2015
Route 23	\$48/hour	3493	\$167,681	135,819	\$93,715	\$300,000	FYs 2006-2015
Route 26	\$48/hour	3493	\$167,681	85,716	\$59,144	\$300,000	FYs 2006-2015
New Service							
Direct TCC service	\$48/hour	7663	\$367,811	183,636	\$126,709	\$600,000	FYs 2006-2015
Direct FSU service	\$48/hour	7663	\$367,811	183,636	\$126,709	\$600,000	FYs 2006-2015
Direct FAMU service	\$48/hour	8401	\$403,254	201,331	\$138,918	\$600,000	FYs 2006-2015
Marketing Plan	\$65,000	1	n/a	n/a	n/a	\$65,000	FY 2006
Full-Time Plaza Manager position	n/a	n/a	\$50,000	n/a	n/a	n/a	FYs 2006-2015
New staff positions							
Assistant Director	n/a	n/a	\$90,000	n/a	n/a	n/a	FYs 2006-2015
Planner	n/a	n/a	\$60,000	n/a	n/a	n/a	FYs 2006-2015
Bus Stop Inventory Update/Expansion	\$30,000	1	n/a	n/a	n/a	\$30,000	FY 2006
Bus Shelter Installation	n/a	n/a	n/a	n/a	n/a	\$93,600	FY 2006
Vehicle-Training Simulator	\$230,000	n/a	n/a	n/a	n/a	\$760,000	FY 2006
Wi-Fi access	\$35,000	n/a	n/a	n/a	n/a	\$35,000	FY 2006
Shelter solar-lighting enhancements	\$2,050	39	n/a	n/a	n/a	\$79,950	FY 2006
Bus stop solar lighting enhancements	\$980	23	n/a	n/a	n/a	\$22,540	FY 2006
Repainting vehicles with new logo/colors	\$2,300	94	n/a	n/a	n/a	\$216,200	FY 2006
Replacement of bus stop signs (new logo, colors)	n/a	n/a	n/a	n/a	n/a	\$10,000	FY 2006
Additional fareboxes	\$11,508	10	n/a	n/a	n/a	\$115,080	FY 2007
25-foot buses for FSU campus services	\$105,000	17	n/a	n/a	n/a	\$1,785,000	FY 2007
Additional Transfer Locations (superstops)	\$40,000	4	n/a	n/a	n/a	\$160,000	FYs 2007-2015
Southwood limited-stop service	\$48/hour	1573	\$75,504	\$39,204	\$27,051	\$300,000	FYs 2008-2015
NOTES:							
Operating costs for frequency improvements and new service based on marginal operating cost model developed for this study.							

Source: City of Tallahassee Transit Development Plan Major Update: 2006-2015, Table 5-1

**2.2.2 Tallahassee - Leon County Comprehensive Plan**

The Leon County Comprehensive Plan was adopted on July 16, 1990 and revised on March 31, 2009. The overall goal included in the Leon County Comprehensive Plan was to develop an integrated, comprehensive transportation system that includes mass transit as a means to maintain and improve the quality of life in Leon County. The Transportation Element of the plan includes the following goals, objectives and policies as it relates to transit:

**II. Transportation****Goal 1: (Effective 7/16/90)**

*The traffic circulation system shall provide for the safe, efficient, effective and environmentally sound movement of people and commodities.*

**REDUCTION OF VEHICLE TRIP DEMAND****Objective 1.6: [T] (Effective 7/16/90)**

*Reduce vehicle trip demand, and impacts to the arterial and collector road system, by providing needed amenities in close proximity to population concentrations and encouraging interconnections between development and neighborhoods.*

**Policy 1.6.1: [T] (Effective 7/16/90)**

*Emphasize land use densities and arrangements which support reduced travel demand and shorter trip lengths by:*

- a) Promoting neighborhood parks to reduce the need for long distance transportation to recreation.*
- b) Encouraging mixed-use development (with sufficient amenities) including the location of offices within sites to reduce auto trips, increase ride sharing, and encourage mass transit use.*
- c) Developing and promoting the central business district as an 18-hour activity center, by providing housing, restaurants, and cultural activities to encourage use beyond working hours.*

**Policy 1.6.2: [T] (Effective 7/16/90)**

*Promote the development of pedestrian scale mixed use neighborhoods that incorporate residential, retail, employment and recreational opportunities on site and that minimize the volume of external vehicular trips by incorporating internal pedestrian and bicycle features and by locating within 1/4 mile of a mass transit route.*

*Provide for incentives in the form of reduced street standards, reduced parking standards for retail and commercial and higher residential densities for projects which incorporate features to encourage walking and bicycle usage.*

**Policy 1.6.6: [T] (Rev. Effective 9/19/91)**

*The City of Tallahassee and Leon County will adopt and maintain ordinances providing for safe and convenient on-site traffic flow, considering motorized and non-motorized vehicle parking. During the site plan review process, parking lot design, provision of sidewalks and bikeways facilities and provisions for mass transit vehicles will be evaluated, and included within developments based on need and consistent with provisions in local ordinances.*

**Policy 1.6.12: (Effective 3/14/07)**

*By December 1, 2010, the City and County shall coordinate and create a Transportation Concurrency Exception Area within the Urban Service Area based on a transit node concept. Concurrency exception criteria shall be developed to support denser development along the arterials and collectors, with concentrations around major intersections where transit facilities*



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can be located. Concurrency exception criteria between these arterials should support interconnectivity to these nodes, as well as to community services, and support implementation of Bicycle and Pedestrian Master Plan, Greenways Master Plan, and Transit Development Plan priorities.

Also, conceptual guidelines shall be provided for how this transit node concept can be incorporated into future Urban Service Area expansions.

**Goal 2: [T] (Effective 12/22/95)**

Because transportation levels of service and concurrency requirements can have the unintended impact of encouraging development at outlying locations where there is excess capacity, the local governments shall adopt transportation strategies which reduce these impacts and encourage infill and redevelopment at targeted locations, and promote alternatives to the use of the automobile, such as mass transit, bicycle, and pedestrian modes.

**Objective 2.2: [T] (Effective 12/22/95; Revision Effective 3/14/07)**

Development to support the universities and the downtown shall be targeted to locate within the University Transition category through the use of transportation concurrency exceptions. These transportation concurrency exceptions, which are provided pursuant to Rule 9J-5.0055(7), F.A.C., shall be granted only for those projects that mitigate transportation impacts by promoting alternative transportation modes through transit-oriented design (TOD), and do not significantly impact intrastate roadways. (Note: A transportation concurrency analysis will still be required to ensure that the development impacts are included in current roadway capacity analyses.)

This concurrency exemption shall not apply to lands designated University Transition after December 1, 2006. For those areas designated after December 1, 2006, the prevailing city roadway concurrency provisions, adopted in accordance with F.S. 163.3180, shall apply. This restriction shall exist until such time as a Multimodal Transportation District which encompasses these areas is created, pursuant to Transportation Policy 1.6.11.

**Policy 2.2.1: [T] (Effective 12/22/95)**

Residential developments within the University Transition future land use category that choose to obtain an exception from concurrency requirements for transportation shall meet the following transit oriented design (TOD) requirements:

- reduced parking allocation (50%) that is located off-site, on-street, or within a structure onsite;
- is within 1/8 of a mile of a transit shelter, or provides funding for a new transit shelter with enhanced pedestrian amenities (i.e., connecting sidewalks, lighting, benches, etc.); provides funding for mass transit enhancement such as a guaranteed maximum transit headway of 15-20 minutes to serve project, an express transit route, or expansion of the fare-free zone between project and target employer, educational facility or shopping/entertainment areas; and minimum density of 12 dwelling units per acre.



**Table 2-2: Year 2020 Long Range Transportation Plan – Adopted Cost Feasible Plan  
(Transit)**

Project			Routes Affected	Capital Cost	Total Cost	Cumulative Costs
No.	Improvement	Description				
1	Existing Operations	Existing Transit Operations FY05 - \$9,158,400 x 16 years	Existing Routes	N/A	\$146,500,000	\$146,500,000
2	Improve Transit Stops	Place bus shelters at transfer locations, major street intersections, and major trip generators (195 shelters in all at \$10,000 each)	All Routes	\$1,950,000	\$1,950,000	\$148,450,000
3	Improve Transit Stops	Pursue proactive efforts with City, County and State to meet and exceed ADA requirements for various accessibility needs, such as sidewalks and curb cuts, at and adjacent to transit stops	All Routes	Included in pedestrian/bicycle projects		\$148,450,000
4	Bus Replacement Program	Replace fixed-route buses as needed on an on-going schedule	All Fixed-Routes	\$8,100,000	\$8,100,000	\$156,550,000
5	Bus Replacement Program	Replace paratransit vehicles on an on-going schedule	All Paratransit Routes	\$3,400,000	\$3,400,000	\$159,950,000
6	Transfer Point Improvement	Establish four "Superstops" in strategic locations throughout the service area to accommodate up to four buses at a time. Additionally, this project includes \$5,000,000 for the renovation of CK Steele Plaza	All Routes	\$7,500,000	\$7,500,000	\$167,450,000
7	Transfer Point Improvement	Install better signage/provide clear information at CK Steele Plaza to direct patrons to appropriate buses	All Routes	\$100,000	\$100,000	\$167,550,000
8	Facilities Expansion	Expansion costs to existing facilities associated with larger fleet size	All Routes	\$1,000,000	\$1,000,000	\$168,550,000

*(Effective 6/28/02)*

Source: Tallahassee-Leon County Comprehensive Plan

### **IMPLEMENTATION STRATEGIES**

#### **Objective 2.1: [MT] (Effective 7/16/90)**

*In coordination with the Metropolitan Planning Organization, City of Tallahassee, and the Florida Department of Transportation, expand the integration of mass transit planning into the overall transportation delivery system by coordination of the short-range transit operations plan, long-range transit feasibility plan and 2015 Transportation Plan development.*

#### **Policy 2.1.1: [MT] (Effective 7/16/90)**

*Land use regulations shall be developed which emphasize pedestrian movement and the use of mass transit.*

#### **Policy 2.1.2: [MT] (Effective 7/16/90)**

*Systematically extend mass transportation routes through major residential neighborhoods in the urban area to major employment, shopping, business, recreational and other activity centers such as the airport.*

#### **Policy 2.1.3: [MT] (Effective 7/16/90)**

*Coordinate the location and design of office parks to foster ride sharing and mass transit use.*

#### **Policy 2.1.4: [MT] (Effective 7/16/90)**

*Discourage single occupancy vehicle use through innovative programs such as better bus stops and park and ride facilities. Such programs shall be part of the design criteria for new development.*

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**Policy 2.1.5: [MT] (Effective 7/16/90)**

*Encourage the elimination of the subsidy of public employee parking to encourage ride sharing and mass transit use.*

**Policy 2.1.6: [MT] (Effective 7/16/90)**

*Devise a marketing strategy and campaign to inform the public on mass transit and to increase ridership.*

### **PROTECTION OF FUTURE MASS TRANSIT CORRIDORS**

**Objective 2.3: [MT] (Effective 7/16/90)**

*By 1992, develop a plan that identifies future mass transit rights-of-way and corridors and provides means of protecting and acquiring such areas.*

**Policy 2.3.1: [MT] (Effective 7/16/90)**

*Existing and future mass transit rights-of-way and corridors shall be identified as a part of the comprehensive plan for integrating mass transit into the existing transportation system.*

**Policy 2.3.2: [MT] (Effective 7/16/90)**

*Incentives to encourage the donation of mass transit rights-of-way and corridors shall be developed.*

**Policy 2.3.3: [MT] (Effective 7/16/90)**

*Development agreements and land use regulations shall be utilized to preserve future mass transit corridors.*

### **FUNDING OF MASS TRANSIT**

**Objective 2.4: [MT] (Effective 7/16/90)**

*By 1992, alternative and innovative funding sources shall be developed to support an effective mass transportation system.*

**Policy 2.4.1: [MT] (Effective 7/16/90)**

*Mass transit shall be regarded as a vital public service with increased funding to allow it to compete with the private automobile on an equal basis.*

### **TRANSPORTATION FOR DISADVANTAGED**

**Objective 2.5: [MT] (Effective 7/16/90)**

*By 1992, provide for full implementation of the requirements of Chapter 427, Florida Statutes regarding coordination of public and private transportation providers in meeting the needs of the transportation disadvantaged.*

**Policy 2.5.1: [MT] (Effective 7/16/90)**

*A needs assessment of the transportation disadvantaged shall be undertaken.*

**Policy 2.5.2: [MT] (Effective 7/16/90)**

*An assessment of existing public and private transit programs shall be undertaken with an analysis to determine unmet needs.*

**Policy 2.5.3: [MT] (Effective 7/16/90)**

*A strategy to meet identified unmet needs shall be developed with emphasis being given to meeting the needs of the transportation disadvantaged (i.e., those individuals who because of physical or mental disability, income status, or age are unable to transport themselves or to purchase transportation).*

**2.2.3 Capital Region Transportation Planning Agency Year 2030 Long-Range Transportation Plan**

The Capital Region Transportation Planning Agency (CRTPA) is the region's Metropolitan Planning Organization responsible for updating the long-range transportation master plan. The Year 2030 Long-Range Transportation Plan (LRTP) was amended in September of 2007 and provides a long-range analysis of the transportation needs of the CRTPA region through the identification of needed projects as well as cost feasible projects. The Year 2030 LRTP does not include Jefferson County, since it was not included as part of the MPO at the time of the development of the plan.

A comprehensive transit level of service (LOS) deficiency analysis was conducted for several different 2030 scenarios and used to determine future year LOS deficiencies to identify projects in the Needs Plan. A Needs Plan identified transit as an important transportation mode in addressing regional transportation needs. Feasibility studies for regional commuter rail, proposals for bus rapid transit corridors, new express bus services to sub-urban areas of Leon, Gadsden, and Wakulla Counties, and enhanced service frequencies within the urban core will help address the needs of lower-income residents, college and university students, and a rapidly growing elderly population.

A Cost Feasible Plan was developed to estimate the costs of projects identified in the Needs Plan, evaluate and prioritize projects. Table 2-3 lists the transit projects included in the LRTP Cost Feasible Plan. The recommendations related to transit include:

- *Consideration should be given to proceeding with feasibility studies of the bus rapid transit (BRT) corridors and the Red Hills Coastal Parkway, both of which are in the Cost Feasible Plan. With special funding appropriations, the CSX commuter rail study could proceed as well as several arterial operations studies. If completed before the next LRTP, this will provide guidance on the specifics of these projects.*
- *Future long-range transit planning should target the southeast and northwest areas of Tallahassee where transit-supportive areas are not served adequately in the 2030 Cost Feasible Plan.*

CRTPA is currently updating its Year 2030 LRTP, also known as The Regional Mobility Plan, to be completed by 2010. The Regional Mobility Study will take a multimodal approach, by incorporating transit, bicycle and pedestrian modes as integral elements to determine long-range transportation needs and developing cost feasible solutions.

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Table 2-3: CRTPA 2030 Cost Feasible Plan List of Projects

Project Number and Name	County	Jurisdiction	From	To	Description/Type	Costs (2000)	Funding Source
17 Capital Circle SE	Leon	BP2K	Crawfordville Road (East of)	Tram Road (South of)	Widen to 6 Lanes	\$32,255,760	BP2K
18 Capital Circle SW	Leon	BP2K	Entrepot Boulevard	Crawfordville Road (West of)	Widen to 4 Lanes	\$11,250,151	BP2K
14a Capital Circle NW	Leon	BP2K	Orange Avenue	U.S. 90	Widen to 6 Lanes	\$18,749,274	BP2K
19 Capital Circle SW Realignment <sup>a</sup>	Leon	BP2K	Capital Circle SW	Paul Dirac Drive/Orange Avenue	Widen to 4 Lanes	\$14,123,683	BP2K
20 Capital Circle SW Realignment <sup>a</sup>	Leon	BP2K	Orange Avenue	Entrepot Boulevard	Widen to 4 Lanes	\$10,565,336	BP2K
39 Meridian Street S	Leon	BP2K	Gaines Street	Lafayette Street	Widen to 4 Lanes Divided	\$1,514,389	BP2K
28 Gaines Street	Leon	City	Railroad Avenue	Meridian Street	One Way 3 Lanes	\$676,891	City of Tallahassee
27 Gaines Street	Leon	City	Lake Bradford Road	Railroad Avenue	Divided Arterial Reconstruction	\$5,459,424	City of Tallahassee
34 Madison Street	Leon	City	Meridian Street	Railroad Avenue	One-Way 3 Lanes	\$5,900,639	City of Tallahassee
47 Pensacola Street	Leon	City	Stadium Drive E	S. Monroe	Revert to 2-way Operation	\$88,488	City of Tallahassee
25a FAMU Way Ext	Leon	City	Lake Bradford Road	Railroad Avenue	New 2-Lane Road	\$1,132,771	City of Tallahassee
56 St. Augustine Street W	Leon	City	Stadium Drive E	Madison Street	Revert to 2-way Operation	\$41,741	City of Tallahassee
58 Tharpe Street	Leon	County (Construction Only)	Capital Circle NW	Ocala Road	Widen to 4 Lanes	\$7,196,053	County (Leon)
8 Buck Lake Road	Leon	County	Fallschase Entrance	Davis Drive	Widen to 4 Lanes	\$2,702,469	County (Leon)
9 Buck Lake Road	Leon	County	Davis Drive	Pedrick Road	Add Turn Lanes	\$4,749,699	County (Leon)
43 Orange Avenue	Leon	FDOT	Springhill Road	S Adams Street (West of)	Widen to 4 Lanes	\$5,688,103	FDOT
48 Pensacola Street	Leon	FDOT	Appleyard Drive (W of)	Blountstown Hwy	Widen to 4 Lanes	\$7,001,331	FDOT
16 T TCC – FSU – Apalachee Pkwy BRT	Leon	FDOT	TCC/FSU via Downtown	Apalachee Pkwy/Sutor Road	New Bus Rapid Transit	\$17,759,678	FDOT
40 T Urban Core Headway Improvements	Leon	FDOT	43 FAMU		Bus Headway Improvement	\$1,109,425	FDOT
47 T Urban Core Headway Improvements	Leon	FDOT	FAMU/FSU Shuttle		Bus Headway Improvement	\$554,712	FDOT
10a T N. Monroe – FAMU – Southwood BRT	Leon	FDOT (50% Funded)	Southwood via Downtown	N Monroe	New Bus Rapid Transit	\$22,994,830	FDOT
18 T Urban Core Headway Improvements	Leon	FDOT	11-FAMU		Bus Headway Improvement	\$554,712	FDOT
21 T Urban Core Headway Improvements	Leon	FDOT	14-FAMU		Bus Headway Improvement	\$1,109,425	FDOT
25 T Urban Core Headway Improvements	Leon	FDOT	20-FSU		Bus Headway Improvement	\$277,356	FDOT
26 T Urban Core Headway Improvements	Leon	FDOT	21-Mission Road		Bus Headway Improvement	\$554,712	FDOT
29 T Urban Core Headway Improvements	Leon	FDOT	24-FSU		Bus Headway Improvement	\$554,712	FDOT
39 T Urban Core Headway Improvements	Leon	FDOT	3-FSU		Bus Headway Improvement	\$554,712	FDOT
42 T Urban Core Headway Improvements	Leon	FDOT	5-FAMU		Bus Headway Improvement	\$554,712	FDOT
43 T Urban Core Headway Improvements	Leon	FDOT	6-Frenchtown		Bus Headway Improvement	\$554,712	FDOT
46 T Urban Core Headway Improvements	Leon	FDOT	9-FSU, High Road		Bus Headway Improvement	\$277,356	FDOT
3a Apalachee Pkwy	Leon	FDOT (32% Funded)	Blair Stone Road	Capital Circle SE	Widen to 6 Lanes	\$10,628,227	FDOT
15 Capital Circle NW	Leon	FDOT	Gearhart Road	U.S. 27	Widen to 4 Lanes	\$31,499,266	FDOT
22a Crawfordville Road	Leon/ Wakulla	FDOT	Buck Miller Road	LL Wallace Road	Widen to 4 Lanes	\$9,759,589	FDOT
55a SR 20 / Blountstown Hwy	Leon	FDOT	Aeonon Church Road	Capital Circle NW	Widen to 4 Lanes	\$5,465,653	FDOT
1 T Airport Express	Leon	FDOT	Capital Circle NW	Downtown Via Airport	New Express Bus	\$1,722,913	FDOT

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Table 2-4: CRTPA 2030 Cost Feasible Plan List of Projects (continued)

Project Number and Name	County	Jurisdiction	From	To	Description/Type	Costs (2000)	Funding Source
40a Monroe Street N (U.S. 27)	Leon	FDOT	I-10	Crowder Road	Widen to 6 Lanes	\$11,960,494	FDOT
70a Woodville Hwy	Leon	FDOT	Natural Bridge Road	Gaile Avenue	Widen to 4 Lanes	\$25,638,573	FDOT
9T Killearn – Downtown Express	Leon	FDOT	Village Square Boulevard	Downtown	New Express Bus	\$1,169,605	FDOT
17T Urban Core Headway Improvements	Leon	FDOT	1 – Northwood		Bus Headway Improvement	\$554,712	FDOT
19T Urban Core Headway Improvements	Leon	FDOT	12-TMHC		Bus Headway Improvement	\$554,712	FDOT
20T Urban Core Headway Improvements	Leon	FDOT	13-Frenchtown		Bus Headway Improvement	\$1,109,425	FDOT
22T Urban Core Headway Improvements	Leon	FDOT	15-FSU		Bus Headway Improvement	\$277,356	FDOT
24T Urban Core Headway Improvements	Leon	FDOT	2 – South City		Bus Headway Improvement	\$554,712	FDOT
27T Urban Core Headway Improvements	Leon	FDOT	22-Tom Brown		Bus Headway Improvement	\$277,356	FDOT
28T Urban Core Headway Improvements	Leon	FDOT	23-FSU		Bus Headway Improvement	\$554,712	FDOT
32T Urban Core Headway Improvements	Leon	FDOT	28-FSU		Bus Headway Improvement	\$554,712	FDOT
35T Urban Core Headway Improvements	Leon	FDOT	31-FSU		Bus Headway Improvement	\$554,712	FDOT
37T Urban Core Headway Improvements	Leon	FDOT	33-FSU		Bus Headway Improvement	\$554,712	FDOT
44T Urban Core Headway Improvements	Leon	FDOT	7-South City & Apalachee		Bus Headway Improvement	\$277,356	FDOT
45T Urban Core Headway Improvements	Leon	FDOT	8-Tallahassee Mall		Bus Headway Improvement	\$277,356	FDOT
8T Havana Express	Gadsden/ Leon	FDOT	Tallahassee	Havana	New Express Bus/Shuttle	\$892,951	FDOT
23T Urban Core Headway Improvements	Leon	FDOT	19-Tallahassee Mall		Bus Headway Improvement	\$277,356	FDOT
30T Urban Core Headway Improvements	Leon	FDOT	25-Governor's Square		Bus Headway Improvement	\$554,712	FDOT
31T Urban Core Headway Improvements	Leon	FDOT	26-Governor's Square		Bus Headway Improvement	\$277,356	FDOT
36T Urban Core Headway Improvements	Leon	FDOT	32-South City		Bus Headway Improvement	\$554,712	FDOT
38T Urban Core Headway Improvements	Leon	FDOT	35-FSU-TCC		Bus Headway Improvement	\$554,712	FDOT
41T Urban Core Headway Improvements	Leon	FDOT	4-TMHC		Bus Headway Improvement	\$554,712	FDOT
12T Super Stops	Leon	FDOT	at FAMU		New Super Stops	\$156,372	FDOT
13T Super Stops	Leon	FDOT	at FSU		New Super Stops	\$156,372	FDOT
7T Crawfordville Express	Leon/ Wakulla	FDOT	Tallahassee	Crawfordville	New Express Bus/Shuttle	\$892,951	FDOT
11T Quincy Express	Gadsden/ Leon	FDOT	Tallahassee	Quincy	New Express Bus/Shuttle	\$892,951	FDOT
BP Bicycle/Pedestrian Master Plan <sup>b</sup>		FDOT				\$12,188,192	FDOT
36 Mahan Drive (U.S. 90) <sup>a</sup>	Leon	FIHS/SIS	Dempsey Mayo Road	Walden Road	Widen to 4 Lanes	\$4,295,524	FIHS/SIS
12 Capital Circle NE	Leon	FDOT/SIS	at Thomasville Road		Northbound Flyover	\$75,817,316	FIHS/SIS
30 I-10	Leon	FIHS/SIS	Capital Circle NE (East of)	U.S. 19 (Monticello)	Widen to 6 Lanes	\$93,464,355	FIHS/SIS
32 I-10	Leon	FIHS/SIS (50% Funded)	at Welaunee Pkwy		New Interchange	\$38,240,985	FIHS/SIS
29 I-10	Gadsden/ Leon	FIHS/SIS	SR 12	Capital Circle NW (West of)	Widen to 6 Lanes	\$92,178,990	FIHS/SIS
31 I-10	Leon	FIHS/SIS	Monroe Street	Thomasville Road	Widen to 8 Lanes	\$22,822,814	FIHS/SIS
46 Paul Russell Road Ext. S.	Leon	Private (SouthWood/English)	Woodville Hwy	N Paul Russell Road	New 2-Lane Road	\$19,682,309	Private <sup>c</sup>
64 Tram Road	Leon	Private (SouthWood/English)	S. Monroe Street	Capital Circle SE	Widen to 4 Lanes	\$18,207,233	Private
32 I-10	Leon	Private (Welaunee/Toll)	at Welaunee Pkwy		New Interchange	\$38,240,985	Private
5 Betton Road Ext	Leon	Private (TMH)	Centerville Road	Micosukee Road	New 2-Lane Road	\$8,062,335	Private
50 Red Hills Coastal Pkwy	Leon	Toll Authority	U.S. 319 (South of U.S. 98)	U.S. 319 (North of Bradfordville)	New 4-Lane Toll Road	\$503,935,801	Private
21 Chieftan Way Realignment	Leon	Private (FSU)	Call Street W	Palmetto Drive	Realignment	\$1,236,529	Private

Table 2-5: 2030 Cost Feasible Plan List of Projects (continued)

Project Number and Name	County	Jurisdiction	From	To	Description/Type	Costs (2000)	Funding Source
69 Welaunee Pkwy	Leon	Private (Welaunee)	Buford Boulevard	Red Hills Coastal Pkwy/I-10	New 4-Lane Boulevard	\$102,830,215	Private
10 Buck Lake Road Ext	Leon	Private (Fallschase)	Buck Lake Road/ Fallschase	Weems Road	New 2-Lane Road	\$9,532,512	Private
44 Orange Avenue Ext	Leon	Private (SouthWood)	Capital Circle SE	April Road	New 2-Lane Road	\$25,664,388	Private
42 New SouthWood Plantation Road	Leon	Private (SouthWood)	SouthWood Plantation Road	Apalachee Pkwy	New 4-Lane Road	\$42,344,379	Private
23 Dempsey Mayo Road N Ext <sup>f</sup>	Leon	Private (Welaunee)	Miccosukee Road	Centerville Drive	New 2-Lane Road	\$12,682,324	Private
24 Dempsey Mayo Road S Ext	Leon	Private (Welaunee)	Buck Lake Road	Mahan Drive	New 2-Lane Road	\$2,799,994	Private
53 Shamrock Ext <sup>f</sup>	Leon	Private (Welaunee)	Welaunee Pkwy/Red Hills Pkwy	Mahan Drive	New 2-Lane Road	\$10,108,626	Private
66 U.S. 98 <sup>s</sup>	Wakulla	Toll Authority	Escambia County	Wakulla County	Toll Road Feasibility Studies	\$0	Private
52 Shamrock Ext	Leon	Private (Welaunee)	Centerville Road	Welaunee Pkwy/ Red Hills Pkwy	New 4-Lane Road	\$36,729,515	Private
62 Thornton Road Ext <sup>f</sup>	Leon	Private (Welaunee)	Centerville Road	Miccosukee Road	New 2-Lane Road	\$25,364,649	Private

Note: Transit and Bicycle/Pedestrian projects are italicized.

<sup>a</sup> Future studies of the Capital Circle Realignments described in projects 19 and 20 will also include an assessment of adding capacity to the existing Capital Circle SW alignment near the Airport.

<sup>b</sup> All funded projects in the Tallahassee-Leon County Bicycle/Pedestrian Master Plan are assumed funded in the 2030 Cost Feasible Plan.

<sup>c</sup> FIHS/SIS funding estimates will not be available until March 2006.

<sup>d</sup> Assuming FIHS/SIS approval from FDOT.

<sup>e</sup> Institutional/Privatey Funded projects are assumed cost feasible if funded by these entities.

<sup>f</sup> Corridor to cross Miccosukee Greenway and provide access to Welaunee Plantation Property with context sensitive design elements.

<sup>s</sup> Northwest Florida Regional Transportation Authority.

Source: CRTPA Year 2030 LRTP, Cost Feasible Plan, Table 5.3



#### 2.2.4 Commission for Transportation Disadvantaged 5 Year/20 Year Plan

The Florida Commission for the Transportation Disadvantaged (CTD) is required to prepare a 5-year transportation disadvantaged plan, which addresses transportation needs for the transportation disadvantaged (TD). Transportation disadvantaged includes those persons who cannot obtain their own transportation due to disability, age or income. The most recent plan was prepared in 2005. The goals and strategic objects that were developed in the plan include:

- *Goal 1—Develop a permanent stream of state funding that leverages local and federal dollars and is sufficient to meet current and future TD needs.*
- *Goal 2—Develop and adopt uniform and comprehensive standards for the equitable and accountable distribution of funds.*
- *Goal 3—Develop and adopt uniform and comprehensive standards for the equitable and accountable use of funds.*
- *Goal 4—Reduce the cost, where possible and appropriate, of TD services.*
- *Goal 5—Quality of TD services will be measured by the expectation that a qualified individual will be picked up in a reasonably reliable, timely, safe and professional manner as appropriate given the locale.*
- *Goal 6—The CTD will continue to seek funding and support collaborations to meet all trip requests within the law.*
- *Goal 7—Community design will facilitate access to all modes for all citizens.*
- *Goal 8—Maintain and preserve an efficient and effective transportation infrastructure that is accessible to all eligible transportation disadvantaged citizens while meeting the needs of the community.*
- *Goal 9—Establish a statewide transportation disadvantaged system that functions seamlessly by coordinating service and operations across local government lines and that is flexible enough to accommodate and link special riders with providers.*
- *Goal 10—Maintain an educated public regarding the value of a coordinated TD system for the community and the rights and responsibilities of TD riders and providers.*
- *Goal 11—Require TD as a component of local comprehensive planning.*

#### 2.2.5 Apalachee Regional Planning Council Strategic Regional Policy Plan

The Apalachee Regional Planning Council (ARPC) is one of eleven Regional Planning Councils in Florida and includes the counties in the Capital Region. The ARPC prepared a Strategic Regional Policy Plan (SRPP) in June 1996 that identified goals and policies used as a guide for development in the region. The SRPP includes a Regional Transportation Element that incorporates the following regional transit goals, policies and strategies:

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**REGIONAL GOAL RT 2.2.:** Increased use of telecommuting, bus service, and other alternative travel modes.

**REGIONAL POLICY RT 2.2.1.:** Increase the development of "walkable communities" by reducing the number of vehicle trips expected to be generated by a proposed development by 2 percent each for any portion which is on an existing transit route and has a bus shelter, or which is directly connected to an existing bicycle trail.

**Implementation Strategies:**

1. The ARPC will provide applicable information to local governments concerning walkable communities.
2. The ARPC will apply this standard in the Intergovernmental Coordination, local Comprehensive Plan and Development of Regional Impact review processes to comment on proposed developments.

**REGIONAL POLICY RT 2.2.2.:** Provide the infrastructure necessary to make telecommuting available to a greater number of employees.

**Implementation Strategy:**

1. The ARPC will support funding to implement this policy through the Intergovernmental Coordination, local Comprehensive Plan and Development of Regional Impact review processes.

**REGIONAL POLICY RT 2.2.3.:** Revitalize existing mixed use areas, including the Region's rural cities.

**Implementation Strategy:**

1. The ARPC will use the Intergovernmental Coordination, local Comprehensive Plan and Development of Regional Impact review processes to comment on proposed developments.

**REGIONAL POLICY RT 2.2.4.:** Agglomerate services by providing for compact, mixed-use land designations in appropriate areas.

**Implementation Strategy:**

1. The ARPC will use the Intergovernmental Coordination, local Comprehensive Plan and Development of Regional Impact review processes to comment on proposed developments.

**REGIONAL POLICY RT 2.2.5.:** Reduce the use of single occupancy vehicles moving to and from the Florida State University and Florida Agricultural and Mechanical University Campus.

**Implementation Strategy:**

1. The ARPC will use the Campus Master Plan review process to comment on the proposed plans for FSU and FAMU.

**Indicator:**

1. The percent of people telecommuting, car and van pooling, using bus service or using other alternative travel modes.

**REGIONAL GOAL RT 4.1.:** Reduction in the number of transportation disadvantaged persons not served by the coordinated system.

**REGIONAL POLICY RT 4.1.1.:** Coordinate schedules and routes to meet the needs of the passengers utilizing the coordinated system.

**Implementation Strategies:**

1. LCB's will collect public input on passenger needs through rider surveys and public meetings.
2. The ARPC will survey each CTC in the Region to determine the feasibility of inter-county



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*routes and will assist in implementation of routes determined to be feasible.*

**REGIONAL POLICY RT 4.1.2.:** *Increase public and client awareness of the coordinated system and the services provided.*

**Implementation Strategies:**

- 1. LCBs will identify TD persons previously not served TD persons and determine through surveys or other means why these individuals have not accessed the coordinated system.*
- 2. LCBs will develop marketing materials (e.g., targeted mailings, brochures, press releases, etc.).*

**REGIONAL POLICY RT 4.1.3.:** *Eliminate barriers to providing effective and efficient services to the transportation disadvantaged.*

**Implementation Strategy**

- 1. LCB's will identify barriers to service provision and establish mechanisms to mitigate these barriers.*

**REGIONAL POLICY RT 4.1.4.:** *Reduce cost per mile and cost per trips in the coordinated system.*

**Implementation Strategy:**

- 1. LCB's and CTCs will develop methods to reduce operating costs through methods such as insurance pooling, joint purchasing, and incorporation of new technologies.*

**REGIONAL POLICY RT 4.1.5.:** *Adhere to client eligibility criteria in order to meet the needs of Category II TD persons.*

**Implementation Strategy:**

- 1. LCBs will develop policies concerning user eligibility.*

**REGIONAL POLICY RT 4.1.6.:** *Create developments which are pedestrian friendly and accessible to the user of transportation disadvantaged services by providing walkways, telephones, restrooms, benches, lighting, and information boards which are usable to persons with disabilities, persons who are elderly, and children.*

**Implementation Strategy:**

- 1. The ARPC will use the Intergovernmental Coordination, local Comprehensive Plan and Development of Regional Impact review processes.*

**REGIONAL POLICY RT 4.1.7.:** *Study signalization timing, turning lanes, and signage with the intent of reducing barriers to access to public transportation and major service centers for persons with disabilities, persons who are disabled, and children. Time traffic and turning signals to ensure safety and easy access for the transportation disadvantaged. Study and implement signalization and signage where barriers to crossing a road exist for pedestrian access to major service centers.*

**Implementation Strategy:**

- 1. The ARPC will use the Intergovernmental Coordination, local Comprehensive Plan and Development of Regional Impact review processes.*

**REGIONAL POLICY RT 4.1.8.:** *Ensure that sidewalks, bus stops, and transfer facilities comply with federal accessibility requirements.*

**Implementation Strategy:**

- 1. The ARPC will use the Intergovernmental Coordination, local Comprehensive Plan and Development of Regional Impact review processes.*

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**REGIONAL POLICY RT 4.1.9.:** *Maximize vehicle fleet by increasing the number of TD trips per mile.*

**Implementation Strategy:**

1. The CTCs will group TD trips to better utilize the seating capacity.

**REGIONAL POLICY RT 4.1.10.:** *Coordinate TD trips with neighboring counties.*

**Implementation Strategy:**

1. LCB's and CTCs will develop intercounty coordination agreements.

**REGIONAL POLICY RT 4.1.11.:** *Develop funding opportunities to increase the number of routes and vehicles.*

**Implementation Strategy:**

1. The ARPC will provide information on available grants to LCBs and will provide assistance in completing applications.

**REGIONAL POLICY RT 4.1.12.:** *Include a consideration of the ability of TD persons to travel to and from all proposed developments, and their cost of doing so, in all land use decisions.*

**Implementation Strategy:**

1. The ARPC will use the Intergovernmental Coordination, local Comprehensive Plan and Development of Regional Impact review processes.

**REGIONAL POLICY RT 4.1.13.:** *Use volunteers to assist in the coordinated transportation system as a means of reducing costs.*

**Implementation Strategy:**

1. The ARPC will assist LCBs in determining the appropriate uses for and the recruitment of volunteers.

**REGIONAL POLICY RT 4.1.14.:** *Assure that public and private agencies identify and allocate sufficient TD funds to meet the transportation needs of their clients.*

**Implementation Strategy:**

1. The ARPC will establish an orientation for agency personnel and assist in determining the best means of meeting the needs of their clientele.

**Indicators:**

1. The number of TD trips provided by the coordinated system.
2. The number of TD trips per revenue mile.
3. The number of unduplicated Category II TD persons accessing the coordinated system.

### 2.2.6 Florida State University Master Plan

The Florida State University prepared a master plan in June 2008 that includes a Transportation Element. Within this section, a Transit, Circulation, and Parking Sub-Element identified the following goals, objectives and policies for transit needs and improvements within the university campus:

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### **Goal 1**

*To provide and promote an efficient, safe, cost effective and accessible transit system that enhances the mission of the University.*

#### **Objective 1A**

*The University shall develop a 4-level transit system that includes a Core Campus Shuttle, Campus Circulator System, Remote Transit and the integration of Star Metro public transit as a feeder service to the campus.*

##### **Policy 1A-1**

*The University shall continue to monitor the scale and specific mode or modes of transit that best serves the 4-level transit system. The adopted Campus Master Plan shall be amended as needed to incorporate the results and recommendations of this study.*

##### **Policy 1A-2**

*The University shall continue to monitor and evaluate the most effective and efficient mode or modes of transit to serve physically challenged individuals from perimeter parking facilities to the core campus area and within all areas of the campus.*

##### **Policy 1A-3**

*The University, in cooperation with City transportation planners, shall continue to monitor the specific role of third party providers to serve the campus, including, but not limited to: "fare free" service for students, faculty and staff; appropriate service levels; and, specific stops on campus designed to increase ridership. FSU shall provide local government the opportunity to participate in and comment on this study. The adopted Campus Master Plan shall be amended as needed to incorporate the results and recommendations contained in this study.*

##### **Policy 1A-4**

*The University shall continue to meet regularly with Star Metro and the City of Tallahassee planning staff to coordinate all transit service between the campus and the city and context areas.*

#### **Objective 1B**

*The University shall promote the application of Transportation Demand Management (TDM) strategies within the campus and host community designed to reduce the dependence on the single-occupant vehicle as the primary mode of transportation and to encourage alternative modes of travel.*

##### **Policy 1B-1**

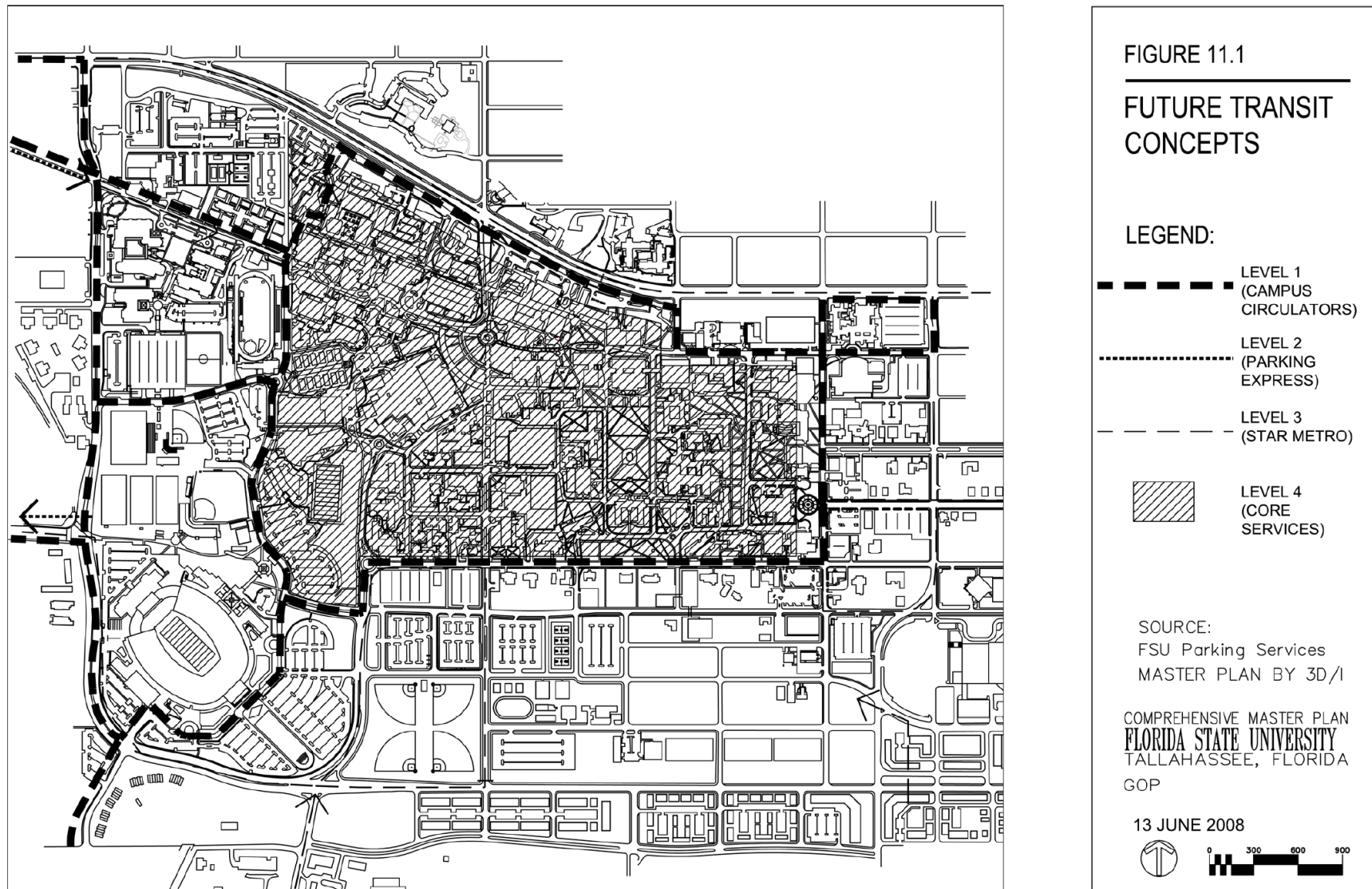
*The University shall implement transportation demand management (TDM) strategies designed to encourage the use of alternative modes of transportation and to reduce the dependence on the single-occupant vehicle as the primary mode of transportation. These strategies may include:*

- Operational modifications, such as preferential parking for carpools, working with TalTran or other transit providers to develop additional transit routes to student housing areas, and extended evening service;*
- Improvement of pedestrian and non-vehicular facilities;*
- Increasing the number of students living on campus;*
- Academic scheduling modifications, including scheduling more classes during non-peak hours;*
- Parking pricing strategies designed to make other modes of travel more economical;*

## Regional Transit Study

- *Free bus pass vs. no parking permit for FSU employees*
- *Traffic system management approaches; and*
- *Locating student-oriented housing in close proximity to the campus.*

Figure 2-10: FSU Master Plan 2008 Update – Future Transit Concepts



Source: Florida State University Master Plan 2008 Update, Future Transit Concepts, Figure 11.1

### 3.0 Transit Provider Profiles

This chapter provides detailed profiles of public transit service providers in the four-county region. The principal fixed-route provider in the region is StarMetro, which operates within the City of Tallahassee. Two additional providers, Big Bend Transit and Wakulla County Transportation, primarily operate coordinated transportation and paratransit services. However, Big Bend Transit operates an hourly fixed-route in the City of Quincy. There is currently no fixed-route service in Jefferson and Wakulla counties.

Each provider profile includes service characteristics for each agency's fixed-routes, service statistics, organizational structure and staffing plans, fleet inventory and replacement plans, financial plans, an inventory of major facilities and capital assets, and an overview of the five-year service plan.

#### 3.1 Star Metro

The City of Tallahassee has operated StarMetro, originally TalTran, since December 1973. StarMetro's service area covers 102 square miles and a population of 162,000 residents, primarily within the Tallahassee city limits and wholly within Leon County. In FY 2008, StarMetro provided approximately 4.1 million rides.

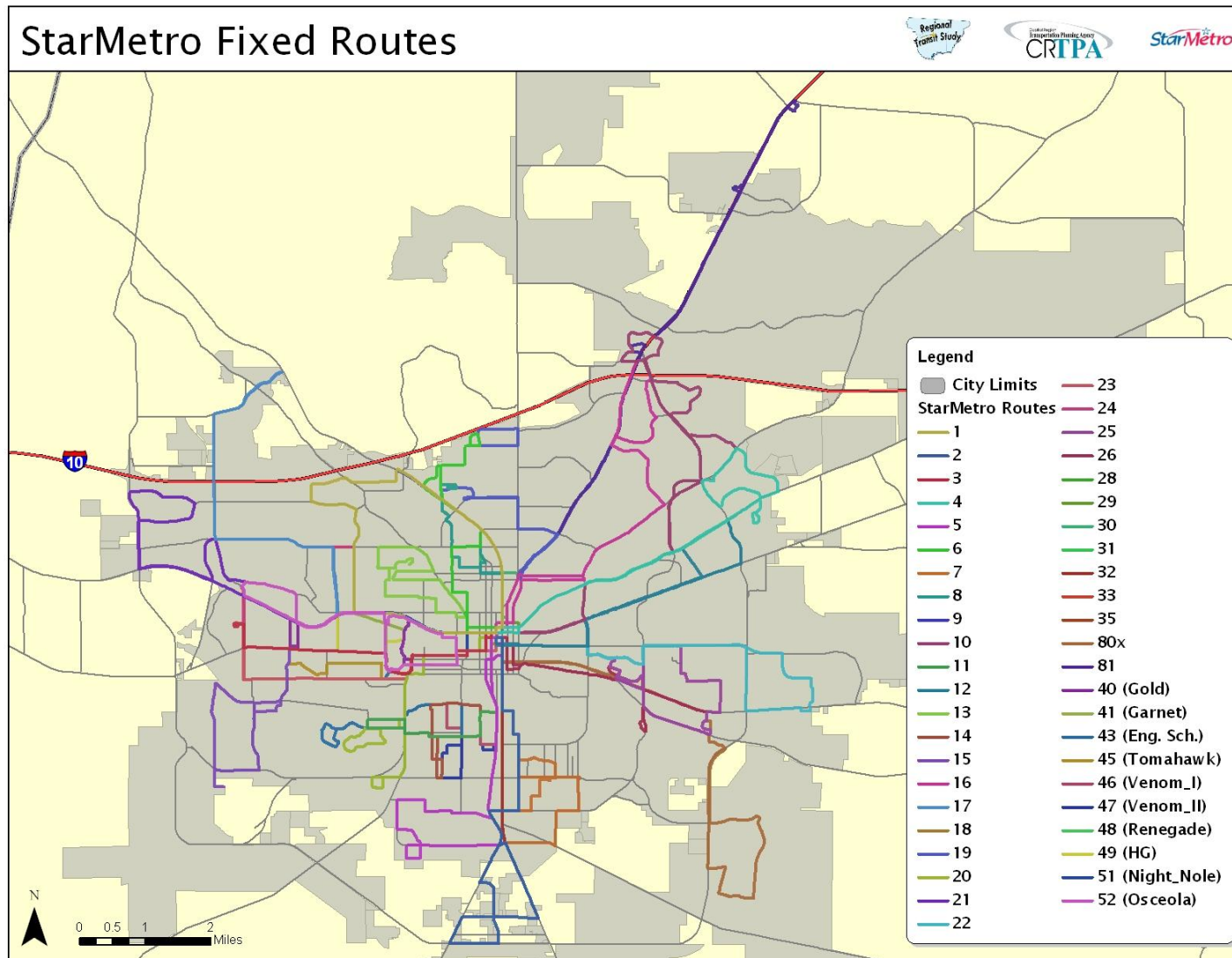
##### 3.1.1 Service Characteristics

StarMetro provides fixed-route service from 6:00 AM to 10:00 PM, Monday through Saturday. Select routes operate on Sundays from 8:30 AM to 6:30 PM. Most routes typically have frequencies of 30 to 60 minutes. The system is based on a "pulse" model with most routes serving a central transfer center, C.K. Steele Plaza.

StarMetro currently operates 26 regular weekday routes, 22 Saturday routes and seven night/Sunday routes. Ten routes specifically serve local universities: eight Florida State University routes and two Florida A&M University routes. Figure 3-1 displays StarMetro's current route structure. Table 3-1 details characteristics of each route.



**Figure 3-1: Star Metro Fixed Route System**



## Regional Transit Study

Table 3-1: StarMetro Route Characteristics

Regular Routes				
Route	Route Name	Areas Served	Route Length (mi)	Frequency (Pk/Base)
1	Northwood Ctr., Tallahassee Mall, Astoria Park, High Road, FSU	<b>Shopping:</b> Tallahassee Mall, Northwood Ctr., College Square, Varsity Plaza, Sugar Creek Center <b>Schools:</b> Raa Godby, Steele/Collins	9	60/60
2	South City, Four Points	<b>Shopping:</b> Town South/Southside <b>Schools:</b> Oak Ridge	9.2	30/60
3	FSU, TCC, Health Department	<b>Shopping:</b> Westwood <b>Schools:</b> Belle Vue	6.3	30/60
4	TMH, CRMC, Fleischmann Road	<b>Schools:</b> Leon, Cobb, Kate Sullivan, Holy Comforter, Trinity Catholic <b>Hospitals:</b> TMH, CRMC	10.7	60/60
5	FAMU, Gaither Park, Sherwood Park	<b>Shopping:</b> Town South, Southside <b>City Parks:</b> Springsax, Jake Gaither	8.7	30/60
6	Tallahassee Mall, Macon Community	<b>Schools:</b> Raa, Friffin, Steele/Collins <b>City Parks:</b> Levy	6.7	60/60
7	South City, Apalachee Ridge	<b>Shopping:</b> Town South, Southside <b>City Parks:</b> Jack McLean <b>Schools:</b> Rickards, Fairview	8.5	60/60
8	Tallahassee Mall, Northwood Ctr.	<b>Shopping:</b> Tallahassee Mall, Northwood Ctr. <b>City Parks:</b> Levy <b>Schools:</b> Raa, Ruediger	6.7	40/40
9	FSU, High Road, Forest Heights, Tallahassee Mall, Northwood Ctr.	<b>Shopping:</b> Tallahassee Mall, University Plaza/College Sq., Varsity Plaza <b>City Parks:</b> Levy <b>Schools:</b> Raa, Steele/Collins, Godby, Astoria Park	8.9	60/60
10	TMH, Capital Circle NE, Eastgate, Village Square (SAT)	<b>Hospitals:</b> TMH	15.5	60/60



## Regional Transit Study

11	FAMU, Providence Neighborhood	<b>Schools:</b> FAMU High	5.5	40/40
12	Eastwood Office Plaza, Capital Circle NE	<b>Hospitals:</b> VA Clinic	8.4	40/40
13	Frenchtown	<b>Schools:</b> Griffin Middle, Steele/Collins <b>City Parks:</b> Dade, Levy	15.2	20/40
14	FAMU	<b>Schools:</b> FAMU High, Nims Middle, Bond <b>City Parks:</b> Walker Ford	6.4	20/40
15	FSU, Mabry Manor, Tallahassee Museum	<b>Shopping:</b> Westwood <b>Schools:</b> Belle Vue, Sabal Palm <b>City Parks:</b> Messer	10.2	60/60
16	TMH, Woodgate, Thomasville Road	<b>Shopping:</b> Market Sq., Killeran Ctr., Carriage Gate, Village Sq. <b>Schools:</b> Cobb, Leon, Keiser, Gilchrist <b>City Parks:</b> Lafayette <b>Hospitals:</b> TMH	11.7	60/60
17	FSU, Huntington Woods, US 27 North	<b>Shopping:</b> University Plaza/College Sq., Varsity Plaza, Lake Jackson Trading Post <b>Schools:</b> Godby, Springwood	12.3	30/60
18	TMH, Capital Circle NE, Eastgate, Apalachee Ctr.	<b>Schools:</b> Atlantis Academy <b>Hospitals:</b> Apalachee Center, CRMC, TMH	13.1	60/60
19	Tallahassee Mall, Macon Community	<b>Shopping:</b> Tallahassee Mall, Capital Plaza/Miracle Plaza, Sugar Creek Ctr. <b>City Parks:</b> Winthrop, Lafayette	9.6	60/60
20	FSU, Alumni Village, Liberty Park	<b>Schools:</b> Pineview <b>City Parks:</b> Springsax	8.3	60/60
21	Mission Road, Capital Circle NW, Commonwealth Ctr.	<b>Shopping:</b> University Plaza/College Sq., Varsity Plaza <b>Schools:</b> Steele/Collins, Gretchen Everhart	14.9	60/60

## Regional Transit Study

22	Tom Brown Park, Lincoln High	<b>Shopping:</b> Governor's Square, Wal-Mart Plaza, Governor's Marketplace <b>Schools:</b> Lincoln, Apalachee <b>City Parks:</b> Tom Brown	10.3	60/60
23	FSU, Bradford Manor, Health Dept, TCC, High Road, Ocala Road	<b>Schools:</b> Bellevue, SAIL <b>City Parks:</b> Messner, Palmer-Munroe <b>Attractions:</b> Tallahassee Skate Park	6.8	30/60
24	FSU, High Road, Ocala Road, TCC, Health Dept., Bradford Mannor	<b>Shopping:</b> University Plaza/College Sq., Varsity Plaza <b>Schools:</b> Steele/Collins, Godby	10.6	30/60
25	Governor's Square, Richview, Kirkman Bldg., Koger Ctr.	<b>Shopping:</b> Gulf Wind Ctr., Governor's Square, K-Mart Plaza, Governor's Market Place <b>Schools:</b> PACE <b>City Parks:</b> Hilaman	8.5	60/60
26	Governor's Square, Winewood, Koger Ctr.	<b>Shopping:</b> Parkway Ctr., Governor's Square, Kohl's, Target, Governor's Market Place <b>Schools:</b> PACE, Hartsfield <b>City Parks:</b> Hilaman, Myers	7.7	60/60
80x	Express Route (North & South)	<b>Shopping:</b> Southwood Town Center, Wal-Mart, Target, Village Square <b>Schools:</b> Florida High <b>Other:</b> Leon County Courthouse	33.1	30/60
<b>Night Routes</b>				
Route	Route Name	Areas Served	Route Length (mi)	Frequency
28	FSU, TCC, Health Department	<b>Shopping:</b> Westwood	6.8	40
29	Leon High, TMH, Governor's Square	<b>Shopping:</b> Governor's Square, Governor's Marketplace <b>Schools:</b> Cobb, Leon, Kate Sullivan <b>Hospitals:</b> TMH	9.5	40
30	Northwood, Tallahassee Mall	<b>Shopping:</b> Tallahassee Mall, Northwood Ctr. <b>Schools:</b> Raa, Ruediger <b>City Parks:</b> Levy	5.6	40
31	FSU, Alumni Village		6.5	40

## Regional Transit Study

32	South City, Four Points	<b>Shopping:</b> Town South/Southside <b>Schools:</b> Oak Ridge	9.8	40
33	FSU, TCC via Tennessee St.	<b>Shopping:</b> University Plaza/College Sq., Varsity Plaza <b>Schools:</b> Steele/Collins, Gretchen Everhart	7.7	40
35	FSU, Bradford Manor, TCC	<b>Schools:</b> Steele/Collins <b>City Parks:</b> Messer, Palmer-Munroe	6.8	40
University Routes				
Route	Route Name	Areas Served	Route Length (mi)	Frequency
40	FSU - GOLD		5.5	20
41	FSU - GARNET	<b>Schools:</b> Godby High <b>City Parks:</b> Fort San Luis Mission, San Luis Mission Park	6.8	15
43	FAMU/FSU - Engineering School	<b>City Parks:</b> Moore-Kittles Field Park	7.9	60
45	FSU - TOMAHAWK	<b>Schools:</b> Belle Vue Middle, SAIL <b>City Parks:</b> Palmer Munroe Center	7.9	20
46	FAMU - Venom Express Shuttle #1		2.9	20
47	FAMU - Venom Express Shuttle #2	<b>Schools:</b> Bond <b>City Parks:</b> Moore-Kittles Field Park, Walker Ford Center	4.1	20
48	FSU - RENEGADE		2.7	10

## Regional Transit Study

49	FSU - HERITAGE GROVE		5.1	15
51	FSU - NIGHT NOLE	<b>Schools:</b> Godby High, Belle Vue Middle <b>City Parks:</b> San Luis Mission Park, Fort San Luis Mission	10.9	45
52	FSU - OSCEOLA		8.3	20

StarMetro's one-way regular fare is \$1.25. Transfers between routes are free of charge with a paid fare, so long as the passenger does not pass through the transfer plaza twice on a single fare. One day, seven day and monthly passes are also available, as are reduced fares for some transit-dependent populations. Table 3-2 details StarMetro's current fare structure.

**Table 3-2: StarMetro Fare Structure**

Type	Fare
Regular Fare	\$ 1.25
Reduced Fare	\$ 0.60
Dial-a-Ride	\$ 2.50
One Day Unlimited	\$ 3.00
Seven Day Unlimited Pass	\$ 10.00
Seven Day Reduced Fare	\$ 7.50
Monthly Pass	\$ 41.25
Infant in Arms	Free
Transfers	Free

### 3.1.2 Service Statistics

As a recipient of FTA funding, StarMetro is required to report operating statistics on an annual basis. These statistics, as reported in Table 3-3 for a five-year period between 2003 and 2007, below, include passenger trips, revenue hours, revenue miles, total vehicles available and operating in maximum service, total maintenance expense and total operating expense. Key cost efficiency and effectiveness measures reported include operating expense per passenger trip, operating expense per revenue mile, and operating expense per revenue hour.

## Regional Transit Study

**Table 3-3: StarMetro Service Statistics (2003 - 2007)**

Measure	2003	2004	2005	2006	2007
Passenger Trips	4,372,762	4,459,371	4,612,725	4,333,213	4,136,790
Revenue Hours	141,478	129,064	139,690	147,986	139,419
Revenue Miles	1,721,087	1,720,087	1,747,116	1,749,960	1,649,564
Vehicles Available for Max Service	57	67	65	66	66
Vehicles Operated in Max Service	48	49	49	56	56
Total Maintenance Expense	\$2,072,452	\$2,209,258	\$2,007,062	\$2,327,572	\$2,490,199
Total Operating Expense	\$9,405,042	\$9,474,976	\$9,105,669	\$9,518,814	\$10,787,717
Operating Expense per Passenger Trip	\$2.15	\$2.12	\$1.97	\$2.20	\$2.61
Operating Expense per Revenue Mile	\$5.46	\$5.51	\$5.21	\$5.44	\$6.54
Operating Expense per Revenue Hour	\$66.48	\$73.41	\$65.18	\$64.32	\$77.38

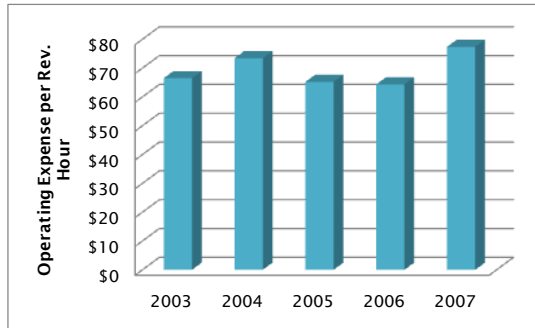
Source: StarMetro National Transit Database reports, FY 2003 – FY 2007.

Between 2003 and 2007, total unlinked passenger trips peaked in 2005 before tapering off to a five-year low in 2007. Total annual revenue hours trended upward after a steep decline in 2004 before dropping slightly in 2007. Annual revenue miles displayed a similar trend, peaking in 2006 before declining in 2007. Vehicles available and operated in maximum service remained relatively stable during the five-year period. Total operating expenses (OPEX) were stable from 2003 to 2006 before increasing approximately 13% in 2007. Total maintenance expenses only increased marginally over 2006 levels. Each cost efficiency and effectiveness measure increased significantly in 2007. Figures 3-2 to 3-10 graphically display these longitudinal trends.

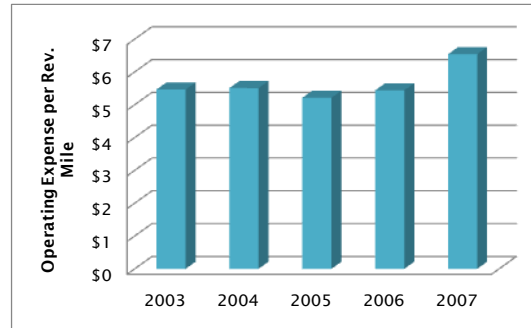
Table 4-4 presents route-by-route statistics for total annual ridership, annual revenue, annual revenue hours and annual revenue miles for FY 2008.

## Regional Transit Study

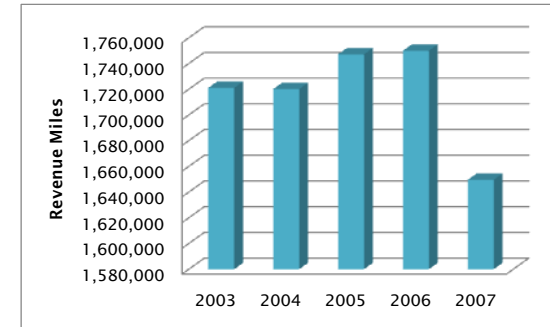
**Figure 3-2: StarMetro OPEX per Revenue Hour (2007)**



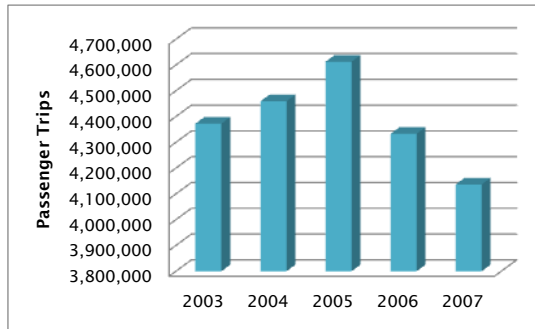
**Figure 3-3: StarMetro OPEX per Revenue Mile (2007)**



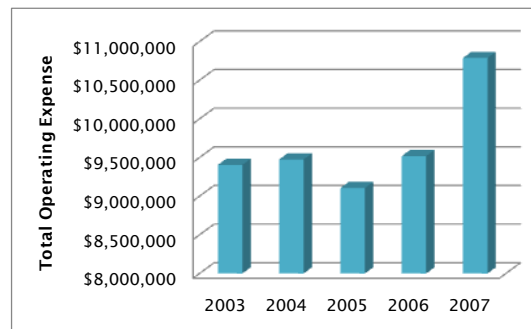
**Figure 3-4: StarMetro Revenue Miles (2007)**



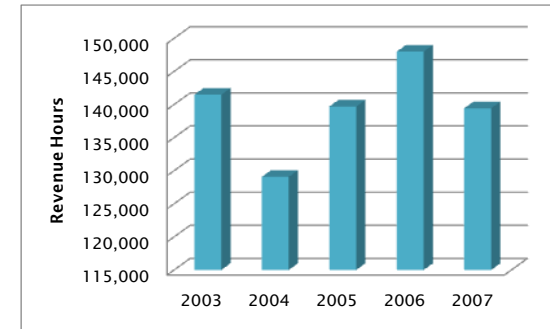
**Figure 3-5: StarMetro Passenger Trips (2007)**



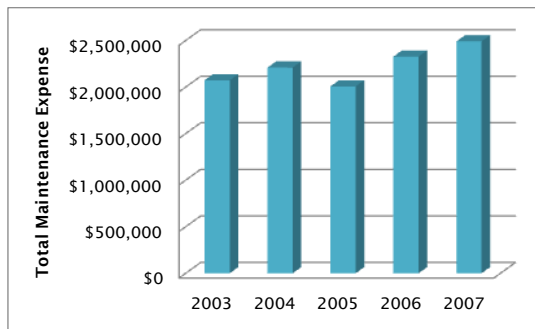
**Figure 3-6: StarMetro Total OPEX (2007)**



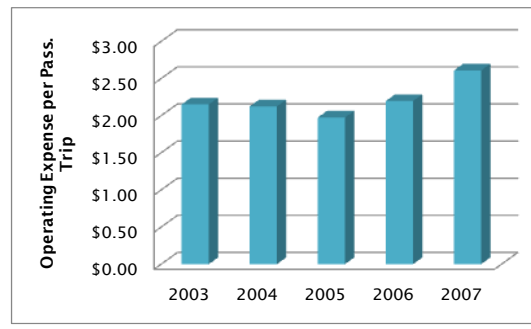
**Figure 3-7: StarMetro Revenue Hours (2007)**



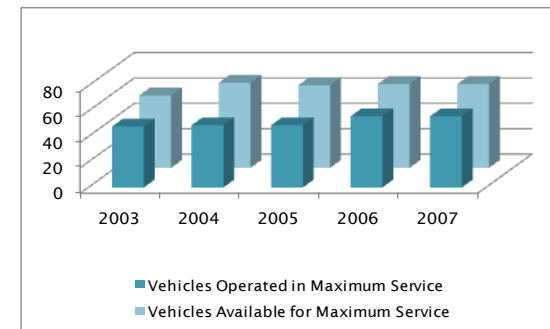
**Figure 3-8: StarMetro Maintenance Expense (2007)**



**Figure 3-9: StarMetro OPEX per Passenger Trip (2007)**



**Figure 3-10: StarMetro Vehicles Operated in Max Service (2007)**



## Regional Transit Study

Table 3-4: StarMetro Statistics by Route (2008)

Regular Routes					
Route	Route Name	Total Annual Ridership	Revenue	Revenue Hours	Revenue Miles
1	Northwood Ctr., Tallahassee Mall, Astoria Park, High Road, FSU	103,859	\$ 25,370	3,813	33,721
2	South City, Four Points	147,711	\$ 53,502	6,975	70,571
3	FSU, TCC, Health Department	116,884	\$ 22,681	5,409	55,782
4	TMH, CRMC, Fleischmann Road	80,504	\$ 25,474	3,660	49,141
5	FAMU, Gaither Park, Sherwood Park	153,959	\$ 39,006	5,406	57,190
6	Tallahassee Mall, Macon Community	64,614	\$ 20,776	3,660	38,541
7	South City, Apalachee Ridge	67,559	\$ 30,093	3,137	38,544
8	Tallahassee Mall, Northwood Ctr.	58,202	\$ 21,689	3,660	35,602
9	FSU, High Road, Forest Heights, Tallahassee Mall, Northwood Ctr.	53,196	\$ 16,846	3,036	32,381

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<b>10</b>	TMH, Capital Circle NE, Eastgate, Village Square (SAT)	2,848	\$	799	260	4,238
<b>11</b>	FAMU, Providence Neighborhood	51,834	\$	17,989	3,036	32,021
<b>12</b>	Eastwood Office Plaza, Capital Circle NE	44,072	\$	14,690	2,783	40,560
<b>13</b>	Frenchtown	221,490	\$	71,079	14,307	92,058
<b>14</b>	FAMU	215,962	\$	51,374	15,017	89,622
<b>15</b>	FSU, Mabry Manor, Tallahassee Museum	62,349	\$	24,339	3,754	50,354
<b>16</b>	TMH, Woodgate, Thomasville Road	36,502	\$	12,373	3,289	47,923
<b>17</b>	FSU, Huntington Woods, US 27 North	100,504	\$	33,114	4,527	70,731
<b>18</b>	TMH, Capital Circle NE, Eastgate, Apalachee Ctr.	78,371	\$	26,897	3,289	44,386
<b>19</b>	Tallahassee Mall, Macon Community	92,246	\$	27,213	3,965	47,738
<b>20</b>	FSU, Alumni Village, Liberty Park	66,809	\$	15,814	3,329	41,175



**Regional Transit Study**

<b>21</b>	Mission Road, Capital Circle NW, Commonwealth Ctr.	122,452	\$	45,277	3,835	64,323
<b>22</b>	Tom Brown Park, Lincoln High	112,790	\$	31,657	4,114	46,213
<b>23</b>	FSU, Bradford Manor, Health Dept, TCC, High Road, Ocala Road	148,502	\$	33,406	6,923	66,922
<b>24</b>	FSU, High Road, Ocala Road, TCC, Health Dept., Bradford Mannor	195,028	\$	28,937	6,417	85,949
<b>25</b>	Governor's Square, Richview, Kirkman Bldg., Koger Ctr.	79,784	\$	24,820	3,660	34,486
<b>26</b>	Governor's Square, Winewood, Koger Ctr.	114,740	\$	27,900	3,965	38,587
<b>80x</b>	Express Route (North & South)	58,769	\$	19,236	12,515	65,274
<b>Night Routes</b>						
<b>Route</b>	<b>Route Name</b>	<b>Annual Ridership</b>		<b>Revenue</b>	<b>Revenue Hours</b>	<b>Revenue Miles</b>
<b>28</b>	FSU, TCC, Health Department	13,017	\$	1,894	1,278	18,334
<b>29</b>	Leon High, TMH, Governor's Square	18,848	\$	3,602	1,271	12,097
<b>30</b>	Northwood, Tallahassee Mall	18,601	\$	5,213	1,216	12,928

## Regional Transit Study

31	FSU, Alumni Village	20,232	\$	3,015	1,245	17,694
32	South City, Four Points	21,216	\$	6,247	1,366	24,538
33	FSU, TCC via Tennessee St.	24,487	\$	4,189	1,222	19,669
35	FSU, Bradford Manor, TCC	8,931	\$	1,835	1,222	19,725
University Routes						
Route	Route Name	Annual Ridership	Revenue	Revenue Hours	Revenue Miles	
40	FSU - GOLD	176,955	\$ 42	25,965	230,045	
41	FSU - GARNET	226,719	\$ 10			
45	FSU - TOMAHAWK	175,764	\$ 1			
48	FSU - RENEGADE	278,690	\$ -			
49	FSU - HERITAGE GROVE	200,342	\$ 2			
51	FSU - NIGHT NOLE	38,700	\$ 33			

## Regional Transit Study

52	FSU - OSCEOLA	5,668	\$	-	
46	FAMU - Venom Express Shuttle #1	69,689	\$	4	7,590
47	FAMU - Venom Express Shuttle #2	69,555	\$	2	9,108
43	FAMU/FSU - Engineering School	77,466	\$	1	3,289
					64,363
					28,373

### 3.1.3 Organizational Structure and Current Staffing Level

StarMetro operates as a department of the City of Tallahassee's Development and Transportation Services area under direction of an Executive Director. A transit advisory committee comprised of eleven appointed citizen acts as a policy steering committee to the City Commission and StarMetro staff regarding transit issues. As illustrated in Figure 3-11, StarMetro's operating structure is comprised of five operating divisions under the Administration department: Transit Finance, Transit Planning, Transit Operations, Paratransit Operations, and Maintenance Operations. It should be noted that for budgetary and human resources planning purposes, StarMetro defines its six operating cost centers as: Administration, Planning, General Transit, Garage Facilities, Special Transportation, and Community Transportation. The functions performed by these divisions, as described in the FY2009 Budget Report, are described below.

#### **Administration**

*The Administration division is charged with managing 169 full-time employees and monitoring a \$15.6 million operating budget and a \$21 million capital improvement plan. The division promotes and develops programs to increase transit revenue and ridership, such as the U-Pass programs, employee bus pass programs, PoGO (Pay on the Go) pass, and service contracts.*

#### **Planning**

*The Planning division, comprised of five full-time professional employees and several part-time or internship positions, provides policy and service development support to the other divisions. This division continuously reviews and recommends scheduling and route changes as the city develops. The division also handles budget preparation, grant applications, marketing, and project management for the transit system.*

## Regional Transit Study

### General Transit

The General Transit division provides transit services to citizens of Tallahassee. Transit services are provided 363 days a year. During FY 2008 bus service was provided on 44 city and university routes traveling over 1.9 million miles and providing 4.2 million passenger trips.

### Garage Facilities

The Garage Facilities division maintains an operating fleet of 56 pull out busses with 20% spare ration, 17 vans, and 13 support vehicles. This seven-day a week schedule is covered by 22 technicians divided into two shifts with 16 hours of overtime required each week to support weekend and evening operations and maintenance. The facility maintenance subdivision of Garage Facilities maintains the administration building, C.K. Steele bus transfer center, and 1,900 Star Stops with 100 shelters. This is accompanied with four full-time positions and four temporary positions.

### Special Transportation

The Special Transportation division provides complementary paratransit service, Dial-A-Ride, in compliance with the Americans with Disabilities Act (ADA). Additionally, Dial-A-Ride provides service to the elderly throughout the City of Tallahassee during off peak hours. The Dial-A-Ride service is provided to anyone living within  $\frac{3}{4}$  of a mile on either side of a fixed bus route in the areas outside of the city limits. Based on the FY 2008 reporting data from the Transportation Disadvantaged Commission thus far this year, 89,564 trips were provided and 863,104 miles have been traveled.

### Community Transportation

This division also serves as the Community Transit Coordinator (CTC). The CTC is responsible for coordinating all transportation services for the transportation-disadvantaged population of Leon County. Transportation services are coordinated for Medicaid, Developmental Disabilities (Department of Children and Families), Vocational Rehabilitation, and the Transportation Disadvantaged Commission's non-sponsored riders. In addition, a bus pass program is operated that issues over 250 passes each month for fixed route use.

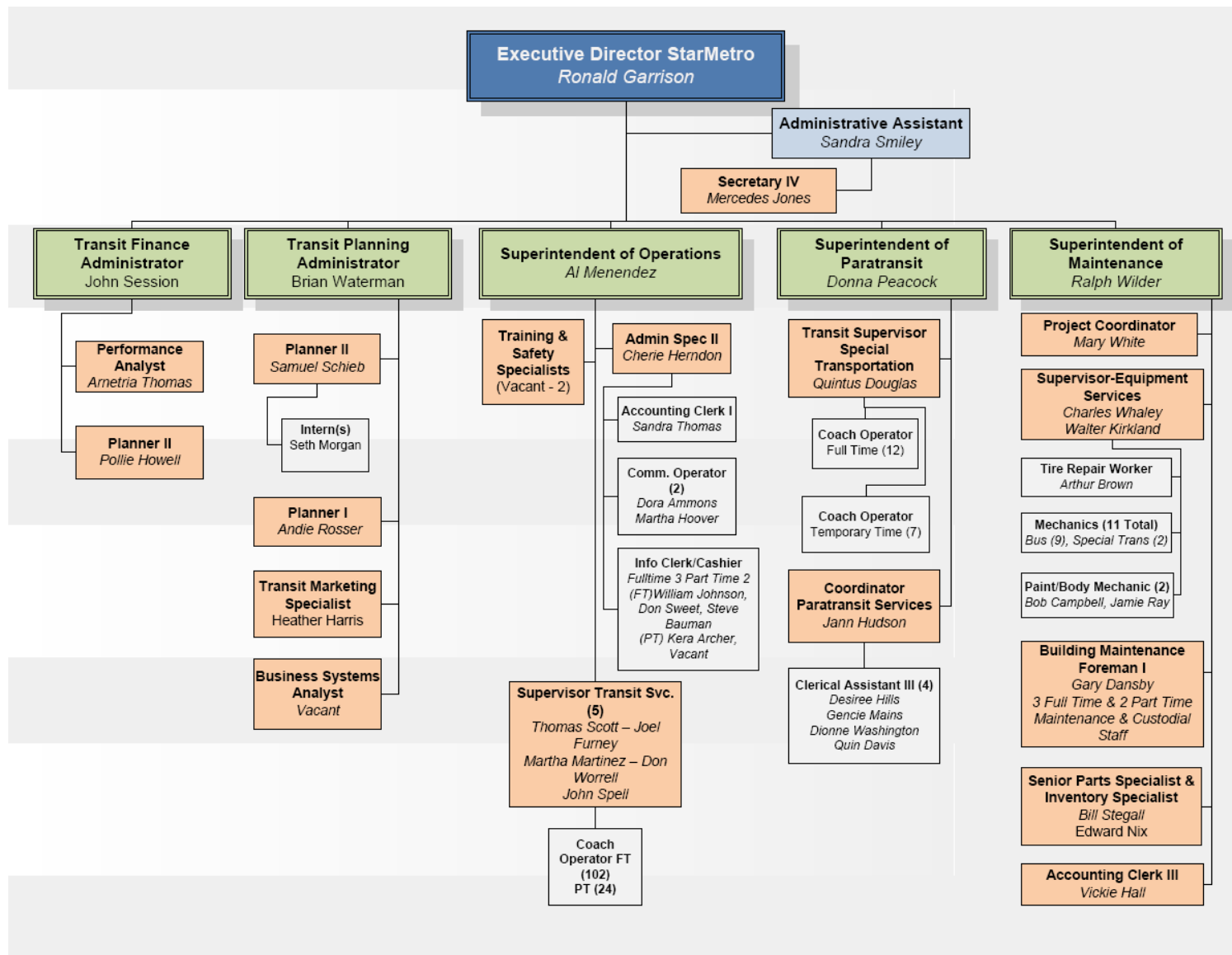
Table 3-5: StarMetro Employees by Division

<u>FTE Summary</u>	<u>FY 2007 Actual</u>	<u>FY2008 Estimated</u>	<u>FY2009 Approved</u>
Administration	3	3	3
Planning	5	5	5
General Transit	116	114	116
Garage Facilities	25	25	25
Special Transportation	15	15	15
Community Transportation	5	5	5
<b>Total FTE</b>	<b>169</b>	<b>167</b>	<b>169</b>

## Regional Transit Study

As displayed in Table 3-5, StarMetro currently employs 169 full-time employees. The majority of these employees are coach operators within the General Transit division. The Garage Facilities division employs the next highest amount of full time workers, primarily as vehicle mechanics. The planning, administration, and community transportation divisions employ a total of 13 employees. StarMetro's staffing levels have remained consistent over the last three budget cycles, with only a slight decline in FY 2008.

**Figure 3-11: StarMetro Organizational Chart**



## Regional Transit Study

### 3.1.4 Fleet Inventory and Replacement Plan

There are currently 70 active buses in the StarMetro fleet, with an average age of nine years. Table 3-6 displays each bus type currently in service along with its build year, size, seating capacity, and count.

**Table 3-6: StarMetro Fleet**

Count	Built	Type	Size (feet)	# Seats
22	1994	RTS	35	36
9	1996	RTS	40	44
4	2001	ABI	29	20
20	2001	Gillig	35	32
5	2006	Gillig BRT	29	26
10	2007	Gillig BRT	29	26

In addition to the bus fleet, StarMetro operates 17 lift-equipped paratransit vehicles, as shown in Table 3-7. The average age of the paratransit fleet is seven years.

**Table 3-7: StarMetro Paratransit Fleet**

Count	Built	Type
4	2000	SUPREME BSSN22
13	2002	CHAMPION CHALLENGER

StarMetro's vehicle replacement plan, as described in the 2005 TDP, is found in Table 2-1.

### 3.1.5 Existing Operating and Capital Budgets

For FY2009, StarMetro has an approved operating budget of \$15,642,812. This figure covers all day-to-day operations expenses including payroll and employee benefits, operating (fuel, lubricants, etc.), utilities, other services and charges, allocated accounts, and transfers. Table 3-8 lists the budgetary expenditures by FY between 2007 and 2009 for each cost center.

**Table 3-8: StarMetro Operating Budget, FY 2007 - FY 2009**

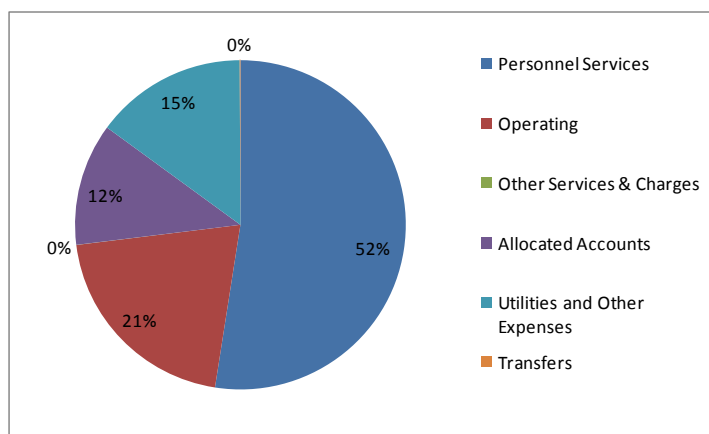
<u>Expenditures</u>	<u>FY 2007 Actual</u>	<u>FY2008 Estimated</u>	<u>FY2009 Approved</u>
Personnel Services	8,494,228	8,608,828	8,208,012
Operating	3,041,060	3,126,941	3,219,317
Other Services & Charges	2,000	2,000	2,000
Allocated Accounts	1,818,729	1,753,946	1,871,384
Utilities and Other Expenses	1,663,928	2,323,742	2,331,265
Transfers	20,749	122,507	10,834
<b>Total Expenditures</b>	<b>15,040,694</b>	<b>15,937,964</b>	<b>15,642,812</b>

Over half (52%) of StarMetro's FY 2009 budget was allocated to personnel services, which includes salaries, benefits, and pensions. 21 percent of the total budget was allocated for

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operating costs, which include all transit operations-related expenses. 12 percent of the budget was dedicated to allocated accounts, which include departmental and administrative-related expenses. 15 percent of the budget was allocated for utilities and other expenses. Both 'other services and charges' and 'transfers' accounted for less than one percent of the total budget. Figure 3-12 illustrates the expense allocations by cost center.

**Figure 3-12: StarMetro Expenditures by Cost Center**



### 3.1.6 Existing Revenues and Funding Sources

StarMetro's operating revenues come from a variety of sources including federal and state agencies, user fees (fares, university agreements), and city contributions from the general fund. Below is a brief description of these funding sources:

- **FTA- Operating and Planning:** StarMetro receives FTA Section 5307 formula grant funding. These funds are used for capitalized maintenance, operating assistance, security, and transit enhancements. The system also receives designating planning funds which support the agency's transit planning functions.
- **FDOT Operating Assistance:** FDOT provides formula-based block grants for operating expenses, preventative maintenance, planning, and marketing.
- **User Fees:** These funds are comprised of farebox revenue, university contracts with Florida State University, Florida A&M University, and Tallahassee Community College, charter service proceeds, advertising revenue, and parking proceeds.
- **General Fund:** The balance of StarMetro's operating revenue comes from the City of Tallahassee's General Fund. This fund is comprised of a variety of revenue sources, including the city-wide ad valorem property tax.



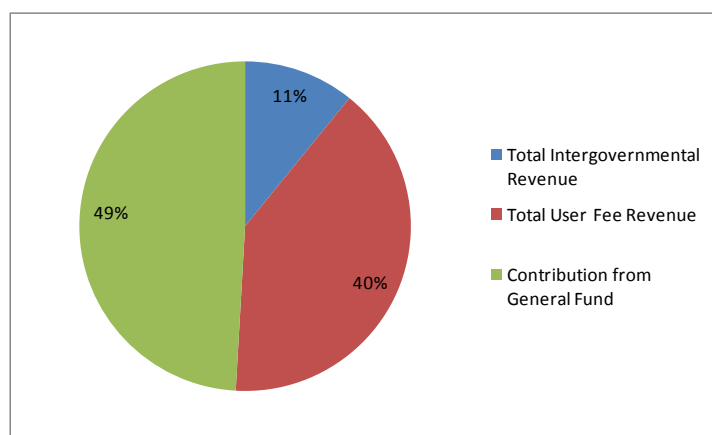
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Table 3-9: StarMetro Operating Revenue, FY 2007 - 2009

<u>Revenues</u>	<u>FY 2007 Actual</u>	<u>FY2008 Estimated</u>	<u>FY2009 Approved</u>
FTA - Operating	\$857,107	\$500,800	\$500,800
FTA - Planning	\$130,000	\$130,000	\$130,000
FTA - 5309	\$ 43,967	-	-
FTA - 5307	\$2,935	-	-
FDOT Operating Assistance	\$ 986,840	\$1,063,930	\$1,069,684
<b>Total Intergovernmental Revenue</b>	<b>\$2,020,849</b>	<b>\$1,694,730</b>	<b>\$1,700,484</b>
<b>Total User Fee Revenue</b>	<b>\$5,378,919</b>	<b>\$5,817,964</b>	<b>\$6,262,272</b>
<b>Other Revenue</b>	<b>\$(53,733)</b>	<b>-</b>	<b>-</b>
<b>Contribution from General Fund</b>	<b>\$7,694,659</b>	<b>\$8,425,270</b>	<b>\$7,680,056</b>
<b>Total Revenue</b>	<b>\$15,040,694</b>	<b>\$15,937,964</b>	<b>\$15,642,812</b>

Figure 3-13 displays the relative proportions of StarMetro's funding streams. Nearly half of the system's operating funds come from the city's general fund, while user fees account for 40 percent and intergovernmental revenues (FDOT, FTA grants) account for the remaining 11 percent.

Figure 3-13: StarMetro Revenue by Funding Source



StarMetro's capital funding sources totaled over \$5 million for FY 2009. These funds, as listed in Table 3-10, are primarily grant-based. FTA and FDOT grants make up the bulk of the capital budget, with the balance coming from the StarMetro operating fund. These funds are used for capital improvements and vehicle replacements.

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Table 3-10: StarMetro Capital Revenues

<u>Funding Source</u>	<u>FY 2009 Appropriation</u>	<u>5 Year CIP Total</u>
FDOT Capital Grant	\$100,000	\$200,000
FDOT Toll Road Credit	\$912,917	\$4,564,585
FTA	\$3,276,666	\$16,383,330
FTA Section 5307 Capital	\$612,500	\$612,500
Star Metro Operating Fund	\$100,000	\$200,000
<b>Total Revenue</b>	<b>\$5,002,083</b>	<b>\$21,960,415</b>

### 3.1.7 Inventory of Facilities and Major Assets

StarMetro operates and maintains the following major capital assets:

- **C. K. Steele Plaza** (transfer station): 111 W. Tennessee Street.
  - 22 Bus bays with restrooms, driver rest area, supervisor office, customer service/sales window, vending machines, bike racks, and newspaper racks.
- **StarMetro Maintenance and Administrative Offices:** 555 Appleyard Dr.
  - 6 maintenance bays plus, a tire bay, paint bay, and wash bay.
- **Bus Stops and Shelters**
  - 1,900 StarStops and 100 bus shelters

### 3.1.8 TalTran Comprehensive Operations Analysis

A Comprehensive Operations Analysis (COA) was conducted in September 2005 by the Center for Urban Transportation Research (CUTR) for TalTran (now known as StarMetro) to review the bus operations, identify ways to better deliver transit services and improve ridership for the City of Tallahassee's public transit system. The purpose was to provide an independent analysis of the transit system that included recommendations for service modifications, as well as new services. The COA included route-by-route analyses of existing service characteristics, strengths and weaknesses, and recommendations. Specific recommendations derived from the COA addressed current travel patterns, development of satellite transfer centers, new services and levels of service to support the transit system.

#### Satellite Transfer Locations

TalTran (StarMetro) operates a radial fixed-route bus network with all routes in the system originate in a central transfer point at the C.K. Steele Plaza, adjacent to Downtown Tallahassee. This system is often considered inconvenient to passengers having to travel out of direction and required to transfer, in order to reach their final destination. Four potential "superstops" were recommended with one in each of the following service area quadrants.

- South Quadrant – Florida Agricultural and Mechanical University (FAMU)
- North Quadrant – Tallahassee Mall or Northwood Centre
- East Quadrant – Governor's Square Mall
- West Quadrant – Florida State University (FSU)

**Recommended Modifications and New Service**

A number of modifications to existing TalTran routes and the implementation of new service were proposed in the COA that included the following:

- Adjust running times to reflect actual time that bus operators require to complete round trips;
- Delete an unproductive segment on the Route 17 due to low ridership to reduce overall route mileage and increase frequency;
- Increase frequency on five system routes, Routes 7, 9, 11, 23 and 26;
- New services to include direct travel between residential areas and Tallahassee Community College/Lively Vo-Tech, Governors Square Mall, Florida A&M University (FAMU), and Florida State University (FSU).

Table 3-11 summarizes all of CUTR's recommended service modifications, which were developed in conjunction with TalTran staff with a description of proposed modifications, number of additional buses required, annual revenue hours and annual costs associated with the modifications.

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Table 3-11: Description of Service Modifications and New Services

Route	Description of Improvements	Round Trip Distance (miles)	Peak Vehicle Requirement	Weekday Daily Revenue Hours	Weekday Round Trips	Weekday Miles	Saturday Daily Revenue Hours	Saturday Round Trips	Saturday Miles	Sunday Daily Revenue Hours	Sunday Round Trips	Sunday Miles	Total Annual Revenue Hours	Total Annual Vehicle Hours (includes 4% deadhead)	Total Annual Trips	Estimated Route Cost
<b>Headway Improvements</b>																
Route 7	Rt. 7 from 60 to 30 min headways	9.19	1	12.50	12.00	110.26							3,150.00	3,276.00	3,024.00	\$150,696.00
Route 9	Rt. 9 from 40 to 20 min headways	10.26	1	11.67	18.50	189.81							2,940.84	3,058.47	4,662.00	\$140,689.79
Route 11	Rt. 11 from 40 to 20 min headways	7.64	1	12.00	17.50	133.70							3,024.00	3,144.96	4,410.00	\$144,668.16
Route 23	Rt. 23 from 40 to 20 minutes headways	13.76	1	20.00	20.00	275.20							5,040.00	5,241.60	5,040.00	\$241,113.60
Route 26	Rt. 26 from 60 to 30 minutes headways	9.19	1	13.33	13.00	119.47							3,359.16	3,493.53	3,276.00	\$160,702.21
<b>New Area Coverage</b>																
New Route	High Rd/ Ocala Rd. to TOC via Mission Rd. (15 min frequency)	7.56	2	24.00	48.00	362.88	24.00	48.00	362.88				7,368.00	7,662.72	14,736.00	\$352,485.12
New Route	Tharpe Rd. to Stadium via Old Bainbridge (20 min. frequency)	7.54	2	24.00	36.00	271.44	24.00	36.00	271.44				7,368.00	7,662.72	11,052.00	\$352,485.12
New Route	FAMU to Governor's Sq. via Magnolia (20 min. frequency)	8.57	2	24.00	36.00	308.52	24.00	36.00	308.52	12.67	18.00	154.26	8,077.52	8,400.62	12,060.00	\$386,428.56
<b>New Taltran Totals</b>		<b>73.71</b>		<b>141.50</b>	<b>201.00</b>	<b>1771.30</b>	<b>72.00</b>	<b>120.00</b>	<b>942.84</b>	<b>12.67</b>	<b>18.00</b>	<b>154.26</b>	<b>40,327.52</b>	<b>41,940.62</b>	<b>58,260.00</b>	<b>\$1,929,268.56</b>
<b>Segment Deletion</b>																
Route 17	Rt. 17 from Hartsfield Rd. north to EOL from 60 to 40 minute headways	7.00			7.00	49.00		7.00	49.00				0.00	-	2,149.00	\$0.00
<b>Daily Total</b>			<b>11</b>	<b>141.50</b>	<b>208.00</b>	<b>1820.30</b>	<b>72.00</b>	<b>127.00</b>	<b>991.84</b>	<b>12.67</b>	<b>18.00</b>	<b>308.52</b>				
<b>Annual Total</b>				<b>35,658.00</b>	<b>52,416.00</b>	<b>446,367.60</b>	<b>3,960.00</b>	<b>6,965.00</b>	<b>54,551.20</b>	<b>709.52</b>	<b>1,008.00</b>	<b>17,277.12</b>	<b>40,327.52</b>	<b>41,940.62</b>	<b>58,260.00</b>	<b>\$1,929,268.56</b>

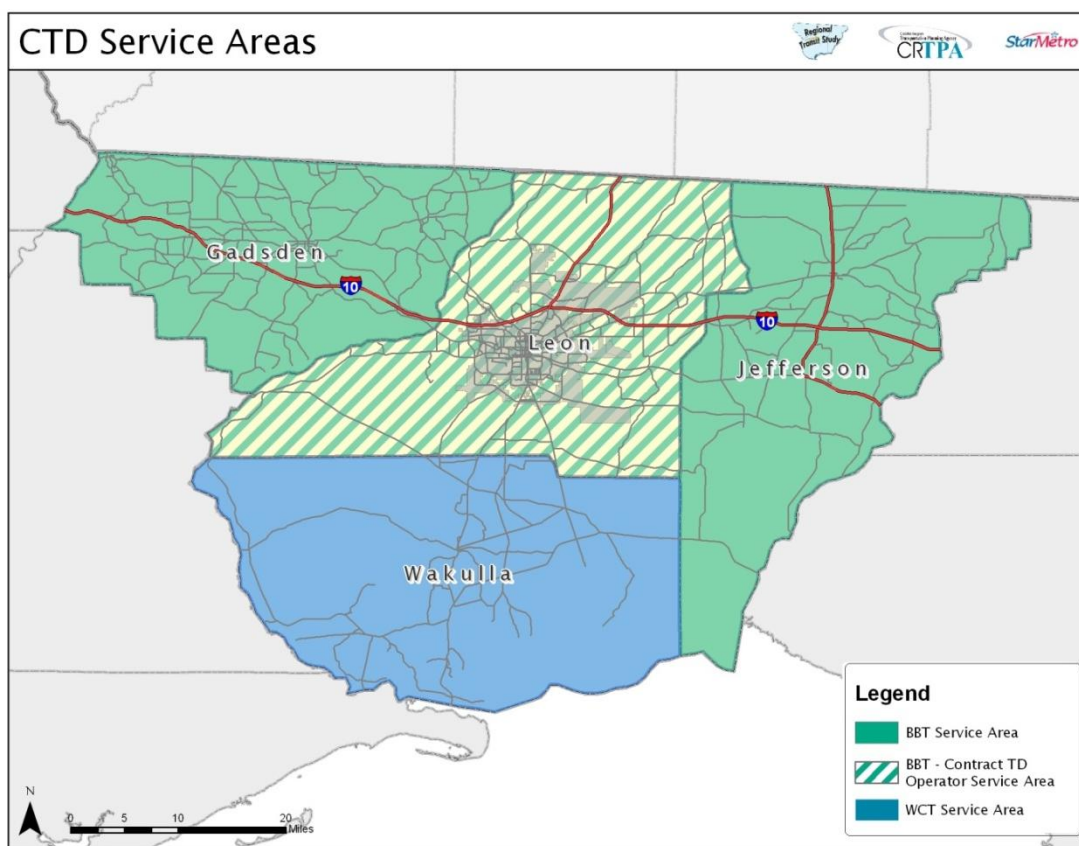
Taltran Service Modifications Total Annual Revenue Hours	40,327.52
Percentage Increase in Taltran Service	30.3%
Service Modifications Total Annual Revenue Hours (System)	40,327.52
Hourly Operating Cost	\$46.00

Source: TalTran Comprehensive Operations Analysis, Table 5-1

### 3.2 Big Bend Transit

Big Bend Transit (BBT) is a non-profit agency responsible for providing coordinated transportation services for Jefferson, Gadsden and Leon counties. Florida State law dictates that each county designates a community transportation coordinator (CTC) via the Florida State Commission for the Transportation Disadvantaged (CTD). BBT is the primary community transportation coordinator for Jefferson and Gadsden counties and is a subcontractor to StarMetro, the county CTC, to provide coordinated services in Leon County. BBT's service area within the four-county region encompasses 1,867 square miles and approximately 480,000 people. Figure 3-14 displays the CTD service areas in the four-county region.

Figure 3-14: CTD Service Areas



#### 3.2.1 Service Characteristics

Big Bend Transit primarily provides door-to-door demand response service within its service areas, although it also serves as a contract operator for a fixed route in Quincy (Figure 3-15). Because each county's Transportation Disadvantaged Coordinating Board dictates its respective county's transit needs, BBT's service characteristics vary depending on county. Several types of service are provided:

**Advanced Reservation, Intra-County:** Curb-to-curb (on exception, door-to-door), ambulatory/wheelchair, non-emergency transportation service within Gadsden County.

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**Advanced Reservation, Inter-County:** Curb-to-curb (on exception, door-to-door), ambulatory/wheelchair, non-emergency transportation service between Gadsden County and other Florida (and on occasion, South Georgia) counties.

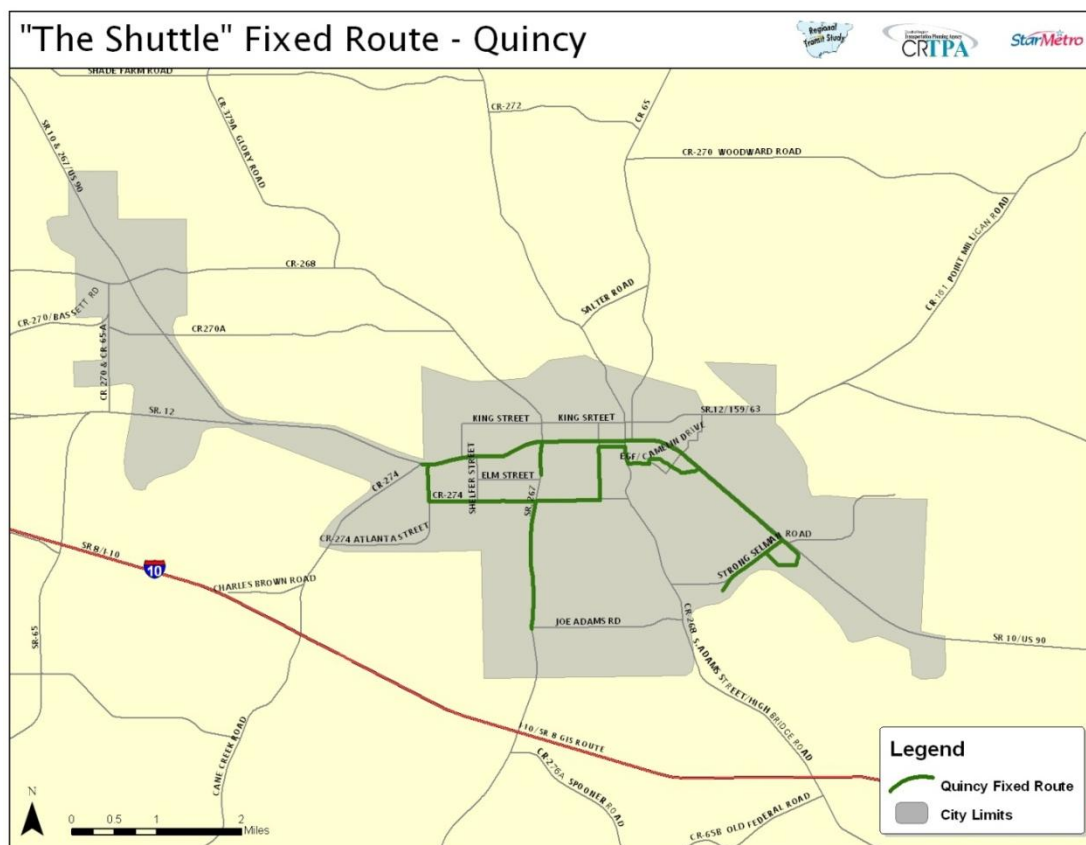
**Demand Response Service:** Curb-to-curb (on exception, door-to-door), ambulatory/wheelchair, non-emergency transportation service that is provided: 1) outside the specific areas of service, and/or 2) outside the specific periods of regular service, and/or 3) without proper advance notification.

**Non-Emergency Medical Stretcher Service:** Door-to-door, non-emergency medical stretcher transportation service, provided only to qualified Medicaid beneficiaries.

**Evacuation Service:** Door-to-door, ambulatory/wheelchair, transportation service, only to the extent of availability per agreement.

Service is generally provided Monday through Saturday from 6:00 AM to 8:00 PM in Gadsden County and 6:00 AM to 6:00 PM in Jefferson County, depending on trip type. Some inter-county advance-reserved trips depart on a regular schedule and/or only operate on a specific day of the week. "The Shuttle" fixed route in Quincy operates every 60 minutes Monday through Friday from 7:30 AM to 5:30 PM.

Figure 3-15: "The Shuttle" Fixed Route



BBT's fare structure for trips originating in Jefferson and Gadsden counties, as displayed in Table 3-12, distinguishes between intra-county and inter-county trips. Intra-county trips are a

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flat-rate fare based on transportation disadvantaged eligibility and special vehicle requirements such as a wheelchair lift. Inter-county trip fares are distance-based in addition to a base rate. Any companion or mobility assistant accompanying an eligible rider pays the same fare. The fare structure for trips originating in Leon County follows StarMetro's fare policy.

**Table 3-12: BBT Fare Structure, Gadsden and Jefferson Counties**

Intra-county	
One-way, TD Eligible	\$2.00
One-way, General Public Ambulatory	\$5.00
General Public Wheelchair	\$6.50
Inter-county	
One-way, TD Eligible	\$3.00 + \$.25/mile
One-way, General Public Ambulatory	\$7.50 + \$.70/mile
General Public Wheelchair	\$9.00 + \$.70/mile

### 3.2.2 Service Statistics

Tables 3-13 through 3-15 present BBT's service statistics for Gadsden, Jefferson, and Leon counties. Because CTD services are funded at the county level, operating and financial statistics are reported as such and are not aggregated for BBT as a whole.

**Table 3-13: BBT Service Statistics, Gadsden County, 2004 - 2008**

Measure	Gadsden				
	2004	2005	2006	2007	2008
Passenger Trips	141,437	123,145	95,169	83,008	68,780
Revenue Miles	916,720	802,239	755,298	699,100	602,397
Driver Hours	52,987	43,884	47,069	41,808	39,547
Total Operating Expense	\$ 1,614,006	\$ 1,664,131	\$ 1,862,351	\$ 1,683,249	\$ 1,635,345
Total Revenue	\$ 1,482,891	\$ 1,586,473	\$ 1,272,782	\$ 1,225,388	\$ 1,326,204
Cost/Passenger Trip	\$ 11.41	\$ 13.51	\$ 19.57	\$ 20.28	\$ 23.78
Cost/Revenue Mile	\$ 1.76	\$ 2.07	\$ 2.47	\$ 2.41	\$ 2.71
Cost/Revenue Hour	\$ 30.46	\$ 37.92	\$ 39.57	\$ 40.26	\$ 41.35

Source: Big Bend Transit CTD reports for FY 2004 – FY 2008.

Between 2004 and 2008, each major service productivity measure declined significantly in Gadsden County. Passenger trips, revenue miles, and driver hours declined 51%, 34%, and 25 percent, respectively. Additionally, cost per passenger trip increased 108%, while cost per revenue mile increased 54% and cost per revenue hour increased 36%. This is due to the fact that operating expenses increased slightly since 2004 while ridership was halved. Ridership on most CTD-funded providers has dropped in recent years due to reduced trip capacity caused by funding decreases.



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Table 3-14: BBT Service Statistics, Jefferson County, 2004 - 2008

Measure	Jefferson				
	2004	2005	2006	2007	2008
Passenger Trips	41,337	36,322	27,994	28,082	19,727
Revenue Miles	246,973	296,831	264,989	220,839	230,938
Driver Hours	13,736	18,462	17,641	14,694	13,879
Total Operating Expense	\$ 462,172	\$ 589,924	\$ 670,844	\$ 709,567	\$ 585,343
Total Revenue	\$ 695,163	\$ 530,946	\$ 628,434	\$ 833,124	\$ 820,152
Cost/Passenger Trip	\$ 11.18	\$ 16.24	\$ 23.96	\$ 25.27	\$ 29.67
Cost/Revenue Mile	\$ 1.87	\$ 1.99	\$ 2.53	\$ 3.21	\$ 2.53
Cost/Revenue Hour	\$ 33.65	\$ 31.95	\$ 38.03	\$ 48.29	\$ 42.17

Source: Big Bend Transit CTD reports for FY 2004 – FY 2008.

Similar patterns were present in Jefferson County, as passenger trips decreased 52% during the five year period. Revenue miles decreased six percent and driver hours were stable. Cost per passenger trip, cost per revenue mile, and cost per revenue hour all increased 165%, 35%, and 25%, respectively.

Table 3-15: BBT Service Statistics, Leon County, 2004 - 2008

Measure	Leon				
	2004	2005	2006	2007	2008
Passenger Trips	257,493	200,117	205,445	200,555	216,270
Revenue Miles	811,270	1,086,087	1,119,636	1,177,396	1,122,435
Driver Hours	68,924	66,890	68,433	65,945	68,333
Total Operating Expense	\$ 2,112,232	\$ 2,256,486	\$ 2,517,330	\$ 2,554,791	\$ 2,248,014
Total Revenue	\$ 1,678,152	\$ 1,656,008	\$ 1,774,280	\$ 1,837,553	\$ 1,852,793
Cost/Passenger Trip	\$ 8.20	\$ 11.28	\$ 12.25	\$ 12.74	\$ 10.39
Cost/Revenue Mile	\$ 2.60	\$ 2.08	\$ 2.25	\$ 2.17	\$ 2.00
Cost/Revenue Hour	\$ 30.65	\$ 33.73	\$ 36.79	\$ 38.74	\$ 32.90

Source: Big Bend Transit CTD reports for FY 2004 – FY 2008.

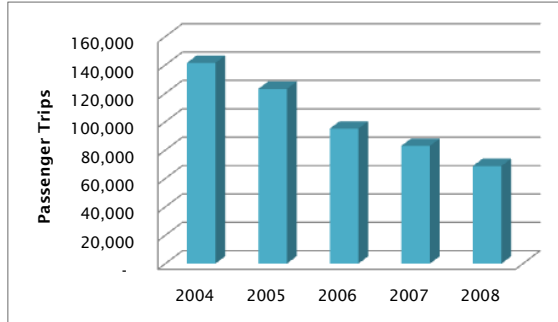
While passenger trips fell 16% in Leon County between 2004 and 2008, revenue miles increased 38%. Driver hours remained relatively stable with a one percent drop. Operating expenses and revenue increased six and ten percent, respectively. Cost per passenger trip increased 27%, while cost per revenue mile decreased 23%. Cost per revenue hour increased seven percent.

Figures 3-16 through 3-39 display these longitudinal service statistics for each county.

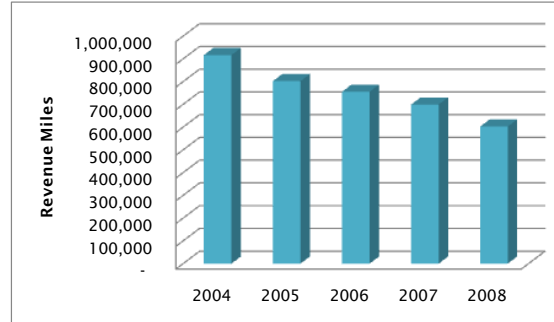


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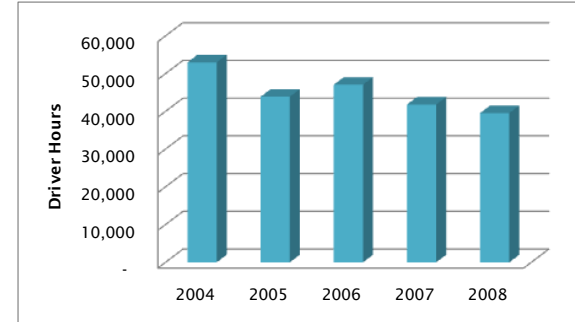
**Figure 3-16: Gadsden Passenger Trips (2008)**



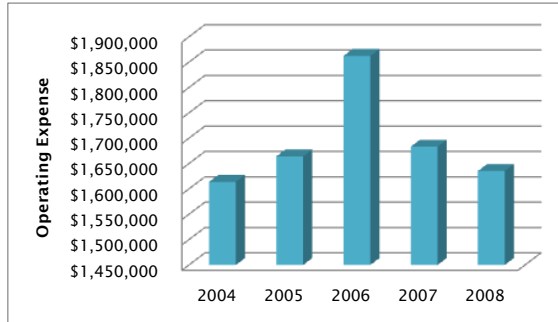
**Figure 3-17: Gadsden Revenue Miles (2008)**



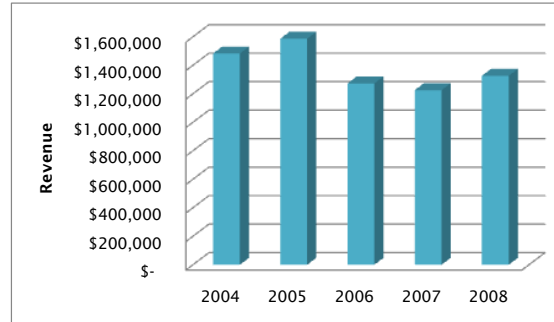
**Figure 3-18: Gadsden Driver Hours (2008)**



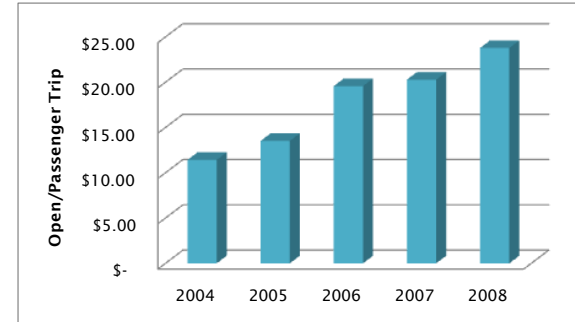
**Figure 3-19: Gadsden Operating Expense (2008)**



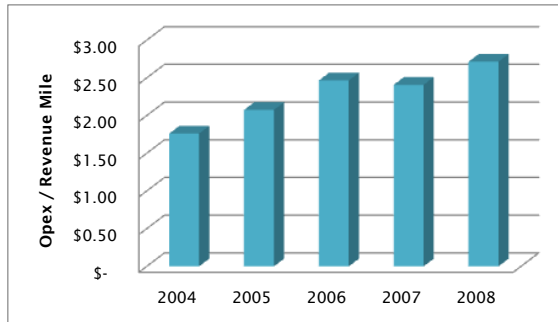
**Figure 3-20: Gadsden Operating Revenue (2008)**



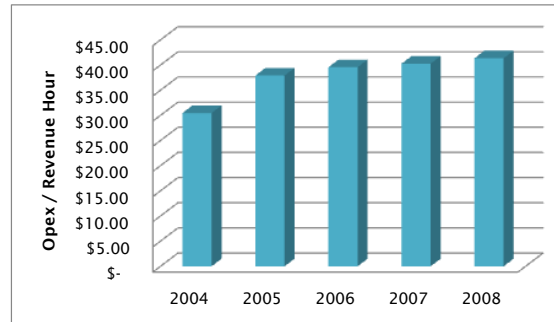
**Figure 3-21: Gadsden OPEX / Passenger Trip (2008)**



**Figure 3-22: Gadsden OPEX / Revenue Mile**

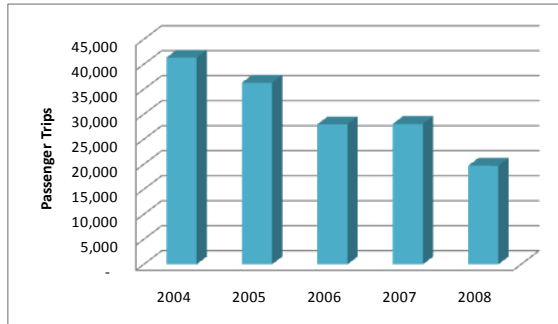


**Figure 3-23: Gadsden OPEX / Revenue Hour**

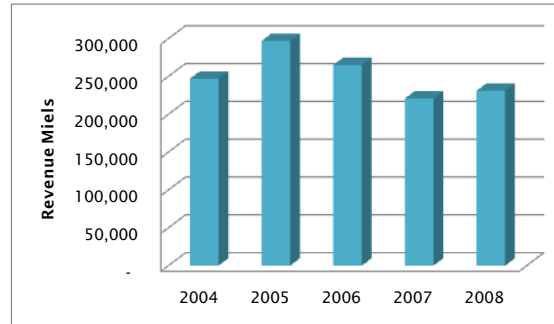


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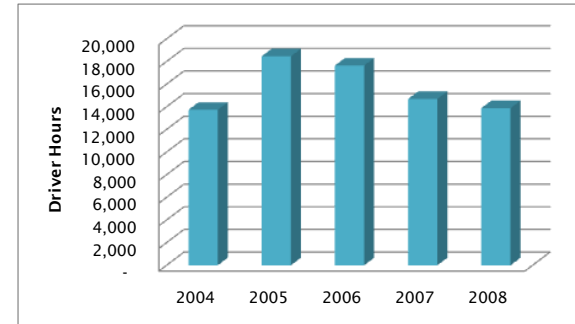
**Figure 3-24: Jefferson Passenger Trips**



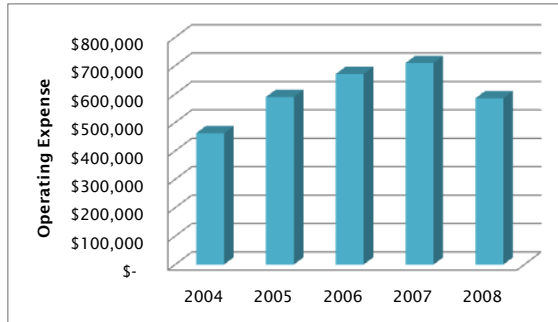
**Figure 3-25: Jefferson Revenue Miles (2008)**



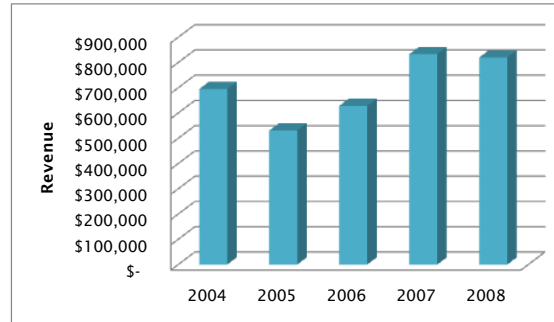
**Figure 3-26: Jefferson Driver Hours (2008)**



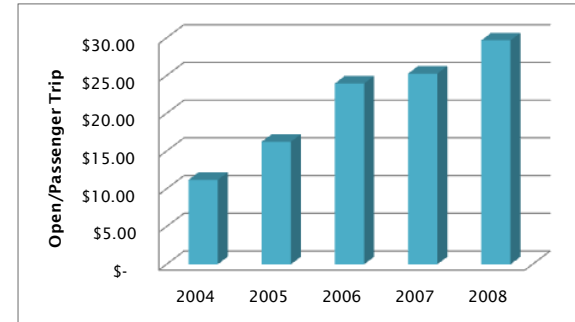
**Figure 3-27: Jefferson Operating Expense (2008)**



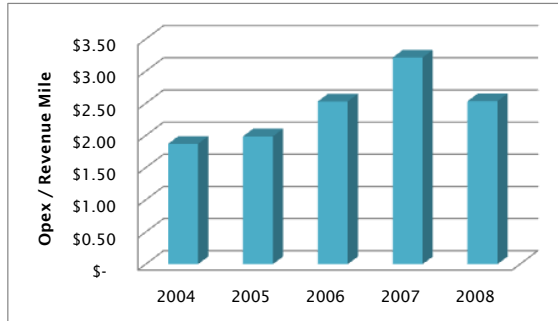
**Figure 3-28: Jefferson Operating Revenue (2008)**



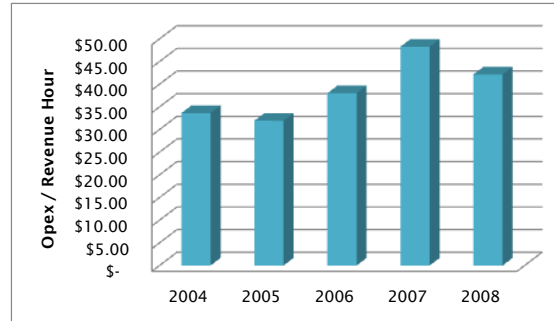
**Figure 3-29: Jefferson OPEX / Passenger Trip (2008)**



**Figure 3-30: Jefferson OPEX / Revenue Mile**



**Figure 3-31: Jefferson OPEX / Revenue Mile**



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Figure 3-32: Leon Passenger Trips

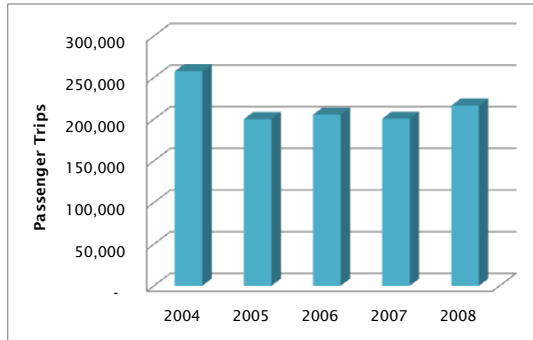


Figure 3-33: Leon Revenue Miles (2008)

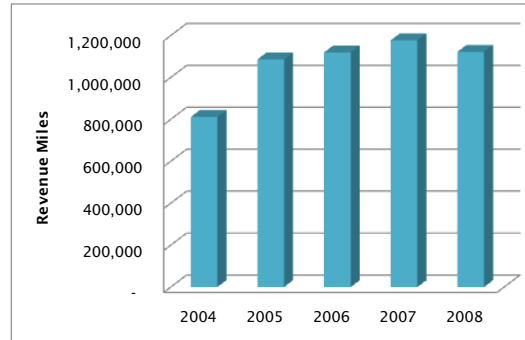


Figure 3-34: Leon Driver Hours (2008)

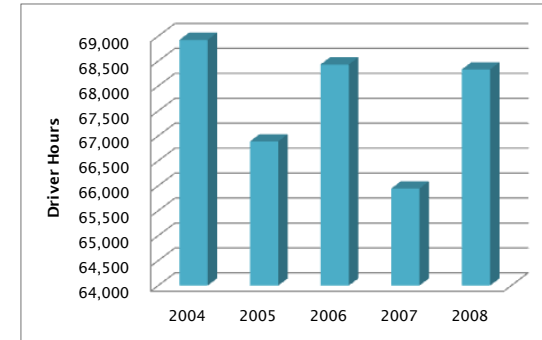


Figure 3-35: Leon Operating Expense (2008)

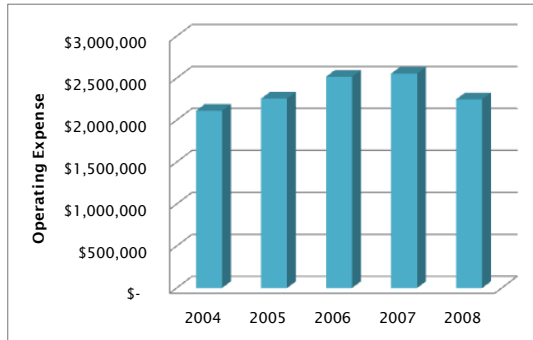


Figure 3-36: Leon Operating Revenue (2008)

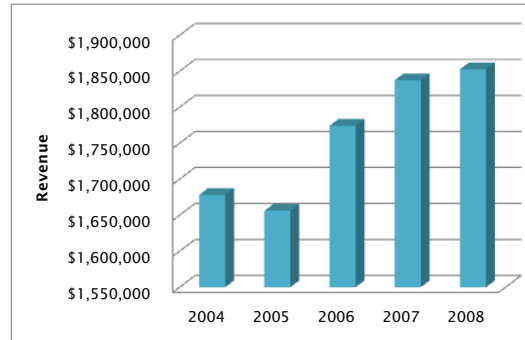


Figure 3-37: Leon OPEX / Passenger Trip

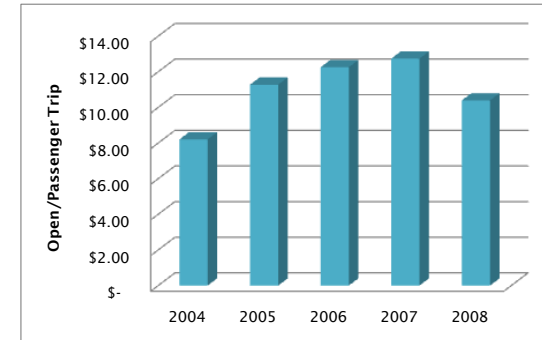


Figure 3-38: Leon OPEX / Revenue Mile

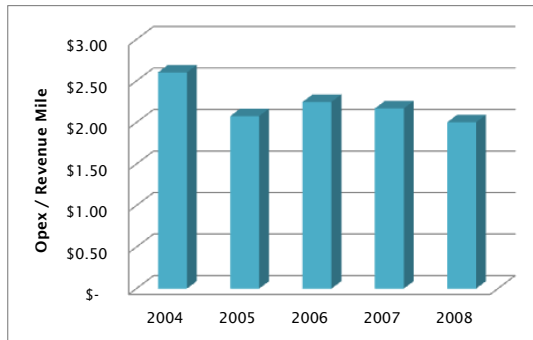
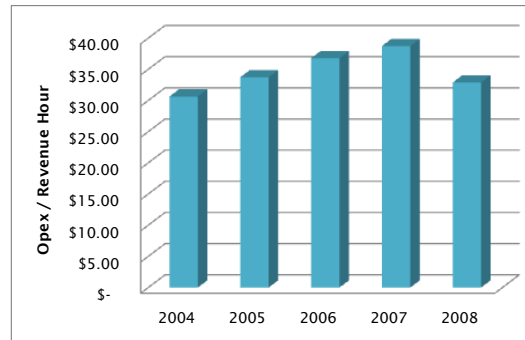


Figure 3-39: Leon OPEX / Revenue Hour

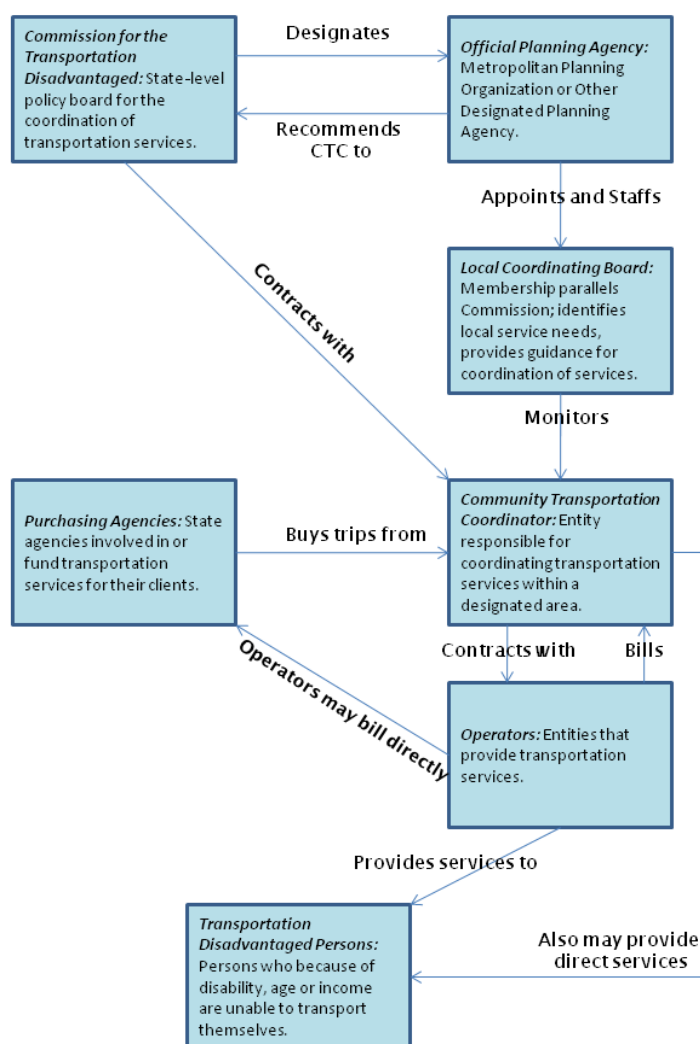


## Regional Transit Study

### 3.2.3 Organizational Structure and Current Staffing Level

In order to better understand BBT's organizational framework, a brief explanation of the Florida Transportation Disadvantaged (TD) Program is necessary. The TD program was created in 1979 by the Florida State Legislature and mandated that transportation services be made available to transit dependent populations. In 1989, the enabling legislation was amended to create an independent Commission for the Transportation Disadvantaged (CTD) which administrates the TD program. As illustrated in Figure 3-40, the CTD designates a regional planning agency to facilitate local TD coordinating boards and perform planning tasks. These local boards are at the county-level and are charged with identifying local service needs and monitoring the community transportation coordinator (CTC). The CTC is responsible for coordinating transportation services within its designated area. The CTC may also serve as the operator, though some CTC's, such as StarMetro, subcontract with outside operators. Various state, local, and federal agencies purchase trips from the CTC, which in turns uses those funds to reimburse the contract operator for the transportation services rendered.

**Figure 3-40: Florida TD Program Concept Chart**



## Regional Transit Study

For Gadsden and Jefferson counties, the Apalachee Regional Council is the official planning agency designated by the Florida CTD. In Leon County, CRTPA is the official planning agency. Gadsden, Jefferson, and Leon counties all have local coordinating boards that monitor the CTC.

Figure 3-41 describes BBT's organization framework. Under direction of a Board of Directors, the General Manager supervises five operating divisions: Administrative Services; Transportation Operations, Jefferson, Madison, and Taylor counties; Transportation Operations, Leon County; Transportation Operations, Gadsden County; and Maintenance. These divisions are explained below and a summary of employees by division is displayed in Table 3-16.

### ***Administrative Services***

The administrative services department is responsible for the financial, human resources, and other support functions. Three full-time and one part-time employee are housed in the administrative services department.

### ***Transportation Operations: Jefferson, Madison, Taylor counties***

The transportation operations - Jefferson, Madison, and Taylor counties is tasked with providing transportation services in those three counties. This includes all operator and support functions such as scheduling and dispatch. A transportation manager leads the division and is assisted by one assistant transportation manager. One scheduler and one dispatcher are housed in the department along with 16 full-time and two part-time drivers.

### ***Transportation Operations: Leon County***

The transportation operations - Leon County is tasked with providing transportation services in that county. This includes all operator and support functions such as scheduling and dispatch. A transportation manager leads the division and is assisted by one assistant transportation manager. One employee performs both the dispatch and scheduling functions along with 11 full-time and one part-time driver.

### ***Transportation Operations: Gadsden County***

The transportation operations - Gadsden County is tasked with providing transportation services in that county. This includes all operator and support functions such as scheduling and dispatch. A transportation manager leads the division and is assisted by one assistant transportation manager. One scheduler and one dispatcher are housed in the department along with 16 full-time and one part-time driver.

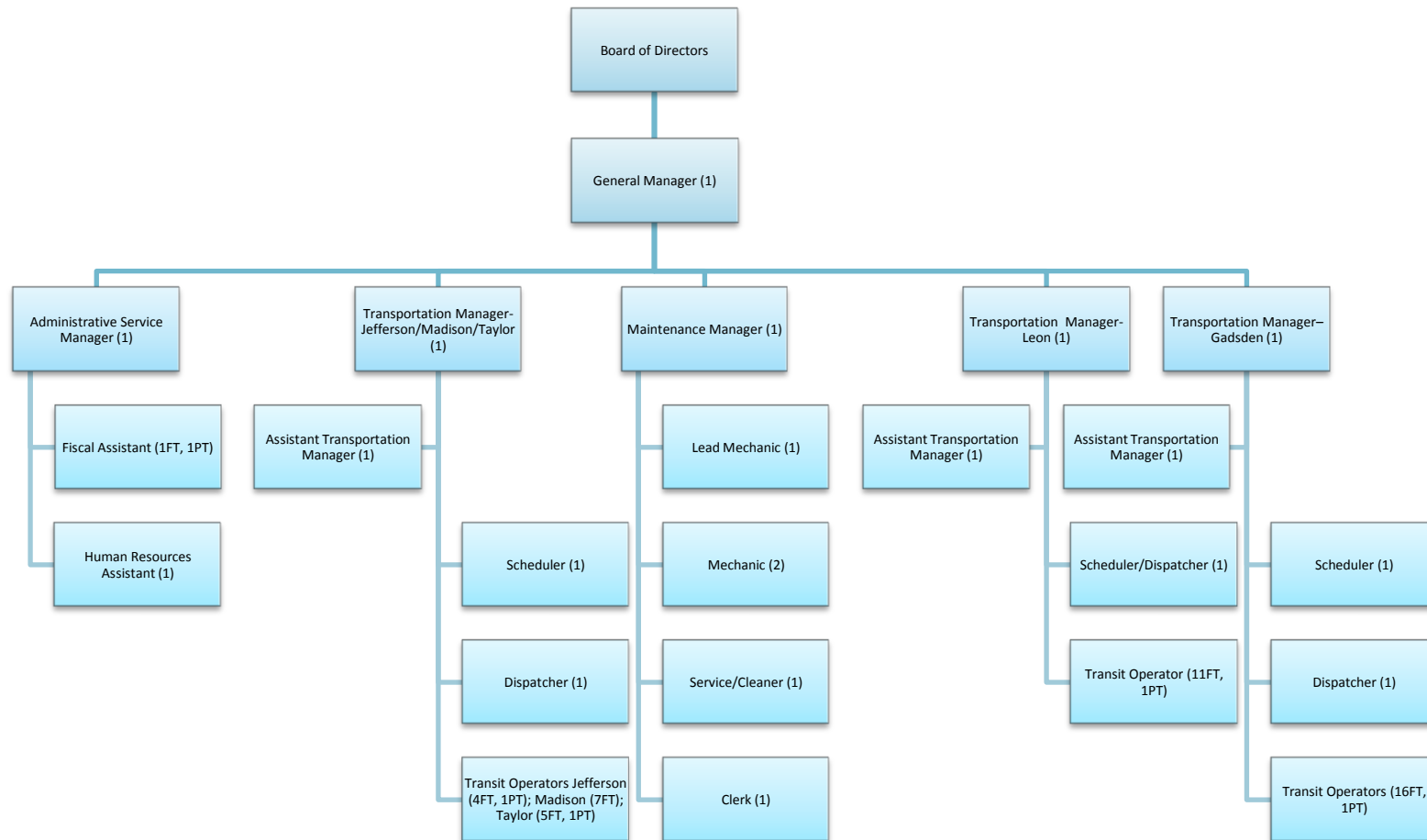
**Table 3-16: BBT Employees by Division**

### ***Maintenance***

The maintenance division performs all preventive and incidental maintenance activities for the BBT fleet, as well as vehicle servicing and cleaning functions. One maintenance manager, who also serves as BBT's safety director, is leads 1 three full-time mechanics, one vehicle cleaning clerk, and one general clerk.

<b><u>Department</u></b>	<b><u>Employees</u></b>
Administrative Services	4 FT, 1 PT
Trans. Ops. Jefferson, Madison, Taylor	20 FT, 2 PT
Trans. Ops. Leon	14 FT, 1PT
Trans. Ops. Gadsden	20 FT, 1 PT
Maintenance	6 FT
<b>Total FTE - Equivalent</b>	<b>64.5</b>

Figure 3-41: Big Bend Transit Organizational Chart



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### 3.2.4 Fleet Inventory and Replacement Plan

BBT's fleet consists of 44 vans, buses, and cutaway vehicles. Seating capacities on these vehicles range from 8 seats to 42 depending on vehicle size and configuration. Some vehicles are wheelchair lift-equipped. The average age of the fleet is 6 years for the Jefferson County vehicles and 5 years for the Gadsden County vehicles. Tables 3-17 and 3-18 detail BBT's vehicle fleet for both Jefferson and Gadsden Counties.

**Table 3-17: BBT Fleet - Jefferson County**

Bus #	MFG	Built	Type	# Seats
211	Dodge	2002	Van	11
304	Ford	2003	Cutaway	12
309	Ford	2003	Van	11
402	Ford	2004	Cutaway	12
405	Ford	2004	S Cutaway	8
406	Ford	2004	S Cutaway	8
407	Ford	2004	S Cutaway	8
612	Ford	2006	S Cutaway	8
615	Chevy	2006	Cutaway	12
618	Chevy	2006	Cutaway	12
702	Chevy	2007	S Cutaway	8
806	Chevy	2008	Cutaway	12
807	Chevy	2008	S Cutaway	8
-	Ford	2006	Van	-
-	Ford	1994	Van	-
-	Dodge	1990	Van	14
-	Bluebird	1996	Bus	42

**Table 3-18: BBT Fleet - Gadsden County**

Bus #	MFG	Built	Type	# Seats
211	Dodge	2002	Van	11
212	Dodge	2002	Van	11
213	Dodge	2002	Van	11
215	Dodge	2002	Van	11
301	Ford	2003	Cutaway	12
302	Ford	2003	Cutaway	12
303	Ford	2003	Cutaway	12
307	Ford	2003	Van	11
308	Ford	2003	Van	11
401	Ford	2004	Cutaway	12
410	Ford	2004	S Cutaway	8
412	Ford	2004	Van	11
502	Ford	2005	Cutaway	12
506	Ford	2005	S Cutaway	8
508	Ford	2005	S Cutaway	8
602	Ford	2006	Van	11
605	Ford	2006	Cutaway	12
607	Ford	2006	Cutaway	12
608	Ford	2006	Cutaway	12
610	Ford	2006	Cutaway	12
614	Ford	2006	Van	11
618	Chevy	2006	Cutaway	12
801	Chevy	2008	Cutaway	12
802	Chevy	2008	Cutaway	12
807	Chevy	2008	S Cutaway	8
-	Ford	2006	Van	-
-	Ford	1994	Van	-

BBT's vehicle replacement plans, as detailed in the Leon, Gadsden, and Jefferson county Transportation Disadvantaged Service Plans, are found in Table 3-21 for Leon County, Table 3-22 for Gadsden County, and Table 3-23 for Jefferson County.

## Regional Transit Study

### 3.2.5 Existing Operating Budgets

Table 3-19 breaks out BBT's operating expenditures for Gadsden, Jefferson, and Leon counties. Expenditure categories are based on standard CTD reporting procedures.

**Table 3-19: BBT Operating Expenses by Category, FY 2008**

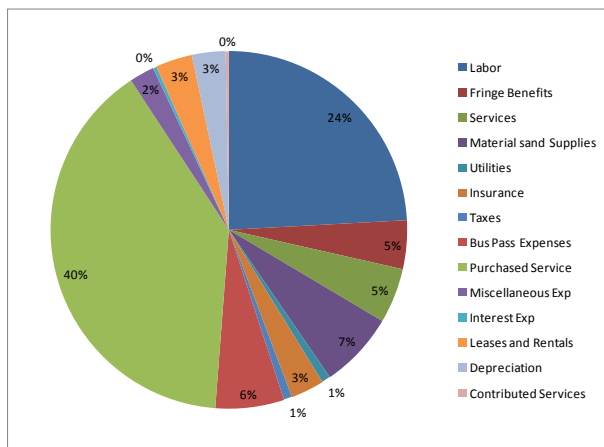
<b>Expenditures</b>	<b>Gadsden</b>	<b>Jefferson</b>	<b>Leon</b>
Labor	\$774,608	\$267,065	\$542,552
Fringe Benefits	\$316,613	\$109,160	\$99,073
Services	\$39,414	\$13,318	\$112,195
Material and Supplies	\$265,089	\$102,837	\$155,323
Utilities	\$17,330	\$5,777	\$17,719
Insurance	\$61,295	\$23,867	\$68,188
Taxes	\$675	\$263	\$16,715
Bus Pass Expenses	-	-	\$139,557
Purchased Service	\$5,708	\$4,677	\$889,132
Miscellaneous Exp	\$10,102	\$3,559	\$50,850
Interest Exp	-	-	\$7,310
Leases and Rentals	\$21,723	\$7,730	\$74,550
Depreciation	\$122,788	\$47,590	\$68,350
Contributed Services	-	-	\$6,500
<b>Total Expenditures</b>	<b>\$1,635,345</b>	<b>\$585,843</b>	<b>\$2,248,014</b>

Figures 3-42 through 3-44 display the relative proportion of expenditures by expense category for each county that BBT serves. Labor and employee benefit expenses account for the greatest portion of expenses in Gadsden and Jefferson counties, while purchased transportation accounts for the largest expense in Leon County due to contract arrangements with Sessaly Rose Transit. Operational expenses such as materials and supplies comprise the next largest expense category for Gadsden and Jefferson counties.

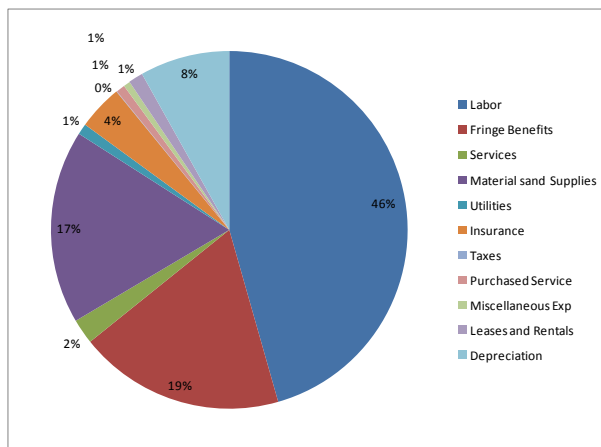


## Regional Transit Study

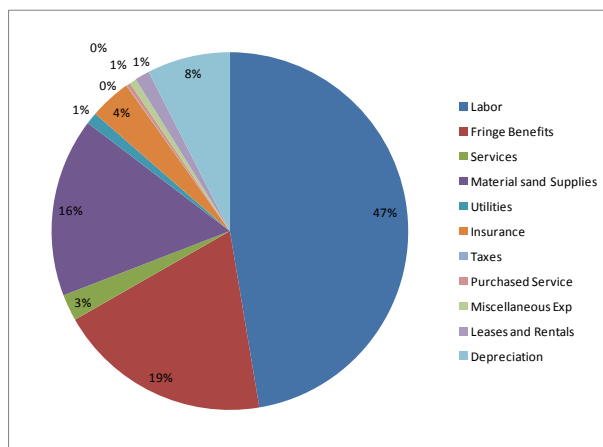
**Figure 3-42: BBT Expenditures by Category: Leon, FY 2008**



**Figure 3-43: BBT Expenditures by Category: Jefferson, FY 2008**



**Figure 3-44: BBT Expenditures by Category: Gadsden, FY 2008**



### 3.2.6 Existing Revenues and Funding Sources

As the local CTC for Gadsden and Jefferson counties and the contract service operator for Leon County, BBT receives funding from a variety of state and local agencies. Table 3-20 lists the operating revenues by category for each of BBT's counties. Intergovernmental funding is received from the following agencies:

- Commission for the Transportation Disadvantaged
- Florida Department of Transportation
- Florida Department of Children and Families
- Florida Agency for Health Care Administration
- Florida Department of Health
- Florida Department of Education

The remainder of BBT's funding comes from local government contributions and farebox revenues. As shown in Figures 3-45 through 3-47, the majority of BBT's revenue comes from the Florida Agency for Health Care Administration, which oversees distribution of MEDICAID-

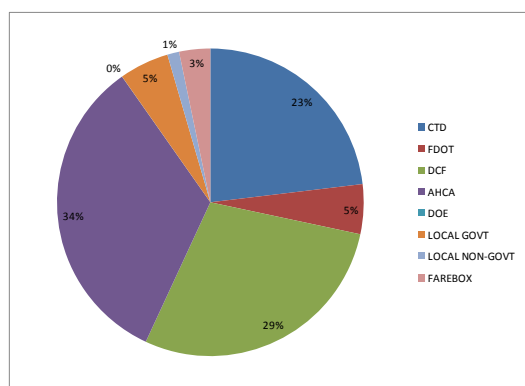
## Regional Transit Study

funded trips. The Commission for the Transportation Disadvantaged and Florida Department of Transportation also make sizable contributions to BBT's operating funds.

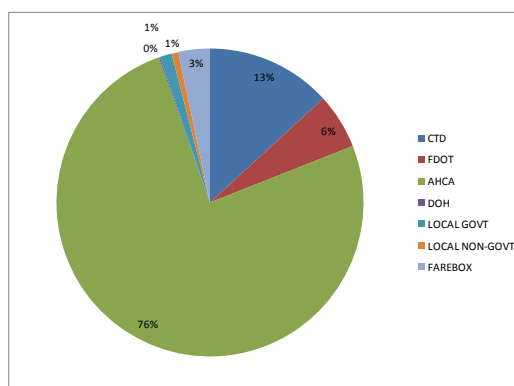
**Table 3-20: BBT Operating Revenues by Category, FY 2008**

Revenues	Gadsden	Jefferson	Leon
CTD	\$280,421	\$108,060	\$428,075
FDOT	\$201,918	\$47,864	\$97,106
Dept. Children and Families (DCF)	\$1	-	\$529,085
Agency for Health Care Administration (AHCA)	\$647,177	\$619,921	\$617,743
Dept. of Health (DOH)	\$7,687	\$1,007	-
Dept. of Education (DOE)	-	-	\$213
Local Government	\$57,284	\$10,352	\$97,010
Other Local	\$68,539	\$5,800	\$23,037
Farebox	\$63,177	\$27,148	\$60,524
<b>Total Revenue</b>	<b>\$1,326,204</b>	<b>\$820,152</b>	<b>\$1,852,793</b>

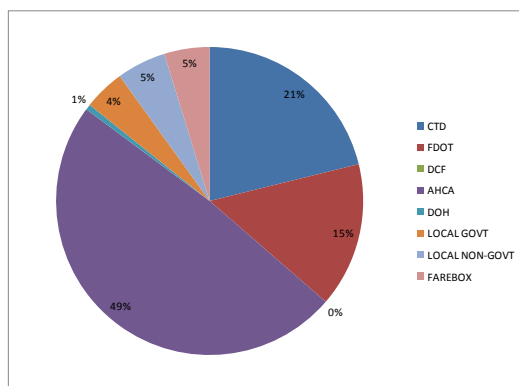
**Figure 3-45: BBT Revenues by Category: Leon, FY 2008**



**Figure 3-46: BBT Revenues by Category: Jefferson, FY 2008**



**Figure 3-47: BBT Revenues by Category: Gadsden, FY 2008**



### 3.2.7 Inventory of Facilities and Major Assets

Big Bend Transit utilizes three facilities for operation, dispatch and scheduling, vehicle storage and maintenance of its vehicles for service in the Capital Region. The main facility is located in Tallahassee and is used for Big Bend Transit's operation and administrative functions. This facility provides storage of vehicles, fueling, and preventive and corrective maintenance. Vehicles from the other counties, including Gadsden and Jefferson County, are shuttled to the main facility for maintenance. Big Bend Transit has facilities in both Quincy (Gadsden County) and Monticello (Jefferson County) that are used for operations and vehicle storage. The facility in Monticello also functions as a dispatch and scheduling site.

### 3.2.8 Five-year Service Plans

#### ***Leon County Transportation Disadvantaged Service Plan Fiscal Year 2007-2012***

A five-year service plan was developed by the Leon County Transportation Disadvantaged Coordinating Board, Big Bend Transit and the Apalachee Regional Planning Council in 2006.

Goals, objectives and strategies were developed to help implement the Transportation Disadvantaged Service Plan. The goals and objectives are intended to be evaluated annually to identify needs and solutions, as well as service improvements and expansions. Table 3-21 includes identified improvements.

#### ***Goal 1: Ensure availability of service to the transportation disadvantaged.***

**Objective 1:** Promote the provision of services to meet the demand for sponsored and non-sponsored trips.

**Objective 2:** Promote a variety of transportation services to serve the diversity of user needs

**Policy 1.2.1:** The CTC will continue to implement the bus pass program.

**Objective 3:** The Coordinating Board has established eligibility criteria to be implemented by the Community Transportation Coordinator.

**Policy 1.3.1:** The Coordinating Board shall review eligibility criteria on a regular basis, and amend as necessary.

**Objective 4:** As necessary, the Coordinating Board will establish or amend priorities for the types of trips provided by the coordinated system.

**Objective 5:** The Coordinating Board and the CTC shall participate in the emergency preparedness plan of the City of Tallahassee and Leon County.

#### ***Goal 2: Ensure that service is delivered in the most effective and efficient manner.***

**Objective 1:** Promote and implement the most cost-effective method of transportation.

**Policy 2.2.1:** The CTC shall explore opportunities to coordinate transportation with Leon County Schools.

**Policy 2.2.2:** The CTC shall utilize the most cost effective mode of transportation for out-of-county trips.

**Policy 2.2.3:** The CTC shall work cooperatively with the Commuter Services of North Florida on a TD commuter assistance program.

**Policy 2.2.4:** The Coordinating Board shall evaluate the Coordinated System to identify any needed improvements.

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**Policy 2.2.5:** The CTC will continue to utilize an automated system for trip scheduling and tracking purposes.

**Goal 3: *Ensure that quality of service meets the established standards.***

**Objective 1:** Provide courteous customer relations and passenger comfort.

**Objective 2:** Seek service that minimizes customer travel and wait times.

**Objective 3:** Provide safe and reliable service, through the implementation of the following policies:

**Policy 3.3.1:** The CTC shall require all system operators to develop and maintain vehicle maintenance reports.

**Policy 3.3.2:** The Coordinating Board and the CTC shall identify training needs. The CTC shall organize training sessions for operators in those identified areas.

**Objective 4:** The Coordinating board shall adopt standards for a quality improvement program for implementation by the CTC.

**Policy 3.4.1:** The TDCB and CTC will continue its complaint and commendation process.

**Policy 3.4.2:** The TDCB will implement a commendation process through the Annual Awards Program of the Commission for the Transportation Disadvantaged.

**Policy 3.4.3:** The TDCB will annually promote local excellence through the use of the Capital Region Transportation Planning Agency Awards. The awards will be the Safety Award and the Driver Award. Nominations will be sought from operators in Gadsden, Leon and Wakulla Counties.

**Goal 4: *Ensure program accountability.***

**Objective 1:** Adhere to procedures, rules and regulations, and standards established by the Federal government, State of Florida, and the Commission for the Transportation Disadvantaged.

**Objective 2:** The Coordinating Board shall require the CTC to furnish uniform, accurate, and timely submittals of specified data and contracts.

**Policy 4.2.1:** Continue to submit an accurate Annual Operating Report (AOR), including data from all purchase of service and coordination contracts.

**Goal 5: *Monitor the system to determine that community transportation disadvantaged needs are being met.***

**Objective 1:** Each year the Coordinating Board will conduct an annual public hearing.

**Objective 2:** Each year the Coordinating Board will determine the need to conduct an annual survey of riders.

**Objective 3:** Each year the Coordinating Board will determine the need to conduct an annual survey of purchasing agents.

**Objective 4:** Each year the Coordinating Board will conduct an evaluation of the Community Transportation Coordinator.

**Goal 6: *Ensure Coordinating Board development and function.***

**Objective 1:** Ensure effective participation of the Coordinating Board through the following policies:

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**Policy 6.1.1:** The coordinating board shall maintain the Grievance, and CTC Evaluation subcommittees. Other subcommittees may be established as needed.

**Policy 6.1.2:** Depending on financial resources, the Coordinating Board shall send at least one Board Member to a state, regional, or national transportation meeting annually.

**Objective 2:** Provide new board members with orientation of transportation disadvantaged laws, regulations, and policies.

**Objective 3:** Continue Transportation Disadvantaged Board training as needed.

**Policy 6.3.1:** To increase Board member awareness, the Coordinating

Board shall annually evaluate the need for a one-day retreat for goal setting, planning and operations review, and encourage members to ride at least two routes each year to evaluate driver and system performance.

### ***Goal 7: Improve awareness of system services and limitations.***

**Objective 1:** Provide information on the availability of service, schedules, routes, and rate structure

**Policy 7.1.1:** The Coordinating Board, in cooperation with the CTC, shall conduct a continuous public information program. This program may include, but not be limited to, the CRTPA newsletter, articles in the newspaper and /or inserts in utility bills, public service announcements, radio ads, television ads, talk shows, the telephone book, and the Internet.

**Policy 7.1.2:** The Coordinating Board will continue to fully coordinate its efforts with the update of the Capital Region Transportation Planning Agency Community Involvement Plan, and include policies and strategies that will comply with Title VI of the Civil Rights Act of 1964.

**Policy 7.1.3:** The Coordinated Board will endeavor to improve the transportation system by making the medical and user community aware of the system functions and limitations.

**Policy 7.1.4:** The Coordinating Board will establish a Speaker's Bureau.

**Policy 7.1.5:** The Coordinating Board will increase its efforts to promote the Voluntary Dollar Program.

### ***Goal 8: Promote Community Resource Development***

**Objective 1:** Lobby the City of Tallahassee to sustain their participation in the coordinated system.

**Objective 2:** Lobby Leon County to increase their participation in the coordinated system.

**Objective 3:** Lobby the State Legislature.

**Objective 4:** Explore alternative revenue sources.

### ***Goal 9: Create Additional Transportation Opportunities***

**Objective 1:** The Coordinating Board will take a pro-active role in developing other transportation opportunities for the Transportation Disadvantaged.

**Policy 9.1.1.:** The Coordinating Board will take participate in the development of the Year 2030 Long Range Transportation Plan.

**Policy 9.1.2.:** Continue to distribute and follow-up on data/complaints submitted on the Pedestrian Complaint Form.

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**Table 3-21: Leon County Five-Year Transportation Disadvantaged Improvement Plan**

Project	Improvement	Estimated Cost	Estimated Revenue Source
Purchase replacement paratransit vehicle to provide transportation for the elderly and disabled.	(1) 11-passenger van	\$22,740	CTD CTC

### ***Gadsden County Transportation Disadvantaged Service Plan Fiscal Year 2007-2012***

A five-year service plan was developed by the Gadsden County Transportation Disadvantaged Coordinating Board, Big Bend Transit and the Apalachee Regional Planning Council updated in May 2008.

Goals, objectives and strategies were developed to help implement the Transportation Disadvantaged Service Plan. The goals and objectives are intended to be evaluated annually to identify needs and solutions, as well as service improvements and expansions, anticipated to be implemented by June 2013.

**Table 3-22: Gadsden County Five-Year Transportation Disadvantaged Improvement Plan**

Project	Improvement	Estimated Cost	Estimated Revenue Source
Purchase replacement paratransit vehicle to provide transportation for the elderly and disabled.	(3) 23' cutaway buses with lift equipment	\$201,000	FTA, DOT, CTC Sec. 5310
	(5) 21' cutaway buses with lift equipment	\$290,000	
	(2) 11-passenger vans	\$39,000	
Provide public transportation in the rural area of the county.	Operating Assistance	\$1,250,000	FTA, DOT, CTC Sec. 5311
Purchase expansion paratransit vehicle to provide transportation for the disadvantaged citizens residing in the county.	(4) 11-passenger vans	\$80,000	CTD, CTC

### ***Jefferson County Transportation Disadvantaged Service Plan Fiscal Year 2008-2013***

A five-year service plan was developed by the Jefferson County Transportation Disadvantaged Coordinating Board, Big Bend Transit and the Apalachee Regional Planning Council in November 2008.

Goals, objectives and strategies were developed to help implement the Transportation Disadvantaged Service Plan. The goals and objectives are intended to be evaluated annually to identify needs and solutions, as well as service improvements and expansions, anticipated to be implemented by June 2013.

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### Goals, Objectives and Strategies

- *Goal – Increase the number of transportation disadvantaged persons served by the coordinated system.*
- *Objective 1 – Improve the availability of transportation service to persons who are transportation disadvantaged.*
  - *Increase the number of non-sponsored trips*
  - *Increase the number of sponsored trips*
  - *Maintain the expand the client data base relating to the clients' needs and capabilities*
  - *Utilize Purchase of Service Agreements or rate agreements with all agencies that purchase transportation services with public funds*
  - *Work with purchasing agencies to arrange services with permit the grouping of rides*
  - *Prepare a user's guide and update when needed*
  - *Provide at least four newspaper articles per calendar year regarding services*
  - *Provide announcements to local newspapers announcing public hearings*
- *Objective 2 – Ensure that service is delivered in the most cost effective and efficient manner.*
  - *Maintain an operational fleet of vehicles to meet all needs*
  - *Evaluate and revise routes and schedules when needed*
  - *Develop a workable budget and keep within budget*
  - *Review driver logs for areas of inefficient use of time, drivers, and miles*
  - *Review driver non-revenue hours and reduce when possible*
  - *Review routes, schedules and type of services being provided*
  - *Contract with an adequate number of operators to meet the needs*
- *Objective 3 – Ensure that safe and quality service is provided.*
  - *Provide training on customer satisfaction*
  - *Provide training on passenger assistance techniques*
  - *Maintain an operational fleet of vehicles to meet all needs*
  - *Review routes, schedules and type of services being provided*
  - *Report accidents and roadcalls to the Local Coordinating Board (LCB)*
  - *Review operator contracts for compliance with safety requirements*
  - *Annually review SSPP and amend as needed*
  - *Provide opportunities for riders to express concerns and suggestions on service delivery*
  - *Sponsor at least one public hearing each year for public comment*
  - *Schedule an opportunity for public comments on all LCB agendas*
  - *Address public organizations and agencies regarding services*

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- *Objective 4 – Secure necessary funding to support the TD program.*
  - *Address public organizations and agencies on the need of local financial support*
  - *Promote the voluntary dollar program*
- *Objective 5 – Ensure program accountability.*
  - Provide documents to the LCB for review (AOR, MOA, TDSP, TDTF application)
  - Provide, at least quarterly, operational and financial information to the LCB
  - Provide a copy of audit or annual financial report to LCB
  - Provide copies of purchasing agency evaluation/monitoring reports to LCB
  - Perform annual evaluation to CTC

**Table 3-23: Jefferson County Five-Year Transportation Disadvantaged Improvement Plan**

Project	Improvement	Estimated Cost	Estimated Revenue Source
Purchase replacement paratransit vehicle to provide transportation for the elderly and disabled.	(10) 23' cutaway buses with lift equipment (3) 21' cutaway buses with lift equipment (9) 11-passenger vans	\$670,000  \$175,500	FTA, DOT, CTC Sec. 5310
Provide Intra-County Fixed Route Service	Operating Assistance	\$320,000	FTA, DOT, Local Sec. 5311
Provide Rural to Urban Service for life sustaining purposes	Operating Assistance	\$550,000	FTA, DOT, Local Sec. 5311
Provide paratransit transportation service to the elderly, handicapped and disadvantaged citizens residing in the county	Operating Assistance	\$925,200	FTA, DOT, Local Sec. 5311
Purchase expansion paratransit vehicle to provide transportation for the disadvantaged citizens residing in the county.	(4) 11-passenger vans	\$80,000	CTD CTC

### 3.3 Wakulla County Transportation

Wakulla County Transportation (WCT), an operating unit of the Wakulla County Senior Citizens Council, Inc., has been providing coordinated transportation services in Wakulla County since 1990. WCT had been providing human services transportation prior to being designated the county CTC and was chosen based on its existing fleet of vehicles and expertise. In 2008, WCT provided over 25,000 passenger trips and had a total operating expense of \$418,407 and revenues of \$422,562.



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### 3.3.1 Service Characteristics

WCT provides demand-response service throughout Wakulla County and operates some inter-county trips. At present, WCT does not operate any fixed routes. WCT provides several types of trips:

**Reservation:** Door to door service requiring 48-hour advance notice. Pick up and drop off points vary.

**Subscription:** Door to door service in which routes and schedules are pre-arranged. Passengers are picked up at the same time and location, taken to the same destination and returned to the origin in the same manner.

**Demand:** Door to door service is available to users that provide less than 24 hours notice. Demand trips are not cost effective and are not encouraged. Passengers must provide written statements from their physician stating the reason the appointment can not wait until advance reservations can be made. Demand trips are honored based upon the driver and vehicle availability.

**After Hour, Weekend, and Group Trips:** After hour and weekend trips are provided as requested on a reservation basis. Group trips shall be considered as 10 or more persons going to the same destination.

WCT does not provide regular service on weekends or major holidays. The typical hours of operation are listed in Table 3-24, below.

**Table 3-24: WCT Hours of Operation by Trip Purpose**

Purpose	Days of the Week	Time of Day
Senior Citizens - meal site	Monday - Friday	7:30am - 4:30pm
Tallahassee - medical	Monday - Thursday	6:30am - 12:00pm
Local - medical	Monday - Thursday	8:00am - 11:30pm
Local - shopping	Wednesday and Thursday	12:30pm - 2:00pm
Developmental services	Monday - Friday	7:00am - 3:30pm

WCT's fare structure is listed in Table 3-25.

**Table 3-25: WCT Fare Structure**

Type	Fare
Medicaid Trip	\$.80 / mile
All other trips	\$1.31 / mile

### 3.3.2 Service Statistics

Table 3-26 provides WCT's service statistics for the five year period between 2004 and 2008. The trends displayed over this time period are similar to those seen in BBT's rural service areas, as passenger trips, revenue miles, and driver hours all decreased substantially, at 28 percent, 15 percent, and 21 percent, respectively. Both operating expense and total revenue increased seven percent, while cost per passenger trip, cost per revenue mile, and cost per revenue hour increased 49 percent, 26 percent, and 36 percent, respectively. As was the case with BBT, the

## Regional Transit Study

decrease in ridership is directly related to the decrease in revenue miles provided. As funding has decreased in recent years, so has the CTD providers' ability to provide trips. The reduced trip capacity has caused a significant decrease in CTD ridership.

**Table 3-26: WCT Service Statistics, FY 2004 - 2008**

Measure	Wakulla County Transportation				
	Wakulla				
	2004	2005	2006	2007	2008
Passenger Trips	35,774	30,279	26,689	28,863	25,729
Revenue Miles	322,792	301,062	291,861	291,181	275,362
Driver Hours	20,440	18,880	16,536	16,120	16,120
Total Operating Expense	\$ 390,578	\$ 373,318	\$ 418,938	\$ 412,481	\$ 418,407
Total Revenue	\$ 394,820	\$ 349,318	\$ 395,201	\$ 427,578	\$ 422,562
Cost/Passenger Trip	\$ 10.92	\$ 12.33	\$ 15.70	\$ 14.29	\$ 16.26
Cost/Revenue Mile	\$ 1.21	\$ 1.24	\$ 1.44	\$ 1.42	\$ 1.52
Cost/Revenue Hour	\$ 19.11	\$ 19.77	\$ 25.33	\$ 25.59	\$ 25.96

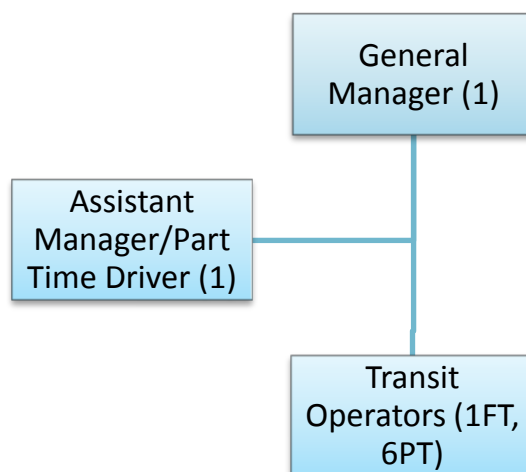
Source: Wakulla County Transit CTD reports for FY 2004 – FY 2008.

### 3.3.3 Organizational Structure and Current Staffing Level

Because it is a CTD operator, WCT's institutional framework is similar to BBT's. See Section 5.2.3 for a detailed explanation of the Florida CTD system. WCT, a component of the Wakulla County Senior Citizens Council, Inc., is both the CTC and operator for Wakulla County as designated by the Apalachee Regional Council.

Figure 3-48 outlines WCT's organization structure. The agency is led by a General Manager who assumes most administrative functions for the organization. An Assistant Manager, who is also a part-time driver, performs some office-based administrative work. There is one full-time transit operator and six part-time operators. All maintenance functions are performed on a contract-basis by an outside provider.

**Figure 3-48: WCT Organizational Chart**



## Regional Transit Study

### 3.3.4 Fleet Inventory and Replacement Plan

WCT's fleet consists of ten vans and cutaway vehicles. Seating capacities on these vehicles range from 3 seats to 13 depending on vehicle size and configuration. Some vehicles are wheelchair lift-equipped. The average age of the fleet is 7 years. Table 3-27 details WCT's vehicle fleet.

**Table 3-27: WCT Fleet Inventory**

Bus #	MFG	Built	Type	# Seats
1	Ford	2004	Cutaway	13
2	Dodge	1994	Van	4
3	Ford	2002	Cutaway	12
4	Chevy	2005	Van	3
5	Chevy	2006	Van	3
8	Ford	2003	Cutaway	12
13	Ford	2005	Cutaway	8
22	Chevy	2001	Van	12
23	Chevy	1998	Van	4
6	Chevy	2007	Van	8

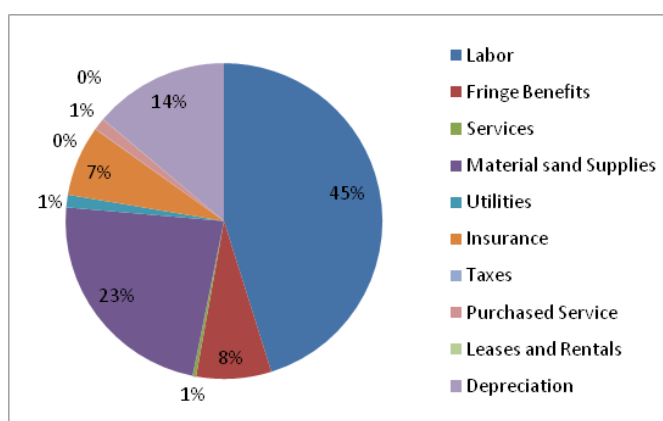
### 3.3.5 Existing Operating Budget

WCT had an operating budget of just over \$418,000 in FY 2008, as shown in Table 3-28. Labor accounts for the greatest portion of operating costs at 45%, followed by materials and supplies at 23% and depreciation at 14%.

**Table 3-28: WCT Expenses by Category, FY 2008**

Expenditures	FY 2008 Actual
Labor	\$188,901
Fringe Benefits	\$32,176
Services	\$1,501
Materials and Supplies	\$97,002
Utilities	\$5,379
Insurance	\$30,096
Taxes	\$163
Purchased Service	\$5,089
Leases and Rentals	\$100
Depreciation	\$58,000
<b>Total Expenditures</b>	<b>\$418,407</b>

**Figure 3-49: WCT Operating Expenditures by Category, FY 2008**



## Regional Transit Study

### 3.3.6 Existing Revenues and Funding Sources

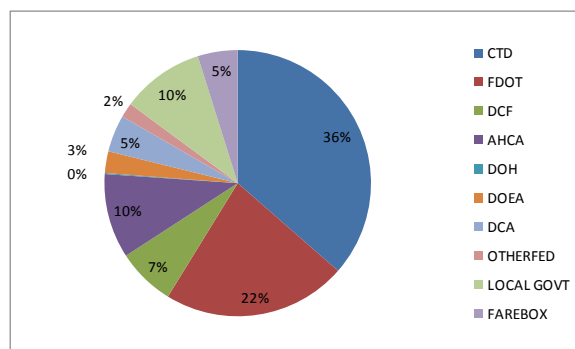
WCT's operating revenues by category, as reported to the CTD, is listed in Table 3-29. Intergovernmental funding is received from the following agencies:

- Commission for the Transportation Disadvantaged
- Florida Department of Transportation
- Florida Department of Children and Families
- Florida Agency for Health Care Administration
- Florida Department of Health
- Florida Department of Community Affairs
- Florida Department of Education
- Florida Department of Elder Affairs

**Table 3-29: ECT Operating Revenues by Category, FY 2008**

Revenues	FY 2008 Actual
CTD	\$153,944
FDOT	\$94,398
Dept. of Children and Families (DCF)	\$29,814
Agency for Health Care Administration (AHCA)	\$43,382
Dept. of Health (DOH)	\$543
Dept. of Elder Affairs (DOEA)	\$11,133
Dept. of Community Affairs (DCA)	\$18,987
Other Federal	\$7,500
Local Government	\$42,412
Farebox	\$20,449
<b>Total Revenue</b>	<b>\$422,562</b>

**Figure 3-50: WCT Revenues by Category, FY 2008**



CTD funding accounts for the majority (36%) of WCT's funding. FDOT contributes 22%, while other state agencies contributed 22%. Other federal funding streams, local government contributions, and farebox revenues accounted for the remainder of WCT's funding.

### 3.3.7 Inventory of Facilities and Major Assets

WCT owns limited capital facilities due to its small size. WCT stores its vehicles at the Wakulla County Senior Citizens center, which also houses its administrative offices. Fueling takes place off-site at an FDOT refueling depot. Maintenance is also performed off-site at a contract shop.

### **3.3.8 Five-year Service Plan**

#### ***Wakulla County Transportation Disadvantaged Service Plan Fiscal Year 2006-2011***

A five-year service plan was developed by the Wakulla County Transportation Disadvantaged Coordinating Board, Big Bend Transit and the Apalachee Regional Planning Council updated in May 2008.

Goals, objectives and strategies were developed to help implement the Transportation Disadvantaged Service Plan. The goals and objectives are intended to be evaluated annually to identify needs and solutions, as well as service improvements and expansions.

#### **Goals, Objectives and Strategies**

- *Goal – Increase the number of transportation disadvantaged persons served by the coordinated system.*
- *Objective 1 – Improve the availability of transportation service to persons who are transportation disadvantaged.*
  - *Increase the number of non-sponsored trips*
  - *Increase the number of sponsored trips*
  - *Maintain the expand the client data base relating to the clients' needs and capabilities*
  - *Utilize Purchase of Service Agreements or rate agreements with all agencies that purchase transportation services with public funds*
  - *Work with purchasing agencies to arrange services with permit the grouping of rides*
  - *Prepare a user's guide and update when needed*
  - *Provide at least four newspaper articles per calendar year regarding services*
  - *Provide announcements to local newspapers announcing public hearings*
- *Objective 2 – Ensure that service is delivered in the most cost effective and efficient manner.*
  - *Maintain an operational fleet of vehicles to meet all needs*
  - *Evaluate and revise routes and schedules when needed*
  - *Develop a workable budget and keep within budget*
  - *Review driver logs for areas of inefficient use of time, drivers, and miles*
  - *Review driver non-revenue hours and reduce when possible*
  - *Review routes, schedules and type of services being provided*
  - *Contract with an adequate number of operators to meet the needs*
- *Objective 3 – Ensure that safe and quality service is provided.*
  - *Provide training on customer satisfaction*
  - *Provide training on passenger assistance techniques*
  - *Maintain an operational fleet of vehicles to meet all needs*

## Regional Transit Study

- *Review routes, schedules and type of services being provided*
- *Report accidents and roadcalls to the Local Coordinating Board (LCB)*
- *Review operator contracts for compliance with safety requirements*
- *Annually review SSPP and amend as needed*
- *Provide opportunities for riders to express concerns and suggestions on service delivery*
- *Sponsor at least one public hearing each year for public comment*
- *Schedule an opportunity for public comments on all LCB agendas*
- *Address public organizations and agencies regarding services*
- **Objective 4 – Secure necessary funding to support the TD program.**
  - *Address public organizations and agencies on the need of local financial support*
  - *Promote the voluntary dollar program*
- **Objective 5 – Ensure program accountability.**
  - Provide documents to the LCB for review (AOR, MOA, TDSP, TDTF application)
  - Provide, at least quarterly, operational and financial information to the LCB
  - Provide a copy of audit or annual financial report to LCB
  - Provide copies of purchasing agency evaluation/monitoring reports to LCB
  - Perform annual evaluation to CTC

**Table 3-30: Wakulla County Five-Year Transportation Disadvantaged Improvement Plan**

Project	Improvement	Estimated Cost	Estimated Revenue Source
Purchase replacement paratransit vehicle to provide transportation for the elderly and disabled.	(4) buses with lifts (4) 12-passenger vans	\$200,000 \$80,000	FTA/DOT Sec. 5310
Provide paratransit transportation service to the elderly, handicapped and disadvantaged citizens residing in the county.	Operating Assistance	\$250,000	FTA/DOT Sec. 5311
Purchase expansion paratransit vehicle to provide transportation for the disadvantaged citizens residing in the county.	(2) 12-passenger vans	\$40,000	CTD,CTC
Construction of Maintenance Facility to reduce the down-time of vehicles needing repairs	(2) Bay Facility & Tools	\$500,000	FTA/DOT Sec. 5310
Purchase replacement office equipment	Computer Hardware (2)	\$5,000	CTD,CTC



## 4.0 Peer Analysis

In order to gain a better understanding of unmet service needs and potential new service improvements, a peer analysis was conducted to compare StarMetro's bus system to similar systems in other regions. This system-level analysis will help identify StarMetro's strengths and weaknesses with respect to service productivity, cost effectiveness and efficiency, maintenance productivity, and service coverage.

This analysis provides a high-level assessment of StarMetro's bus operations. Knowledge gained will assist in developing operational policies aimed at improving productivity and efficiency at the system level and help to focus more detailed analyses regarding system optimization.

### *Peer Group Comparison*

Thirteen peer systems were selected based on system size, operating characteristics, and geographic location. These peer systems include:

Florida Peer Systems	Non-Florida Peer Systems
<ul style="list-style-type: none"> <li>• Lee County Transit</li> <li>• Gainesville Regional Transit System</li> <li>• Lakeland Area Mass Transit District</li> <li>• Volusia County VOTRAN</li> <li>• Escambia County Area Transit</li> <li>• Sarasota County Area Transit</li> </ul>	<ul style="list-style-type: none"> <li>• Greater Roanoke Transit Company (VA)</li> <li>• Chattanooga Area Regional Transit Authority (TN)</li> <li>• Capital Area Transit (Raleigh, NC)</li> <li>• Metro Transit "The Wave" (Mobile, AL)</li> <li>• City Transit Management Company (Lubbock, TX)</li> <li>• Capital Transportation Corporation (Baton Rouge, LA)</li> <li>• Central Arkansas Transit Authority (North Little Rock)</li> </ul>

### *System Performance Measures*

System performance measures were computed for each peer system using 2007 National Transit Database (NTD) data. While the NTD is assembled for the purposes of comparison and sharing information throughout the transit industry, some variances are expected in comparability among operators. General conclusions and findings should be considered in greater detail. In addition, while there is an effort by the Federal Transit Administration (FTA) to ensure commonality in the data sources and methods of calculation, there are varying degrees of accuracy in the data submitted by the respective transit agencies.

The performance of StarMetro's bus system was compared to the peer systems based on four general categories of evaluation measures: 1) service productivity, 2) maintenance productivity, 3) cost efficiency effectiveness, and 4) service coverage. These measures, along with a list of several general indicators that were evaluated, are listed below.



## Regional Transit Study

- **General Indicators.** The following measures provide basic indicators as to the level of service that a transit system provides:
  - Passenger trips
  - Passenger miles
  - Revenue miles
  - Revenue hours
  - Vehicles operating in maximum service
  - Total operating expense
- **Service Productivity.** Service productivity measures indicate how effectively a transit system provides service. The following measures were used to evaluate service productivity:
  - Average speed
  - Average trip length
  - Passenger trips per revenue mile
  - Revenue hours per peak vehicles
  - Passenger trips per revenue hours
  - Revenue miles per peak vehicles
- **Maintenance Productivity.** Maintenance productivity measures indicate how efficiently transit system maintains its fleet. The following measures were used to evaluate maintenance productivity:
  - Average age of active fleet
  - Maintenance expense per operating expense
  - Maintenance expense per revenue mile
  - Total maintenance expense
- **Cost Efficiency and Effectiveness.** Cost effectiveness measures indicate how much an agency spends per passenger trip, while cost efficiency measures indicate the cost required to provide a unit of service (e.g. vehicle hours or miles). The following measures were used to evaluate cost effectiveness and efficiency:
  - Farebox recovery
  - Operating expense per passenger trips
  - Operating expense per peak vehicles
  - Operating expense per revenue hour
  - Operating expense per revenue mile
- **Service Coverage.** Service coverage measures indicate the degree to which a transit operator provides service within its coverage area. For bus service, service coverage area is defined as three-fourths of a mile on each side of a fixed route. The following measures were used to evaluate service coverage.
  - Passenger trips per service area capita
  - Revenue hours per service area size
  - Revenue miles per service area size
  - Revenue hours per service area capita
  - Revenue miles per service area capita

## Regional Transit Study

### StarMetro Peer Analysis Results

Figures 4-1 through 4-26 show the results of the peer analysis for StarMetro. The results are summarized in Tables 4-1 through 4-5, below. For each measure, StarMetro's value is presented, followed by the peer average, peer minimum, peer maximum, StarMetro's percent departure from the peer average, and the StarMetro's rating relative to the peer average. Measures in which StarMetro performs better than average (more than 10% above) are denoted with a green '+' sign. Measures in which Star Metro performs below the peer average (more than 10% below) are denoted with a red '-' sign. Neutral values are denoted with a 'o' sign.

**Table 4-1: Peer Analysis Summary, General Indicators**

General Indicators						
	StarMetro	Peer Average	Min	Max	% From AVG	Rating
Passenger Trips	4,136,790	2,971,175	942,483	8,939,334	39%	+
Passenger Miles	11,736,502	12,219,420	4,970,652	29,946,768	-4%	o
Revenue Hours	139,419	148,616	89,610	247,350	-6%	o
Revenue Miles	1,649,564	2,089,920	1,228,396	3,018,424	-21%	-
Vehicles Operated in Maximum Service	56.00	46.92	23.00	88.00	19%	+
Total Operating Expense	10,787,717	10,017,156	5,519,009	15,490,468	8%	o

StarMetro provides more unlinked passenger trips and operates more vehicles in maximum service than the peer average. However, StarMetro operates substantially fewer revenue miles than the peer average. Passenger miles, revenue hours and total operating expenses are within 10% of the peer average.

**Table 4-2: Peer Analysis Summary, Service Productivity Measures**

Service Productivity						
	StarMetro	Peer Average	Min	Max	% From AVG	Rating
Average Speed (RM/RH)	11.83	14.25	11.28	16.27	-17%	-
Average Trip Length (in miles)	2.84	4.44	2.91	6.04	-36%	-
Passenger Trips Per Revenue Mile	2.51	1.35	0.71	3.21	85%	+
Vehicle Hours Per Peak Vehicle	2,533	3,383	2,387	4,316	-25%	-
Passenger Trips Per Revenue Hour	29.67	18.65	9.94	36.14	59%	+
Vehicle Miles Per Peak Vehicle	30,581	48,891	31,807	61,817	-37%	-

With respect to service productivity measures, StarMetro is typically below the peer average. Specifically, average speed in revenue service, average trip length, vehicle hours per peak vehicle, and vehicle miles per peak vehicle are all below the peer average. Passenger trips per revenue mile and passenger trips per revenue hour, however, are substantially greater than the peer average.

## Regional Transit Study

**Table 4-3: Peer Analysis Summary, Cost Efficiency and Effectiveness Measures**

Cost Efficiency and Effectiveness						
	StarMetro	Peer Average	Min	Max	% From AVG	Rating
Farebox Recovery (%)	28.51	22.27	7.67	55.77	28%	+
Operating Expense Per Passenger Trip	2.61	4.02	1.73	6.79	-35%	+
Operating Expense Per Peak Vehicle	192,638	218,919	130,096	299,020	-12%	+
Operating Expense Per Revenue Hour	77.38	67.03	55.37	81.85	15%	-
Operating Expense Per Revenue Mile	6.54	4.74	4.05	5.81	38%	-

StarMetro is more cost effective than the peer systems in terms of farebox recovery, operating expense per passenger trip, and operating expense per peak vehicle. However, when evaluated relative to revenue hours and miles, StarMetro is below the peer average.

**Table 4-4: Peer Analysis Summary, Service Coverage Measures**

Service Coverage						
	StarMetro	Peer Average	Min	Max	% From AVG	Rating
Passenger Trips Per Service Area Capita	25.49	14.46	3.41	59.93	76%	+
Revenue Hours per Service Area Size	3,343	1,314	133	3,343	154.4%	+
Revenue Miles per Service Area Size	37,690	18,086	2,117	37,690	108.4%	+
Revenue Hours per Service Area Capita	1.66	0.7	0.3	1.7	140.9%	+
Revenue Miles per Service Area Capita	18.70	9.5	4.8	18.7	97.3%	+

StarMetro provides a substantially greater amount of service per capita than the peer system average. Every evaluation metric, including revenue trips per service area capita, revenue hours and miles per service area size, and revenue hours and miles per service area capita were significantly greater than the peer system average.

**Table 4-5: Peer Analysis Summary, Maintenance Productivity Measures**

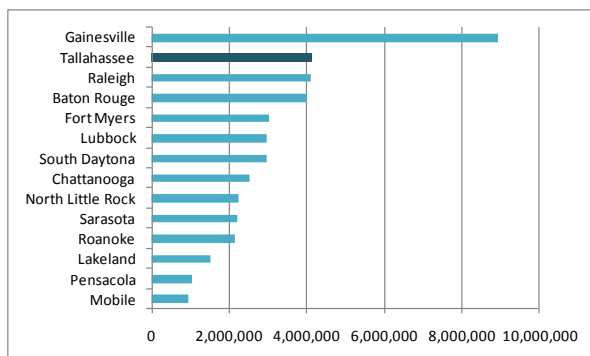
Maintenance Productivity						
	StarMetro	Peer Average	Min	Max	% From AVG	Rating
Average Age of Fleet (in years)	7.72	7.06	2.86	10.70	9%	O
Maintenance Expense Per Operating Expense (%)	23.08	21.76	16.95	32.64	6%	O
Maintenance Expense Per Revenue Mile	1.51	1.03	0.70	1.46	47%	-
Total Maintenance Expense	2,490,199	2,205,865	1,061,677	4,085,950	13%	-

## Regional Transit Study

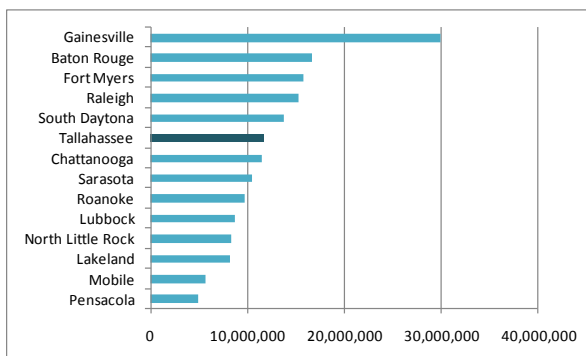
StarMetro's average fleet age is slightly older than average, as is the ratio of maintenance expense to total operating expenses. StarMetro also spends more on maintenance than the peer average, and the ratio between total maintenance expense and total revenue miles is significantly greater than average.

## Regional Transit Study

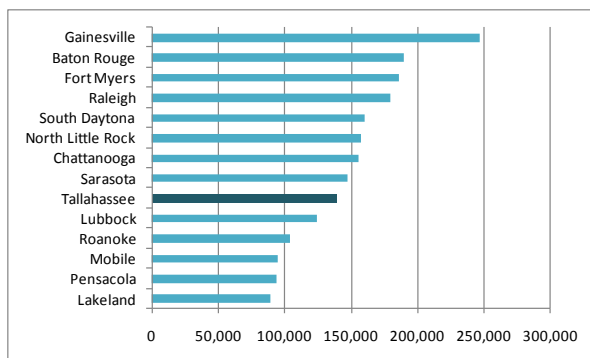
**Figure 4-1: Passenger Trips**



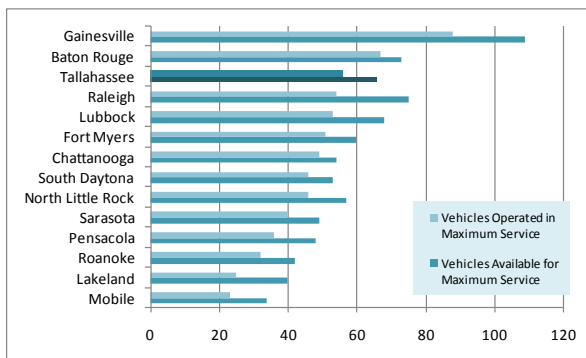
**Figure 4-2: Passenger Miles**



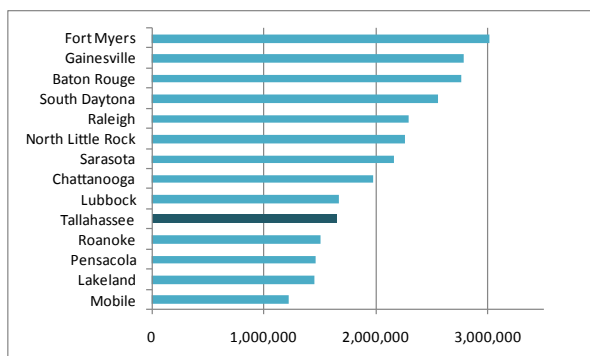
**Figure 4-3: Revenue Hours**



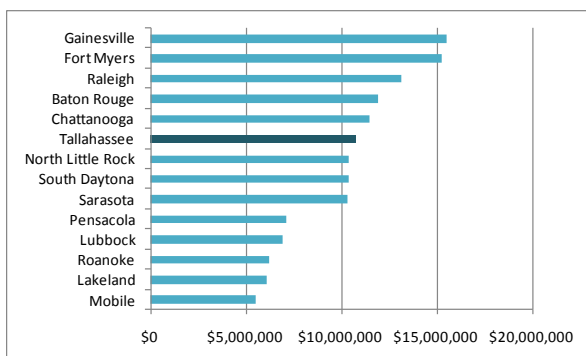
**Figure 4-4: Vehicles Operated in Maximum Service**



**Figure 4-5: Revenue Miles**

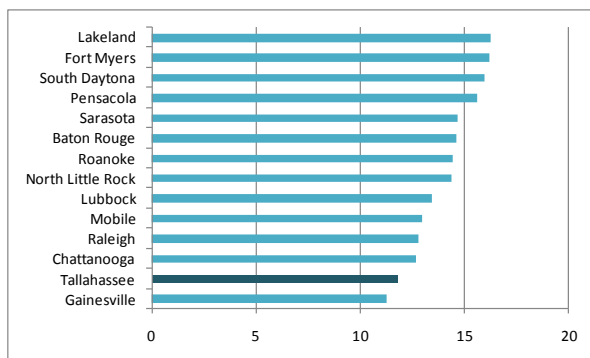


**Figure 4-6: Total Operating Expense**

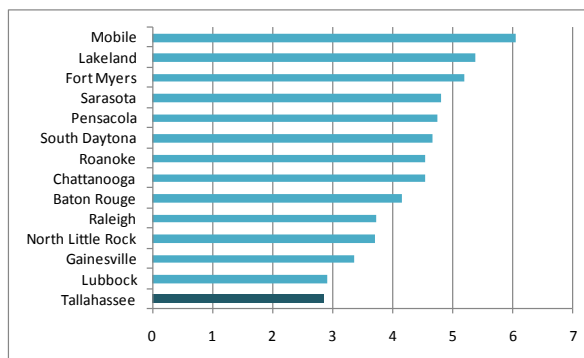


## Regional Transit Study

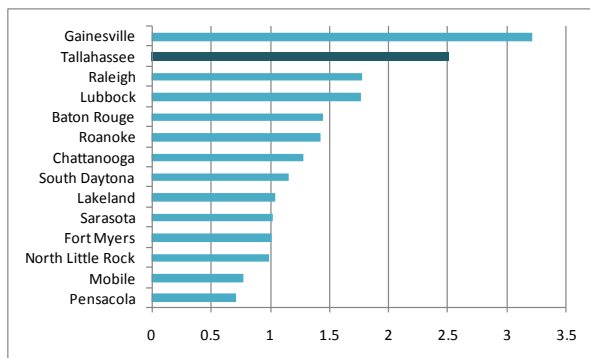
**Figure 4-7: Average Speed (mph)**



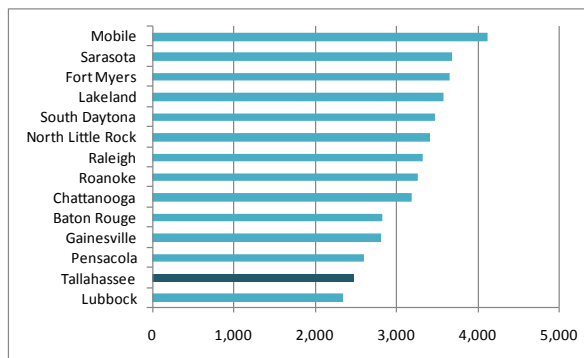
**Figure 4-8: Average Trip Length (Miles)**



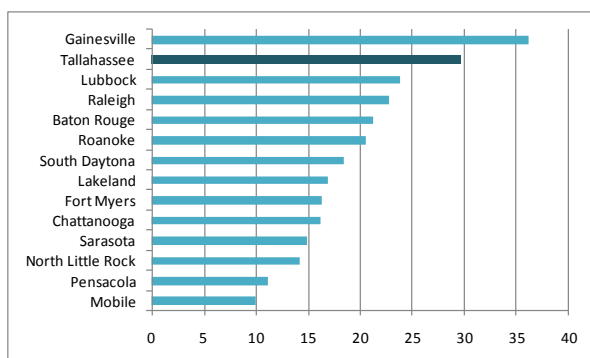
**Figure 4-9: Passenger Trips per Revenue Mile**



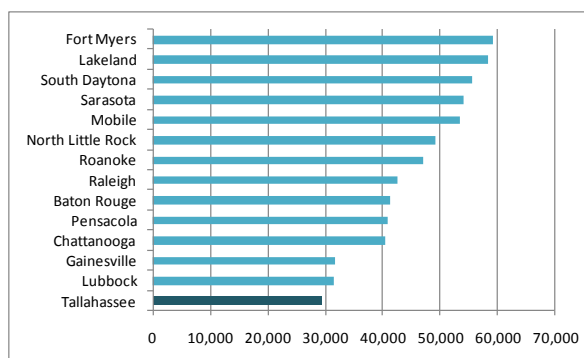
**Figure 4-10: Revenue Hours per Peak Vehicle**



**Figure 4-11: Passenger Trips per Revenue Hour**

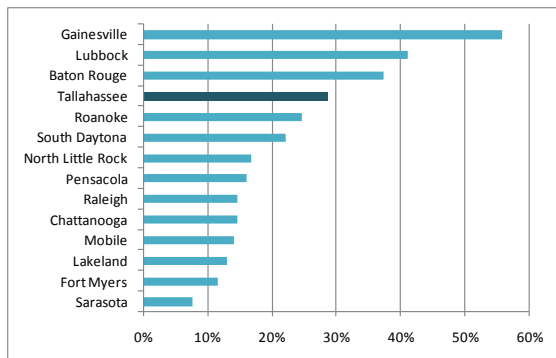


**Figure 4-12: Revenue Miles per Peak Vehicle**

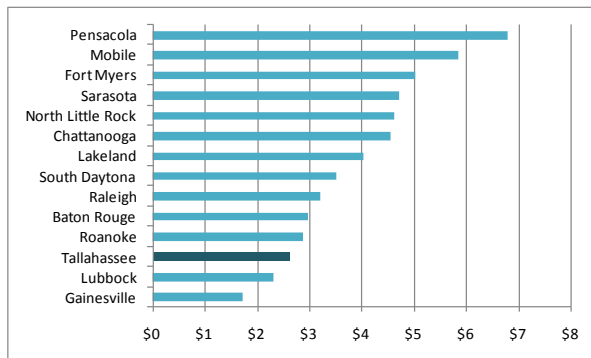


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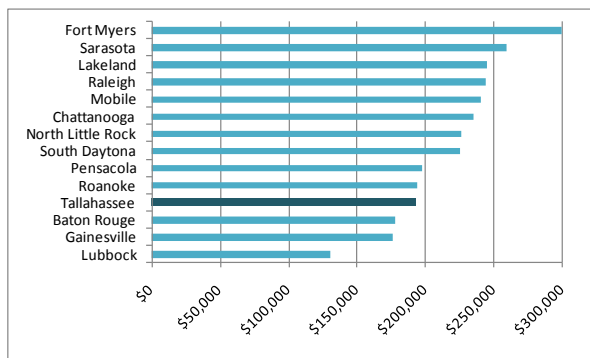
**Figure 4-13: Farebox Recovery**



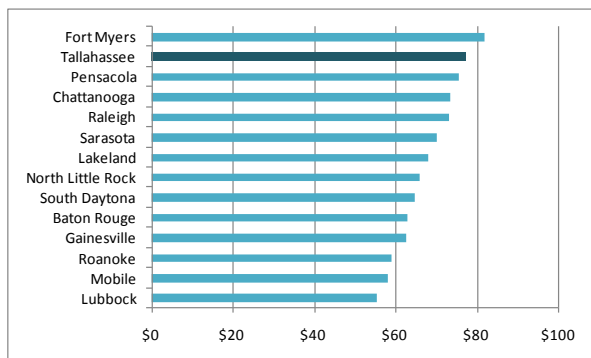
**Figure 4-14: Operating Expense per Passenger Trip**



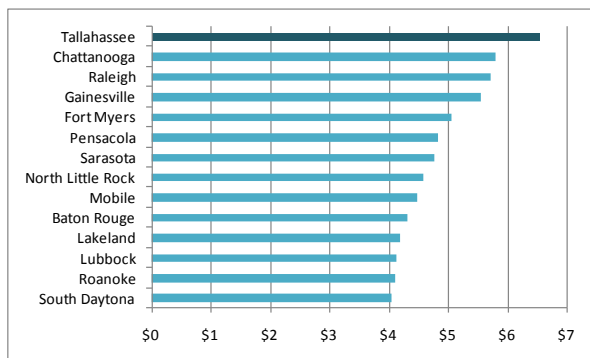
**Figure 4-15: Operating Expense per Peak Vehicle**



**Figure 4-16: Operating Expense per Revenue Hour**

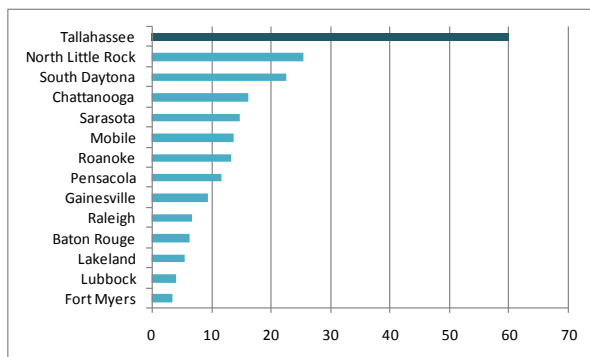


**Figure 4-17: Operating Expense per Revenue Mile**

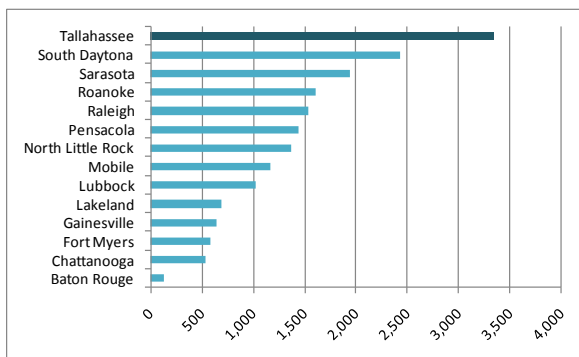


## Regional Transit Study

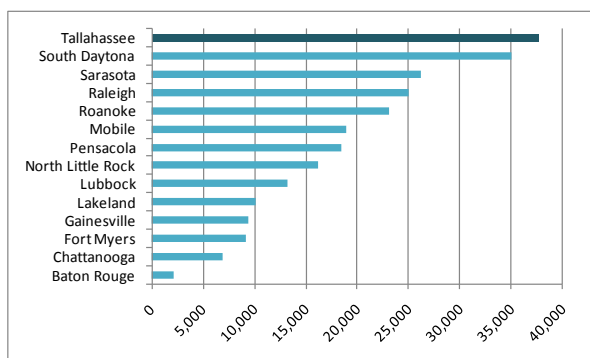
**Figure 4-18: Passenger Trips per Service Area Capita**



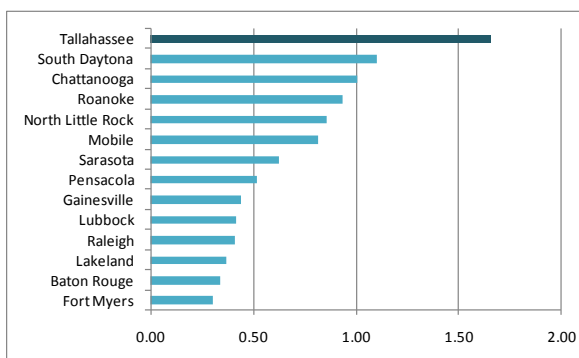
**Figure 4-19: Revenue Hours per Service Area Size**



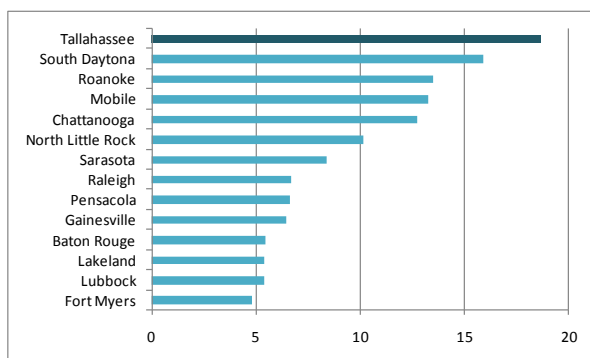
**Figure 4-20: Revenue Miles per Service Area Size**



**Figure 4-21: Revenue Hours per Service Area Capita**



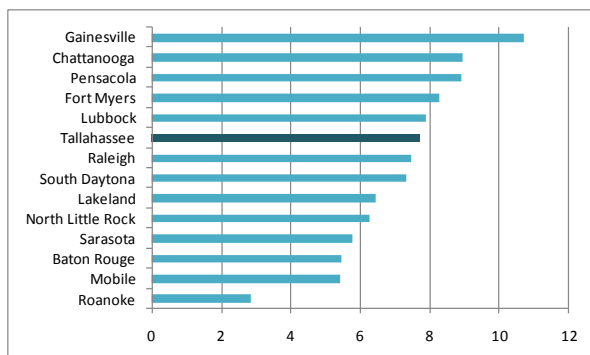
**Figure 4-22: Revenue Miles per Service Area Capita**



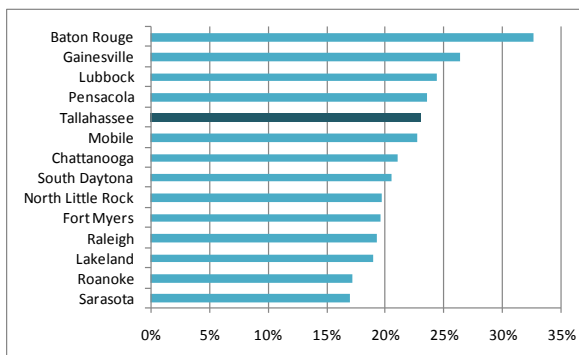


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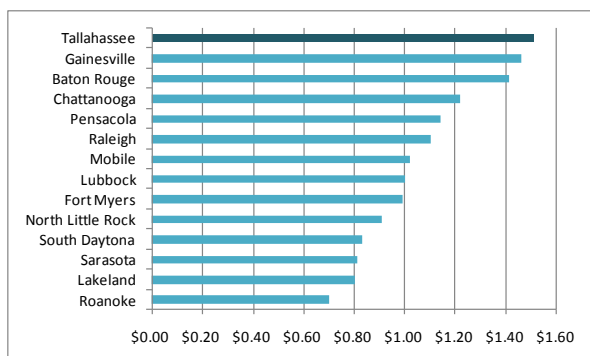
**Figure 4-23: Average Age of Fleet**



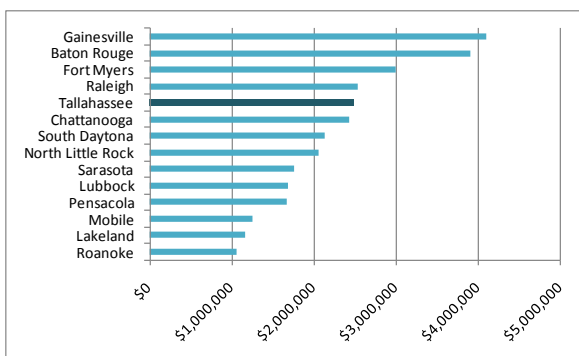
**Figure 4-24: Maintenance Expense per Operating Expense**



**Figure 4-25: Maintenance Expense per Revenue Mile**



**Figure 4-26: Total Maintenance Expense**



January 2010

# REGIONAL TRANSIT STUDY



## Technical Memorandum #3 Transit Service Improvements

*Prepared for:*  
**Capital Region Transportation Planning Agency**  
408 N. Adams Street, 4<sup>th</sup> Floor  
Tallahassee, FL 32301

*Prepared by:*  
**HDR Engineering, Inc.**  
1180 Peachtree Street, Suite 2210  
Atlanta, Georgia 30309-3531





**CAPITAL REGION TRANSPORTATION PLANNING AGENCY  
REGIONAL TRANSIT STUDY**

**Technical Memorandum #3  
Transit Service Improvements**

**Prepared for:**  
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***January 2010***



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## **1.0 Introduction**

This technical memorandum documents the proposed transit service improvements that were identified as part of the Regional Transit Study. In order to provide rational, data-supported transit solutions for the Capital Region, a transit potential analysis was conducted to identify riders and areas that may be underserved based on existing transit service, compared to current travel patterns. Projections for future population, employment and other socioeconomic data was reported at the superdistrict level and compared to the current 2007 base data to identify trends and opportunities for transit service.

Building on the findings of the Baseline Conditions Report (June 2009) and transit potential analysis presented herein, a range of transit improvements were developed and analyzed. Both service improvements and capital projects were developed. Each project was analyzed and capital and operating and maintenance costs were developed, as presented in Section 3. Finally, ridership forecasts by mode were conducted and are presented in Section 4.



## 2.0 Transit Potential Analysis

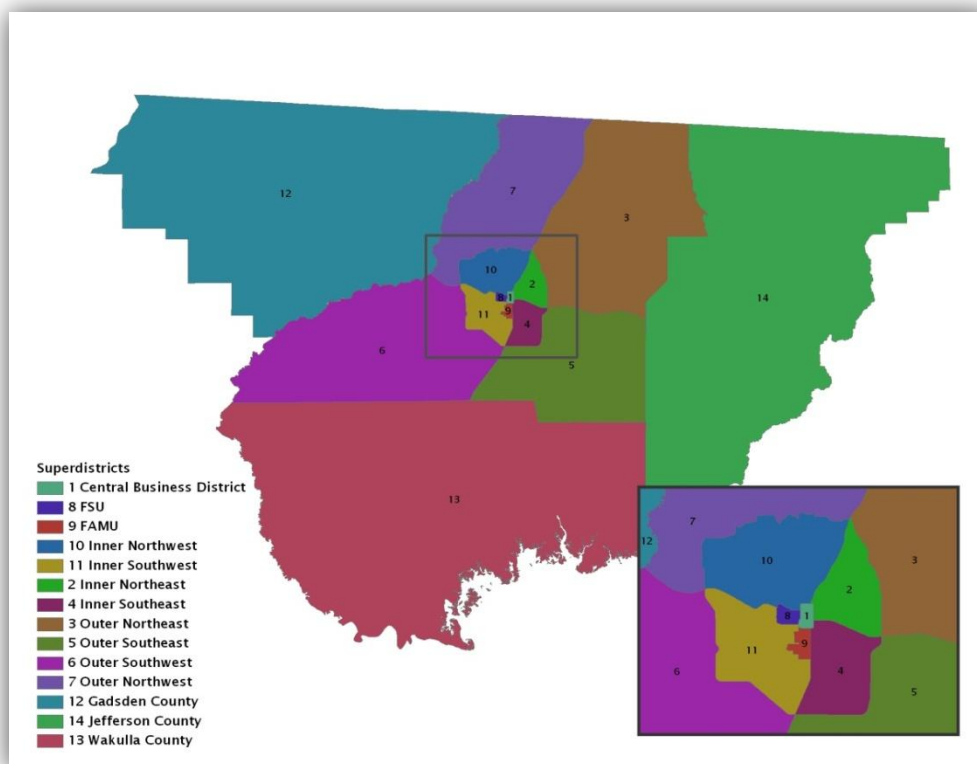
A transit potential analysis was conducted in order to quantify the demand for travel within the Capital Region. The region's travel demand model was utilized to forecast trip flows and volume throughout the four-county area. These forecasts were then used to determine which corridors within the region experience the greatest demand for travel on a daily basis, both currently and in the future, and thus provided a basis upon which potential transit improvements could be rationally developed.

### 2.1 Methodology

Current and future population, employment, and travel patterns were estimated for the base year 2007, 2015, 2025, and 2050 using CRTPA's current's travel demand model. The population and employment figures were adjusted to reflect each county's annual rate of growth based on the latest BEBR projections<sup>1</sup>. The highway and transit networks used in the model runs were based on the existing 2007 networks which were updated to reflect any changes since the original network development.

The region's traffic analysis zones (TAZ), as defined by CRTPA and the US Census Bureau, were aggregated to create 14 superdistricts used to quantify population, employment, and travel data within the Capital region. These districts are displayed in Figure 1.

**Figure 1: CRTPA Superdistricts**



<sup>1</sup> Volume 42 Bulletin 154 dated June 2009 titled Florida Population Studies (Population Projections by Age, Sex, Race, and Hispanic Origin for Florida and Its Counties, 2008-2030)

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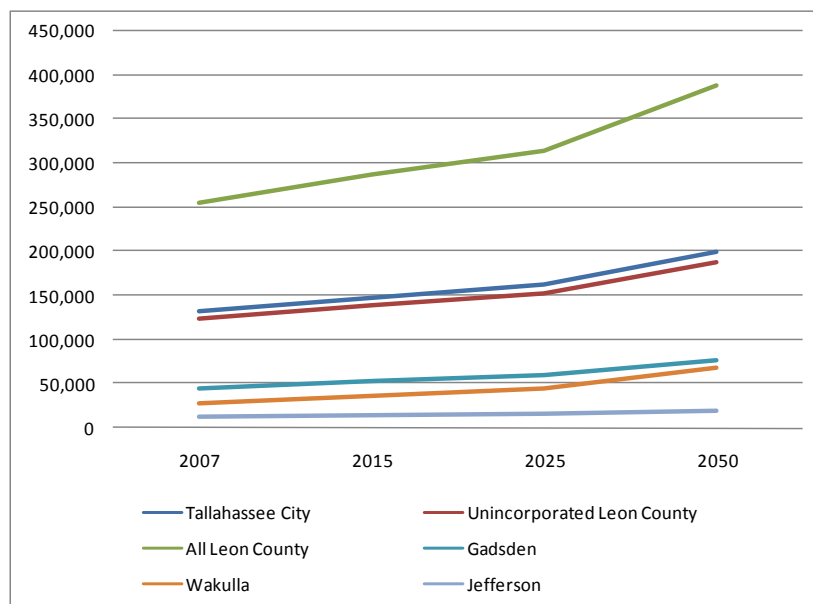
### 2.2 Population Projections

Population is a key driving factor in determining transit usage. As population densities increase, transit ridership typically increases accordingly. Table 1 displays the population values for each district by model year. Between 2007 and 2050, a 52% increase in population is projected for Leon County and the City of Tallahassee. Population in Gadsden, Wakulla, and Jefferson Counties is projected to increase 69%, 145%, and 46%, respectively, during that time period. The region as a whole is projected to increase its population by 62% in 2050.

**Table 1: CRTPA Population Projections 2007 - 2050**

District	Description	2007 Population	2015 Population	2025 Population	2050 Population	% Change Population
1	Tallahassee CBD	1,027	1,153	1,263	1,561	52%
2	Inner NE	23,175	26,022	28,502	35,226	52%
3	Outer NE	56,384	63,310	69,343	85,704	52%
4	Inner SE	18,658	20,950	22,946	28,360	52%
5	Outer SE	18,519	20,794	22,775	28,149	52%
6	Outer SW	10,332	11,601	12,707	15,705	52%
7	Outer NW	38,904	43,682	47,846	59,134	52%
8	FSU	937	1,052	1,152	1,424	52%
9	FAMU	1,358	1,525	1,670	2,064	52%
10	Inner NW	56,600	63,552	69,609	86,032	52%
11	Inner SW	30,190	33,898	37,129	45,889	52%
12	Gadsden	45,504	54,299	59,663	76,795	69%
13	Wakulla	27,793	36,098	45,077	68,179	145%
14	Jefferson	13,472	15,303	16,319	19,696	46%
Tallahassee City		131,945	148,151	162,271	200,557	52%
Unincorporated Leon County		124,139	139,387	152,671	188,692	52%
All Leon County		256,084	287,538	314,942	389,249	52%
Other Counties		86,769	105,700	121,059	164,670	90%
Total		342,853	393,238	436,001	553,919	62%

**Figure 2: Population Change 2007 - 2050**



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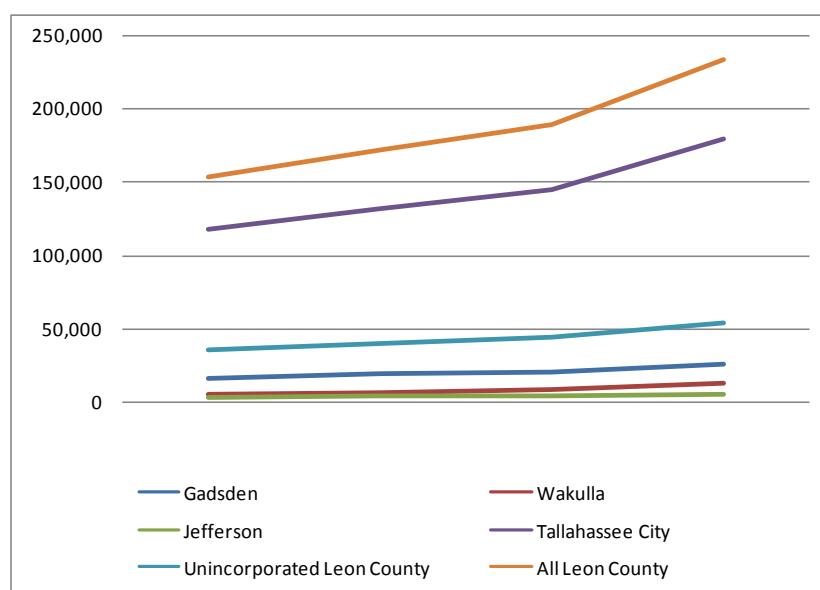
### 2.3 Employment Projections

Along with population, employment is the second primary factor in estimating transit demand. Table 2 displays the projected employment in model years 2007, 2015, 2025, and 2050. Between 2007 and 2050, a 52% increase in employment is projected for Leon County and the City of Tallahassee. Employment in Gadsden, Wakulla, and Jefferson Counties is projected to increase 69%, 145%, and 46%, respectively, during that time period. The region as a whole is projected to increase its employment by 56% in 2050.

**Table 2: Employment Projections 2007 - 2050**

District	Description	2007	2015	2025	2050	% Change Employment
1	Tallahassee CBD	16,997	19,085	20,904	25,835	52%
2	Inner NE	33,020	37,076	40,609	50,191	52%
3	Outer NE	15,814	17,756	19,449	24,037	52%
4	Inner SE	14,725	16,534	18,109	22,382	52%
5	Outer SE	7,075	7,944	8,701	10,754	52%
6	Outer SW	2,059	2,312	2,532	3,130	52%
7	Outer NW	10,489	11,777	12,900	15,943	52%
8	FSU	7,103	7,975	8,736	10,797	52%
9	FAMU	4,631	5,200	5,695	7,039	52%
10	Inner NW	27,307	30,661	33,583	41,507	52%
11	Inner SW	14,001	15,721	17,219	21,282	52%
12	Gadsden	15,546	18,551	20,383	26,236	69%
13	Wakulla	5,364	6,967	8,700	13,159	145%
14	Jefferson	3,475	3,947	4,209	5,080	46%
15	External Stations	0	0	0	0	0%
Tallahassee City	Leon County Inner	117,784	132,251	144,855	179,032	52%
Unincorporated Leon County	Leon County Outer	35,437	39,790	43,582	53,864	52%
All Leon County		153,221	172,041	188,437	232,897	52%
Other Counties		24,385	29,465	33,292	44,475	82%
Total		177,606	201,506	221,729	277,372	56%

**Figure 3: Employment Change 2007 - 2050**



## 2.4 Travel Demand Characteristics

Using the employment and population data forecasts, along with the updated roadway and transit networks, zone to zone travel patterns were generated. The CRTPA model was used to produce trip tables which identified total origins and destinations by traffic analysis zone. These patterns, as described in the following sections, are broken down into three categories: home-based work (HBW), home-based other (HBO), and non-home based (NHB). Home-based-work trips are trips made between a household and place of employment. Home-based-other trips are trips made between a household and any other destination (i.e. school, shopping). Non-home-based trips are all trips that do not have an origin or destination at a household.

As shown in Tables 3 and 4, there were approximately 1.3 total million daily trips within the Capital region in the baseline year (2007). Of these trips, approximately 200,000 are HBW (16%), while approximately 1.1 million are of HBO or NHB. 24% of all trips in the baseline year were intra-district trips, meaning trips were conducted entirely within their zone of origin.

In the horizon year 2050, it is estimated that there will be approximately 2 million total daily person trips in the region. Approximately 329,000 daily trips are forecasted HBW trips, while 1.6 million are forecasted HBO or NHB trips. Approximately 25% of all trips are intra-district in 2050.

Figures 4 through 6 illustrate the trip flows within the region based on trip type. Figure 4, below, shows the relative volume of trips into the city of Tallahassee (based on district within the city) from the outer counties. The majority of trips into Tallahassee originate in Outer Leon, and have final destinations in the Inner Northeast and Inner Northwest districts. Wakulla County produces the next greatest volume of trips into the City, followed by Gadsden and Jefferson.

**Figure 4: Total Trips to Tallahassee from Outer Counties by Destination**

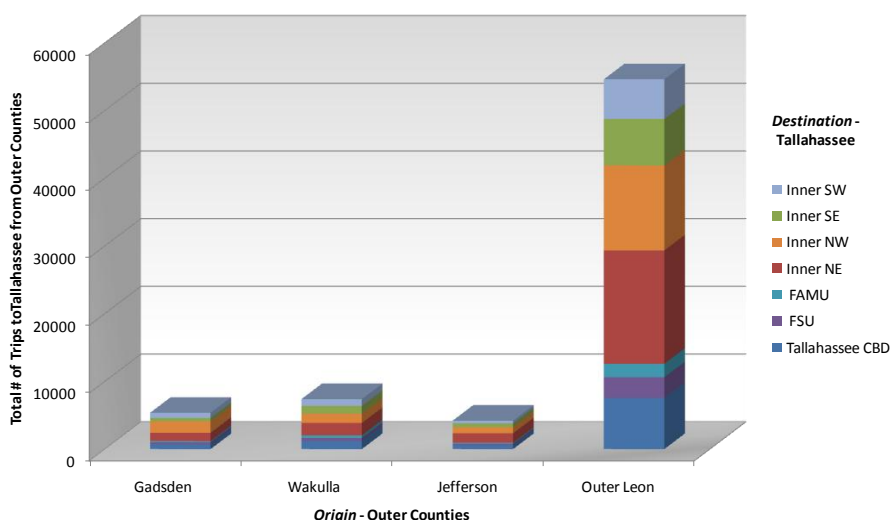


Figure 5 shows the flow of total trips from the City of Tallahassee to the outer counties based on district within the city. An overwhelming majority of total trips are to outer Leon, followed by Wakulla, Gadsden, and Jefferson.

**Figure 5: Total trips from Tallahassee to Outer Counties by County**

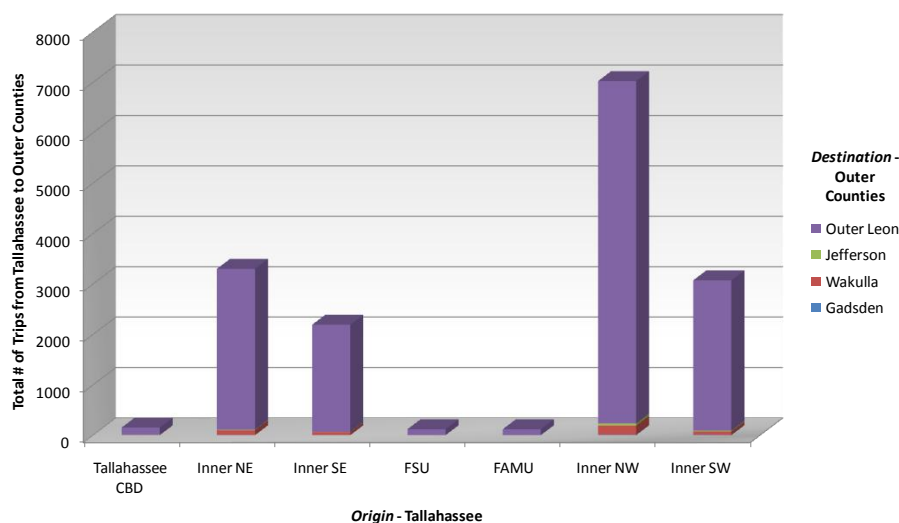
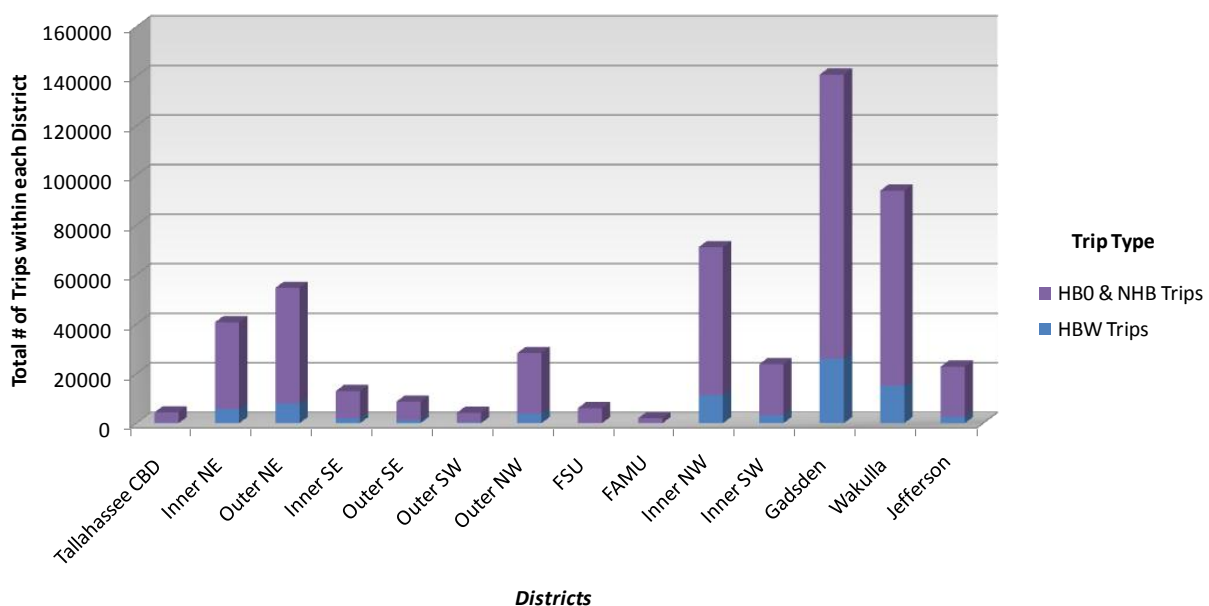


Figure 6 presents a breakdown of intra-zonal trips by district and trip type. The majority of intra-zonal trips are for trip purposes other than HBW.

**Figure 6: Intrazonal Trips by District and Trip Type**





## Regional Transit Study

Table 3: Estimated Trip Origins by District

District	2007			2015			2025			2050			% Change 2007 - 2050
	HBW	NBO-NHB	TOTAL	HBW	NBO-NHB	TOTAL	HBW	NBO-NHB	TOTAL	HBW	NBO-NHB	TOTAL	
1 Tallahassee CBD	838	26,621	27,459	906	29,621	30,528	963	32,245	33,208	1,121	39,330	40,451	47%
2 Inner NE	14,875	98,475	113,350	16,648	110,348	126,997	18,185	120,709	138,893	22,357	148,780	171,137	51%
3 Outer NE	34,904	148,539	183,443	39,149	166,449	205,598	42,854	182,014	224,867	52,913	224,379	277,292	51%
4 Inner SE	10,698	59,082	69,780	11,971	66,120	78,091	13,084	72,254	85,337	16,090	88,904	104,995	50%
5 Outer SE	10,860	47,904	58,764	12,196	53,777	65,973	13,362	58,898	72,260	16,516	72,778	89,293	52%
6 Outer SW	6,063	26,216	32,278	6,804	29,082	35,886	7,456	31,591	39,047	9,216	38,390	47,606	47%
7 Outer NW	23,476	99,215	122,691	26,353	111,335	137,688	28,854	121,906	150,760	35,654	150,564	186,219	52%
8 FSU	678	53,452	54,130	749	54,852	55,601	811	56,076	56,887	978	59,407	60,385	12%
9 FAMU	647	26,591	27,238	728	27,636	28,363	798	28,548	29,346	986	31,023	32,008	18%
10 Inner NW	34,328	161,676	196,004	38,381	180,889	219,271	41,914	197,623	239,537	51,501	243,010	294,510	50%
11 Inner SW	16,595	87,628	104,222	18,626	97,146	115,772	20,389	105,452	125,841	25,180	127,977	153,157	47%
12 Gadsden	24,862	107,795	132,657	29,671	128,427	158,098	32,630	141,024	173,654	41,992	181,239	223,231	68%
13 Wakulla	17,548	69,711	87,259	22,760	90,040	112,800	28,402	112,079	140,481	42,910	168,709	211,619	143%
14 Jefferson	7,907	32,529	40,436	8,973	36,885	45,858	9,567	39,289	48,856	11,545	47,321	58,866	46%
15 External Stations	-	-	-	-	-	-	-	-	-	-	-	-	n/a
Total	204,277	1,045,436	1,249,712	233,915	1,182,607	1,416,522	259,268	1,299,708	1,558,976	328,959	1,621,810	1,950,769	56%

Table 4: Estimated Trip Destinations by District

District	2007			2015			2025			2050			% Change 2007 - 2050
	HBW	NBO-NHB	TOTAL	HBW	NBO-NHB	TOTAL	HBW	NBO-NHB	TOTAL	HBW	NBO-NHB	TOTAL	
1 Tallahassee CBD	19,344	59,238	78,581	21,977	67,166	89,142	24,276	74,094	98,369	30,511	93,152	123,663	57%
2 Inner NE	37,591	158,425	196,016	42,699	178,286	220,984	47,158	195,592	242,750	59,279	243,035	302,314	54%
3 Outer NE	17,983	97,865	115,848	20,430	111,133	131,563	22,575	122,718	145,293	28,377	154,613	182,990	58%
4 Inner SE	16,760	67,776	84,536	19,035	76,909	95,944	21,025	84,901	105,926	26,431	106,875	133,306	58%
5 Outer SE	8,047	35,321	43,368	9,137	40,175	49,311	10,089	44,435	54,524	12,691	56,104	68,795	59%
6 Outer SW	2,337	18,716	21,053	2,655	20,451	23,107	2,936	21,917	24,853	3,690	25,792	29,482	40%
7 Outer NW	11,931	60,244	72,175	13,553	68,631	82,184	14,973	75,966	90,939	18,826	96,140	114,966	59%
8 FSU	8,087	108,207	116,294	9,185	115,259	124,444	10,147	120,858	131,005	12,752	134,853	147,606	27%
9 FAMU	5,274	39,520	44,794	5,989	43,001	48,991	6,615	45,906	52,522	8,315	53,540	61,855	38%
10 Inner NW	31,082	161,552	192,635	35,294	182,351	217,645	38,989	200,529	239,517	49,016	250,319	299,334	55%
11 Inner SW	15,927	101,187	117,115	18,097	112,408	130,504	19,994	122,046	142,040	25,126	148,071	173,197	48%
12 Gadsden	16,533	76,202	92,735	19,944	91,906	111,850	22,122	102,146	124,268	28,957	133,919	162,876	76%
13 Wakulla	6,085	36,106	42,191	8,005	46,914	54,919	10,076	58,827	68,903	15,518	89,985	105,503	150%
14 Jefferson	3,927	19,068	22,995	4,511	21,966	26,477	4,859	23,650	28,509	5,981	29,210	35,192	53%
15 External Stations	3,369	6,008	9,377	3,404	6,052	9,456	3,435	6,123	9,557	3,490	6,200	9,690	3%
Total	204,277	1,045,436	1,249,712	233,915	1,182,607	1,416,522	259,268	1,299,708	1,558,976	328,959	1,621,810	1,950,769	56%

## Regional Transit Study

### 2.4.1 Existing Major Travel Patterns

The existing major travel patterns in the Capital Region are shown in Figure 7. Superdistricts with the largest volume of trip exchanges include:

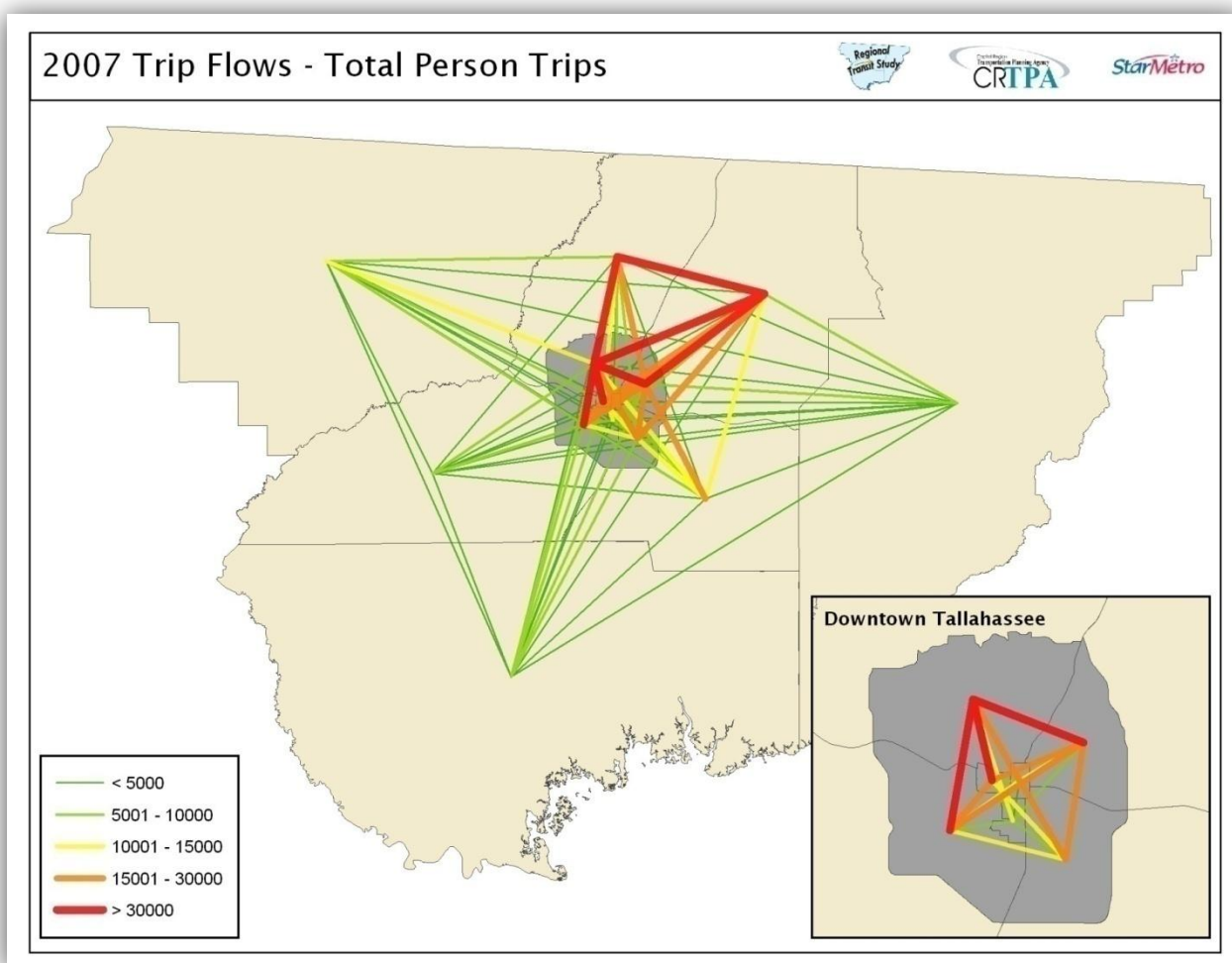
#### Over 30,000 trips per day between Superdistricts (2007)

- Outer northwest and inner northwest
- Outer northeast and inner northwest
- Outer northeast and inner northeast
- Inner northwest and inner northeast
- Inner northwest and FSU
- Inner northwest and inner southwest
- Outer northwest and outer northeast

#### Over 20,000 trips per day between Superdistricts (2007)

- Outer northwest and inner northeast
- Outer northeast and FSU
- Inner northwest and inner southeast
- Inner southwest and FSU
- Inner northeast and inner southeast
- Inner southwest and inner northeast

**Figure 7: 2007 Trip Flows - Total Person Trips**



### 2.4.2 Future Major Travel Patterns

The future major travel patterns in the Capital Region are shown in Figure 8. Superdistricts with the largest volume of trip exchanges include:

## Regional Transit Study

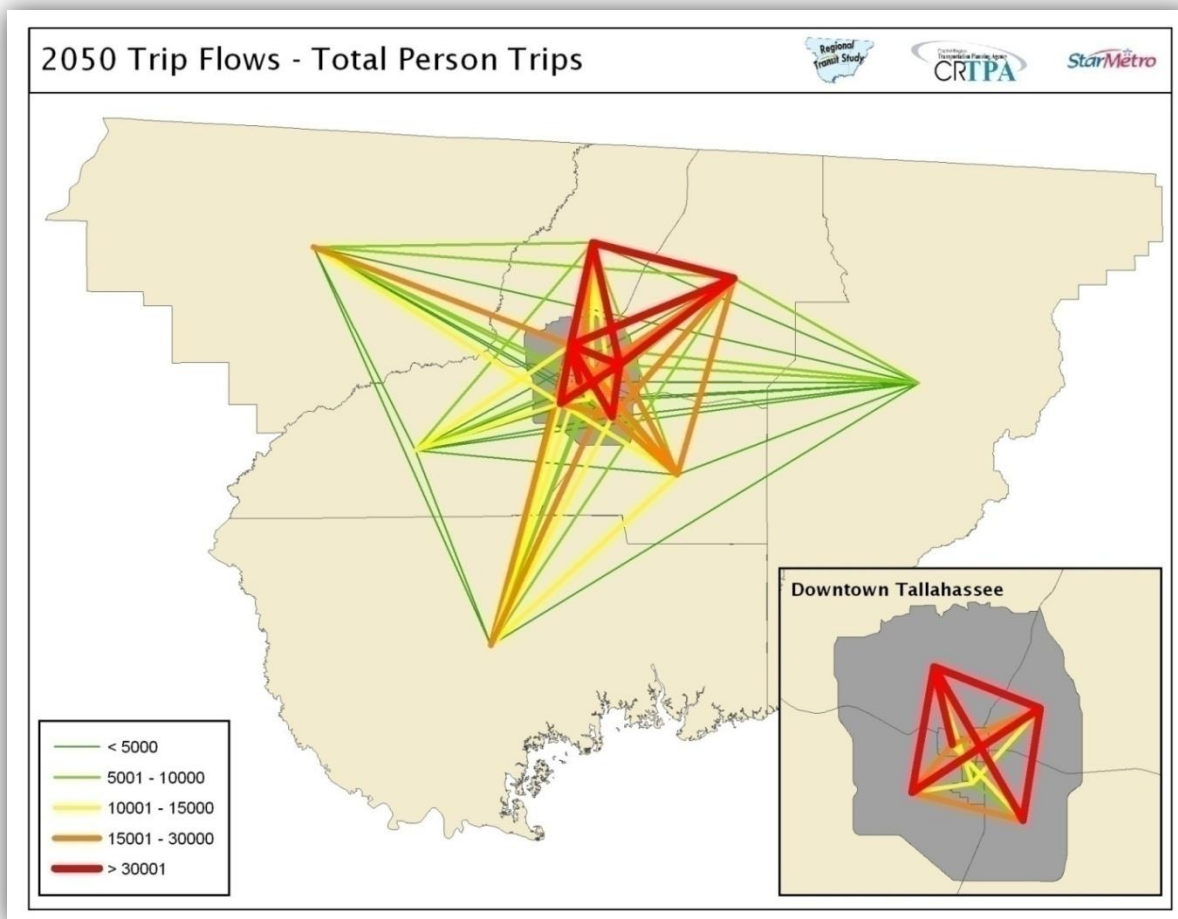
### Over 30,000 trips per day between Superdistricts (2050)

- Outer northwest and outer northeast
- Outer northwest and inner northwest
- Outer northwest and inner northeast
- Outer northeast and inner northwest
- Outer northeast and inner southwest
- Inner northwest and FSU
- Inner NW and inner southwest
- Inner southwest and inner northeast
- Inner northwest and inner northeast
- Inner northwest and inner southeast
- Inner northeast and inner southeast

### Over 20,000 trips per day between Superdistricts (2050)

- Gadsden and inner northwest
- Outer southeast and outer northeast
- Outer northeast and CBD
- Inner northeast and CBD
- Inner southwest and FSU
- Outer northwest and inner southwest
- Inner southwest and inner southeast
- Outer northeast and inner southwest
- Inner northeast and FSU
- Inner northwest and CDB
- Outer northeast and inner southeast
- Outer northeast and FSU

**Figure 8: 2050 Trip Flows - Total Person Trips**



## Regional Transit Study

### 2.5 Potential Transit Markets

Potential transit markets were identified based on the travel demand analysis. Tables 5 and 6, below, identify potential transit corridors and service options based on estimated trips by type.

**Table 5: Major Home-Based-Work Travel Markets**

Origin	Destination	Estimated Daily HBW Trips				% Change (2007-2050)	Major Corridor(s)	Potential Transit Service Options
		2007	2015	2025	2050			
Outer NE	Outer NE	5,122	5,763	6,332	7,862	53%	US 319	Local Bus
	Inner NE	8,531	9,585	10,504	13,001	52%	US 319	Local/Express Bus
	Inner NW	5,301	5,946	6,519	8,064	52%	US 319/US 27	Local/Express Bus
Outer NW	Inner NE	4,808	5,406	5,926	7,339	53%	US 319/US 27	Local/Express Bus
	Inner NW	4,637	5,206	5,707	7,064	52%	US 27	Local/Express Bus
Inner NW	Inner NW	7,478	8,365	9,148	11,264	51%	US 27	Local Bus
	Tallahassee CBD	3,908	4,370	4,768	5,850	50%	US 27	Express Bus/BRT
	Inner NE	6,649	7,448	8,142	10,029	51%	US 27/US 319	Local Bus
Gadsden	Gadsden	15,121	18,201	20,050	26,020	72%	US 90/SR 12	Local/Express Bus
Wakulla	Wakulla	5,889	7,767	9,808	15,157	157%	US 319/US 98/SR 363	Local Bus/Express Bus

**Table 6: Major Non-Home-Based and Home-Based-Other Travel Markets**

Origin	Destination	Estimated Daily HBO & NHB Trips				% Change (2007-2050)	Major Corridor(s)	Potential Transit Service Options
		2007	2015	2025	2050			
Inner NE	Inner NE	22,853	25,710	28,214	35,027	53%	US 319	Local Bus
Outer NE	Outer NE	29,085	33,197	36,830	46,767	61%	US 319	Local Bus
	Inner NE	30,704	34,638	38,062	47,427	54%	US 319	Local/Express Bus
	Inner NW	20,599	23,246	25,600	31,964	55%	US 319/US 27	Local/Express Bus
Outer NW	Inner NW	19,632	22,235	24,560	30,850	57%	US 27	Express Bus/BRT
Inner NW	Inner NW	38,070	43,095	47,587	59,803	57%	US 27	Local Bus
	Inner NE	23,009	25,949	28,524	35,594	55%	US 27	Express Bus/BRT
	FSU	22,192	23,702	24,924	27,977	26%	US 27	Local Bus/BRT
	Inner SW	20,952	23,273	25,308	30,748	47%	US 27/US 319	Local Bus/BRT
Gadsden	Gadsden	63,399	77,360	86,455	114,693	81%	US 90/SR 12	Local/Express Bus
Wakulla	Wakulla	30,255	39,842	50,527	78,696	160%	US 319/US 98/SR 363	Local Bus/Express Bus



### 3.0 Transit Service Improvements

A range of transit improvements are proposed herein based upon the preceding analysis and the prior Baseline Conditions Report. This section provides an overview of the proposed transit technologies, a detailed description of each proposed improvement, operating plans, operations and maintenance costs, and capital costs.

#### 3.1 Overview of Transit Technologies



##### Local Fixed Routes

Local fixed route service is provided by rubber-tired vehicles powered by diesel/diesel-hybrid engines on the vehicle. Most buses operate in fixed-route service on regular schedules, and passengers pay a fare or present a pass or transfer when boarding their bus. Nearly all buses are accessible for wheelchairs by lifts or ramps, and most can carry bicycles on racks in front of the bus. StarMetro currently provides this type of service on nearly all of its routes.



##### Deviated Fixed Route

Deviated fixed route vehicles follow a fixed route with scheduled time points. However, the schedule allows the driver to deviate from the route to pick up or drop off an eligible rider. The vehicle exits and re-enters the route at the same point. This allows unscheduled passengers to wait for the vehicle along the route. The schedule requires enough time for drivers to deviate from their routes while remaining on schedule. Deviated fixed route does not operate well in areas with high peak demand.



## Regional Transit Study



### **Transfer Centers**

Bus transfer centers are facilities at which multiple bus routes connect, affording passengers the ability to transfer to another line. These facilities often have enhanced infrastructure and amenities such as shelters, multiple bus bays, restrooms, and operator break areas.



### **Park and Ride Lots**

Park and ride (PnR) lots are parking facilities, comprised of surface lots or structures, that allow commuters to park their vehicles in a semi-secure location and board transit vehicles. These facilities often have enhanced shelters, and can have multiple bus bays depending on the number of routes the lot serves.



### **Express Bus**

Express bus service is provided by rubber-tired vehicles powered by on-board diesel/ diesel-hybrid engines. Express bus service is geared towards the commuter market, and typically adheres to a fixed daily schedule; however, trips tend to be clustered in the peak periods, with few or no trips in the mid-day and weekends. Stops are limited and limited-access facilities are typically utilized in order to achieve faster end-to-end travel times. StarMetro's 80x service is an example of express service currently in operation in the Capital region.

## Regional Transit Study



### Bus Rapid Transit

- **Cost/Mile:** \$1 - \$35 Million
- **Seated Capacity/Bus:** 40 - 60
- **Service Range:** Up to 15 Miles
- **Average Speed:** 10-25 MPH
- **Station Spacing:** 1/4 - 1/2 Mile
- **Alignment:** At-grade, mixed-traffic/shared guideway.

Bus Rapid Transit (BRT) is a corridor-based premium bus service. BRT typically operates in mixed-traffic utilizing Intelligent Transportation Systems (ITS) improvements such as Traffic Signal Priority (TPS) and semi-exclusive guideways to enhance travel times. Other features such as enhanced stations, level boarding, tram-like buses, off-bus fare collection, and specific branding to distinguish BRT from standard local bus service and increase its attractiveness to choice riders, allowing it to better compete with rail-based modes for a fraction of the cost. No BRT routes currently exist in the Capital Region. National examples include Kansas City's Metro Area Express (Max), Los Angeles' Orange Line, and the Las Vegas MAX.



### Light Rail Transit

- **Cost/Mile:** \$25 - 60 Million
- **Seated Capacity/Train:** 225
- **Service Range:** Up to 15 miles
- **Maximum Speed:** 45 - 55 MPH
- **Average Speed:** 15 - 25 MPH
- **Station Spacing:** ½ - 1 Mile
- **Alignment:** At-grade, mixed-traffic/shared guideway. May include some exclusive segments.

Light rail transit (LRT) is characterized by electrically-powered railcars operating singly or as multi-car trains on a fixed track. Power is transmitted to the vehicles via overhead catenary lines, which allows for shared guideways and mixed-traffic operations. However, greater operating speeds are achieved through exclusive guideway operations. LRT stations typically have limited amenities and infrastructure. Examples of LRT systems in operation in the United States include Sacramento RT Light Rail, Charlotte Lynx Blue Line, and Minneapolis Metro Transit's Hiawatha Line.



## Regional Transit Study



### Modern Streetcar

- **Cost/Mile:** \$15 - \$30 Million
- **Seated Capacity/Train:** 50
- **Service Range:** 2 - 10 miles
- **Maximum Speed:** 35 - 45 MPH
- **Average Speed:** 8 - 15 MPH
- **Station Spacing:** ¼ - ½ Mile
- **Alignment:** At-grade, mixed traffic/shared guideway.

Modern streetcar generally requires the lowest capital costs of any intra-urban rail technology. Streetcar systems are characterized by frequent stations, short service ranges, and shared-guideway alignments. Streetcars are smaller and lighter than LRT vehicles, allowing them to more effectively operate in mixed-traffic, though their capacity is significantly lower. Streetcar stations require relatively little infrastructure and are typically limited to raised platforms with small shelters. Modern streetcar systems currently in operation in Portland OR, Tacoma WA, and Seattle WA have proven to be effective catalysts for urban redevelopment and real estate investment.



### Commuter Rail

- **Cost/Mile:** \$5 - \$30 Million
- **Seated Capacity/Train:** 250 - 1000
- **Service Range:** 20 - 75 Miles
- **Maximum Speed:** 79 MPH
- **Average Speed:** 35-45 MPH
- **Station Spacing:** 2 - 4 Miles
- **Alignment:** At-grade, exclusive guideway/freight corridor

Commuter rail service is provided on regular railroads or former railroad rights-of-way. Trains are made up of either self-propelled cars (diesel multiple units) or cars hauled by locomotives. Commuter rail service is characterized by high-speed, infrequent-stop service over longer distances from outlying areas into the commercial centers of metropolitan areas. Examples of commuter rail systems currently in operation include Albuquerque, New Mexico's Rail Runner, Chicago's Metra, and Washington D.C.'s Virginia Railway Express.

**High Speed Rail**



High speed rail (HSR) is inter-city passenger rail service that operates at speeds greater than 120 miles per hour. speed trains contain modern amenities and conveniences, and are time and price competitive with other modes of transportation. Currently, several high speed rail systems operate in the United States, Europe and Asia. Amtrak's Acela Express trains operate at speeds in excess of 135 mph between Boston, New York and Washington, D.C.

### 3.2 Near-Term Plan (Years 2010-2014)

The Near-Term Plan focuses on enhancing local service within the City of Tallahassee. The StarMetro NOVA 2010 plan to “decentralize” the current bus service forms the local transit framework in the Near-Term, with added service in the rapidly-developing southeast quadrant of the city. Two express routes are planned in the Near-Term between Quincy and Tallahassee, and Crawfordville and Tallahassee. Both of these routes will be served by new park and ride lots at the end of lines in the out-counties. Finally, three transfer centers are proposed to provide for better connections between the decentralized StarMetro routes, planned express routes, and future BRT routes proposed in the later phases.

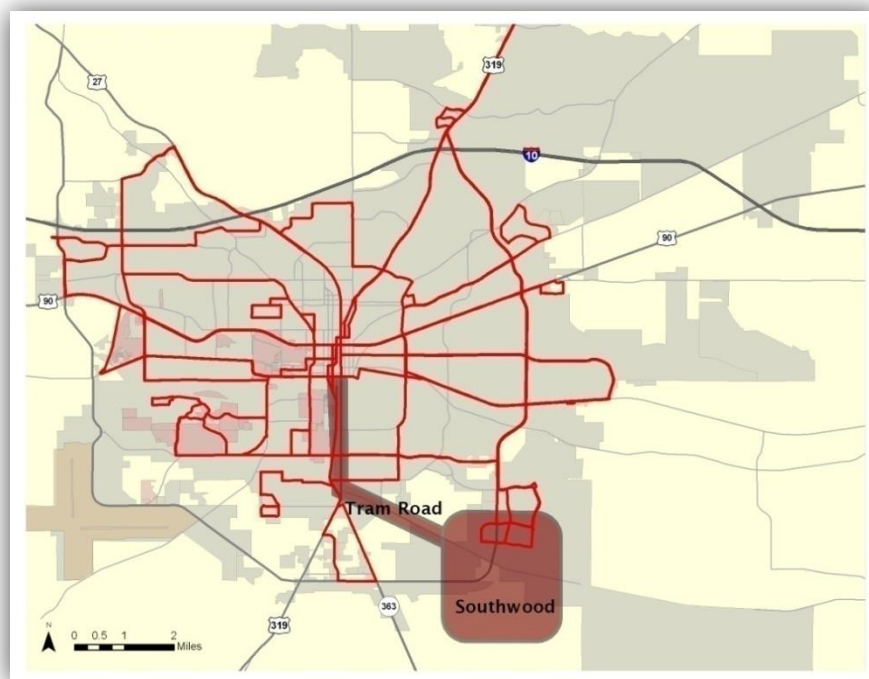
#### 3.2.1 Service Improvements

Service improvements include enhancements and additions to local fixed-route services such as those currently provided by StarMetro as well as rural fixed-route circulator routes.

##### *Star Metro Decentralization*

The StarMetro NOVA 2010 plan proposes decentralization of the current fixed route system in Tallahassee/Leon County. The new route structure will include 13 routes encompassing a majority of the City of Tallahassee, as well as an additional route, the 80x, which extends into Leon County. The new route network will not converge on C.K. Steele Plaza any longer. Rather, timed connections will be made throughout the system where routes intersect. The enhanced transit network proposed hereafter is based upon the assumption that the Nova 2010 plan will be implemented as scheduled.

**Figure 9: Near Term Local Service Improvements**



## Regional Transit Study

### ***CCOC/Southwood***

The Capital Circle Office Complex/Southwood is one of the most rapidly developing areas in the Tallahassee Region. New circulator service is proposed for this area to enhance connections between office buildings, residences, and the planned StarMetro routes.

### ***Tram Road***

The Tram Road corridor provides a direct thoroughfare between downtown and Southwood. Local service is proposed for this corridor to provide transit access between two of the region's major employment centers.

### **3.2.2 Capital Projects**

Capital projects are transit improvements which will require significant capital outlay. These include fixed-route and fixed-guideway projects such as express bus, bus rapid transit (BRT), streetcar, light rail transit (LRT), and commuter rail transit (CRT). Capital facilities such as transfer centers and park and ride lots are also included in this category.

### **Express Bus**

#### ***Crawfordville Express***

The Crawfordville Express will provide limited-stop express service between downtown Crawfordville (near the intersection of Crawfordville Road and Shadeville Road) and C.K. Steele Plaza. The route will follow Crawfordville Road/US 319 until it turns into South Adams, and finally Duval. The route will terminate at C.K. Steele Plaza with intermediate stops near the state capital in downtown.

#### ***Quincy Express***

The Quincy Express is slated to begin revenue service within several months. The service will connect the two largest population centers in the region: Quincy and Tallahassee. The route will follow US 90 for the entirety of the alignment before terminating at C.K. Steele Plaza.

**Figure 10: Near Term Express Bus Improvements****Satellite Transfer Centers*****US 319/Mahan Road***

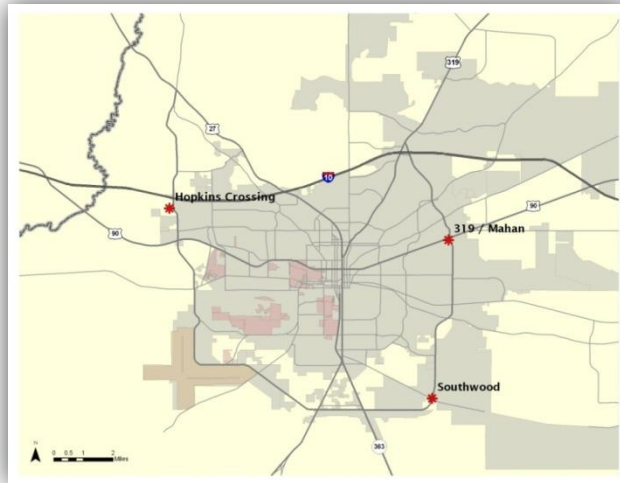
The US 319/Mahan Road transfer center is proposed for the southwest corner of US Highway 319 and Mahan Road. This site will allow for transfers between the proposed US 90 A/B and Capital Service East local services. Express bus and BRT services planned for future phases including the Monticello Express, Capital Circle East Express, Tennessee Street East BRT, and Capital Circle East BRT will connect at this transfer center.

***Southwood***

The Southwood transfer center will serve as a connection point for the proposed Tram Road local service, Southwood circulator service, Orange to IP route, and Capital Circle East route. Future improvements including the Capital Circle Southwest Express, Monroe BRT, and Capital Circle East BRT will also utilize this transfer center.

***Hopkins Crossing***

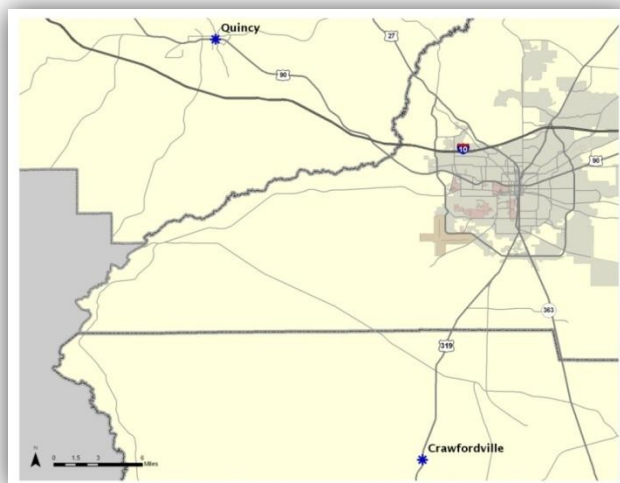
The Hopkins Crossing transfer center, located at I-10 and Capital Circle West, will serve the North Mover, Com to Connor, and US 90 'B' routes as defined in the decentralized plan. The Capital Circle West express route will serve this transfer center.

**Figure 11: Near Transfer Center Improvements****Regional Park and Ride*****Quincy***

A park and ride lot is proposed at the western terminus of the Quincy Express route in downtown Quincy near intersection of Jefferson Street and Monroe Street. This lot will also serve the Quincy-Havana Express planned in the Long-Term phase.

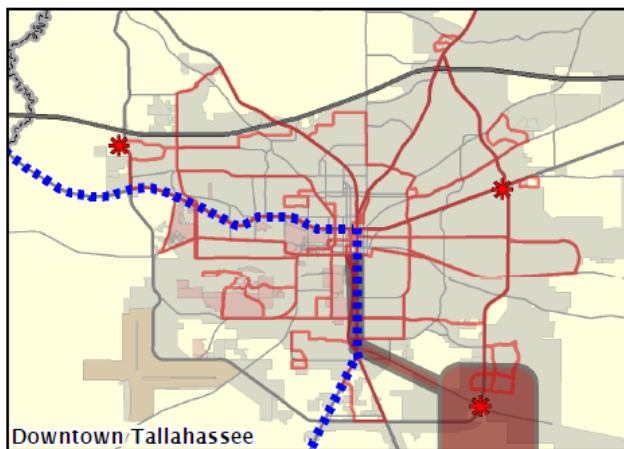
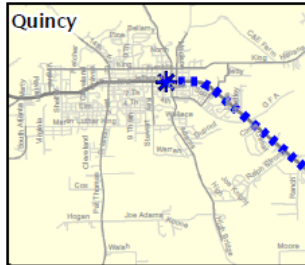
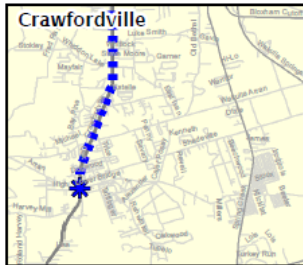
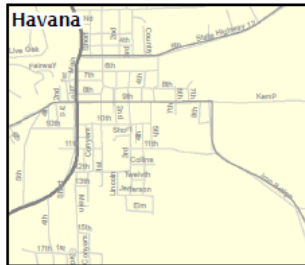
***Crawfordville***

A park and ride lot is proposed at the southern terminus of the Crawfordville Express route in downtown Crawfordville near the intersection of Crawfordville Road and Shadeville Road.

**Figure 12: Near Term Park and Ride Improvements**



- Legend**
- Park and Ride Facilities
  - Transfer Centers
  - Local Bus System
  - Light Rail Transit
  - Express Routes
  - Commuter Rail Corridors
  - High Speed Rail Corridor
  - Local Service Improvements
  - Rural Fixed Route Service Area
  - Streetcar Area
  - BRT Corridors



## Near Term Transit Plan

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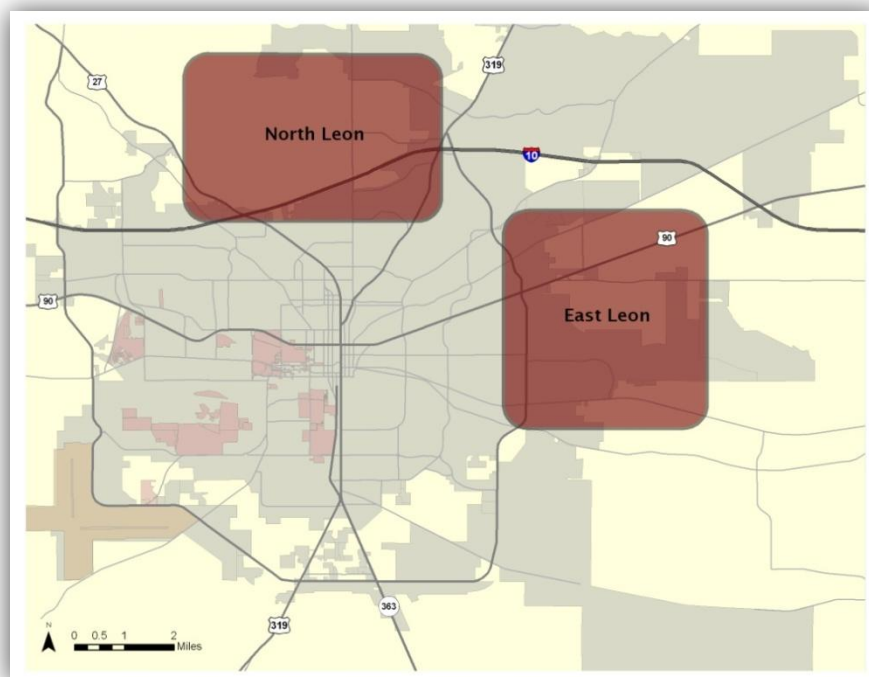


### 3.3 Mid-Term Plan (Years 2015-2024)

The Mid-Term Plan builds upon the Near-Term by two adding additional areas of local service, five new regional express routes, and three BRT routes. Fixed-guideway transit is introduced in this phase, as two streetcar routes are planned as circulators connecting key employment and education centers in downtown Tallahassee. Four transfer centers and two park and ride lots are planned to serve the new transit routes.

#### 3.3.1 Service Improvements

**Figure 13: Mid Term Local Service Improvements**



##### ***North Leon County Service***

Local service in North Tallahassee/Leon County is proposed to accommodate growth expected in the area north of I-10 and east of US 27, and will connect to premium transit options.

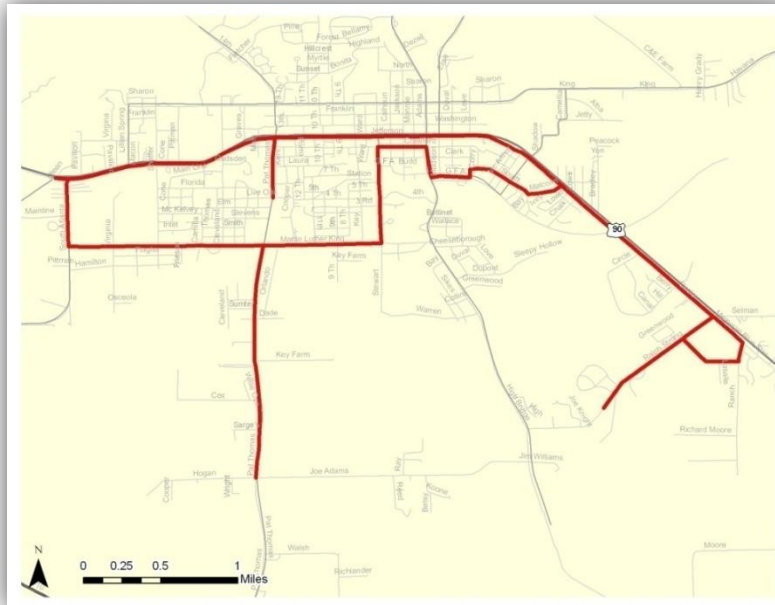
##### ***East Leon County Service***

Local bus service is proposed for the East Tallahassee/Leon County area. One or more local routes will serve the area and provide access to proposed premium service options.

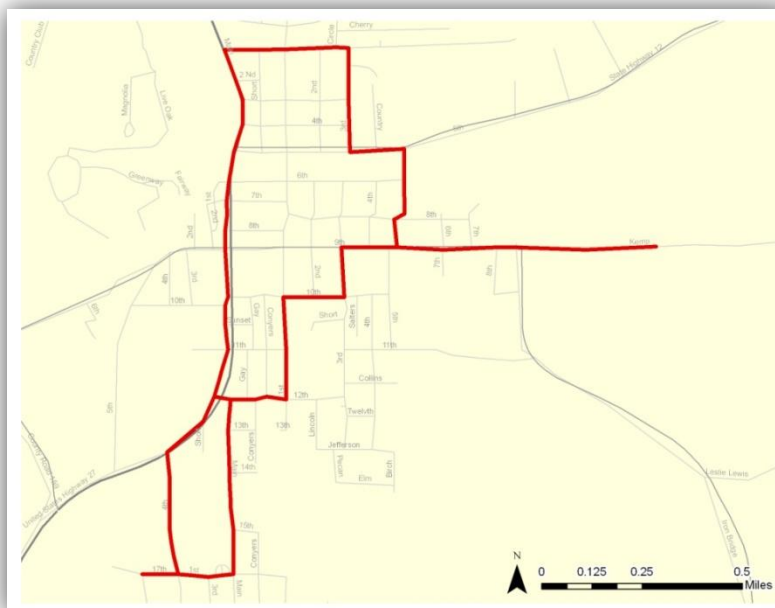
##### ***Quincy Fixed Route***

Quincy's local fixed route circulator service is proposed to be expanded in the mid-term, connecting the city's major retail, employment, and housing centers to regional transit services.



**Figure 14: Mid Term - Quincy Fixed Route*****Havana Fixed Route***

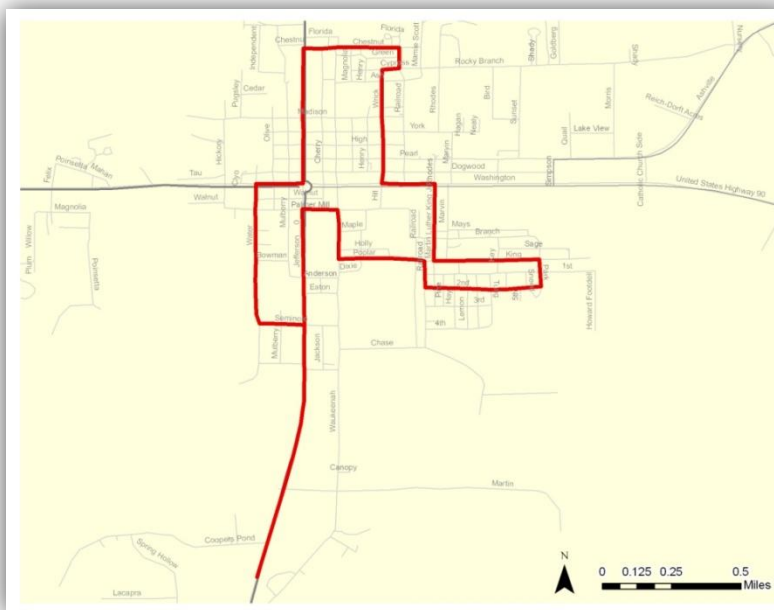
Fixed route circulator service is proposed for the Havana area in eastern Gadsden County. This circulator route will connect the major travel destinations within the city of Havana with the proposed express routes to Tallahassee (Mid-Term) and Quincy (Long-Term).

**Figure 15: Mid Term - Havana Fixed Route**

**Monticello Fixed Route**

Fixed route circulator service is proposed for the Monticello area in Jefferson County. This route will connect the principle destinations within Monticello with planned express services to Tallahassee.

**Figure 16: Mid Term - Monticello Fixed Route**



### 3.3.2 Capital Projects

#### Express Bus

##### **Woodville Highway Express**

The Woodville Highway Express will connect the Woodville community with downtown Tallahassee. The route will originate near Natural Bridge Road in Woodville and follow Woodville Highway/ SR 363 to Monroe before terminating at C.K. Steele Plaza, with intermediate stops at Tram Road (connection to Southwood) and downtown.

##### **Capital Circle East Express**

The Capital Circle East Express will connect Bradfordville and the Southwood area. The route will originate in Bradfordville near the intersection of US 319 and Bannerman Road and terminate at the Tram Road/Southwood transfer center. Intermediate stops at Mahan Road and Apalachee Parkway will allow for transfers to other express/BRT services.

##### **Havana Express**

The Havana Express route will connect downtown Havana and downtown Tallahassee via US 27. The route will originate in downtown Havana near 7<sup>th</sup> and Main and will terminate at C.K. Steele Plaza. Intermediate stops at Crowder Road and Callaway Road will allow for transfers to the decentralized StarMetro bus route system.

## Regional Transit Study

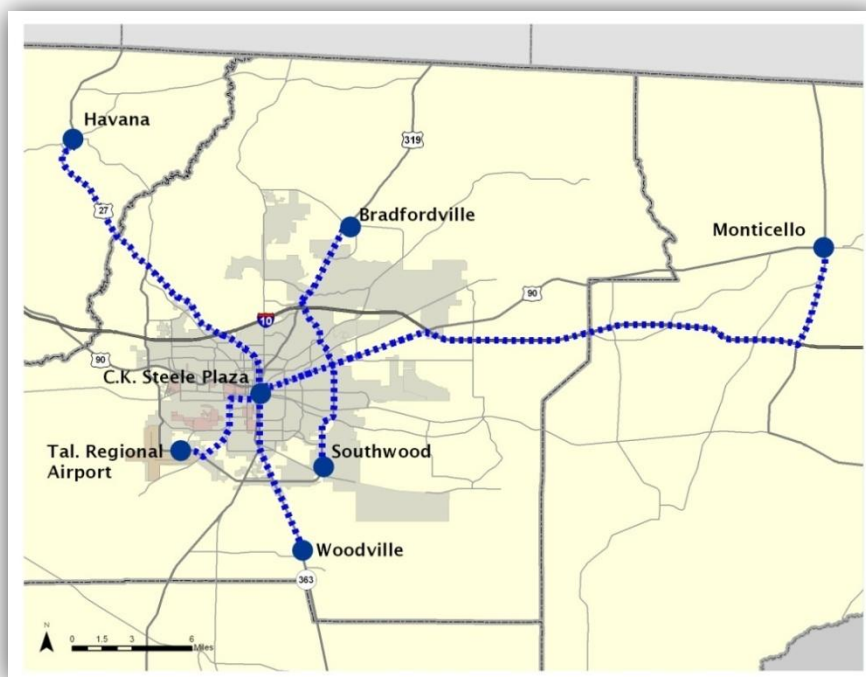
### ***Monticello Express***

The Monticello Express will connect downtown Monticello and downtown Tallahassee via US 19, I-10, and Mahan Drive/Tennessee Street. The route will originate near Washington and Jefferson Streets in downtown Monticello and terminate at C.K. Steele Plaza. An intermediate stop at the 319/Mahan Drive transfer center will allow for transfers to east Tallahassee destinations including Southwood.

### ***Airport Express***

The Airport Express route will connect Tallahassee Regional Airport with the central business district (CBD). The route will follow Capital Circle to Spring Hill Road, which turns into Lake Bradford Road. The route proceeds right onto Gaines Street before turning left onto Monroe and left onto Tennessee to terminate at the C.K. Steele Plaza. An intermediate stop is planned for the FSU/Gaines Street transfer center.

**Figure 17: Mid Term Express Bus Improvements**



## Regional Transit Study

### **Bus Rapid Transit**

#### ***West Tennessee BRT***

The West Tennessee BRT will serve the Tennessee Corridor between Tallahassee Community College and C.K. Steele Plaza. The route will originate at the TCC Transfer Center on Appleyard Drive, continue north on Appleyard before turning east onto Tennessee until it terminates at C.K. Steele Plaza.

#### ***Thomasville Road BRT***

The Thomasville Road BRT will connect suburban Bradfordville with the CBD. The route will originate near the intersection of US 319 and Bannerman Road and terminate at C.K. Steele Plaza. The BRT will travel along US 319/Thomasville Road for the majority of the route before merging with Monroe.

#### ***Apalachee Parkway BRT***

The Apalachee Parkway BRT will connect the CBD with the Southwood area. The route will originate at the Southwood Transfer Center and terminate at C.K. Steele Plaza. The alignment will follow Capital Circle East before turning west on Apalachee Parkway. The route then travels north on Monroe before turning left at Tennessee and terminating at C.K. Steele Plaza.

**Figure 18: Mid Term BRT Improvements**



## Regional Transit Study

### Streetcar

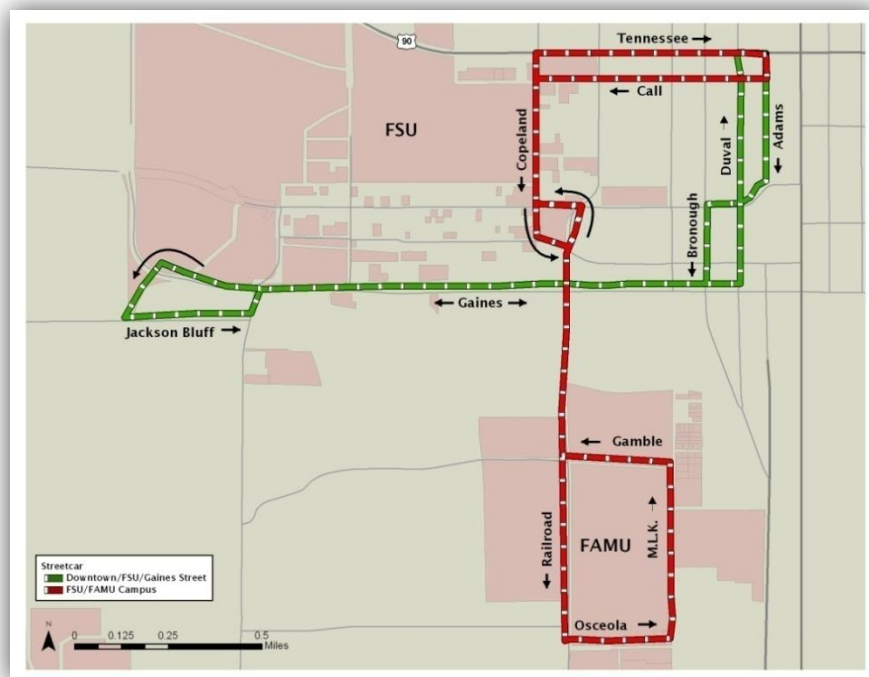
#### *Gaines Street Line*

The Gaines Street Line streetcar will connect the CBD with the southern end of the Florida State University (FSU) campus and Gaines Street corridor, which is slated for substantial redevelopment. This project will serve as a catalyst for new investment in the corridor and enhance mobility between the University and downtown. The alignment will originate at C.K. Steele Plaza, travel south down Adams Street to Bronough, turn south down Bronough to Gaines, and turn west on Gaines. The route will then turn left at W. Gaines and left again at Jackson Bluff before proceeding east down Gaines Street for the return trip downtown. The route will turn northbound at Duval and eastbound at Tennessee before terminating at C.K. Steele Plaza.

#### *Campus Line*

The Campus Line Streetcar will connect the CBD, FSU, and Florida A&M University (FAMU), and will tie in with the Gaines Street Line for east-west transfers. The alignment will originate at C.K. Steele Plaza, travel west on Call Street, turn south down Copeland Street to St. Augustine, and turn south down Railroad Way. The route would follow Railroad to Osceola Street, turn eastbound on Osceola, turn northbound on Martin Luther King Boulevard, and turn westbound on Gamble before returning to Railroad Way. After completing the loop around the FAMU campus, the route would run northbound on Railroad until turning west on Pensacola, north on Copeland, and finally east onto Tennessee before terminating at C.K. Steele Plaza.

**Figure 19: Mid Term Streetcar Improvementsw**



## Regional Transit Study

### Satellite Transfer Centers

#### ***FSU/Stadium***

The FSU/Stadium transfer center, located at Gaines Street and Lake Bradford Road, will serve the Cross Highway 20, West Loop Counter, and Townville to IP local routes (as defined in the NOVA 2010 plan), along with the Gaines Street Streetcar Line and Airport Express route. The Airport Light Rail, planned for the Long-Term phase, will also serve this location.

#### ***Tallahassee Community College***

The Tallahassee Community College transfer center, located along Appleyard Drive near the TCC campus, will serve the West Loop Clock and Counter local routes (as defined in the NOVA 2010 plan), as well as the West Tennessee BRT and extension.

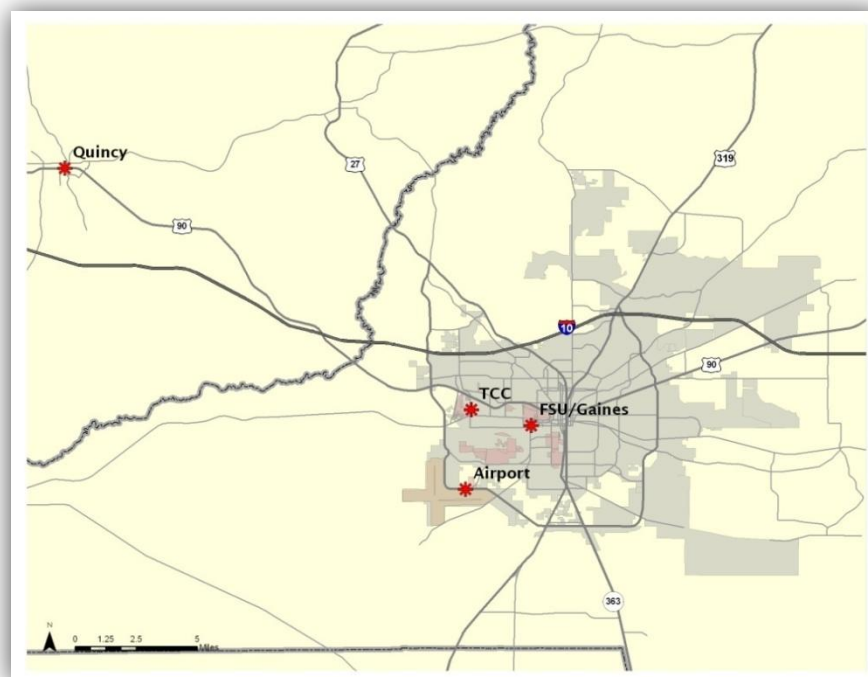
#### ***Tallahassee Regional Airport***

The Tallahassee Regional Airport transfer center, located at the regional airport along Capital Circle West, will serve the Capital Circle West Express service, Airport Express service, and future Airport to Downtown LRT.

#### ***Quincy***

The Quincy transfer center, located at South Monroe and West Jefferson in downtown Quincy, will serve the Quincy Express, Quincy local fixed route, and Quincy-Havana Express.

**Figure 20: Mid Term Transfer Center Improvements**



## Regional Transit Study

### Regional Park and Ride

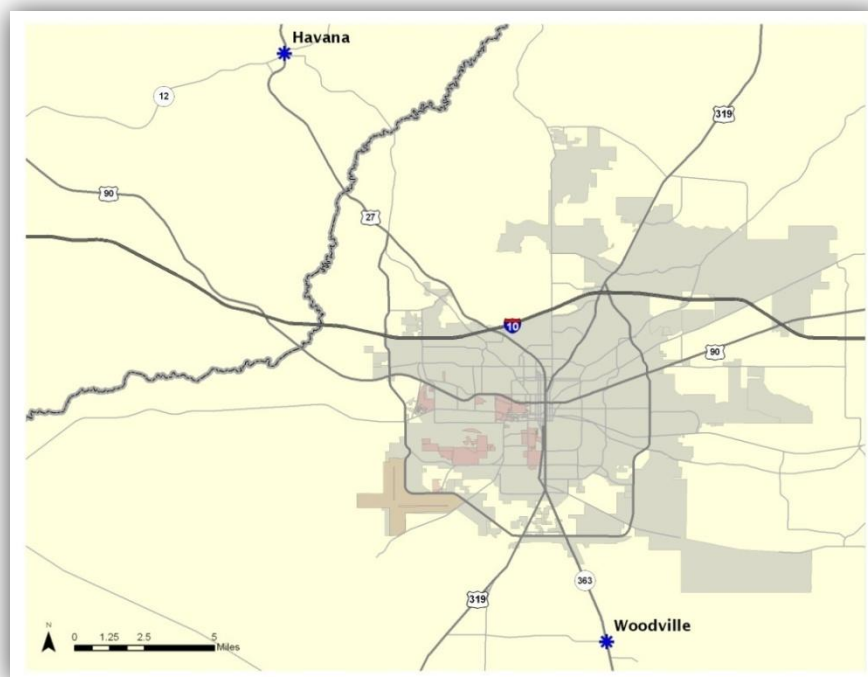
#### ***Havana***

The Havana Park and Ride, located near 9<sup>th</sup> and Main in Downtown Havana, will provide parking for commuters who wish to travel to Tallahassee or Quincy. This site will also serve as a transfer point to the Havana fixed route circulator.

#### ***Woodville***

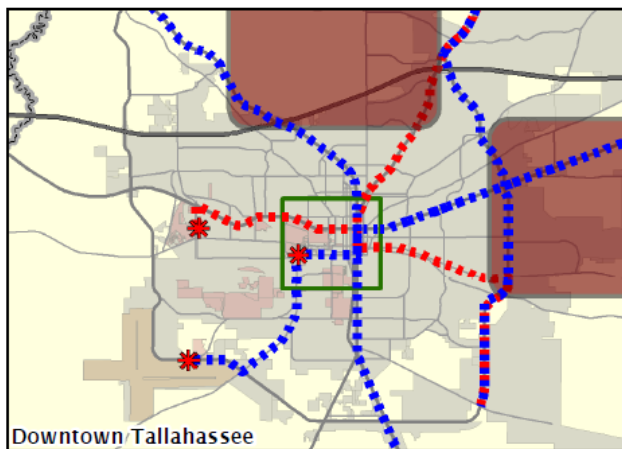
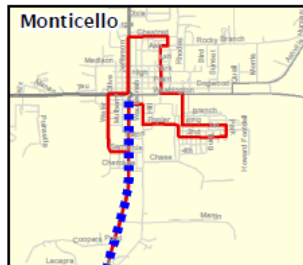
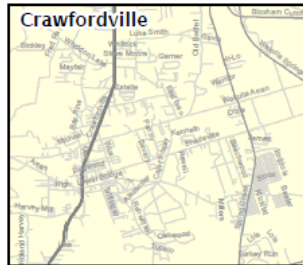
The Woodville Park and Ride, located at Oak Ridge Road and Woodville Highway, will serve the Woodville Express route. Parking will allow commuters to travel into Tallahassee without a personal vehicle.

**Figure 21: Mid Term Park and Ride Improvements**





- Legend**
- Park and Ride Facilities
  - Transfer Centers
  - Local Bus System
  - Light Rail Transit
  - Express Routes
  - Commuter Rail Corridors
  - High Speed Rail Corridor
  - Local Service Improvements
  - Rural Fixed Route Service Area
  - Streetcar Area
  - BRT Corridors

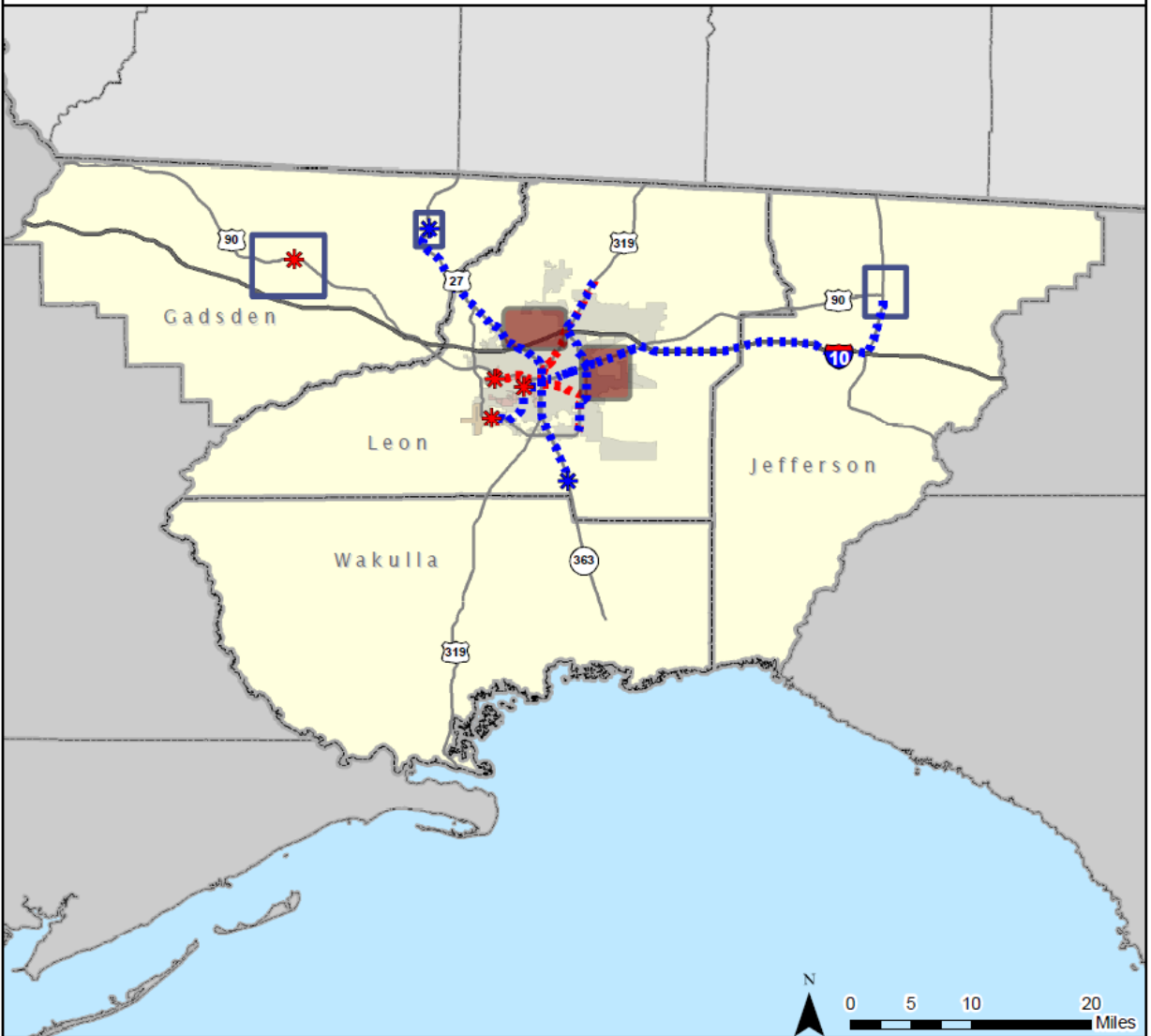


# Mid Term Transit Plan

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Transit Study





### 3.4 Long-Term Plan (Years 2025-2050)

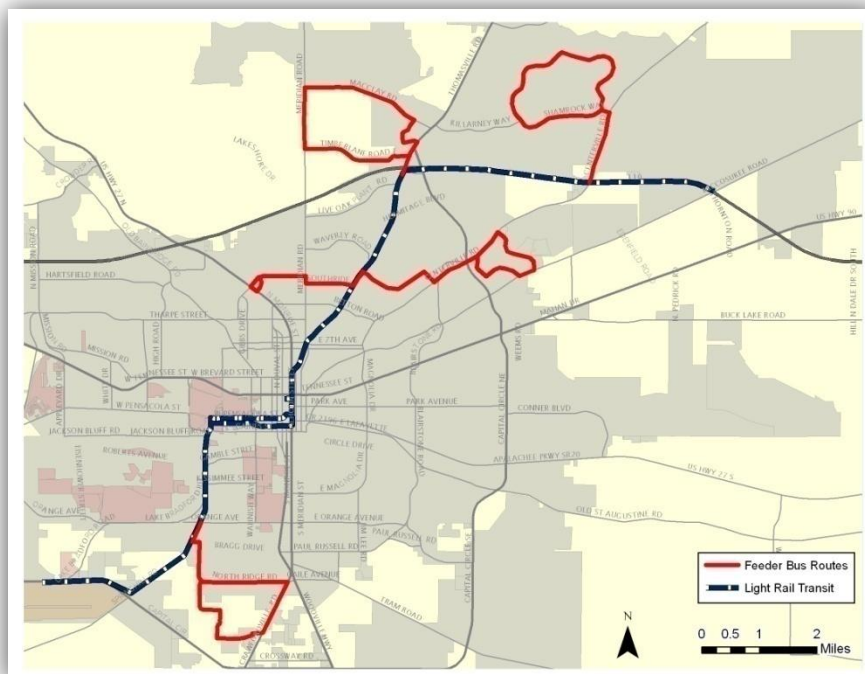
The Long-Term Plan is the third and final phase of proposed transit improvements. Included in this phase are several capital projects including two light rail transit (LRT) segments, four BRT corridors, and two express bus routes. Local service improvements include LRT feeder bus service and a fixed route circulator in Crawfordville. Possible commuter rail corridors and connections to high-speed rail were also evaluated and included in the long-range plans.

#### 3.4.1 Service Improvements

##### *LRT Feeder Service*

LRT Feeder service will supplement and tie local bus service into the planned LRT stations. Four preliminary feeder routes are proposed as part of the Long-Term plan, though additional feeder routes may be required as changes in land use, population, and employment dictate.

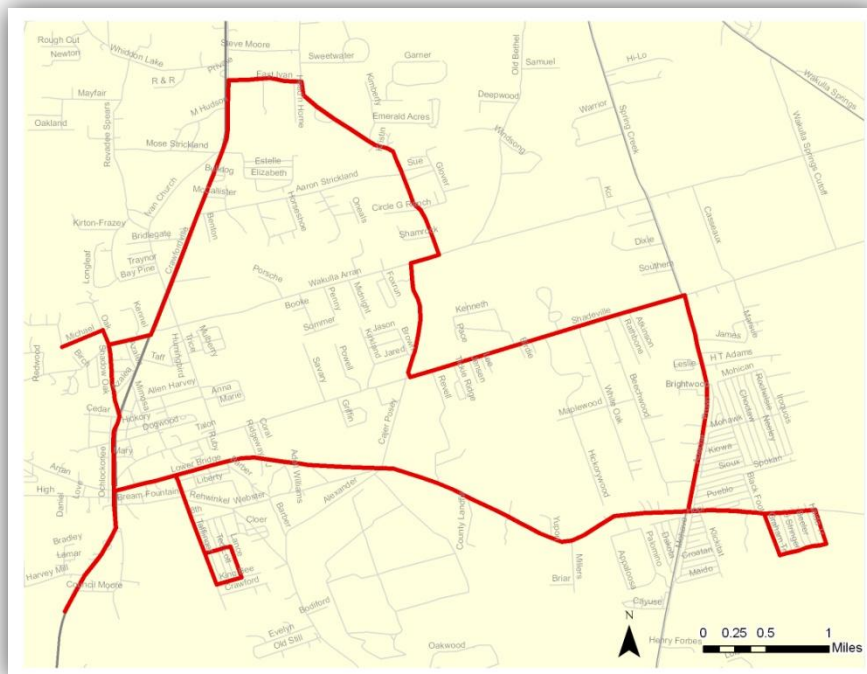
**Figure 22: Long Term Local Service Improvements**



##### *Crawfordville Fixed Route*

A fixed route circulator is proposed for the Crawfordville area in Wakulla County. This route will connect the primary employment, retail, and housing centers within the area to regional transit options, including the Crawfordville Express.

Figure 23: Long Term - Crawfordville Fixed Route



### ***Rural Fixed Route Expansion***

Fixed route circulators in Quincy, Havana, and Monticello are planned to be expanded in the Long Term. Additional routes, extension of routes, and expansion of span of service are all possible upgrades to each community's local service.

## **3.4.2 Capital Projects**

### **Express Bus**

#### ***Havana-Quincy Express***

The Havana-Quincy Express will connect the two principle population centers in Gadsden County. The route will originate at South Monroe and West Jefferson in downtown Quincy and terminate near 9<sup>th</sup> and Main in Downtown Havana. The route will travel east along Jefferson before turning northbound on Madison Street. The route will then travel east on King Street/State Route 12 for the majority of the alignment before terminating in Havana at the Havana Park and Ride.

#### ***Capital Circle Southwest Express***

The Capital Circle Southwest Express route will connect the Hopkins Crossing transfer center and Southwood transfer center. The route will travel along Capital Circle Parkway for the entirety of the route, with an intermediate stop at the Airport transfer center.

Figure 24: Long Term Express Bus Improvements



### **Bus Rapid Transit**

#### ***West Tennessee BRT Extension***

The West Tennessee BRT Extension will extend the West Tennessee BRT, proposed for implementation in the Mid Term phase, to I-10/US 90. The route will originate at the TCC transfer center, proceed north on Appleyard to Tennessee Street, and then travel west along Tennessee to its termination point at US/90 and I-10.

#### ***Capital Circle East BRT***

The Capital Circle East BRT will serve the eastern segment of Capital Circle, connecting the Thomasville Road/I-10 area with Southwood. The route will originate north of I-10 at Thomasville Road, and travel southbound on Capital Circle/US 319 until it terminates at the Southwood transfer center.

#### ***Monroe BRT***

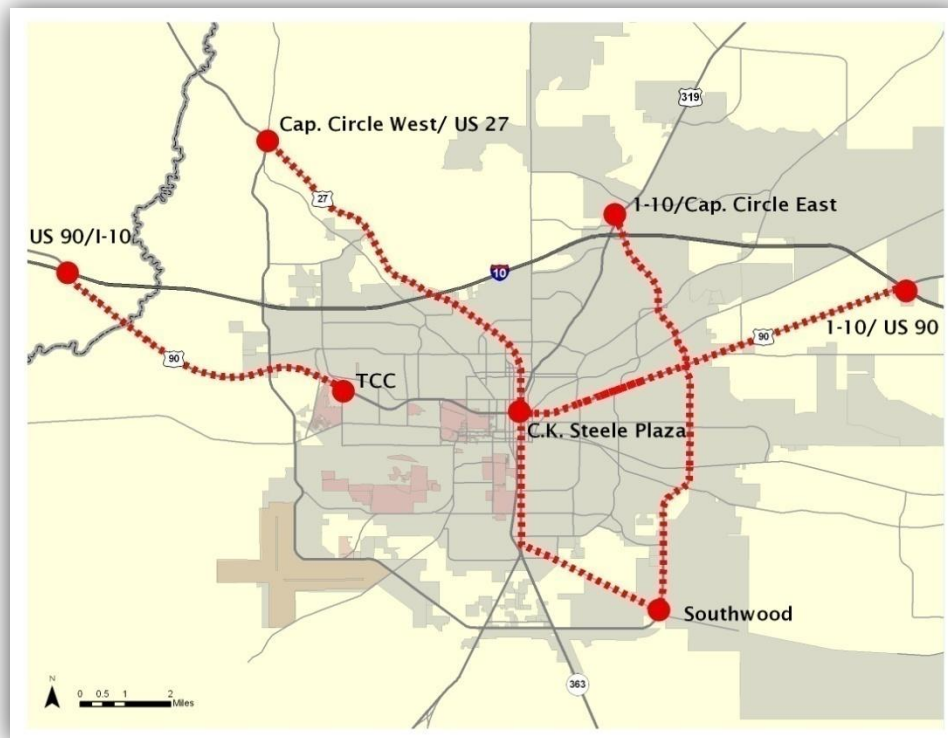
The Monroe BRT will serve the northwest Tallahassee market with premium transit into downtown and Southwood. The route will originate at Capital Circle NW/US 27 and proceed southbound on US 27/Monroe to Tennessee, where it will serve the C.K. Steele Plaza. The route will then continue south on South Monroe to Tram Road, where it will turn southeast for the duration of the route and terminate at the Southwood transfer center.

#### ***East Tennessee BRT***

## Regional Transit Study

The East Tennessee BRT will connect to the West Tennessee BRT, from downtown east to Mahan Drive/I-10. The route will originate at C.K. Steele Plaza east to Capital Circle East (phase 1) and proceed to its termination point at Mahan Drive/I-10 (phase 2).

**Figure 25: Long Term BRT Improvements**



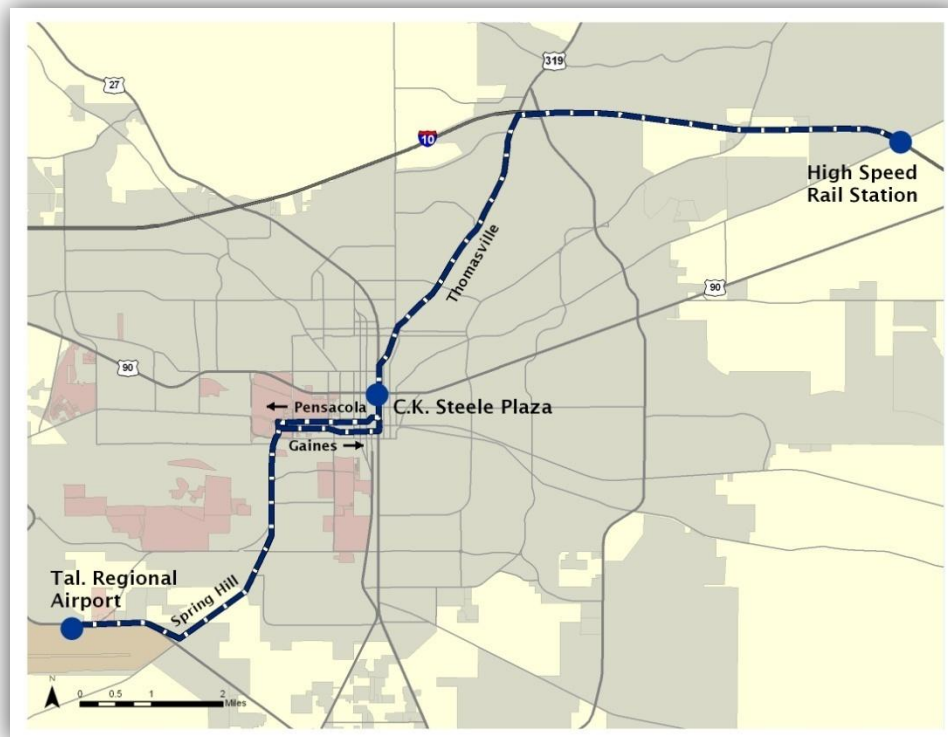
### Light Rail Transit

#### ***Airport to Downtown LRT***

The airport to downtown segment of the LRT line will connect Tallahassee Regional airport to the central business district. The alignment would run along Capital Circle before turning north along Spring Hill Road. The LRT would then follow Lake Bradford before traveling east on Gaines Street, then north on Monroe to a downtown station near the current C.K. Steele Plaza.

#### ***Downtown to I-10 High Speed Rail Station LRT***

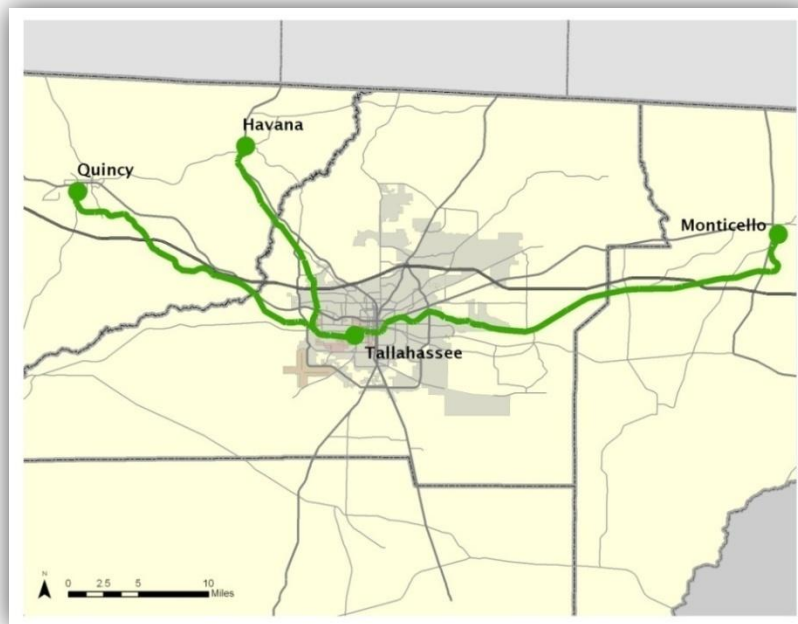
The downtown to I-10 High Speed Rail station segment of the LRT line will connect downtown with the potential HSR station at I-10/Miccosukee Road. The route will travel along Thomasville Road northbound to I-10, where it will turn east bound and run along the interstate until it reaches the HSR station.

**Figure 26: Long Term LRT Improvements****Commuter Rail**

Three corridors have been identified as potential future commuter rail lines. These corridors are currently owned and operated by CSX freight railroad. The three corridors, displayed in Figure 27, are Quincy-Tallahassee, Havana-Tallahassee, and Monticello-Tallahassee. The three lines would likely serve a station at or near the current Amtrak station on Railroad Avenue.

## Regional Transit Study

**Figure 27: Long Term Commuter Rail Improvements**



### High Speed Rail

The Florida Department of Transportation has identified a potential high speed rail corridor along I-10, with a station in north Tallahassee. The line would utilize existing interstate right-of-way, and a potential station location exists at I-10/Miccosukee Road.

**Figure 28: Long Term High Speed Rail Improvements**





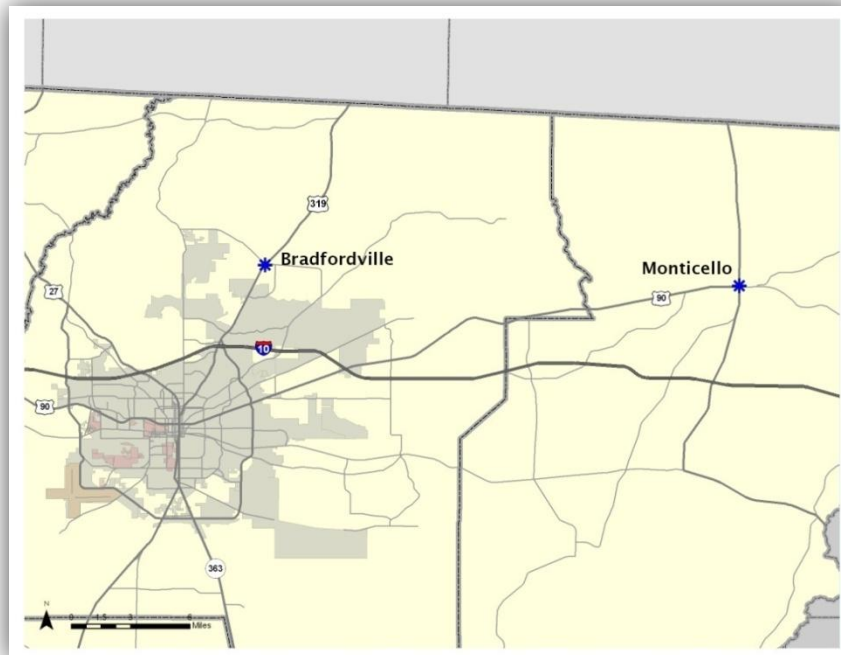
**Regional Park and Ride*****Bradfordville***

A park and ride lot is proposed at US 319/Bannerman Road in Bradfordville. This lot will serve the Bradfordville Express and Thomasville Road BRT.




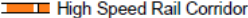
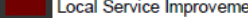
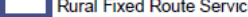
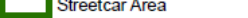
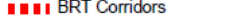
***Monticello***

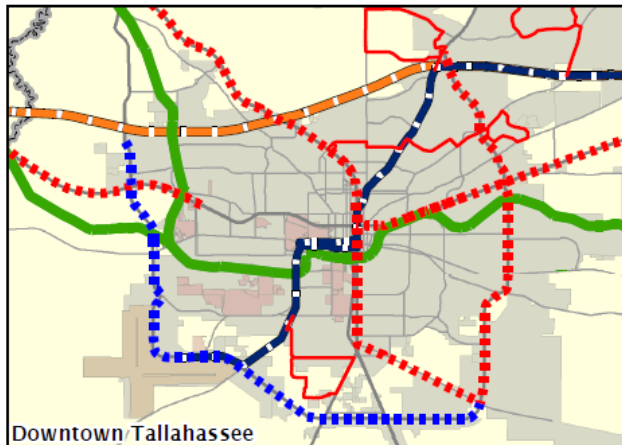
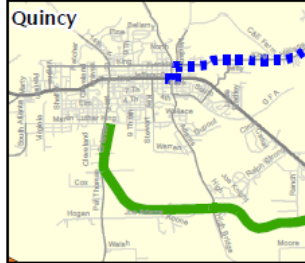
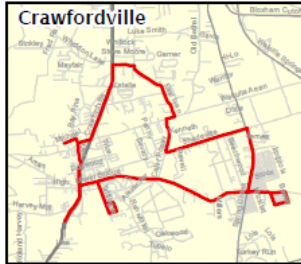
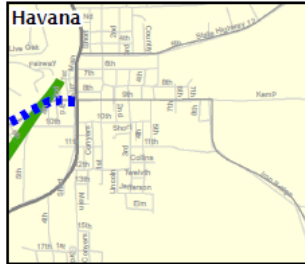
A park and ride lot is proposed near downtown Monticello. This lot will serve the Monticello Express route.

**Figure 29: Long Term Park and Ride Improvements**



## Legend

-  Park and Ride Facilities
-  Transfer Centers
-  Local Bus System
-  Light Rail Transit
-  Express Routes
-  Commuter Rail Corridors
-  High Speed Rail Corridor
-  Local Service Improvements
-  Rural Fixed Route Service Area
-  Streetcar Area
-  BRT Corridors



# Long Term Transit Plan

StarMetro

Central Region  
Transportation Planning Agency  
CRTPA

Regional  
Transit Study





## Regional Transit Study

### 3.5 Other Transit Improvement Considerations

Other transit improvements were identified through stakeholder input that would serve the Capital Region, but are beyond the limits of the four-county study area. Express bus from Thomasville, GA along US Highway 319 was identified as an opportunity to provide service to a growing commuter population which needs service to reach employment in Tallahassee. Express bus service from Liberty County along State Highway 20 was another corridor which identified as part of this process.

### 3.6 Operating Requirements

General operating assumptions and plans for the transit service improvements are based on service levels projected for 2050. These assumptions include: span of service, vehicle capacity/loading standards, vehicle performance, and station dwell times.

#### Span of Service

The span of service for the transit service improvements is comparable to the existing StarMetro local bus service hours with expanded hours for weekday, Saturday and Sunday and holiday schedules. Span of service for express bus is recommended for only AM and PM Peak Period operations for commuting trips. Table 7 below, summarizes the assumed span of service.

**Table 7: Transit Service Improvements Span of Service**

DAY OF WEEK	TIME PERIOD	HOURS	TOTAL HOURS
Weekdays	AM Peak Period	6:00 a.m. - 9:00 a.m.	16.0
	Base	9:00 a.m. - 4:00 p.m.	
	PM Peak Period	4:00 p.m. - 7:00 p.m.	
	Evening	7:00 p.m. - 10:00 p.m.	
Saturday	Base	6:00 a.m. - 10:00 p.m.	16.0
Sunday & Holidays	Base	8:30 a.m. - 9:00 p.m.	10.0

#### Service Frequency

The service frequency would vary based on transit mode, based on ridership demand. StarMetro's service frequency existing local bus routes would be based on the recommendations that come out of the NOVA 2010 study. Table 8, below, summarizes the assumed service frequency.

## Regional Transit Study

**Table 8: Transit Service Improvements Service Frequency**

DAY OF WEEK	TIME PERIOD	EXPANDED STARMETRO LOCAL BUS	EXPRESS BUS	RURAL FIXED ROUTE	BRT	STREETCAR	LRT
Weekdays	AM Peak Period	15 min.	30 min.	30 min.	10 min.	10 min.	10 min.
	Base	30 min.	N/A	60 min.	15 min.	15 min.	15 min.
	PM Peak Period	15 min.	30 min.	30 min.	10 min.	10 min.	10 min.
	Evening	60 min.	N/A	60 min.	30 min.	30 min.	30 min.
Saturday	Base	60 min.	N/A	60 min.	30 min.	30 min.	30 min.
Sunday & Holidays	Base	60 min.	N/A	60 min.	30 min.	30 min.	30 min.

### Operating Plans and Requirements

Operating plans for the transit service improvements provide the peak vehicle requirements in order to determine the level of service to achieve service frequency for each alternative. Estimating operating requirements assists a transit operator with estimating the potential costs to operate and maintain new service. Costs are typically driven by the number of vehicles, annual vehicle-miles and annual vehicle-hours required to operate the new routes. Below are definitions of components of the operating plans and requirements:

- **Average Speed** – The average speed the bus covers the distance of the route in one direction, including time to make stops and intersections delays
- **Run Time** - The time it takes for a bus to travel one-way from the beginning of the route to the end of route during revenue service.
- **Distance** – The one-way distance from the beginning of the route to the end of the route.
- **Headway** - The scheduled time interval between any two revenue buses operating in the same direction on a route and can vary based on ridership demand, typically more frequent during the AM and PM peak periods.
- **Peak Buses** – The minimum number of buses required in operation during the peak periods of revenue service.
- **(h) Annual Revenue Bus-Miles** – The miles operated by buses available for passenger service estimated per year.
- **Annual Revenue Bus-Hours** - The measure of scheduled hours of service available to passengers for transport on the routes estimated per year.
- **Lay Over** - Layover time serves as recovery time for the schedule to ensure on-time departure for the next trip and often the operator rest or break time between trips.
- **Cycle Time** – The time it takes for a bus to make a round-trip in revenue service before departing for the next trip.

## Regional Transit Study

- Annual revenue bus-miles and bus-hours include layover time and do not include deadhead time.
- Annual operating requirements are based on 254 weekdays, 52 Saturdays, and 59 Sundays and holidays per year.

## Regional Transit Study

Table 9: StarMetro Expanded Local Bus Service Operating Requirements

## Tram Road Bus Route - (N. Monroe/Downtown/FAMU/Southwood)

Project	From	To	Avg. Speed (mph)	Run Time (min)	Distance (Miles)	—Headway—				Peak Buses	—Annual Revenue—		Lay Over	Cycle Time	—Buses—		
						Day	Peak	Base	Eve.		Bus-Miles	Bus-Hours			Peak	Base	Eve.
Tram Road Bus Route	Southwood	Downtown Tallahassee	15.0	52.0	13.0	M-F	10.0	15.0	30.0	12	475,500	35,560	8.0	120.0	12	8	4
						Sat	30.0	30.0	30.0		43,300	3,330			4	4	4
						Sun	30.0	30.0	30.0		30,700	2,360			4	4	4
ESTIMATED TOTALS:										12	549,500	41,250					

## Southwood Circulator Route

Project	From	To	Avg. Speed (mph)	Run Time (min)	Distance (Miles)	—Headway—				Peak Buses	—Annual Revenue—		Lay Over	Cycle Time	—Buses—		
						Day	Peak	Base	Eve.		Bus-Miles	Bus-Hours			Peak	Base	Eve.
Southwood Circulator Route			15.0	8.0	2.0	M-F	15.0	30.0	60.0	2	42,700	5,590	2.0	20.0	2	1	1
						Sat	60.0	60.0	60.0		3,300	830			1	1	1
						Sun	60.0	60.0	60.0		2,400	590			1	1	1
ESTIMATED TOTALS:										2	48,400	7,010					

## North Leon Service

Project	From	To	Avg. Speed (mph)	Run Time (min)	Distance (Miles)	—Headway—				Peak Buses	—Annual Revenue—		Lay Over	Cycle Time	—Buses—		
						Day	Peak	Base	Eve.		Bus-Miles	Bus-Hours			Peak	Base	Eve.
North Leon Service			15.0	20.0	5.0	M-F	15.0	30.0	60.0	4	106,700	10,410	5.0	50.0	4	2	1
						Sat	60.0	60.0	60.0		8,300	830			1	1	1
						Sun	60.0	60.0	60.0		5,900	590			1	1	1
ESTIMATED TOTALS:										4	120,900	11,830					

## East Leon Service

Project	From	To	Avg. Speed (mph)	Run Time (min)	Distance (Miles)	---Headway---				Peak Buses	---Annual Revenue---		Lay Over	Cycle Time	---Buses---		
						Day	Peak	Base	Eve.		Bus-Miles	Bus-Hours			Peak	Base	Eve.
East Leon Service			15.0	20.0	5.0	M-F	15.0	30.0	60.0	4	106,700	10,410	5.0	50.0	4	2	1
						Sat	60.0	60.0	60.0		8,300	830			1	1	1
						Sun	60.0	60.0	60.0		5,900	590			1	1	1
ESTIMATED TOTALS:										4	120,900	11,830					

## Regional Transit Study

### Feeder Bus Service

Project	From	To	Avg. Speed (mph)	Run Time (min)	Distance (Miles)	---Headway---				Peak Buses	---Annual Revenue---		Lay Over	Cycle Time	---Buses---		
						Day	Peak	Base	Eve.		Bus-Miles	Bus-Hours			Peak	Base	Eve.
Feeder Bus Service			15.0	20.0	5.0	M-F	15.0	30.0	60.0	4	106,700	10,410	5.0	50.0	4	2	1
						Sat	60.0	60.0	60.0		8,300	830			1	1	1
						Sun	60.0	60.0	60.0		5,900	590			1	1	1
ESTIMATED TOTALS:										4	120,900	11,830					

#### NOTES:

(1) Annual revenue bus-miles and bus-hours include layover time and does not include deadhead time.

(2) Annual operating requirements based on 254 weekdays, 52 Saturdays, and 59 Sundays and holidays per year.

### Table 10: Rural Local Bus Service Operating Requirements

#### Quincy Fixed Route Service

			Avg. Speed	Run Time	Distance	—Headway—				Peak	—Annual Revenue—		Lay	Cycle	—Buses—		
Project	From	To	(mph)	(min)	(Miles)	Day	Peak	Base	Eve.	Buses	Bus-Miles	Bus-Hours	Over	Time	Peak	Base	Eve.
Quincy Fixed Route Service			15.0	20.0	5.0	M-F	30.0	30.0	60.0	2	76,200	7,370	5.0	50.0	2	2	1
	Sat	60.0				60.0	60.0	8,300	830		1	1			1		
	Sun	60.0				60.0	60.0	5,900	590		1	1			1		
ESTIMATED TOTALS:										2	90,400	8,790					

#### Havana Deviated Service

			Avg. Speed	Run Time	Distance	---Headway---				Peak	---Annual Revenue---		Lay	Cycle	---Buses---		
Project	From	To	(mph)	(min)	(Miles)	Day	Peak	Base	Eve.	Buses	Bus-Miles	Bus-Hours	Over	Time	Peak	Base	Eve.
Havana Deviated Service			15.0	20.0	5.0	M-F	30.0	30.0	60.0	2	76,200	7,370	5.0	50.0	2	2	1
						Sat	60.0	60.0	60.0		8,300	830			1	1	1
						Sun	60.0	60.0	60.0		5,900	590			1	1	1
ESTIMATED TOTALS:										2	90,400	8,790					

#### Monticello Deviated Service

			Avg. Speed	Run Time	Distance	---Headway---				Peak	---Annual Revenue---		Lay	Cycle	---Buses---		
Project	From	To	(mph)	(min)	(Miles)	Day	Peak	Base	Eve.	Buses	Bus-Miles	Bus-Hours	Over	Time	Peak	Base	Eve.
Monticello Deviated Service			15.0	20.0	5.0	M-F	30.0	30.0	60.0	2	76,200	7,370	5.0	50.0	2	2	1
						Sat	60.0	60.0	60.0		8,300	830			1	1	1
						Sun	60.0	60.0	60.0		5,900	590			1	1	1
						ESTIMATED TOTALS:											

## Regional Transit Study

## Crawfordville Deviated Service

Project	From	To	Avg. Speed (mph)	Run Time (min)	Distance (Miles)	---Headway---				Peak Buses	---Annual Revenue---		Lay Over	Cycle Time	---Buses---		
						Day	Peak	Base	Eve.		Bus-Miles	Bus-Hours			Peak	Base	Eve.
North Leon Service			15.0	20.0	5.0	M-F	30.0	30.0	60.0	2	76,200	7,370	5.0	50.0	2	2	1
						Sat	60.0	60.0	60.0		8,300	830			1	1	1
						Sun	60.0	60.0	60.0		5,900	590			1	1	1
ESTIMATED TOTALS:										2	90,400	8,790					

## Quincy Fixed Route Service Expansion

Project	From	To	Avg. Speed (mph)	Run Time (min)	Distance (Miles)	---Headway---				Peak Buses	---Annual Revenue---		Lay Over	Cycle Time	---Buses---		
						Day	Peak	Base	Eve.		Bus-Miles	Bus-Hours			Peak	Base	Eve.
Quincy Fixed Route Service Expansion			15.0	20.0	5.0	M-F	30.0	30.0	60.0	2	76,200	7,370	5.0	50.0	2	2	1
						Sat	60.0	60.0	60.0		8,300	830			1	1	1
						Sun	60.0	60.0	60.0		5,900	590			1	1	1
ESTIMATED TOTALS:										2	90,400	8,790					

## Havana Deviated Service Expansion

Project	From	To	Avg. Speed (mph)	Run Time (min)	Distance (Miles)	---Headway---				Peak Buses	---Annual Revenue---		Lay Over	Cycle Time	---Buses---		
						Day	Peak	Base	Eve.		Bus-Miles	Bus-Hours			Peak	Base	Eve.
Havana Deviated Service Expansion			15.0	20.0	5.0	M-F	30.0	30.0	60.0	2	76,200	7,370	5.0	50.0	2	2	1
						Sat	60.0	60.0	60.0		8,300	830			1	1	1
						Sun	60.0	60.0	60.0		5,900	590			1	1	1
ESTIMATED TOTALS:										2	90,400	8,790					

## NOTES:

(1) Annual revenue bus-miles and bus-hours include layover time and does not include deadhead time.

(2) Annual operating requirements based on 254 weekdays, 52 Saturdays, and 59 Sundays and holidays per year.

## Regional Transit Study

Table 11: Express Bus Service Operating Requirements

### Havana Express Bus - US 27 (Havana to Downtown Tallahassee)

Project	From	To	Avg. Speed (mph)	Run Time (min)	Distance (Miles)	---Headway---				Peak Buses	---Annual Revenue---		Lay Over	Cycle Time
						Day	Peak	Base	Eve.		Bus-Miles	Bus-Hours		
Havana Express	Havana	Downtown Tallahassee	45.0	22.7	17.0	M-F	30.0	0.0	0.0	2	103,600	3,050	7.4	60.0

### Crawfordville Express Bus - SR 363 (Crawfordville to Downtown Tallahassee)

Project	From	To	Avg. Speed (mph)	Run Time (min)	Distance (Miles)	---Headway---				Peak Buses	---Annual Revenue---		Lay Over	Cycle Time
						Day	Peak	Base	Eve.		Bus-Miles	Bus-Hours		
Crawfordville Express	Crawfordville	Downtown Tallahassee	45.0	26.7	20.0	M-F	30.0	0.0	0.0	3	121,900	4,570	8.4	70.0

### Capital Circle NE/SE Express Bus - US 319 (Bradfordville to Southwood)

Project	From	To	Avg. Speed (mph)	Run Time (min)	Distance (Miles)	---Headway---				Peak Buses	---Annual Revenue---		Lay Over	Cycle Time
						Day	Peak	Base	Eve.		Bus-Miles	Bus-Hours		
Capital Circle NE/SE Express	Bradfordville	Southwood	45.0	18.0	13.5	M-F	30.0	0.0	0.0	2	82,300	3,050	7.0	50.0

### Monticello Express Bus - US 90 (Bradfordville to Southwood)

Project	From	To	Avg. Speed (mph)	Run Time (min)	Distance (Miles)	---Headway---				Peak Buses	---Annual Revenue---		Lay Over	Cycle Time
						Day	Peak	Base	Eve.		Bus-Miles	Bus-Hours		
Monticello Express	Monticello	Downtown Tallahassee	50.0	36.0	30.0	M-F	30.0	0.0	0.0	3	182,900	4,570	9.0	90.0

#### NOTES:

(1) Annual revenue bus-miles and bus-hours include layover time and does not include deadhead time.

(2) Annual operating requirements based on 254 weekdays, 52 Saturdays, and 59 Sundays and holidays per year.

## Regional Transit Study

Table 12: Express Bus Service Operating Requirements (continued)

### Airport Express Bus - via Springhill/Lake Bradford (Airport to Downtown Tallahassee)

Project	From	To	Avg. Speed (mph)	Run Time (min)	Distance (Miles)	---Headway---				Peak Buses	---Annual Revenue---		Lay Over	Cycle Time
						Day	Peak	Base	Eve.		Bus-Miles	Bus-Hours		
Airport Express	Airport	Downtown Tallahassee	35.0	12.0	7.0	M-F	30.0	0.0	0.0	2	42,700	3,050	8.0	40.0

### Havana/Quincy Express Bus - SR12 (Havana to Quincy)

Project	From	To	Avg. Speed (mph)	Run Time (min)	Distance (Miles)	---Headway---				Peak Buses	---Annual Revenue---		Lay Over	Cycle Time
						Day	Peak	Base	Eve.		Bus-Miles	Bus-Hours		
Havana/Quincy Express	Havana	Quincy	35.0	20.6	12.0	M-F	30.0	0.0	0.0	2	73,200	3,050	4.4	50.0

### Capital Circle SW/SE Express Bus - US 319 (Hopkins Crossings to Southwood)

Project	From	To	Avg. Speed (mph)	Run Time (min)	Distance (Miles)	---Headway---				Peak Buses	---Annual Revenue---		Lay Over	Cycle Time
						Day	Peak	Base	Eve.		Bus-Miles	Bus-Hours		
Capital Circle SW/SE Express	Hopkins Crossings	Southwood	40.0	18.8	12.5	M-F	30.0	0.0	0.0	2	76,200	3,050	6.3	50.0

### Woodville Express Bus - SR 363 (Woodville to Downtown Tallahassee)

Project	From	To	Avg. Speed (mph)	Run Time (min)	Distance (Miles)	---Headway---				Peak Buses	---Annual Revenue---		Lay Over	Cycle Time
						Day	Peak	Base	Eve.		Bus-Miles	Bus-Hours		
Woodville Express	Woodville	Downtown Tallahassee	40.0	13.5	9.0	M-F	30.0	0.0	0.0	2	54,900	3,050	6.5	40.0

#### NOTES:

(1) Annual revenue bus-miles and bus-hours include layover time and does not include deadhead time.

(2) Annual operating requirements based on 254 weekdays, 52 Saturdays, and 59 Sundays and holidays per year.



## Regional Transit Study

Table 13: BRT Operating Requirements

## Tennessee Ave. West BRT (Phase 1) - US 90 (TCC to DowntownTallahassee)

Project	From	To	Avg. Speed (mph)	Run Time (min)	Distance (Miles)	---Headway---				Peak Buses	---Annual Revenue---		Lay Over	Cycle Time	---Buses---		
						Day	Peak	Base	Eve.		Bus-Miles	Bus-Hours			Peak	Base	Eve.
Tennessee Ave. West BRT	TCC	Downtown Tallahassee	20.0	12.0	4.0	M-F	10.0	15.0	30.0	3	142,200	8,890	3.0	30.0	3	2	1
						Sat	30.0	30.0	30.0		13,300	830			1	1	1
						Sun	30.0	30.0	30.0		9,400	590			1	1	1
ESTIMATED TOTALS:										3	164,900	10,310					

## Tennessee Ave. West BRT (Phase 2) - US 90 (I-10 @ US 90 West to Downtown Tallahassee)

Project	From	To	Avg. Speed (mph)	Run Time (min)	Distance (Miles)	---Headway---				Peak Buses	---Annual Revenue---		Lay Over	Cycle Time	---Buses---		
						Day	Peak	Base	Eve.		Bus-Miles	Bus-Hours			Peak	Base	Eve.
Tennessee Ave. West BRT	I-10 @ US 90 West	Downtown Tallahassee	20.0	31.5	10.5	M-F	10.0	15.0	30.0	8	373,400	23,370	6.0	75.0	8	5	3
						Sat	30.0	30.0	30.0		34,900	2,500			3	3	3
						Sun	30.0	30.0	30.0		24,800	1,770			3	3	3
ESTIMATED TOTALS:										8	433,100	27,640					

## Thomasville Rd. BRT - SR 61 (Bradfordville to DowntownTallahassee)

Project	From	To	Avg. Speed (mph)	Run Time (min)	Distance (Miles)	---Headway---				Peak Buses	---Annual Revenue---		Lay Over	Cycle Time	---Buses---		
						Day	Peak	Base	Eve.		Bus-Miles	Bus-Hours			Peak	Base	Eve.
Thomasville Rd. BRT	Bradfordville	Downtown Tallahassee	20.0	28.5	9.5	M-F	10.0	15.0	30.0	7	337,800	21,840	6.5	70.0	7	5	3
						Sat	30.0	30.0	30.0		31,600	2,500			3	3	3
						Sun	30.0	30.0	30.0		22,400	1,770			3	3	3
ESTIMATED TOTALS:										7	391,800	26,110					

## Apalachee Pkwy. BRT (Southwood to Downtown Tallahassee)

Project	From	To	Avg. Speed (mph)	Run Time (min)	Distance (Miles)	---Headway---				Peak Buses	---Annual Revenue---		Lay Over	Cycle Time	---Buses---		
						Day	Peak	Base	Eve.		Bus-Miles	Bus-Hours			Peak	Base	Eve.
Apalachee Pkwy. BRT	Southwood	Downtown Tallahassee	20.0	21.0	7.0	M-F	10.0	15.0	30.0	6	248,900	17,780	6.4	54.7	6	4	2
						Sat	30.0	30.0	30.0		23,300	1,660			2	2	2
						Sun	30.0	30.0	30.0		16,500	1,180			2	2	2
ESTIMATED TOTALS:										6	288,700	20,620					

## NOTES:

(1) Annual revenue bus-miles and bus-hours include layover time and does not include deadhead time.

(2) Annual operating requirements based on 254 weekdays, 52 Saturdays, and 59 Sundays and holidays per year.

## Regional Transit Study

Table 14: BRT Operating Requirements (continued)

## Capital Circle NE/SE BRT - US 319 (Bradfordville to Southwood)

Project	From	To	Avg. Speed (mph)	Run Time (min)	Distance (Miles)	---Headway---				Peak Buses	---Annual Revenue---		Lay Over	Cycle Time	---Buses---		
						Day	Peak	Base	Eve.		Bus-Miles	Bus-Hours			Peak	Base	Eve.
Capital Circle NE/SE BRT	Bradfordville	Southwood	20.0	40.5	13.5	M-F	10.0	15.0	30.0	10	480,100	29,970	7.0	95.0	10	7	3
						Sat	30.0	30.0	30.0		44,900	2,500			3	3	3
						Sun	30.0	30.0	30.0		31,900	1,770			3	3	3
											<b>556,900</b>	<b>34,240</b>					

## Monroe St. BRT - US 27 (N. Monroe/Downtown/FAMU/Southwood)

Project	From	To	Avg. Speed (mph)	Run Time (min)	Distance (Miles)	---Headway---				Peak Buses	---Annual Revenue---		Lay Over	Cycle Time	---Buses---		
						Day	Peak	Base	Eve.		Bus-Miles	Bus-Hours			Peak	Base	Eve.
Monroe St. BRT	Southwood	Downtown Tallahassee	20.0	39.0	13.0	M-F	10.0	15.0	30.0	9	462,300	26,670	6.0	90.0	9	6	3
						Sat	30.0	30.0	30.0		43,300	2,500			3	3	3
						Sun	30.0	30.0	30.0		30,700	1,770			3	3	3
											<b>536,300</b>	<b>30,940</b>					

## Mahan Rd. East BRT (Phase 1) - SR 90 (Capital Circle NE to Downtown Tallahassee)

Project	From	To	Avg. Speed (mph)	Run Time (min)	Distance (Miles)	---Headway---				Peak Buses	---Annual Revenue---		Lay Over	Cycle Time	---Buses---		
						Day	Peak	Base	Eve.		Bus-Miles	Bus-Hours			Peak	Base	Eve.
Mahan Rd. East BRT (Phase 1)	Capital Circle NE	Downtown Tallahassee	20.0	10.5	3.5	M-F	10.0	15.0	30.0	3	124,500	8,890	4.5	30.0	3	2	1
						Sat	30.0	30.0	30.0		11,600	830			1	1	1
						Sun	30.0	30.0	30.0		8,300	590			1	1	1
											<b>144,400</b>	<b>10,310</b>					

## Mahan Rd. East BRT (Phase 1 &amp; 2) - SR 90 (Downtown Tallahassee to I-10 @ Mahan Rd.)

Project	From	To	Avg. Speed (mph)	Run Time (min)	Distance (Miles)	---Headway---				Peak Buses	---Annual Revenue---		Lay Over	Cycle Time	---Buses---		
						Day	Peak	Base	Eve.		Bus-Miles	Bus-Hours			Peak	Base	Eve.
Mahan Rd. East BRT (Phase 1 & 2)	Downtown Tallahassee	I-10 @ Mahan Rd.	20.0	24.0	8.0	M-F	10.0	15.0	30.0	6	284,500	17,780	6.0	60.0	6	4	2
						Sat	30.0	30.0	30.0		26,600	1,660			2	2	2
						Sun	30.0	30.0	30.0		18,900	1,180			2	2	2
											<b>330,000</b>	<b>20,620</b>					

## NOTES:

(1) Annual revenue bus-miles and bus-hours include layover time and does not include deadhead time.

(2) Annual operating requirements based on 254 weekdays, 52 Saturdays, and 59 Sundays and holidays per year.

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**Table 15: Streetcar Operating Requirements**

**Gaines Streetcar Line - (Downtown Tallahassee to FSU Stadium)**

Project	From	To	Avg. Speed	Run Time	Distance (Miles)	—Headway—				—Train Consist—			Peak Cars	—Annual Revenue—			Lay Over	Cycle Time	—Trains—		
						Day	Peak	Base	Eve.	Peak	Base	Eve.		Car-Miles	Car-Hours	Train-Hours			Peak	Base	Eve.
Gaines Streetcar Line	Downtown Tallahassee	FSU Stadium	10.0	19.5	3.3	M-F	10.0	15.0	30.0	1	1	1	5	115,600	16,260	16,260	5.5	50.0	5	4	2
						Sat	30.0	30.0	30.0	1	1	1		10,800	1,660	1,660			2	2	2
						Sun	30.0	30.0	30.0	1	1	1		7,700	1,180	1,180			2	2	2
ESTIMATED TOTALS:												5	134,100	19,100	19,100						

**Campus Streetcar Line - (Downtown Tallahassee to FAMU Campus)**

Project	From	To	Avg. Speed	Run Time	Distance (Miles)	—Headway—				—Train Consist—			Peak Cars	—Annual Revenue—			Lay Over	Cycle Time	—Trains—		
						Day	Peak	Base	Eve.	Peak	Base	Eve.		Car-Miles	Car-Hours	Train-Hours			Peak	Base	Eve.
Campus Streetcar Line	Downtown Tallahassee	FAMU Campus	10.0	22.5	3.8	M-F	10.0	15.0	30.0	1	1	1	6	133,400	17,780	17,780	7.5	60.0	6	4	2
						Sat	30.0	30.0	30.0	1	1	1		12,500	1,660	1,660			2	2	2
						Sun	30.0	30.0	30.0	1	1	1		8,900	1,180	1,180			2	2	2
ESTIMATED TOTALS:												6	154,800	20,620	20,620						

**NOTES:**

- (1) Annual revenue bus-miles and bus-hours include layover time and does not include deadhead time.  
(2) Annual operating requirements based on 254 weekdays, 52 Saturdays, and 59 Sundays and holidays per year.

**Table 16: LRT Operating Requirements**

**Airport LRT (Phase 1) - Springhill/Lake Bradford (Airport to Downtown Tallahassee)**

Project	From	To	Avg. Speed	Run Time	Distance (Miles)	—Headway—				—Train Consist—			Peak Cars	—Annual Revenue—			Lay Over	Cycle Time	—Trains—		
						Day	Peak	Base	Eve.	Peak	Base	Eve.		Car-Miles	Car-Hours	Train-Hours			Peak	Base	Eve.
Airport LRT	Airport	Downtown Tallahassee	17.0	24.7	7.0	M-F	10.0	15.0	30.0	2	2	1	12	476,500	34,040	17,780	5.3	60.0	6	4	2
						Sat	30.0	30.0	30.0	1	1	1		23,300	1,660	1,660			2	2	2
						Sun	30.0	30.0	30.0	1	1	1		16,500	1,180	1,180			2	2	2
ESTIMATED TOTALS:												12	516,300	36,880	20,620						

**Airport/NE Line LRT (Phase 2) - Springhill/Lake Bradford/Thomasville/I-10 (Airport to I-10 HSR Station)**

Project	From	To	Avg. Speed	Run Time	Distance (Miles)	—Headway—				—Train Consist—			Peak Cars	—Annual Revenue—			Lay Over	Cycle Time	—Trains—			
						Day	Peak	Base	Eve.	Peak	Base	Eve.		Car-Miles	Car-Hours	Train-Hours			Peak	Base	Eve.	
NE Line LRT	Airport	I-10 HSR Station	17.0	63.5	18.0	M-F	10.0	15.0	30.0	2	2	1	30	1,225,300	85,090	44,450	11.5	150.0	#	15	10	5
						Sat	15.0	15.0	30.0	1	1	1		119,800	8,320	8,320			#	10	10	5
						Sun	15.0	15.0	30.0	1	1	1		85,000	5,900	5,900			#	10	10	5
ESTIMATED TOTALS:												30	1,430,100	99,310	58,670							

**NOTES:**

- (1) Annual revenue bus-miles and bus-hours include layover time and does not include deadhead time.  
(2) Annual operating requirements based on 254 weekdays, 52 Saturdays, and 59 Sundays and holidays per year.

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Table 17: CRT Operating Requirements

Project	From	To	Avg. Speed	Run Time (min)	Distance (Miles)	---Headway---				---Train Consist---			Peak Cars	---Annual Revenue---				Lay Over	Cycle Time	---Trains---		
						Day	Peak	Base	Eve.	Peak	Base	Eve.		Car-Miles	Train-Miles	Car-Hours	Train-Hours			Peak	Base	Eve.
Quincy - Tallahassee CRT	Quincy	Tallahassee	30.0	50.0	24.2	M-F		30.0		2			8	295,400	147,700	10,160	5,080	10.0	120.0	4		
ESTIMATED TOTALS:													8	295,400		10,160	5,080					

**NOTES:**

- (1) Annual revenue car-miles, car-hours, and train-hours include layover time and does not include deadhead time.  
 (2) Annual operating requirements based on 254 weekdays  
 (3) Operating hours based on individual route.

Project	From	To	Avg. Speed	Run Time (min)	Distance (Miles)	---Headway---				---Train Consist---			Peak Cars	---Annual Revenue---				Lay Over	Cycle Time	---Trains---		
						Day	Peak	Base	Eve.	Peak	Base	Eve.		Car-Miles	Train-Miles	Car-Hours	Train-Hours			Peak	Base	Eve.
Havana - Tallahassee CRT	Havana	Tallahassee	30.0	40.0	18.3	M-F		30.0		2			8	223,200	111,600	8,130	4,060	5.0	90.0	4		
ESTIMATED TOTALS:													8	223,200		8,130	4,060					

**NOTES:**

- (1) Annual revenue car-miles, car-hours, and train-hours include layover time and does not include deadhead time.  
 (2) Annual operating requirements based on 254 weekdays  
 (3) Operating hours based on individual route.

Project	From	To	Avg. Speed	Run Time (min)	Distance (Miles)	---Headway---				---Train Consist---			Peak Cars	---Annual Revenue---				Lay Over	Cycle Time	---Trains---		
						Day	Peak	Base	Eve.	Peak	Base	Eve.		Car-Miles	Train-Miles	Car-Hours	Train-Hours			Peak	Base	Eve.
Monticello - Tallahassee CRT	Monticello	Tallahassee	31.0	62.0	31.0	M-F		30.0		2			10	377,600	188,800	12,600	6,300	13.0	150.0	5		
ESTIMATED TOTALS:													10	377,600		12,600	6,300					

**NOTES:**

- (1) Annual revenue car-miles, car-hours, and train-hours include layover time and does not include deadhead time.  
 (2) Annual operating requirements based on 254 weekdays  
 (3) Operating hours based on individual route.

### 3.7 Operating and Maintenance Cost Methodology and Results

Since StarMetro currently operates fixed-route bus service, operating and maintenance (O&M) cost estimates for local bus, express bus and bus rapid transit (BRT) were developed based on fiscal year 2008 StarMetro operating statistics. The premium rail transit modes including streetcar, light rail transit (LRT), and commuter rail transit (CRT) do not currently operate in the Capital Region. O&M cost models were developed based on actual financial and operating data from comparable streetcar, LRT, and CRT systems currently in operation.

#### 3.7.1 Local Bus, Express Bus and BRT O&M Cost Model

O&M estimates were developed based on StarMetro's financial and operating data for fiscal year 2008 using the following cost model structure and required inputs. Operating costs for fiscal year 2008 were derived from FY 2008 National Transit Database (NTD) reports and were allocated to five variables: route miles, garages, annual revenue bus-hours, annual revenue bus-miles, and peak buses.

The following equation summarizes the fully-allocated cost model used to estimate annual O&M costs for the study alternatives:

Estimated Annual O&M Cost	Route-Mile Unit Cost	Garages Unit Cost	Bus-Hours Unit Cost	Bus-Miles Unit Cost	Peak Bus Unit Cost
=	x	+	x	+	x
	Projected Route-Miles	Projected Garages	Projected Bus-Hours	Projected Bus-Miles	Projected Peak Buses

Where:

- Route-Miles: Total number of directional route miles.
- Garages: number of bus storage and maintenance garages.
- Annual Revenue Bus-Hours: Total hours of revenue service operated by all trains in one year.
- Annual Revenue Bus-Miles: Total miles of revenue service operated by all trains in one year.
- Peak Buses: The maximum number of passengers vehicles scheduled in service at the same time.

FY 2008 expenses and units of service for each variable are presented in Table 18. Operating expenses assigned to each variable were summed and divided by FY 2008 units of service to derive unit costs.

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**Table 18: StarMetro FY 2008 Bus Expense Allocations and Unit Costs**

EXPENSE OBJECT	FULL ALLOCATION				
	Rt-Miles	Garages	Bus-Hrs	Bus-Miles	Buses
501.01 Operators Salaries/Wages	0	0	3,430,533	0	0
501.02 Other Salaries/Wages	368,408	37,062	257,221	1,001,809	556,297
502.00 Fringe Benefits	10,188	118,012	1,253,752	303,262	200,928
503.00 Services	0	0	0	215,414	0
504.01 Fuel & Lubricants	0	0	0	2,216,106	0
504.02 Tires & Tubes	0	0	0	76,818	0
504.03 Other Materials & Supplies	34,834	104,503	0	492,829	295,214
505.00 Utilities	60,598	60,598	0	0	0
506.00 Casualty/Liability	0	0	0	444,947	0
507.00 Taxes	0	0	0	0	0
508.00 Purchased Transportation	0	0	0	0	0
509.00 Miscellaneous Expenses	0	0	0	0	72,535
510.00 Expense Transfers	<u>0</u>	<u>0</u>	<u>0</u>	<u>22,507</u>	<u>0</u>
Total Operating Expenses:	474,027	320,174	4,941,506	4,773,692	1,124,974
FY2008 Units of Service	243.0	1	157,600	1,865,534	63
Unit Cost (operating expenses only)	\$1,951	\$320,174	\$31.35	\$2.56	\$17,857

The unit costs derived from the fully allocated model were applied to the projected operating statistics generated for each transit service improvement to estimate total O&M costs. The analysis detailed for this O&M cost model was conducted in 2008 dollars, and estimated costs are escalated to 2009 dollars.

### 3.7.2 Streetcar, LRT, and CRT O&M Cost Model

The streetcar, LRT, and CRT O&M cost models are fully allocated models that use recent financial and operating cost data for each peer agency (source: 2006 and 2007 National Transit Database, NTD). Each line item expense reported by the peer transit agencies is assigned a cost-driving variable (i.e. train-hours or car-miles).

In order to determine operational cost data representative of streetcar, LRT, and CRT systems in the Capital Region, data was collected from peer systems. Potential peer streetcar and LRT systems were identified based on alignment characteristics, system size and context within the overall transit system, system age and metropolitan area size. The five peer streetcar systems selected include:

- Little Rock – Central Arkansas Transit Authority (CAT)
- Memphis – Memphis Area Transit Authority (MATA)
- New Orleans – New Orleans Regional Transit Authority (NORTA)
- Tacoma – Central Puget Sound Regional Transit Authority (Sound Transit)
- Tampa – Hillsborough Area Regional Transportation Authority (HART)

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The nine peer LRT systems selected include:

- Baltimore – Maryland Transit Administration (MTA)
- Dallas – Dallas Area Rapid Transit (DART)
- Denver – Regional Transportation District (RTD)
- Houston – Metropolitan Transit Authority of Harris County (METRO)
- Minneapolis – Metro Transit (METRO)
- Portland – Tri-County Metropolitan District of Portland (TriMet)
- Sacramento – Regional Transportation District (RT)
- Salt Lake City – Utah Transit Authority (UTA)
- St. Louis – Bi-State Development Agency (METRO)

The five peer CRT systems selected include:

- Miami – Florida Tri-County Commuter Rail (Tri-Rail)
- Dallas – Trinity Railway Express (TRE)
- San Diego – Coaster Commuter Rail (NCTD)
- New York – Connecticut Department of Transportation (CDOT)
- Oakland – Altamont Commuter Express (ACE)

O&M estimates were developed based on 2006 and 2007 NTD financial and operating data to develop unit costs for the peer streetcar and LRT systems listed above, which were then averaged and applied to the projected operating statistics for the transit service improvements. Operating costs were allocated to five variables: route miles, yards, annual revenue train-hours, annual revenue car-miles, and peak cars.

The following equation summarizes the fully-allocated cost model used to estimate annual O&M costs for the study alternatives:

Estimated		Route-Mile		Garages		Train-Hours		Car-Miles		Peak Cars
Annual		Peer Unit		Peer Unit		Peer Unit		Peer Unit		Peer Unit
O&M	=	Cost	+	Cost	+	Cost	+	Cost	+	Cost
Cost		x		x		x		x		x
		Projected		Projected		Projected		Projected		Projected
		Route-Miles		Yards		Train-Hours		Car-Miles		Peak Cars

Where:

- Route-Miles: Total number of directional route miles.
- Yards: Total number of maintenance and storage facilities.
- Annual Revenue Train-Hours: Total hours of revenue service operated by all trains in one year.
- Annual Revenue Car-Miles: Total miles of revenue service operated by all trains in one year.
- Peak LRV Cars: The maximum number of passengers vehicles scheduled in service at the same time.

FY 2007 units of service provided by the five peer streetcar systems and average unit costs determined for each variable are presented in Table 19, below.

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**Table 19: Streetcar Peer Systems Service Provided and Unit Costs (FY 2007)**

System	Yards		Rt.-Miles		Train-Hrs		Car-Miles		Cars	
	Units	Unit Cost	Units	Unit Cost	Units	Unit Cost	Units	Unit Cost	Units	Unit Cost
Little Rock	1	\$ 27,098	3	\$ 8,479	11,866	\$ 26.15	52,256	\$ 3.87	3	\$ 38,691
Memphis	1	\$ 183,128	10	\$ 18,313	60,380	\$ 35.38	450,852	\$ 3.23	12	\$ 27,627
New Orleans	2	\$ 598,685	34	\$ 35,742	40,307	\$ 68.75	226,087	\$ 25.75	19	\$ 52,680
Tacoma	1	\$ 599,114	4	\$ 51,040	10,060	\$ 76.46	97,115	\$ 10.61	2	\$ 198,666
Tampa	1	\$ 183,696	5	\$ 34,836	17,985	\$ 55.17	87,147	\$ 8.63	8	\$ 37,810
<b>Average Unit Cost</b>		<b>\$ 318,344</b>		<b>\$ 29,682</b>		<b>\$ 52.38</b>		<b>\$ 10.42</b>		<b>\$ 71,095</b>

FY 2007 units of service provided by the nine peer LRT systems and average unit costs determined for each variable are presented in Table 20, below.

**Table 20: LRT Peer Systems Service Provided and Unit Costs (FY 2007)**

System	Yards		Rt.-Miles		Train-Hrs		Car-Miles		Cars	
	Units	Unit Cost	Units	Unit Cost	Units	Unit Cost	Units	Unit Cost	Units	Unit Cost
Baltimore	2	\$ 2,397,299	58	\$ 111,503	77,449	\$ 219.98	2,797,732	\$ 3.19	18	\$ 143,005
Dallas	1	\$ 8,418,502	88	\$ 90,698	123,819	\$ 161.31	5,224,548	\$ 4.60	85	\$ 228,837
Denver	1	\$ 2,285,620	70	\$ 47,892	201,478	\$ 71.98	8,721,265	\$ 1.49	91	\$ 81,217
Houston	1	\$ 4,491,122	15	\$ 190,267	57,660	\$ 92.56	877,433	\$ 4.65	13	\$ 43,708
Minneapolis	1	\$ 2,224,172	24	\$ 103,512	66,946	\$ 75.89	1,903,780	\$ 5.30	27	\$ 74,575
Portland	1	\$ 8,044,587	95	\$ 103,574	261,675	\$ 87.77	6,564,411	\$ 2.44	81	\$ 207,101
Sacramento	1	\$ 3,098,640	74	\$ 52,767	81,641	\$ 181.55	4,127,718	\$ 4.11	56	\$ 154,647
Salt Lake City	1	\$ 3,637,705	37	\$ 118,699	88,858	\$ 71.05	2,818,235	\$ 2.53	46	\$ 101,514
St. Louis	2	\$ 2,822,185	91	\$ 98,077	134,505	\$ 125.93	6,193,455	\$ 1.90	56	\$ 144,831
<b>Average Unit Cost</b>		<b>\$ 4,157,759</b>		<b>\$ 101,888</b>		<b>\$ 120.89</b>		<b>\$ 3.36</b>		<b>\$ 131,048</b>

FY 2006 units of service provided by the five peer CRT systems and average unit costs determined for each variable are presented in Table 21, below.

**Table 21: CRT Peer Systems Service Provided and Unit Costs (FY 2006)**

System	Yards		Rt.-Miles		Train-Hrs		Car-Miles		Cars	
	Units	Unit Cost	Units	Unit Cost	Units	Unit Cost	Units	Unit Cost	Units	Unit Cost
Miami	2	\$ 1,556,776	142	\$ 19,800	17,601	\$ 478	2,007,224	\$ 4.64	32	\$ 308,500
Dallas	1	\$ 4,687,646	29	\$ 81,960	8,145	\$ 304	559,409	\$ 7.89	21	\$ 337,561
San Diego	1	\$ 1,245,952	82	\$ 21,545	6,235	\$ 200	1,298,922	\$ 3.47	28	\$ 265,310
New York	1	\$ 13,306	101	\$ 31,532	4,011	\$ 354	542,594	\$ 1.26	22	\$ 209,513
Oakland	1	\$ 1,788,165	172	\$ 12,840	3,289	\$ 288	721,800	\$ 2.31	18	\$ 313,284
<b>Average Unit Cost</b>		<b>\$ 1,858,369</b>		<b>\$ 33,535</b>		<b>\$ 325</b>		<b>\$ 3.91</b>		<b>\$ 286,834</b>

The average unit cost for each variable derived from the peer systems was applied to the projected operating statistics generated for each transit service improvement to estimate total O&M costs. The analysis detailed for this O&M cost model was conducted in 2007 dollars, and estimated costs are escalated to 2009 dollars.



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### 3.7.3 O&M Cost Results

The following tables display the system characteristics and estimated annual O&M costs for each transit mode. Total costs were adjusted to 2009 dollars at 3.5% per annum for inflation.

**Table 22: StarMetro Local Bus Expansion Annual O&M Cost Estimates (2009 dollars)**

Unit Cost	Rt-Miles \$1,951	Garages \$320,174	Bus-Hrs \$31.35	Bus-Miles \$2.56	Buses \$17,857	Total Annual O&M Cost (2009 dollars)
<b>Tram Road</b>	13	1	41,250	549,500	12	
O&M Cost by Variable	\$25,359	\$320,174	\$1,293,383	\$1,406,109	\$214,281	\$ 3,373,382
<b>Southwood Circulator</b>	2	1	7,010	48,400	2	
O&M Cost by Variable	\$3,901	\$320,174	\$219,797	\$123,850	\$35,713	\$ 728,056
<b>North Leon</b>	5	1	11,830	120,900	4	
O&M Cost by Variable	\$9,754	\$320,174	\$370,926	\$309,370	\$71,427	\$ 1,119,509
<b>East Leon</b>	5	1	11,830	120,900	4	
O&M Cost by Variable	\$9,754	\$320,174	\$370,926	\$309,370	\$71,427	\$ 1,119,509
<b>Feeder Bus Service</b>	5	1	11,830	120,900	4	
O&M Cost by Variable	\$9,754	\$320,174	\$370,926	\$309,370	\$71,427	\$ 1,119,509
<b>Total Annual O&amp;M Cost</b>						<b>\$ 7,459,964</b>

**Table 23: Rural Local Bus Annual O&M Cost Estimates (2009 dollars)**

Unit Cost	Rt-Miles \$1,951	Garages \$320,174	Bus-Hrs \$31.35	Bus-Miles \$2.56	Buses \$17,857	Total Annual O&M Cost (2009 dollars)
<b>Quincy Fixed Route</b>	5	1	8,790	90,400	2	
O&M Cost by Variable	\$9,754	\$320,174	\$275,608	\$231,323	\$35,713	\$ 903,113
<b>Havana Deviated Service</b>	5	1	8,790	90,400	2	
O&M Cost by Variable	\$9,754	\$320,174	\$275,608	\$231,323	\$35,713	\$ 903,113
<b>Monticello Deviated Service</b>	5	1	8,790	90,400	2	
O&M Cost by Variable	\$9,754	\$320,174	\$275,608	\$231,323	\$35,713	\$ 903,113
<b>Crawfordville Deviated Service</b>	5	1	8,790	90,400	2	
O&M Cost by Variable	\$9,754	\$320,174	\$275,608	\$231,323	\$35,713	\$ 903,113
<b>Quincy Fixed Route Expansion</b>	5	1	8,790	90,400	2	
O&M Cost by Variable	\$9,754	\$320,174	\$275,608	\$231,323	\$35,713	\$ 903,113
<b>Havana Deviated Service Expansion</b>	5	1	8,790	90,400	2	
O&M Cost by Variable	\$9,754	\$320,174	\$275,608	\$231,323	\$35,713	\$ 903,113
<b>Total Annual O&amp;M Cost</b>						<b>\$ 5,418,678</b>

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Table 24: Express Bus Annual O&amp;M Cost Estimates (2009 dollars)

Unit Cost	Rt-Miles \$1,951	Garages \$320,174	Bus-Hrs \$31	Bus-Miles \$3	Buses \$17,857	Total Annual O&M Cost (2009 dollars)
<b>Havana Express</b>	17	1	3,050	103,600	2	
O&M Cost by Variable	\$33,162	\$320,174	\$95,632	\$265,101	\$35,713	\$ 776,025
<b>Crawfordville Express</b>	20	1	4,570	121,900	3	
O&M Cost by Variable	\$39,015	\$320,174	\$143,291	\$311,928	\$53,570	\$ 898,358
<b>Capital Circle NE/SE Express</b>	14	1	3,050	82,300	2	
O&M Cost by Variable	\$26,335	\$320,174	\$95,632	\$210,596	\$35,713	\$ 712,547
<b>Monticello Express</b>	30	1	4,570	182,900	3	
O&M Cost by Variable	\$58,522	\$320,174	\$143,291	\$468,021	\$53,570	\$ 1,080,103
<b>Airport Express</b>	7	1	3,050	42,700	2	
O&M Cost by Variable	\$13,655	\$320,174	\$95,632	\$109,265	\$35,713	\$ 594,545
<b>Havana/Quincy Express</b>	12	1	3,050	73,200	2	
O&M Cost by Variable	\$23,409	\$320,174	\$95,632	\$187,311	\$35,713	\$ 685,417
<b>Capital Circle SW/SE Express</b>	13	1	3,050	76,200	2	
O&M Cost by Variable	\$24,384	\$320,174	\$95,632	\$194,987	\$35,713	\$ 694,372
<b>Woodville Express</b>	9	1	3,050	54,900	2	
O&M Cost by Variable	\$17,557	\$320,174	\$95,632	\$140,483	\$35,713	\$ 630,894
<b>Total Annual O&amp;M Cost</b>						<b>\$ 6,072,261</b>

Table 25: BRT Annual O&amp;M Cost Estimates (2009 dollars)

Unit Cost	Rt-Miles \$1,951	Garages \$320,174	Bus-Hrs \$31	Bus-Miles \$3	Buses \$17,857	Total Annual O&M Cost (2009 dollars)
<b>Tennessee Ave. West BRT (Phase 1)</b>	4	1	10,310	164,900	3	
O&M Cost by Variable	\$7,803	\$320,174	\$323,267	\$421,961	\$53,570	\$ 1,166,212
<b>Tennessee Ave. West BRT (Phase 1 &amp; 2)</b>	11	\$1	\$27,640	\$433,100	8	
O&M Cost by Variable	\$20,483	\$320,174	\$866,645	\$1,108,254	\$142,854	\$ 2,544,454
<b>Thomasville Rd. BRT</b>	10	\$1	\$26,110	\$391,800	7	
O&M Cost by Variable	\$18,532	\$320,174	\$818,672	\$1,002,572	\$124,997	\$ 2,364,921
<b>Apalachee Pkwy. BRT</b>	7	\$1	\$20,620	\$288,700	6	
O&M Cost by Variable	\$13,655	\$320,174	\$646,535	\$738,751	\$107,140	\$ 1,890,174
<b>Capital Circle NE/SE BRT</b>	14	\$1	\$34,240	\$556,900	10	
O&M Cost by Variable	\$26,335	\$320,174	\$1,073,586	\$1,425,045	\$178,567	\$ 3,129,537
<b>Monroe St. BRT</b>	13	\$1	\$30,940	\$536,300	9	
O&M Cost by Variable	\$25,359	\$320,174	\$970,115	\$1,372,331	\$160,711	\$ 2,948,395
<b>Mahan Rd. East BRT (Phase 1)</b>	4	\$1	\$10,310	\$144,400	3	
O&M Cost by Variable	\$6,828	\$320,174	\$323,267	\$369,503	\$53,570	\$ 1,110,910
<b>Mahan Rd. East BRT (Phase 1 &amp; 2)</b>	8	\$1	\$20,620	\$330,000	6	
O&M Cost by Variable	\$15,606	\$320,174	\$646,535	\$844,433	\$107,140	\$ 2,001,574
<b>Total Annual O&amp;M Cost</b>						<b>\$ 14,879,055</b>

## Notes:

1. Tennessee Ave. West BRT (Phase 1) and Mahan Rd. East BRT (Phase 1) individual cost estimate not included in Total Annual O&M Cost.

## Regional Transit Study

**Table 26: Streetcar Annual O&M Cost Estimates (2009 dollars)**

	Yards	Rt.-Miles	Train-Hrs	Car-Miles	Cars	Total Annual O&M Cost (2009 dollars)
<b>Peer Unit Cost</b>	<b>\$ 318,344</b>	<b>\$ 29,682</b>	<b>\$ 52.38</b>	<b>\$ 10.42</b>	<b>\$ 71,095</b>	
<b>Gaines Streetcar Line</b>	0.5	7	19,100	134,100	5	
O&M Cost by Variable	\$ 159,172	\$ 195,901	\$ 1,000,514	\$ 1,397,221	\$ 355,473	\$ 3,159,161
<b>Campus Streetcar Line</b>	0.5	8	20,620	154,800	6	
O&M Cost by Variable	\$ 159,172	\$ 222,615	\$ 1,080,136	\$ 1,612,900	\$ 426,568	\$ 3,580,269
<b>Total Annual O&amp;M Cost</b>						<b>\$ 6,739,429</b>

**Table 27: LRT Annual O&M Cost Estimates (2009 dollars)**

	Route Miles	Yards	Train-Hours	Car-Miles	Peak LRVs	Total Annual O&M Cost (2009 dollars)
<b>Peer Unit Cost</b>	<b>\$ 101,888</b>	<b>\$ 4,157,759</b>	<b>\$ 120.89</b>	<b>\$ 3.36</b>	<b>\$ 131,048</b>	
<b>Airport LRT (Phase 1)</b>	7.0	1	20,620	516,300	12	
O&M Cost by Variable	\$ 713,216	\$ 4,157,759	\$ 2,492,752	\$ 1,734,768	\$ 1,572,576	\$ 11,431,118
<b>Airport/NE Line LRT (Phase 1 &amp; 2)</b>	17.0	1	58,670	1,430,100	30	
O&M Cost by Variable	\$ 1,732,096	\$ 4,157,759	\$ 7,092,616	\$ 4,805,136	\$ 3,931,440	<b>\$ 23,265,986</b>

**Table 28: CRT Annual O&M Cost Estimates**

	Yards	Rt.-Miles	Train-Hrs	Car-Miles	Cars	Total Annual O&M Cost (2009 dollars)
<b>Peer Unit Cost</b>	<b>\$ 1,858,369</b>	<b>\$ 33,535</b>	<b>\$ 325</b>	<b>\$ 3.91</b>	<b>\$ 286,834</b>	
<b>Quincy - Tallahassee</b>	1	48	5,080	295,400	8	
O&M Cost by Variable	\$ 1,858,369	\$ 1,623,107	\$ 1,651,373	\$ 1,156,284	\$ 2,294,669	\$ 9,517,014
<b>Havana - Tallahassee</b>	1	37	4,060	223,200	8	
O&M Cost by Variable	\$ 1,858,369	\$ 1,227,390	\$ 1,319,798	\$ 873,672	\$ 2,294,669	\$ 8,397,316
<b>Monticello - Tallahassee</b>	1	62	6,300	377,600	10	
O&M Cost by Variable	\$ 1,858,369	\$ 2,079,186	\$ 2,047,962	\$ 1,478,040	\$ 2,868,336	\$ 11,455,154

### **3.8 Capital Cost Methodology and Results**

The capital cost estimates were developed using industry standards for determining unit costs for each transit service improvement. The Federal Transit Administration's (FTA) Standard Cost Categories (SCC) is used for any project pursuing (or potentially pursuing) federal funding through FTA and must organize project costs according to the SCC structure, which contains the following categories:

*SCC Category 10 – Guideway* – includes all transit improvements associated with the roadway or track including technology enhancements and pedestrian crossings.

*SCC Category 20 – Stations/Stops*– includes all costs associated with stations, such as grading, structures, finishes, equipment, mechanical and electrical components, and safety systems.

*SCC Category 30 – Support Facilities: Yards, Shops, Administration Buildings* – includes construction costs associated with all support facilities, such as bus garages/rail yards, maintenance facilities, and administration buildings. Cost elements include grading, structures, finishes, equipment, mechanical and electrical components, and safety systems.

*SCC Category 40 – Sitework and Special Conditions* – includes site civil elements associated with the project, including clearing and demolition, utility relocation, environmental mitigation, sidewalks, landscaping, fencing, public art, paving, and temporary construction facilities.

*SCC Category 50 – Systems* – includes all systems-related elements, such as traffic and train signal control, and communications systems.

*SCC Category 60 – Right of Way, Land, Existing Improvements* – includes the purchase or lease of real estate, relocation of existing households and businesses, and professional services associated with the real estate component of the project.

*SCC Category 70 – Vehicles* – includes the costs for vehicles for bus rapid transit, streetcar and light rail.

*SCC Category 80 – Professional Services* – includes all professional, technical and management services related to the design and construction of fixed infrastructure during the preliminary engineering, final design, and construction phases of the project.

*SCC Category 90 – Unallocated Contingency* – includes a standard unallocated contingency to account for undefined project items in early stages of project planning and design. This contingency is in addition to specific allocated contingencies for individual line items.

## Regional Transit Study

### 3.8.1 Unit Costs

The development of this initial cost estimate is based on general unit costs adopted from cost data from similar transit projects. The unit costs used for this study are shown in the tables below, with total capital costs escalated to 2009 dollars.

### 3.8.2 Conceptual Cost Estimates

Conceptual cost estimates for each alternative are summarized in the tables below. The cost for each option includes costs associated with transit facilities, technology enhancements, maintenance facilities, and vehicle procurement.

**Table 29: StarMetro Local Bus Total Capital Cost (2009 dollars)**

Unit Cost	Unit	Quantity	Total Capital Cost (2009 \$)
\$ 300,000	35' & 40' vehicles	31	\$ 10,740,815

\* Includes 20% for maintenance spares

**Table 30: Rural Local Bus Total Capital Cost (2009 dollars)**

Unit Cost	Unit	Quantity	Total Capital Cost (2009 \$)
\$ 105,000	25' vehicle	14	\$ 1,735,055

\* Includes 20% for maintenance spares

**Table 31: Express Bus Total Capital Cost (2009 dollars)**

Route	# Vehs	Veh Type	Veh Cost	Total Capital Cost (2009 \$)
Havana Express Bus - US 27 (Havana to DowntownTallahassee)	2.4	Intercity Bus	\$ 253,540	\$ 629,793
Crawfordville Express Bus - SR 363 (Crawfordville to Downtown Tallahassee)	3.6	Intercity Bus	\$ 253,540	\$ 944,690
Capital Circle NE/SE Express Bus - US 319 (Bradfordville to Southwood)	2.4	Intercity Bus	\$ 253,540	\$ 629,793
Monticello Express Bus - US 90 (Bradfordville to Southwood)	3.6	Intercity Bus	\$ 253,540	\$ 944,690
Airport Express Bus - via Springhill/Lake Bradford (Airport to Downtown Tallahassee)	2.4	Intercity Bus	\$ 253,540	\$ 629,793
Havana/Quincy Express Bus - SR 12 (Havana to Quincy)	2.4	Intercity Bus	\$ 253,540	\$ 629,793
Capital Circle SW/SE Express Bus - US 319 (Airport to Southwood)	2.4	Intercity Bus	\$ 253,540	\$ 629,793
Woodville Express - SR 363 (Woodville to Downtown Tallahassee)	2.4	Intercity Bus	\$ 253,540	\$ 629,793
<b>TOTAL</b>	<b>22</b>			<b>\$ 5,773,106</b>

## Regional Transit Study

Table 32: BRT Total Capital Cost (2009 dollars)

Route	Length	Cost/Mile	Total Capital Cost (2009 \$)
Tennessee Ave. West BRT (Phase 1) - US 90 (TCC to DowntownTallahassee)	4.0	\$ 2,082,828	\$ 8,924,708
Tennessee Ave. West BRT (Phase 2) - US 90 (I-10 @ US 90 West to Downtown Tallahassee)	6.5	\$ 2,082,828	\$ 14,502,650
Thomasville Rd. BRT - SR 61 (Bradfordville to DowntownTallahassee)	9.5	\$ 2,082,828	\$ 21,196,181
Apalachee Pkwy. BRT (Southwood to Downtown Tallahassee)	7.0	\$ 2,082,828	\$ 15,618,239
Capital Circle NE/SE BRT - US 319 (Bradfordville to Southwood)	13.5	\$ 2,082,828	\$ 30,120,889
Monroe St. BRT - US 27 (N. Monroe/Downtown/FAMU/Southwood)	13.0	\$ 2,082,828	\$ 29,005,300
Mahan Rd. East BRT (Phase 1) - SR 90 (Capital Circle NE to Downtown Tallahassee)	3.5	\$ 2,082,828	\$ 7,809,119
Mahan Rd. East BRT (Phase 2) - SR 90 (Capital Circle NE to I-10 @ Mahan Rd.)	4.5	\$ 2,082,828	\$ 10,040,296
<b>TOTAL:</b>			<b>\$ 137,217,383</b>

Table 33: Streetcar Total Capital Cost (2009 dollars)

SCC Classification	Unit Cost	Unit	Quantity	Total Capital Cost (2009 \$)
<b>Gaines Streetcar Line - (Downtown Tallahassee to FSU Stadium)</b>				
10 Guideway and Track Elements*	\$ 2,283,000	double track miles	3.25	\$ 7,419,750
20 Stations, Stops, Terminals, Intermodal	\$ 144,000	station	13	\$ 1,872,000
30 Support Facilities: Yards, Shops, Admin. Bldgs	\$ 1,834,000	yard	0.5	\$ 917,000
40 Sitework & Special Conditions	\$ 3,924,000	double track miles	3.25	\$ 12,753,000
50 Systems	\$ 8,423,000	double track miles	3.25	\$ 27,374,750
70 Vehicles	\$ 3,000,000	cars	5	\$ 15,000,000
<b>SUBTOTAL</b>				<b>\$ 65,336,500</b>
80 Professional Services	34%			\$ 22,214,410
90 Unallocated Contingency	15%			\$ 9,800,475
<b>TOTAL</b>				<b>\$ 97,351,385</b>
<b>Campus Streetcar Line - (Downtown Tallahassee to FAMU Campus)</b>				
10 Guideway and Track Elements*	\$ 2,283,000	double track miles	3.75	\$ 8,561,250
20 Stations, Stops, Terminals, Intermodal	\$ 144,000	station	15	\$ 2,160,000
30 Support Facilities: Yards, Shops, Admin. Bldgs	\$ 1,834,000	yard	0.5	\$ 917,000
40 Sitework & Special Conditions	\$ 3,924,000	double track miles	3.75	\$ 14,715,000
50 Systems	\$ 8,423,000	double track miles	3.75	\$ 31,586,250
70 Vehicles	\$ 3,000,000	cars	6	\$ 18,000,000
<b>SUBTOTAL</b>				<b>\$ 75,939,500</b>
80 Professional Services	34%			\$ 25,819,430
90 Unallocated Contingency	15%			\$ 11,390,925
<b>TOTAL</b>				<b>\$ 113,149,855</b>
<b>TOTAL</b>				<b>\$ 210,501,240</b>

\*Assumes all at-grade

## Regional Transit Study

**Table 34: LRT Total Capital Cost (2009 dollars)**

SCC Classification	Unit Cost	Unit	Quantity	Total Capital Cost (2009 \$)
10 Guideway and Track Elements*	\$ 6,423,500	double track miles	22.7	\$ 145,813,450
20 Stations, Stops, Terminals, Intermodal	\$ 2,200,000	station	10	\$ 22,000,000
30 Support Facilities: Yards, Shops, Admin. Bldgs	\$ 60,000,000	yard	1	\$ 60,000,000
40 Sitework & Special Conditions	\$ 11,076,000	double track miles	22.7	\$ 251,425,200
50 Systems	\$ 5,700,000	double track miles	22.7	\$ 129,390,000
70 Vehicles	\$ 4,200,000	LRV	14	\$ 58,800,000
<b>SUBTOTAL</b>				<b>\$ 667,428,650</b>
80 Professional Services	34%			\$ 226,925,741
90 Unallocated Contingency	15%			\$ 100,114,298
<b>TOTAL</b>				<b>\$ 994,468,689</b>

\* Assumes all at-grade

**Table 35: CRT Capital Cost (2009 dollars)**

Route	Length	Cost/Mile	Total Capital Cost (2009 \$)
Quincy - Tallahassee CRT	24.0	\$ 20,000,000	\$ 480,000,000
Havana - Tallahassee CRT	18.0	\$ 20,000,000	\$ 360,000,000
Monticello - Tallahassee CRT	31.0	\$ 20,000,000	\$ 620,000,000
<b>TOTAL:</b>			<b>\$ 1,460,000,000</b>

\* Costs do not include Right-of-Way Acquisition Costs

**Table 36: Satellite Transfer Centers Total Capital Cost (2009 dollars)**

Unit Cost	Unit	Quantity	Total Capital Cost (2009 \$)
\$ 1,420,000	Facility	7	\$ 10,647,977

**Table 37: Regional Park-and-Ride Facilities Total Capital Cost (2009 dollars)**

Unit Cost	Unit	Quantity	Total Cost per Facility	Quantity	Total Capital Cost (2009 \$)
\$ 3,000	Stall	100	\$ 300,000	6	\$ 2,290,103

### 3.9 Capital and Annual O&M Cost Estimates Summary

Table 38 summarizes the capital and annual O&M cost estimates by transit service improvement type and categorized by near-term (2010-2014), mid-term (2015-2024) and long-term (2025-2050) improvement plan periods.

## Regional Transit Study

**Table 38: Capital and O&M Cost Estimates for Transit Service Improvements (2009 dollars)**

Improvement	Capital Costs	Annual Operating Cost
<b>NEAR-TERM IMPROVEMENTS (2010-2014)</b>		
StarMetro Local Bus Service Expansion	\$5,784,000	\$4,101,000
Rural Local Bus Service	\$0	\$0
Express Bus Service	\$945,000	\$898,000
Bus Rapid Transit (BRT) Service	\$0	\$0
Streetcar Service	\$0	\$0
Light Rail Transit (LRT) Service	\$0	\$0
Commuter Rail Transit (CRT) Service	\$0	\$0
Satellite Transfer Centers	\$4,563,000	\$30,000
Regional Park-and-Ride Facilities	\$763,000	\$20,000
<b>Subtotal of Near-Term Costs</b>	<b>\$12,055,000</b>	<b>\$5,049,000</b>
<b>MID-TERM IMPROVEMENTS (2015-2024)</b>		
StarMetro Local Bus Service Expansion	\$3,305,000	\$2,239,000
Rural Local Bus Service	\$868,000	\$2,709,000
Express Bus Service	\$3,464,000	\$3,794,000
Bus Rapid Transit (BRT) Service	\$45,739,000	\$5,421,000
Streetcar Service	\$210,501,000	\$6,739,000
Light Rail Transit (LRT) Service	\$0	\$0
Commuter Rail Transit (CRT) Service	\$0	\$0
Satellite Transfer Centers	\$6,085,000	\$40,000
Regional Park-and-Ride Facilities	\$763,000	\$20,000
<b>Subtotal of Mid-Term Costs</b>	<b>\$270,725,000</b>	<b>\$20,962,000</b>
<b>LONG-TERM IMPROVEMENTS (2025-2050)</b>		
StarMetro Local Bus Service Expansion	\$1,652,000	\$1,120,000
Rural Local Bus Service	\$868,000	\$2,709,000
Express Bus Service	\$1,260,000	\$1,380,000
Bus Rapid Transit (BRT) Service	\$91,478,000	\$9,458,000
Streetcar Service	\$0	\$0
Light Rail Transit (LRT) Service	\$994,469,000	\$23,266,000
Commuter Rail Transit (CRT) Service	\$1,460,000,000	\$29,369,484
Satellite Transfer Centers	\$0	\$0
Regional Park-and-Ride Facilities	\$763,000	\$20,000
<b>Subtotal of Long-Term Costs</b>	<b>\$2,550,490,000</b>	<b>\$67,322,484</b>
<b>TOTAL COSTS – ALL IMPROVEMENTS</b>	<b>\$2,833,270,000</b>	<b>\$93,333,484</b>

\*Capital and O&M costs based on 2009 dollars





## **4.0 Travel Demand Forecasts**

Preliminary ridership projections were developed for the Regional Transit Study using the current CRTPA Travel Demand Model. Forecasts were developed based on near-term, mid-term and long-term plan scenarios. Several operating assumptions were input into the model (as detailed in Section 4.5) based on the proposed transit service improvements.

The near-term (2010-2014) improvements include the operating assumptions identified for StarMetro local bus service in the NOVA 2010 “decentralization” plan recommendations. Near-term improvements also include several additional routes to serve the Southwood area and the introduction of inter-county express bus routes from Quincy and Crawfordville to Downtown Tallahassee.

The mid-term (2015-2024) improvements included additional StarMetro local bus routes to serve the northern and eastern sections of Leon County, new and expanded fixed route and deviated fixed route rural bus services in Quincy, Havana and Monticello. Premium transit services consisting of bus rapid transit (BRT) and streetcar to serve in-town destinations are also included.

The long-term (2025-2050) premium transit services consist of local bus, express bus, BRT service, and Light Rail Transit (LRT) service. BRT routes in Tallahassee run along the east-west and north-south corridors with a third BRT route along the eastern side of Capital Circle while an express bus route runs along the western side of Capital circle and a second express bus route connects the cities of Havana and Quincy.

The LRT line connects Tallahassee Regional Airport to Downtown Tallahassee and runs further northeast to I-10, adjacent to Miccosukee Road, to the proposed High Speed Rail station. The LRT line has a stop for about every mile. The following table summarizes the proposed stations and if on-site parking would be offered.

## Regional Transit Study

**Table 39: LRT Route Stops and PNR Lots**

Station	Park And Ride
I-10 and Miccosukee Road	Yes
I-10 and Capital Circle	Yes
Thomasville Road and Woodgate Way	Yes
Thomasville Road and Gardenia Road	Yes
Thomasville Road and Glenview Drive	Yes
Thomasville Road and E 5 <sup>th</sup> Avenue	No
Tennessee Street and N Monroe Street	No
Apalachee Parkway and S Monroe Street (Capitol)	No
W Gaines Street and Railroad Avenue (Tallahassee Amtrak)	No
W Gaines Street and N Stadium Drive (Campbell Stadium)	Yes
N Lake Bradford Road and Gamble Street	No
Springhill Road and W Orange Avenue	Yes
Springhill Road and Seasons Lane	Yes
Tallahassee Regional Airport	Yes

The following table summarizes the transfers between the premium modes of transit in-town during the long-term period.

**Table 40: In-Town Transfer Opportunities between Premium Transit Modes**

Transfers	East-west BRT	North-South BRT	Capital Circle BRT	Capital Circle Express	LRT
East-West BRT		✓	✓	✓	✓
North-South BRT	✓		✓	✓	✓
Capital Circle BRT	✓	✓		✓	✓
Capital Circle Express	✓	✓	✓		✓
LRT	✓	✓	✓	✓	

## Regional Transit Study

The transit model developed for the Regional Transit Study was based on readily-available data. Given that specific data on travel behavior was not available and that existing service is oriented around mobility and student-related service, the current model was not be able to provide reasonable commuter rail estimates.

Inter-county express bus service was used as a alternative to replicate potential future year commuter rail service on similar corridors. These services service longer distances in the peak periods only with service levels comparable to a potential commuter rail system. The ridership estimates for the inter-city express bus routes are shown in the table below, and can be used as an estimate for potential commuter rail ridership.

**Table 41: Approximate Commuter Rail Ridershiip**

Route	Connectivity	Distance (mi)	Time (min)	Peak Headway (min)	Ridership
Route 909	Havana - Quincy - Tallahassee	33.9	44.1	30	642
Route 907	Havana-Tallahassee	16.4	21.3	30	88
Route 906	Monticello - Tallahassee	29.6	32.0	30	220
Route 908	Crawfordville - Tallahassee	21.1	30.1	30	299
<b>Total</b>					<b>1,249</b>

Ridership projections were developed for each transit mode for Year 2050, factoring in the NOVA 2010 local bus service improvements. The following table summarizes estimated average weekday boardings by transit mode.

**Table 42: Year 2050 Average Weekday Boardings by Transit Mode**

Transfers	Average Weekday Boardings
Local/Express Bus	19,084
BRT	12,961
Streetcar	2,497
LRT	7,289
Commuter Rail	1,249
<b>Total</b>	<b>43,080</b>

## Regional Transit Study

Table 42 provides a detailed summary of model outputs by mode by scenario year for average weekday service. The summary table provides more information comparing the supply and demand for transit based on the transit service improvements, factoring in the estimated growth in population and employment by Year 2050. Ridership projections are comparing the existing “centralized” StarMetro and proposed NOVA 2010 “decentralized” bus systems to assuming that there would be differences in transfer activity to access the premium transit service.

## Regional Transit Study

Table 43: CRTPA Model Transit Assignment Summary (Average Weekday)

		Supply					
Year		2007	2015	2025	2050	2050	2050
Local Bus Transit		Centralized	Centralized	Centralized	Centralized	Decentralized	Decentralized
Premium Transit?		No	No	No	No	No	Yes
Total Vehicle Miles*	Local/express Bus	14,538	14,538	14,538	14,538	12,401	14,538
	BRT						8,228
	Street Car						701
	LRT						2,414
Total		14,538	14,538	14,538	14,538	12,401	25,881
Total Vehicle Hours*	Local/express Bus	461	461	461	461	380	461
	BRT						195
	Street Car						27
	LRT						70
Total		461	461	461	461	380	752

		Demand					
Year		2007	2015	2025	2050	2050	2050
Local Bus Transit		Centralized	Centralized	Centralized	Centralized	Decentralized	Decentralized
Premium Transit?		No	No	No	No	No	Yes
Linked Transit Trips	Walk Access	9,701	10,723	11,610	14,009	14,592	17,082
	Drive Access						13,336
	Total	9,701	10,723	11,610	14,009	14,592	30,418
Unlinked Transit Trips	Local/express Bus	14,959	16,568	17,967	21,748	21,620	19,964
	BRT						12,532
	Street Car						2,711
	LRT						8,227
Total		14,959	16,568	17,967	21,748	21,620	43,434

\* Assuming 6 hr peak and 10 hr off-peak period

CRTPA Region Population and Employment Data

Year		2007	2015	2025	2050
Population	Leon County	256,084	287,538	314,942	389,249
	All Counties	342,853	393,238	436,001	553,919
Population Growth	Leon County		12%	23%	52%
	All Counties		15%	27%	62%
Employment	Leon County	153,221	172,041	188,437	232,897
	All Counties	177,606	201,506	221,729	277,372
Employment Growth	Leon County		12%	23%	52%
	All Counties		13%	25%	56%

January 2010

# REGIONAL TRANSIT STUDY



## Technical Memorandum #4 Institutional Structure and Funding

*Prepared for:*  
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**CAPITAL REGION TRANSPORTATION PLANNING AGENCY  
REGIONAL TRANSIT STUDY**

**Technical Memorandum #4  
Institutional Structure and Funding**

***Prepared for:***  
***Capital Region Transportation Planning Agency***  
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***January 2010***



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## **1.0 Introduction**

As part of the Regional Transit Study, previous technical memoranda have described the baseline conditions in the Capital Region; identified the “transit potential” in the area by projecting future population and employment levels; and identified a set of near-term, mid-term, and long-term improvements across a range of transit modes. These transit service improvements involve new bus services that will cross jurisdictional boundaries as well as premium transit investments (such as streetcar, light rail, and commuter rail) that will draw travelers from across the region and require substantial new funding for both capital and operations.

Therefore, as these transit service improvements are planned and implemented over the coming years, greater region-wide coordination among cities and counties will be required, and new or expanded funding sources will be needed to support these services. This memorandum will review a range of institutional and funding options for the region and provide a set of preliminary recommendations based on a review of peers, the comments of key stakeholders, and an assessment of the Capital Region’s needs. These institutional and funding recommendations, when combined with the recommended transit service improvements, will form the basis of the Technical Memorandum #5 – Service Development Strategy and Business Plan, which is the culmination of the Regional Transit Study.



## 2.0 Review of Current Institutional and Funding Structures

Technical Memorandum #2 - Baseline Data provided an extensive review of the services offered by each of the transit providers in the Capital Region. This section will provide information on the current institutional structures and funding sources for each of those same providers. Also, in anticipation of potential changes in the coming years, information on key Florida Statutes covering institutional structure and funding for surface transportation is presented.

### 2.1 Current Transit Providers

The Capital Region currently has three primary transit providers. The principal provider of fixed-route service in the region is StarMetro, which operates within the City of Tallahassee. Two additional providers, Big Bend Transit and Wakulla County Transportation, primarily operate coordinated transportation and paratransit services. However, Big Bend Transit also operates an hourly fixed-route bus service in the City of Quincy. There are currently no fixed-route services in Jefferson and Wakulla counties.

#### 2.1.1 StarMetro

StarMetro, which began service in 1973 and was previously known as TalTran, is wholly controlled by the City of Tallahassee and operates as a department of the City under the larger Development and Transportation Services Area (along with Public Works, Planning, Aviation, and Growth Management). Of the 169 full-time StarMetro employees in FY2009, 156 employees (92 percent) are directly involved in the day-to-day provision of transit service, primarily as coach operators and vehicle mechanics.

As a City department, StarMetro depends on annual appropriations from the City's General Fund to support its operations. The General Fund is supported by a variety of revenue sources, including the *ad valorem* property tax. In FY2009, City General Funds accounted for just under 50 percent of StarMetro's operating budget – \$7.7 million out of a total of \$15.6 million. User fee revenue accounted for another 40 percent (\$6.3 million). This category includes not only farebox revenues, but also service contracts with local universities, charter service proceeds, advertising revenues, and parking revenues. The remaining funding (11 percent or \$1.7 million) comes from other state and federal grant sources, primarily in the form of operating assistance from the Florida Department of Transportation (FDOT).

StarMetro's capital funding comes almost entirely from the Federal Transit Administration (FTA), as well as FDOT toll road credits which serve as a match to the FTA funds. Local revenue sources tend to be used almost exclusively to fund operations, which is common for small to medium-sized agencies such as StarMetro.

StarMetro buses currently operate on a "pulse" model, with most routes serving the C.K. Steele Plaza central transfer station in downtown Tallahassee. As a result of the ongoing Nova 2010 initiative, however, StarMetro will be shifting to a decentralized bus route structure. This new structure will increase the geographic coverage of the bus service and allow for transfers at many more locations across the City. StarMetro will also continue to offer a limited amount of bus service which extends into Leon County, outside of the borders of the City of Tallahassee. This service is operated under an agreement between the City of Tallahassee and Leon County, and Leon County pays StarMetro for this service, since there is no fixed-route transit operator in unincorporated Leon County.

### **2.1.2 Big Bend Transit**

Big Bend Transit (BBT) is a non-profit agency responsible for providing coordinated transportation services for Jefferson, Gadsden, and Leon counties. Florida Statutes require that each county designate a community transportation coordinator (CTC) through the Florida State Commission for the Transportation Disadvantaged (CTD). BBT is the primary community transportation coordinator for Jefferson and Gadsden counties. StarMetro is the CTC for Leon County, but BBT serves as a subcontractor to StarMetro and actually delivers the coordinated services in Leon County. Wakulla County provides its own coordinated transportation services (see Section 2.1.3). BBT also serves as the contract operator for a fixed-route bus service in Quincy, supported for by Gadsden County.

BBT primarily provides door-to-door demand response service. Although BBT is the operator in each of the three counties, and inter-county trips are possible, each county's Transportation Disadvantaged Coordinating Board assesses its own county's needs and determines the level of service to be offered. Thus, BBT's service characteristics vary depending on the county.

In addition, BBT's fare structure is significantly different for intra-county and inter-county trips. Intra-county trips are a flat-rate fare based on transportation disadvantaged eligibility and special vehicle requirements such as a wheelchair lift. Inter-county fares, by contrast, add an additional distance-based charge onto the base rate.

Funding for BBT comes from a variety of sources. Farebox revenues cover only a very modest proportion of operating expenses, as is typical for paratransit and demand response service nationwide. The state Agency for Health Care Administration (AHCA) is a significant funder of demand response service in the Capital Region, funding anywhere from one-third (in Leon County) to three-quarters (in Jefferson County) of BBT's expenses. The remaining expenses are covered by a mix of state agency funds (the CTD, FDOT, the Department of Health, the Department of Children and Families, and the Department of Education) and local general funds.

### **2.1.3 Wakulla County Transportation**

Wakulla County Transportation (WCT) is an operating unit of the Wakulla County Senior Citizens Council, Inc., which is the CTC for Wakulla County and which provided human services transportation within the county prior to being designated the CTC. Like BBT, WCT provides demand response service within Wakulla County, though it does provide inter-county trips as needed. All trips are priced on a per-mile basis, with Medicaid trips receiving a discount.

WCT services are funded from the same set of state and local sources as the demand response services provided by BBT in the rest of the region, but in slightly different proportions. The CTD and FDOT provide the largest proportion of WCT's funding, with additional funding from AHCA, the Department of Children and Families, the Department of Elder Affairs, Wakulla County general funds, and other sources.

### **2.1.4 Regional Structure for Coordinated Transportation**

The economic recession has hit transportation providers in the State of Florida and the Capital Region hard. All the existing transit providers have faced cutbacks as ridership growth has flattened or even reversed and local and state funding has been severely cut. This has exacerbated the existing problem for the demand response providers of worsening service



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productivity, in terms of cost per passenger trip or cost per revenue mile or hour of service (see Technical Memorandum #2 = Baseline Data'). In addition to examining regional institutional and funding options to address fixed-route bus and premium transit expansion, there is a need to examine regional options for coordinated transportation as a potential avenue to address service and funding concerns.

## 2.2 Transportation Institutional Structure and Funding in Florida

### 2.2.1 FDOT Funding Constraints

The Florida Department of Transportation (FDOT) has produced a number of reports which provide an excellent explanation of the overall sources and uses of transportation funds in the State.<sup>1</sup> However, the actual amounts of funding flowing through FDOT to the counties have been severely restricted in the past three years as a result of reduced economic activity due to the housing collapse, the overall recession, and the reduced flow of new residents to Florida. FDOT has been forced to focus on critical maintenance and safety at the expense of expansion, and the funding cutbacks have been especially severe in some of the more "discretionary" areas that FDOT funds, such as the Florida New Starts Transit Program and the Transportation Regional Incentive Program (TRIP). As a result, counties are increasingly being forced to look at regional and local approaches in order to develop the transit capacity they need.

### 2.2.2 Regional Transportation Authorities

Regional transportation authorities (RTAs) in Florida must be created and authorized by an act of the Legislature. Four RTAs have been created under Chapter 343 ("Regional Transportation and Transit Authorities") of the Florida Statutes:

- the South Florida Regional Transportation Authority (SFRTA), which operates the Tri-Rail commuter rail system in Miami-Dade, Broward, and Palm Beach Counties;
- the Central Florida Regional Transportation Authority (known as LYNX), which operates public transportation services in the Orlando metropolitan area;
- the Northwest Florida Transportation Corridor Authority (NFTCA), which is responsible for improving mobility along the US-98 corridor; and
- the Tampa Bay Area Regional Transportation Authority (TBARTA), which was recently formed and is currently undertaking regional planning efforts in the Tampa Bay area.

In addition, the Jacksonville Transportation Authority (JTA) was created separately under Chapter 349 of the Florida Statutes.

### 2.2.3 Charter County Transportation System Surtax

The Charter County Transportation System Surtax is authorized under Chapter 212.055 of the Florida Statutes. The surtax may be levied at a rate of up to 1 percent by Florida's charter counties, as well as by those county governments that have consolidated with one or more municipalities. In the case of charter counties, the levy is subject to a charter amendment approved by a majority vote of the county's electorate. In the case of a consolidated government, the levy is subject to voter approval in a countywide referendum. Generally, the

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<sup>1</sup> *Florida's Transportation Tax Sources: A Primer*, from the FDOT Office of Financial Development in January 2009, is a good example. It is available online at <http://www.dot.state.fl.us/financialplanning/revenue/primer.shtm>.

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use of the proceeds is for the development, construction, operation, and maintenance of fixed guideway rapid transit systems, bus systems, and roads and bridges.

There are currently twenty charter counties in the State that are eligible to levy this surtax, although only two (Duval and Miami-Dade) have done so at this point. In the Capital Region, Leon and Wakulla Counties are currently eligible to levy this surtax, while Gadsden and Jefferson Counties are not.

### **3.0 Transit Service Improvements**

As the Capital Region begins to implement the proposed transit service improvements, greater coordination – and potentially regionalization – of transit services across jurisdictions will become a critical issue. The region already has a structure in place for StarMetro to provide fixed-route service outside the City of Tallahassee borders by entering into an interlocal agreement with another jurisdiction and agreeing on a price for a particular level of service. In the short term, this arrangement may be sufficient as a method to implement some of the new local and express commuter routes that have been proposed in this Regional Transit Study.

In the medium- and long-term, however, these sorts of “bilateral” agreements may be insufficient to address region-wide transit needs and to bring together the political and financial support required for the premium transit investments such as streetcar, LRT, and commuter rail. Instead, a truly “regional” transit entity may be desired. As the region plans for these long-term investments and considers a regional transit body, a number of key dimensions need to be examined.

#### *Responsibilities*

At a fundamental level, the region’s stakeholders will need to reach consensus on what responsibilities a new transit entity would have and how would it relate to existing entities such as StarMetro, the CRTPA, the Apalachee Regional Planning Council, and others. The responsibilities could include:

- Long-term planning
- Oversight and coordination (such as customer information or a single regional fare medium)
- Distribution of federal, state, or regional funds
- Capital construction
- Service planning
- Day-to-day operations and service provision

#### *Membership & Governance*

Another basic question will be the membership and governance of the regional transit body. That is, what jurisdictions (cities and/or counties) would be included in the new regional transit entity and how would it be governed? A number of critical details are included in this broad category, including:

- What type of voter approval would be required for the creation of the entity itself and then for a jurisdiction to join the body?
- What mechanisms would exist for jurisdictions to (a) defer joining initially but join the regional transit body at a later date, or (b) choose to leave the regional transit body after joining initially?
- What type of voter approval would be required to dedicate a funding source to the transit entity?
- What would be the composition (and voting requirements) of the governing board of a new regional entity?

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### Funding

After responsibilities and membership, the final critical area is funding, since a regional body without financial resources will have very little ability to achieve the region's long-term goals. The critical questions under the funding category include:

- What funding sources should be considered? Sources such as a dedicated sales tax and a local option gas tax are the most commonly used (in Florida and elsewhere), but there may be other options worth considering.
- Will the funding source have a sunset provision (i.e., it will expire after a pre-defined number of years unless formally re-approved by the voters), and what impact could that have on bonding capability and overall ability to deliver major projects?
- Would a new funding source be dedicated only to transit or could it be used for more general transportation needs? This issue relates directly back to the larger question of responsibilities and whether the new regional body could have a larger *transportation* focus rather than simply focusing on transit.
- How constrained would the regional transportation entity be in using the funding? More specifically:
  - What level of citizen oversight on the use of funds is desired?
  - Would there be a mandated share of the funds to be spent on capital or operations?
  - Would specific projects be described and committed to in a ballot measure for the funding source, or would the funding have fewer "strings" attached? If the former, this will particularly highlight the importance of regional project prioritization.
  - Will there be an explicit "return to source" requirement for the funding? That is, will the transit entity be required to expend funds in each jurisdiction in direct proportion to how much funding is *raised* from that jurisdiction, or can there be flexibility in the geographic distribution of the expenditures?

Section 4 provides some specific institutional options for a regional transit entity in the Capital Region and describes how some peer agencies in Florida have tackled the issues of responsibilities, membership, and funding as they have attempted to "regionalize" their transit services. Section 5 provides information on the broader "universe" of funding options that can be looked at for transit, and then provides some revenue estimates for two of the most likely options.

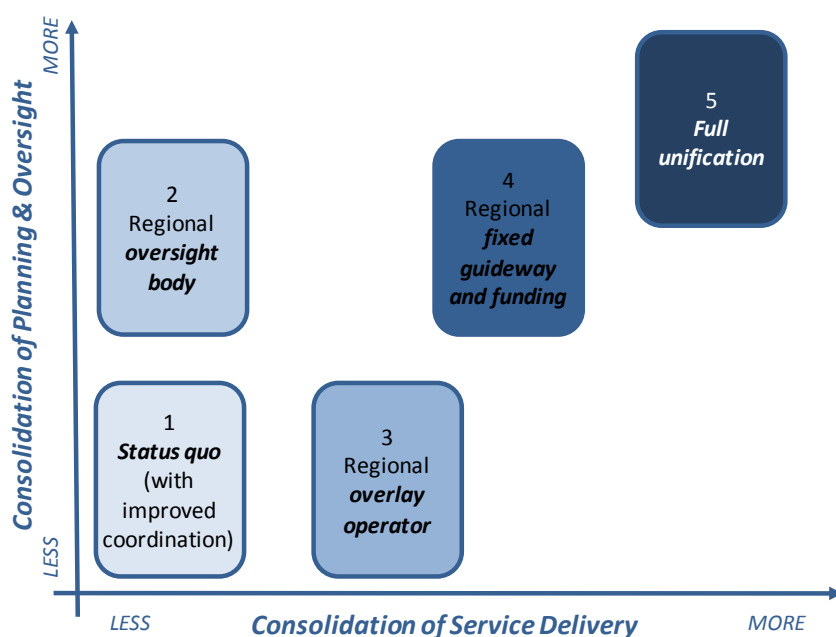
## 4.0 Institutional Options

There are many different answers to the questions of responsibilities, membership, and funding posed in Section 3. This section will review a range of possible institutional structures for regional transit that the Capital Region might consider. The options here will focus primarily on the *responsibilities* of a regional transit body. Funding sources will be considered in Section 5, and membership and governance issues (such as board composition, method of voter approval, etc.) will only be considered tangentially, since these are often more purely “political” decisions that are addressed subsequent to a decision about responsibilities. Following the description of possibilities is more detailed information on how other metro areas in Florida have dealt with these challenges when providing regional transit.

### 4.1 Potential Institutional Structures for the Capital Region

Figure 1 below shows a set of five possible institutional structures for transit in the Capital Region. The five options differ in their degree of regional consolidation across two dimensions – the consolidation of planning and oversight functions (including distribution of funds), and the consolidation of actual service delivery responsibilities. A brief description of each option is provided. Within each major option there are of course many possible variations, and no endorsement is being given to any of the options presented here. The final section on recommendations will assess the appropriateness of these structures to the Capital Region. Also, it may be appropriate for the region to consider one institutional structure in the near-term and a different structure in the long-term – that is, as the region grows and services are introduced, there may be a progression towards greater consolidation.

Figure 1: Options for Possible Institutional Structures



**4.1.1 Status Quo (with Improved Coordination)**

The simplest and least consolidated institutional option would be to continue with the existing arrangement of transit providers (StarMetro, Big Bend Transit, and Wakulla County Transportation). CRTPA would also remain responsible for long-range transportation planning as the MPO. In this arrangement, as new cross-jurisdictional bus services are introduced, counties could decide whether to contract with StarMetro for service or to provide service on their own (either directly or through a third-party contractor). CRTPA could also serve as a forum for improved coordination of the new service, but major decisions about service planning, fare policy, and funding would still remain with each local jurisdiction. In the medium- and long-term, potential new BRT and rail projects, if located entirely within the City of Tallahassee, would be controlled by StarMetro. Cross-jurisdictional fixed guideway projects would require interlocal agreements between the jurisdictions delineating the planning, design, construction, operation, and funding of the project.

**4.1.2 Regional Transit Oversight Body**

One step in potential consolidation could be to create a regional transit oversight body. This oversight body could be a new authority, or the responsibilities could be housed within an existing regional entity such as the CRTPA or the Apalachee Regional Planning Council (although CRTPA would likely retain its MPO long-range planning functions separately). In this arrangement, the oversight body could be responsible for functions such as medium-term regional transit planning, unified marketing and customer information, and unification of fare policies and fare media. The oversight body could also play a role in the distribution of funding by becoming the “designated recipient” for federal funding and by having responsibility for allocating any new dedicated regional transit funds. Finally, the new authority would formally coordinate services between the local jurisdictions and could help ensure a minimum level of transit service across the region.

However, transit operations and short-term service planning would still be controlled by the individual jurisdictions. In particular, interlocal agreements would still be needed between local governments in order to deliver new express bus and fixed guideway projects across jurisdictional lines.

**4.1.3 Regional Overlay Operator**

Another potential step towards regionalization would specifically address the provision of cross-jurisdictional services. A regional “overlay” operator would automatically be responsible for any fixed-route transit service that crossed city or county borders. This operator would be independent of the existing transit providers (in both governance and funding), but it could choose to contract with an existing provider (such as StarMetro) for the actual day-to-day delivery of the service. Conversely, if the overlay operator chose to deliver its services directly or through a third-party contractor, the local jurisdictions that currently do not have fixed route service could in turn contract with the regional overlay provider for “local” bus services. The overlay operator would also be responsible for future cross-county fixed guideway investments. However, as with the status quo option, any potential BRT or rail projects located entirely within the City of Tallahassee would be controlled by StarMetro.

In this option, there is little formal regional oversight. That is, the City of Tallahassee and the counties would still be free to set their own service policies and fare policies, and there would

be no attempt to formally coordinate services or assure minimum service levels across the region.

#### **4.1.4 Regional Fixed Guideway and Funding**

This option combines elements of options 2 and 3 by regionalizing aspects of both oversight and service delivery. In this structure, a new regional transit body would have responsibility for *any* new fixed guideway service in the region (BRT, streetcar, LRT, etc.), even if located entirely within one jurisdiction, as well as any cross-jurisdictional bus services. In addition, it would control functions such as regional service planning, customer information, and fare media and policy, and it would control federal and regional funding distribution. Jurisdictions would still control their own local bus services, and the option would still exist (for example) for the new regional entity to contract with StarMetro for the actual delivery of bus service.

#### **4.1.5 Full Unification**

In a fully consolidated option, the existing local transit providers would go away entirely, and a new regional authority would be responsible for all aspects of transit oversight, funding, and delivery, across all modes. The new authority could even take on the long-range transportation planning aspects of CRTPA and become the MPO (as occurs now in Minneapolis with the Met Council).

#### **4.1.6 Regionalization of Services for the Transportation Disadvantaged**

The five options described above are focused on the oversight and delivery of fixed-route transit services. However, the same issues are present for demand response services for the transportation disadvantaged (TD), and outside of the City of Tallahassee, TD services are currently the predominant form of transit service. The Capital Region could choose to pursue the regionalization of TD services separately from the regionalization of fixed-route services. That is, particularly in the near-term, the region could move toward greater consolidation (in both oversight and actual delivery) of TD services while delaying a consolidation of fixed-route transit service. This option is discussed in more detail in the recommendations.

### **4.2 Regional Transportation Authorities in Florida**

The four transit-oriented regional transportation authorities in Florida that were noted in Section 2 (excluding the NFTCA) are described in greater detail in Table 1 below. While each approach has produced benefits for its region, each one also presents some cautionary notes for the Capital Region.

The biggest concern regarding both SFRTA and TBARTA is that these regional transportation authorities in South Florida and the Tampa Bay area were created long after county-level transit operators were already well-established, and the county operators were retained. Thus, SFRTA and TBARTA exist as “overlay” transit entities. This is not necessarily a negative outcome – Sound Transit in Seattle, for example, works alongside county-level transit providers in that region. But it requires significant coordination in order to provide the traveler with a “seamless” transit experience, and the agencies sometimes end up competing for funding (from the federal, state, and local levels), and they may also end competing over who will plan, design, construct, and operate new transit capacity projects in the region. If possible, the Capital Region should avoid the creation of potentially competing transit entities.

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LYNX avoids the “overlay” problem and is the primary public transportation provider throughout the Orlando metro area. However, the key concern over the LYNX arrangement is in regard to funding. LYNX relies primarily on annual general fund appropriations from the City of Orlando and Orange, Osceola, and Seminole Counties to support its operating budget, rather than relying on a dedicated funding source. The region has long sought a dedicated source, but has been unable to come to agreement on one, particularly in the current difficult economic environment. The uncertainty inherent in an annual appropriations process makes long-term planning more difficult and can make year-to-year service provision more volatile. If dedicated funding is possible in the Capital Region, it will greatly strengthen a new regional transit entity.

The Jacksonville Transportation Authority (JTA) is funded by a dedicated half-cent sales tax and is also the primary transit provider for the region, in addition to having significant highway and bridge responsibilities. However, JTA covers only Duval County, which except for four small independent municipalities is totally consolidated with the City of Jacksonville. This type of structure might be appropriate were the City of Tallahassee and Leon County to ever consider a consolidated city-county form of government, but it does not address the Capital Region’s key concerns about integrating Gadsden, Jefferson, and Wakulla County transit services with the City of Tallahassee and Leon County.



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Table 1: Florida Regional Transportation Authorities

	South Florida Regional Transportation Authority (SFRTA)	Central Florida Regional Transportation Authority (LYNX)	Jacksonville Transportation Authority (JTA)	Tampa Bay Area Regional Transportation Authority (TBARTA)
<b>What does the agency do?</b>	<p>SFRTA operates Tri-Rail commuter rail service within the three-county (Miami-Dade, Broward, and Palm Beach) area. SFRTA operates 50 weekday trains (14-16 on Sat/Sun) on a 72-mile commuter rail line. SFRTA also operates a limited number of Tri-Rail shuttle buses that connect to rail stations.</p> <p>The South Florida area is also served by three county-level transit providers</p> <ul style="list-style-type: none"> <li>• Broward County Transit (BCT),</li> <li>• Palm Tran (Palm Beach) and</li> <li>• Miami-Dade Transit (MDT).</li> </ul>	<p>CFRTA/LYNX operates the former Central Florida Commuter Rail Authority and the local transportation provider, Orange-Seminole-Osceola Transportation Authority. LYNX is responsible for all modes of public transportation in the Central Florida Region (City of Orlando and Orange, Seminole, and Osceola Counties). LYNX offers transportation services including fixed route bus service, paratransit services, and carpool/vanpool services.</p>	<p>The Jacksonville Transportation Authority is an independent state agency serving Duval County and has multi-modal responsibilities. JTA designs and constructs bridges and highways and provides a variety of mass transit services including express and regular bus service, a downtown Skyway monorail, the Trolley service, the Stadium Shuttle for various sporting events at Jacksonville Stadium, JTA Connexion for the disabled and elderly, and ChoiceRide that connects employers and employees to job access through customized transportation options.</p>	<p>TBARTA was created by the Florida State Legislature in 2007 to develop and implement a Regional Transportation Master Plan for the seven-county West Central Florida region consisting of Citrus, Hernando, Hillsborough, Manatee, Pasco, Pinellas and Sarasota Counties. The express purposes of the authority are to improve mobility and expand multimodal transportation options for passengers and freight throughout the seven-county Tampa Bay region</p>
<b>How is it organized/governed?</b>	<p>Established in 2003, the governing Board of Directors consists of nine members;</p> <ul style="list-style-type: none"> <li>• One County Commissioner from each county (three appointments);</li> <li>• One citizen appointee from each county commission (three appointments);</li> <li>• A Florida Department of</li> </ul>	<p>Established in 1989, the governing Board of Directors consists of five members;</p> <ul style="list-style-type: none"> <li>• One Commissioner from Osceola County</li> <li>• One Commissioner from Seminole County</li> <li>• Mayor of the City of Orlando</li> <li>• Mayor of Orange County (or his designee)</li> <li>• Representative from the</li> </ul>	<p>The Authority's governing body has seven members.</p> <ul style="list-style-type: none"> <li>• Three members are appointed by the Governor and confirmed by the Senate;</li> <li>• Three members are appointed by Jacksonville's Mayor and confirmed by the City Council;</li> <li>• Seventh member is the District Two Secretary of the Florida Department of</li> </ul>	<p>Established in 2007, the governing Board of Directors consists of 16 members;</p> <ul style="list-style-type: none"> <li>• One nonvoting, <i>ex officio</i> member appointed by Secretary of FDOT</li> <li>• County commissions of Citrus, Hernando, Hillsborough, Pasco, Pinellas, Manatee, and Sarasota Counties</li> </ul>

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	<p>Transportation (FDOT) – District Secretary (one appointment);</p> <ul style="list-style-type: none"> <li>• Citizen appointees from the Governor (two appointments).</li> </ul> <p>The FDOT appointee and the two Governor’s appointees must all reside in different counties within the SFRTA service area.</p>	Florida DOT	Transportation (FDOT).	<p>appoint one elected official to the board.</p> <ul style="list-style-type: none"> <li>• West Central Florida MPO Chairs Coordinating Committee appoints one board.</li> <li>• Mayor or Mayor’s designee of the municipality within service area of Pinellas Suncoast Transit Authority and Hillsborough Area Regional Transit Authority.</li> </ul>
<b>How is it funded?</b>	<ul style="list-style-type: none"> <li>• Federal grants (FTA &amp; FHWA)</li> <li>• FDOT Operating Joint Participation Agreement (JPA)</li> <li>• FDOT Feeder Service Grant</li> <li>• FDOT Contracted Dispatch Services grant</li> <li>• FDOT State Infrastructure Bank (SIB) loan</li> <li>• In June 2003, legislation passed requiring the three counties in the SFRTA service area to contribute a minimum of \$2.67 million each in capital funding to the SFRTA. To date the three counties have contributed \$40.0 million.</li> <li>• County operating contributions are in accordance with an interlocal agreement</li> </ul>	<ul style="list-style-type: none"> <li>• Federal grants (FTA &amp; FHWA)</li> <li>• FDOT State Infrastructure Bank (SIB) loan</li> <li>• FDOT grants</li> <li>• Local Contribution</li> </ul>	<p>JTA is funded by a half-cent sales tax approved in 1988 as a result of the elimination of bridge tolls. JTA manages construction projects on state- and city-owned roadways. Those projects, however, are not maintained by JTA.</p> <p>Jacksonville voters approved an additional half-cent sales tax in September 2000 to fund The Better Jacksonville Plan—a \$2.2 billion infrastructure and quality-of-life improvement initiative. JTA is playing a significant role in the implementation of this massive plan with 32 roadway projects totaling more than \$800 million. The projects include 12 interchange improvements, roadway widening projects, construction of one major bridge and the design of another.</p>	<p>TBARTA receives planning-level funding from FDOT. The long-term funding goal is to leverage public and private funds, making the most use of toll and fare opportunities.</p> <ul style="list-style-type: none"> <li>• Federal Grant</li> <li>• FDOT grants</li> <li>• City and county local funds</li> <li>• Private sector funds</li> </ul>

## 5.0 Funding Options

### 5.1 Evaluation of Potential Funding Sources

When evaluating new revenue sources or augmenting existing sources, a number of important criteria should be considered. These can be generally organized into four major factors:

- **Financial:** This factor addresses the fundamental question of the expected yield from the revenue source. Generally, this is judged on the basis of a “reasonable” rate of taxation given the size of the tax base. For example, if a sales tax is under consideration, a tax rate of 0.1 percent or 1.0 percent would be judged in the “reasonable” range, while a tax rate of 10.0 percent would be well outside the reasonable range. However, for narrower taxes such as a hotel/motel or rental car tax, the reasonable range might be higher. A related factor is stability – a source that could experience significant annual fluctuations would be judged less suitable than a source with less likelihood of year-to-year variance. For example, the employer-paid tax on total payroll (or “head tax”) in Portland, Oregon, has resulted in a much more stable source of funding than a retail sales tax, which would have been more subject to economic cycles. Finally, this factor addresses the extent to which the revenue stream can be indexed to inflation. This is important because many elements of transportation expenses are closely tied to inflation.
- **Political:** This factor addresses equity, or the extent to which the incidence (or burden) of a funding source matches the provision (or benefit) of the services that the source funds. For example, if a jurisdiction or geographic area funds 10 percent of a project’s revenues, it should (over a reasonable time horizon) receive approximately 10 percent of service provision. This factor also addresses differential impacts among demographic groups. Retail sales taxes, for example, have been criticized as inequitable because they are regressive, burdening lower income households more than upper income households. Finally, the source should ideally have a tie to a transportation purpose. Taxes on motor vehicle sales, motor vehicle registration, driver licensing, parking, rental cars, and motor fuels and highway tolls all have a direct connection to transportation, which is often viewed more favorably by the public than a general tax with no link to the region’s transportation network.
- **Legal:** Any dedicated source of funding must of course adhere to various State constitutional, statutory, and regulatory limitations. In Florida, there are strict limitations on both local option motor fuels taxes and local option sales taxes, two of the more popular transportation funding mechanisms, and the state has no income tax from which to draw any additional funds for transportation. Thus, when existing funding sources are fully utilized, major state legislative action may be required to effect any further change.
- **Administrative:** This final factor addresses the actual methodology of revenue collection and the ease and cost of administration. Revenue sources that rely on existing collection mechanisms are generally preferred. For example, in most states with a pre-

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existing state sales tax, the state will act as the collection agent for a local sales tax. Unique new taxes may require that the benefiting agency directly collect the revenues and conduct enforcement. One example of the latter is the Triangle Transit Authority in North Carolina, which collects its own rental car tax and performs its own enforcement, including audits of taxpayers (i.e., rental car companies). Unless the proposed new source performs very strongly on the other evaluation dimensions, the creation of an entirely new collection mechanism is usually to be avoided.

Appendix A summarizes a review of alternative dedicated revenue sources for public transportation that the consultant team recently performed. As noted in the legend accompanying the table, the far right column provides a qualitative overall “ranking” of the appropriateness of the revenue source for the Capital Region, based on the factors described above. A full circle indicates a source that is already in use or under strong consideration. A half circle indicates a source that could be considered, but that might face significant financial, political, or legal barriers to implementation. An empty circle indicates a source that appears to be highly unlikely to ever be implemented in the region.<sup>2</sup>

### 5.2 Gas Tax and Sales Tax Projections for the Capital Region

The two future funding sources for transit in the Capital Region that appear most feasible are local option gasoline taxes (LOGT) and dedicated sales taxes. Estimates by county of the funding available from each of these sources are presented below. Property taxes do not appear to be a viable route for increasing transit funding, and many of the transit funding methods used in larger jurisdictions (like South Florida), such as rental car taxes and transit impact fees, may not be appropriate for a smaller metropolitan area such as Tallahassee.

The funding options presented here will be combined with the capital and operating cost estimates as presented in the ‘Transit Service Improvements’ memorandum to produce preliminary financial scenarios in the ‘Service Development Strategy and Business Plan.’ The funding estimates are derived from the 2009 *Local Government Financial Information Handbook* (LGFIH), which is produced annually by the Florida Legislative Committee on Intergovernmental Relations.

#### 5.2.1 Local Option Gas Tax (LOGT) Funding

County governments in Florida are authorized to levy up to 12 cents of local option fuel taxes in the form of three separate levies:

- The first is a tax of 1 cent on every net gallon of motor and diesel fuel sold within a county. Known as the **Ninth-Cent Fuel Tax**, this tax may be authorized by an ordinance adopted by an extraordinary vote of the governing body or voter approval in a countywide referendum. Generally, the proceeds may be used to fund transportation expenditures.
- The second is a tax of **1 to 6 cents** on every net gallon of motor and diesel fuel sold within a county. This tax may be authorized by an ordinance adopted by a majority vote

<sup>2</sup> Real estate property taxes are shown with a ‘full circle’ ranking, indicating that they are already currently in use in the region as a major component of the General Fund support that transit receives. However, property taxes are not likely to be a source of expanded funding for transit in the future.

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of the governing body or voter approval in a countywide referendum. Generally, the proceeds may be used to fund transportation expenditures.

- The third tax is a **1 to 5 cents** levy upon every net gallon of motor fuel sold within a county. Diesel fuel is not subject to this tax. This additional tax shall be levied by an ordinance adopted by a majority plus one vote of the membership of the governing body or voter approval in a countywide referendum. Proceeds received from this tax may be used for transportation expenditures needed to meet the requirements of the capital improvements element of an adopted local government comprehensive plan.

None of the four Capital Region counties (Gadsden, Jefferson, Leon, and Wakulla) have levied any portion of the third tax (the 1 to 5 cent LOGT) described above. In addition, Gadsden County has not levied the Ninth-Cent Fuel Tax. The table below shows what would be generated across the region if each county were to levy the full 5 cents of the 1 to 5 cent LOGT, given current (2009) fuel sales.

**Table 2: Potential Local Option Gas Tax (LOGT) Revenues**

County	Revenue Generated by \$0.01 Tax	Revenue Generated by Full \$0.05 Tax
Gadsden	\$239,627	\$1,198,135
Jefferson	\$72,693	\$363,465
Leon	\$1,069,042	\$5,345,210
Wakulla	\$87,269	\$436,345
<b>Total</b>	<b>\$1,468,631</b>	<b>\$7,343,155</b>

As the table shows, the full revenue that would be available to from a region-wide LOGT is slightly more than \$7 million. As noted earlier, this could fund some significant improvements in local and express bus service, but it is not sufficient to fund the premium transit projects in the med- and long-term. Moreover, the growth rate for fuel tax revenues (based directly on the usage of motor fuel) is expected to be well below the rate of inflation, and potentially even negative, given the aging of the population, the growing prevalence of automobiles which use little or no gasoline, and the potential for future gasoline price increases.

### 5.2.2 Dedicated Sales Tax Funding

As noted above, there are significant legislative and political hurdles to implementing a region-wide dedicated sales tax for transit. Only Leon and Wakulla Counties currently have this ability via the existing Charter County Transportation System Surtax, and Leon County has the added constraint of having already levied the Blueprint 2020 sales tax. However, if the region were able to successfully implement the equivalent of a region-wide Charter County surtax, the potential annual revenue would be that shown in Table 3 below.

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**Table 3: Potential Dedicated Sales Tax Revenues**

<b>County</b>	<b>Revenue Generated by 1% Tax</b>	<b>Revenue Generated by 0.5% Tax</b>
Gadsden	\$3,036,875	\$1,518,438
Jefferson	\$793,376	\$396,688
Leon	\$32,982,339	\$16,491,170
Wakulla	\$1,679,617	\$839,809
<b>Total</b>	<b>\$38,492,207</b>	<b>\$19,246,104</b>

The LGFIH presents the funding generated by a 1% tax, but a 0.5% (or “half penny”) tax seems more likely in the Capital Region. If that tax were implemented region-wide, it would generate approximately \$19 million annually for transit. These funds could be used on a “pay-as-you-go” basis for operations or small capital projects, or they could be bonded against to support a larger capital project.

The future growth prospects for sales tax revenues are not as bleak as they are for gasoline taxes, but there are concerns. In the past, sales tax revenue growth has often outperformed inflation (at least in good economic periods) due to population growth and overall growth in real economic activity. This has led to sales taxes being a very popular method for local/regional funding of transit (and many other needs). However, recent experience is less positive. Even when the current recession ends, there is a concern that many Americans (in particular aging “Baby Boomers”) are shifting their purchasing dollars away from taxed goods and towards untaxed services such as health care. If this pattern persists, then sales tax revenue growth rates will likely lag behind inflation.

## **6.0 Results of Stakeholder Interviews**

The Regional Transit Study consultant team conducted one-on-one interviews with five local officials from the City of Tallahassee and Leon County on December 16 -17, 2009.<sup>3</sup> The interviewees were given a description of the Regional Transit Study effort and the proposed transit service improvements, and then they were asked a series of questions relating to their views on the most appropriate institutional and funding structures for the Capital Region in the future. The officials also provided their views on important issues related to transit such as land use and the overall economic condition of the region. The key insights drawn from these stakeholder interviews are summarized below.

1. In general, the demand from citizens and members of the business community for transit improvements is not particularly strong in either Tallahassee or Leon County. The officials were clear that transit is not unimportant, but transit is not at the “top of the list” of regional concerns. Given the current recession, jobs and economic growth are paramount, and finding continued funding support for schools and other critical public services is the officials’ biggest challenge. Within the transit area, the most commonly cited demand was for additional commuter services from Gadsden and Wakulla Counties, which corresponds with the previous findings of the Regional Transit Study. However, multiple officials noted that public interest in transit was much higher during 2008 when gas prices spiked nationwide. These officials all predicted that if gas prices return to that level, there will again be renewed interest in transit.
2. According to the interviewees, the mindset among most citizens of the region is still that transit is for those travelers with no other transportation options, and that almost anyone who has the option to travel by automobile will do so. The exception to this was strong support for transit usage by FSU and FAMU students. The dominant feeling among the officials was that the region needs better transit-supportive infrastructure and a better bicycle/pedestrian environment – particularly sidewalks – before transit can succeed as a “choice” mode. The officials also emphasized land use, and many felt that the region’s density does not currently support transit as a choice mode, although change is occurring (such as the proposed Gaines Street entertainment district). The general feeling was that the transit service improvements identified in the Regional Transit Study will have a much greater chance of succeeding with choice riders if these other land use issues have been addressed.
3. Given the current economic environment, the City of Tallahassee is not willing to financially cross-subsidize any services outside its borders. The City would be willing to consider a shift from the current arrangement (with StarMetro as a City department) to a regional transit provider, but only if the City is “held harmless” both financially and in terms of level and quality of service. Moreover, there is a general feeling that the current institutional arrangement – where jurisdictions contract with StarMetro for service outside the City borders – is working adequately.

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<sup>3</sup> The five interviewees were Tallahassee City Manager Anita Favors Thompson; Leon County Commissioner Cliff Thael; Leon County Commissioner Bryan Desloge; Tallahassee City Commissioner Debbie Lightsey; and Leon County Commissioner Bob Rackleff. Each interview lasted 30 to 60 minutes, and interviewees were told that no direct quotes or attributions would be included in the study unless explicitly requested.

4. The interviewees' positions on transit funding were varied, and funding is clearly the most challenging area politically. Some of the more common responses and discussion topics included:
- There was a general agreement that regional transit will not succeed without new regional funding. However, that feeling was balanced by the recognition that raising any new taxes in the current environment would be very difficult politically.
  - A local option gas tax (LOGT) was the most frequently suggested transit funding source. A dedicated sales tax was discussed, but it was not viewed as particularly popular or likely by most of the officials. A dedicated property tax appeared to be very unlikely in the current economic and political environment.
  - Leon County appears unlikely to implement a dedicated sales tax for transit on its own. The County already sees itself at a competitive disadvantage compared to surrounding counties because of the additional dedicated sales tax for the Blueprint 2000 projects. Leon County officials indicated they likely would only consider a dedicated sales tax for transit if it were region-wide.
  - Up to 5 cents of LOGT is currently available in all the counties. (That is, the counties are not taxing gasoline at the statutorily-allowed maximum rate.) There was a general recognition that an additional LOGT could provide near-term support for transit, but that it would not be sufficient for the "premium" transit projects and that gasoline taxes may not be a good basis for long-term funding.
  - Finally, the interviewees expressed a general feeling that the "outer" counties in the region (Gadsden, Wakulla, and Jefferson) will need to demonstrate a commitment to increased transit funding before serious consideration of a regional transit entity can be undertaken.

Overall, the interviewees were supportive of the idea of regional transit and a regional transit entity, and most saw the need for one in a mid-term timeframe, perhaps three to five years from now. Given the recession and other pressing needs, transit was not viewed as a regional priority at this time. However, the 2008 experience with high gas prices was mentioned repeatedly, with the knowledge that citizen demand for transit will come back to the "front burner" if those high gas prices are repeated. Knowing this, the interviewees felt that it was important to do the preparatory work (legislative efforts, gauging public opinion, financial modeling, etc.) now for a future regional transit body.



## 7.0 Preliminary Recommendations

Based on the existing conditions in the Capital Region, the lessons learned from other regional transit authorities in Florida, the potential transit funding sources, and the comments of key local officials, the consultant team has developed the following preliminary recommendations regarding the institutional structure(s) and funding needed to support the proposed regional transit investments.









1. **Maintain the existing institutional structure in the near-term.** In the near-term (that is, the next two to three years), the existing institutional arrangement appears to be adequate. Interlocal agreements between StarMetro and the Counties should be sufficient for providing cross-jurisdictional express commuter services at the desired level of service.
2. **Current funding is not sufficient for even modest expansion, so the LOGT should be pursued.** Revenues from City and County general funds are likely to be insufficient for even modest near- or mid-term bus expansion as transit competes with other key areas (public safety, schools, etc.) for very constrained resources. Utilization of some or all of the available local option gas tax (LOGT) capacity would help ease that constraint, as long as the LOGT represented net new funding for transit and there was not an attendant reduction in general fund revenue going to transit. However, the consultant team recognizes that passage of a gas tax may be difficult in the current environment.
3. **Do not create competing local transit providers.** The jurisdictions in the region should avoid the creation of any additional local (county-level) transit operators if possible. In general, if there are more existing local providers, it is likely to be more difficult in the future to create a regional transit entity. If the outer jurisdictions (i.e., outside the City of Tallahassee) determine they need fixed-route bus services, it would generally be preferable to either contract with existing providers (such as StarMetro or Big Bend Transit) or to move ahead with the creation of a regional transit provider.
4. **Demand response service should be a strong candidate for initial regionalization.** TD/demand response service was identified during the Regional Transit Study process as a promising area to “test drive” regionalization. Riders stand to benefit as arbitrary borders are eliminated that may discourage trip-making. The Capital Region should consider pursuing the designation of a regional CTC rather than county-by-county CTCs. This approach would not require either BBT or WCT to cease providing service – the regional CTC could contract with the same providers for actual delivery of service, but the service would be “seamless” from the rider’s perspective.<sup>4</sup>
5. **Maintain some local control even in the long-term.** An institutional structure like Option #4 described in Section 4 – an RTA responsible for fixed guideway and cross-jurisdictional services, but with local jurisdictions retaining control over local bus service – seems appropriate as a mid- or long-term arrangement for the Capital Region. The creation of such an RTA will take time, however, and legislative and public opinion efforts in support of creating an RTA should begin immediately. A Capital Region RTA could initially be charged with doing only planning efforts (like TBARTA in Tampa Bay current); it could then expand into TD/demand response services as a regional CTC and cross-county bus routes; and then it could finally become a fixed guideway operator when the time is right to implement those projects.


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<sup>4</sup> Orange, Osceola, and Seminole Counties offer a good example of regionalized TD service. LYNX (the Central Florida Regional Transportation Authority), which is also the fixed-route transit provider, has been the designated CTC for the three-county region since 1992. TD services are provided throughout the entire LYNX service area without regard to county boundaries.

6. **Long-term funding will be challenging, but a dedicated sales tax is one option.** The local option gas tax (LOGT) will not provide sufficient long-term funding to achieve the fixed guideway projects described in the RTS. A dedicated sales tax holds more promise as a sustainable long-term funding source, though the consultant team again recognizes that passage or approval of such a tax may be politically difficult.

## Appendix A: Evaluation of Potential Revenue Sources

Source	Example(s)	Financial			Political	Legal	Administrative	Overall Rating for Capital Region
		Revenue Growth/ Stability	Revenue Yield	Indexing	Public Perception/ Equity	Legality/ Tie to Transportation	Assessment & Collection	
<b>Local Option Sales Tax</b>	Atlanta, GA Charlotte, NC Chicago, IL Dallas, TX Houston, TX San Diego, CA	<ul style="list-style-type: none"> <li>Tax revenue is affected by economic conditions.</li> <li>Provides reliable revenue flow if State economy remains strong.</li> </ul>	<ul style="list-style-type: none"> <li>There is potential for large revenue yield, especially as population and median income levels grow.</li> </ul>	<ul style="list-style-type: none"> <li>Sales tax revenues have a direct relationship to price levels and inflation.</li> </ul>	<ul style="list-style-type: none"> <li>Tax is regressive; lower income individuals spend greater portion of disposable income.</li> <li>Tax is unpopular with local retailers who fear a negative impact business.</li> </ul>	<ul style="list-style-type: none"> <li>Sales tax has no direct tie to transportation.</li> <li>Legislation would be required to impose new sales tax rates.</li> </ul>	<ul style="list-style-type: none"> <li>Mechanism in-place to collect the local-generated tax revenue.</li> </ul>	
<b>Corporate Income Tax</b>	New York, NY	<ul style="list-style-type: none"> <li>Revenue growth can be affected by economic conditions and existing industry mix.</li> </ul>	<ul style="list-style-type: none"> <li>Corporate income tax revenue is cyclical and follows state and local business patterns.</li> </ul>	<ul style="list-style-type: none"> <li>Tax has an indirect tie to inflation because corporate income reflects price levels over longer time periods.</li> </ul>	<ul style="list-style-type: none"> <li>Indirect negative impact on investment and corporate growth.</li> </ul>	<ul style="list-style-type: none"> <li>No direct tie to transportation.</li> </ul>	<ul style="list-style-type: none"> <li>Mechanism in-place at state level to collect the local-generated tax revenue.</li> </ul>	
<b>Employer Payroll Tax</b>	Portland, OR	<ul style="list-style-type: none"> <li>Tax paid by employers and is based on gross payroll paid to employees.</li> </ul>	<ul style="list-style-type: none"> <li>Potential for sufficient long-term yield if employment levels continue to grow.</li> </ul>	<ul style="list-style-type: none"> <li>Inflation has indirect effect if payrolls try to keep pace with increasing costs of living.</li> </ul>	<ul style="list-style-type: none"> <li>Tax may face opposition from local business community.</li> </ul>	<ul style="list-style-type: none"> <li>No tie to transportation.</li> </ul>	<ul style="list-style-type: none"> <li>No collection mechanism at either the State or local level.</li> </ul>	
<b>Personal Income Tax</b>		<ul style="list-style-type: none"> <li>Salary and wage distributions account for majority of the revenue collected.</li> <li>Tax normally produces stable revenue flow.</li> </ul>	<ul style="list-style-type: none"> <li>Traditionally, personal income tax has reliable revenue yield.</li> </ul>	<ul style="list-style-type: none"> <li>Inflation has an indirect effect in so far as salaries and wages keep pace with inflation.</li> </ul>	<ul style="list-style-type: none"> <li>Raising the tax is politically unpopular.</li> <li>Opponents claim increasing the tax has a negative economic impact and inhibits income generation and resulting productivity.</li> </ul>	<ul style="list-style-type: none"> <li>Constitutional amendment and legislation would be required to impose new income tax rates – very unlikely.</li> <li>No direct tie to transportation.</li> </ul>	<ul style="list-style-type: none"> <li>No mechanism in place for personal income tax collection.</li> </ul>	
<b>Real Estate Property Tax</b>	San Francisco, CA	<ul style="list-style-type: none"> <li>Stable revenue source, but fluctuates with real estate trends and property values.</li> <li>Revenue growth contingent on property trends.</li> </ul>	<ul style="list-style-type: none"> <li>Sufficient revenue yield, but any increase would tend to reduce municipal revenue potential.</li> </ul>	<ul style="list-style-type: none"> <li>Property values do not always follow inflationary trends.</li> </ul>	<ul style="list-style-type: none"> <li>Tax is already heavily burdened, potential for stiff public opposition.</li> </ul>	<ul style="list-style-type: none"> <li>No direct tie to transportation.</li> </ul>	<ul style="list-style-type: none"> <li>Collection mechanism in place.</li> </ul>	
<b>Personal Property Tax (Auto)</b>	Hillsborough County, FL	<ul style="list-style-type: none"> <li>Revenue stability affected by personal property value fluctuations.</li> </ul>	<ul style="list-style-type: none"> <li>Adding intangible property increases yield and progressivity.</li> </ul>	<ul style="list-style-type: none"> <li>Some personal property values will track price levels.</li> </ul>	<ul style="list-style-type: none"> <li>Tax is a major local revenue source and is already heavily burdened</li> </ul>	<ul style="list-style-type: none"> <li>Tax has direct tie to transportation if levied against auto values.</li> </ul>	<ul style="list-style-type: none"> <li>Complex tax that is difficult to enforce.</li> </ul>	
<b>Motor Fuel Tax</b>	Cleveland, OH Miami, FL Washington, DC	<ul style="list-style-type: none"> <li>Stable revenue flow as long as economic conditions remain strong.</li> <li>Limited revenue growth potential as technical advances improve fuel efficiency.</li> </ul>	<ul style="list-style-type: none"> <li>A local option fuel tax tends to reduce statewide tax increase potential.</li> </ul>	<ul style="list-style-type: none"> <li>Must be indexed to inflation because tax is based on a gallonage method.</li> <li>Potential long run yield not as reliable as a % of motor fuel tax or other indexed bases. Larger revenue output if consumers were taxed on the % of fuel purchased.</li> </ul>	<ul style="list-style-type: none"> <li>Reinstating a recently reduced tax may generate negative reactions.</li> <li>Opportunity to promote the tax as pro-environment (i.e.: represents effort to achieve clean air goals).</li> </ul>	<ul style="list-style-type: none"> <li>Tax has a direct tie to transportation.</li> <li>Levy is actually a user charge rather than a "traditional" tax.</li> </ul>	<ul style="list-style-type: none"> <li>State collection mechanism in place.</li> </ul>	
<b>Motor Vehicle Registration Fees</b>	Seattle, WA	<ul style="list-style-type: none"> <li>Stable revenue if the per capita growth of automobiles grows with the State's economy.</li> </ul>	<ul style="list-style-type: none"> <li>Potential exists for low revenue yield.</li> </ul>	<ul style="list-style-type: none"> <li>Fee would have to be indexed for inflation.</li> </ul>		<ul style="list-style-type: none"> <li>Registration fees have a direct tie to transportation.</li> <li>The levy is a user charge not a tax.</li> </ul>	<ul style="list-style-type: none"> <li>State collection mechanism in place.</li> </ul>	

<b>Parking Receipt Tax</b>		<ul style="list-style-type: none"> <li>Reliable revenue (i.e. will have inflationary growth) if single-occupancy drivers continue to grow.</li> <li>Growth contingent on businesses remaining in CBD.</li> </ul>	<ul style="list-style-type: none"> <li>Revenue yield is low and costs to enforce and collect may exceed revenue gain.</li> </ul>	<ul style="list-style-type: none"> <li>Tax is not related to current price levels.</li> </ul>	<ul style="list-style-type: none"> <li>Not visible to commuters, tax is embedded in parking price.</li> <li>Directly affects parking providers who will likely oppose the tax as anti-business.</li> </ul>	<ul style="list-style-type: none"> <li>Relationship to transportation in that tax revenue is generated by commuters.</li> </ul>	<ul style="list-style-type: none"> <li>No collection process in place at either State or local level.</li> </ul>	
<b>Surface Parking Surcharge</b>		<ul style="list-style-type: none"> <li>Reliable revenue if single-occupancy commuters grow.</li> <li>Growth contingent on businesses remaining in CBD.</li> <li>If successful, revenues diminish over time.</li> </ul>	<ul style="list-style-type: none"> <li>Yield affected if businesses decide to relocate to outlying communities.</li> </ul>	<ul style="list-style-type: none"> <li>Levied as a flat fee surcharge priced as an absolute dollar amount.</li> <li>Not indexed to increase with the cost of parking.</li> </ul>	<ul style="list-style-type: none"> <li>Parking rates currently low.</li> <li>Downtown commercial occupants may relocate if parking rates increased.</li> </ul>	<ul style="list-style-type: none"> <li>Tie to transportation in that tax revenue is generated by commuters.</li> </ul>	<ul style="list-style-type: none"> <li>Implementation will require coordinating with private parking vendors and businesses located in the CBD.</li> </ul>	
<b>Rental Car Tax</b>	Raleigh-Durham, NC	<ul style="list-style-type: none"> <li>Tax levied on amount charged for auto rental.</li> <li>Small tax base, limited growth potential.</li> <li>Revenue flow affected more by non-resident traffic.</li> </ul>	<ul style="list-style-type: none"> <li>Low yield may be deterrent.</li> </ul>	<ul style="list-style-type: none"> <li>Tax may be levied on a per day basis or as % of the total rental charge.</li> </ul>	<ul style="list-style-type: none"> <li>Considered more of a burden to non-residents.</li> </ul>	<ul style="list-style-type: none"> <li>Tax has a tie to transportation.</li> </ul>	<ul style="list-style-type: none"> <li>State level collection mechanism in place.</li> </ul>	
<b>Vehicle Emissions Fee</b>		<ul style="list-style-type: none"> <li>Normally paid as an annual flat fee but may be levied based on vehicle miles traveled.</li> </ul>	<ul style="list-style-type: none"> <li>Limited revenue growth; revenue yield may be a disincentive.</li> </ul>	<ul style="list-style-type: none"> <li>Levied as a flat fee priced as an absolute dollar amount.</li> </ul>	<ul style="list-style-type: none"> <li>May limit other auto usage revenue, such as gas tax increase.</li> <li>Palatable to public if tax achieves clean air standards and improves quality of life.</li> </ul>	<ul style="list-style-type: none"> <li>Emissions tax has a direct link to transportation. Will require legislation to change existing emission standards.</li> </ul>	<ul style="list-style-type: none"> <li>State level collection mechanism in place.</li> </ul>	
<b>Vehicle Privilege Fee</b>	Charlotte, NC	<ul style="list-style-type: none"> <li>Fee levied on the number of cars per household and is paid as an annual flat fee.</li> </ul>	<ul style="list-style-type: none"> <li>Limited revenue growth; yield may be a disincentive.</li> </ul>	<ul style="list-style-type: none"> <li>Levied as a flat fee priced as an absolute dollar amount.</li> </ul>	<ul style="list-style-type: none"> <li>Fee is a user charge; may be unpopular and viewed as an unnecessary public burden.</li> </ul>	<ul style="list-style-type: none"> <li>Fee has a tie to transportation.</li> </ul>	<ul style="list-style-type: none"> <li>No in place collection mechanism, could be collected with personal property or vehicle registration fee.</li> </ul>	
<b>Real Estate Transfer Tax</b>	Washington, DC	<ul style="list-style-type: none"> <li>Tax that applies to the transfer value of real property deeds.</li> <li>Unreliable growth, collections infrequent and unpredictable.</li> </ul>	<ul style="list-style-type: none"> <li>Revenue yield may not be sufficient due to infrequency of transfers.</li> </ul>	<ul style="list-style-type: none"> <li>Tax values are contingent on the value of transferred property.</li> </ul>	<ul style="list-style-type: none"> <li>Opposition from real estate partnerships, realtors or other ventures managing extensive property holdings.</li> </ul>	<ul style="list-style-type: none"> <li>No tie to transportation.</li> <li>State already imposes documentary stamp fees to fund transportation.</li> </ul>	<ul style="list-style-type: none"> <li>State currently levies a <i>real estate</i> conveyance tax assessed on the purchase price of conveyed property. Seller pays the tax.</li> </ul>	
<b>Mortgage Recordation Tax</b>	Albany, NY	<ul style="list-style-type: none"> <li>Excise tax on recorded mortgages.</li> <li>Low revenue growth since tax is one-time levy on mortgage recording.</li> </ul>	<ul style="list-style-type: none"> <li>Low yields where property purchases and mortgage recordings are below the national average and/or declining.</li> </ul>	<ul style="list-style-type: none"> <li>Tax collections are based on the recorded liens.</li> <li>Inflation has no direct affect</li> </ul>	<ul style="list-style-type: none"> <li>Tax could be unpopular with general public; a real estate property tax is already collected at the local level.</li> </ul>	<ul style="list-style-type: none"> <li>No tie to transportation.</li> <li>State already imposes documentary stamp fees to fund transportation</li> </ul>	<ul style="list-style-type: none"> <li>No collection mechanism at either the State or local level.</li> </ul>	
<b>Fund Balance Transfers</b>	New York, NY San Francisco, CA	<ul style="list-style-type: none"> <li>Inter-fund transfers among municipal agencies.</li> <li>Growth depends on volume of municipal revenues collected.</li> </ul>	<ul style="list-style-type: none"> <li>Low revenue yield and uncertain revenue source.</li> <li>Many variables affect a municipality's ability to run fund surpluses.</li> </ul>	<ul style="list-style-type: none"> <li>Fees collected from the general public are not indexed to price levels.</li> </ul>	<ul style="list-style-type: none"> <li>Revenue transfers are not visible to the public.</li> </ul>	<ul style="list-style-type: none"> <li>No tie to transportation.</li> </ul>	<ul style="list-style-type: none"> <li>No transfer process in place.</li> </ul>	
<b>Incremental Tax Financing District</b>		<ul style="list-style-type: none"> <li>Surcharge on the incremental increase of selected property values.</li> <li>Revenue growth affected by property value fluctuations.</li> </ul>	<ul style="list-style-type: none"> <li>Low revenue yield.</li> </ul>	<ul style="list-style-type: none"> <li>Property values are not indexed to current price levels.</li> </ul>	<ul style="list-style-type: none"> <li>Surcharge may face opposition from property owners and developers.</li> </ul>	<ul style="list-style-type: none"> <li>If the assessment district is based on transportation benefits, then tie to transportation.</li> </ul>	<ul style="list-style-type: none"> <li>Modifications are needed to govern the set-up of new districts.</li> </ul>	
<b>Benefit Assessment District</b>	Rt. 28 / Dulles, VA	<ul style="list-style-type: none"> <li>Surcharge levied on property within defined areas that has benefited from local improvements.</li> </ul>	<ul style="list-style-type: none"> <li>Low revenue yield.</li> </ul>	<ul style="list-style-type: none"> <li>Property values are not indexed to current price levels.</li> </ul>	<ul style="list-style-type: none"> <li>Surcharge may face opposition from property owners and developers.</li> </ul>	<ul style="list-style-type: none"> <li>If the assessment district is based on transportation benefits, then tie to transportation</li> </ul>	<ul style="list-style-type: none"> <li>District must be defined and collection mechanism put into place.</li> </ul>	
<b>Value Capture</b>	Atlanta, GA St. Louis, MO Washington, DC	<ul style="list-style-type: none"> <li>Public/private partnership where private sector compensates public agency for transit development costs that generate economic value.</li> </ul>	<ul style="list-style-type: none"> <li>Yield dependent upon the economic value of the completed transit facility or project.</li> </ul>	<ul style="list-style-type: none"> <li>Value capture is not indexed to current price levels.</li> </ul>	<ul style="list-style-type: none"> <li>Can be a popular way to enlist private investment.</li> </ul>	<ul style="list-style-type: none"> <li>If facility or project involves transportation, then there is a tie to transportation.</li> </ul>	<ul style="list-style-type: none"> <li>Projects would have to be identified and developed to assess value capture opportunities.</li> </ul>	

 = In use or strongly considered  
  = Possible, but would face barriers  
  = Highly unlikely

February 2010

# REGIONAL TRANSIT STUDY



## Technical Memorandum #5 Service Development Strategy and Business Plan

*Prepared for:*  
**Capital Region Transportation Planning Agency**  
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Arlington, VA 22201





**CAPITAL REGION TRANSPORTATION PLANNING AGENCY  
REGIONAL TRANSIT STUDY**

**Technical Memorandum #5  
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***February 2010***





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## **1.0 Introduction**

This technical memorandum documents a service development strategy and business plan to support current, new and expanded transit services in the Capital Region, based on analysis and findings presented in Technical Memorandum #2 - Baseline Data, Technical Memorandum #3 - Transit Service Improvements and Technical Memorandum #4 - Institutional Structure and Funding Options.

A service development strategy was developed based on the continuation of some existing transit service, the evaluation of transit service improvements and identification of implementation strategies based on priorities for a recommended regional transit plan. A business plan was prepared to outline the revenue shortfalls and potential new revenue sources as well as policy decisions required to successfully implement the recommended plan.



## 2.0 Service Development Strategy

A service development strategy was developed to identify the operational improvements, capital projects, project priorities, funding strategies and the necessary institutional framework to support transit services in the Capital Region over the next 40 years.

### 2.1 Continuation of Existing Transit Services

Existing transit services in the Capital Region are provided by StarMetro, Big Bend Transit and Wakulla County Transportation, as documented in Technical Memorandum #2 - Baseline Data. Each of the systems current service was taken into account when developing proposed transit improvements, understanding the importance in preserving the current nature of service.

StarMetro is currently embarking on a plan to decentralize its existing route structure to reduce route redundancies and serve a wider area of the City of Tallahassee. The NOVA 2010 plan would provide transfer points throughout the city by alleviating the need for all bus routes to transfer at the C.K. Steele Plaza. The NOVA 2010 plan is anticipated to be implemented in 2010/2011 timeframe and serves as a basis to expand for additional transit services. Big Bend Transit will be providing express bus service from Quincy to Downtown Tallahassee to begin the early part of 2010.

### 2.2 Evaluation of Transit Service Improvements

Based on the analysis prepared for Technical Memorandum #3 - Transit Service Improvements, there were needs and opportunities identified for new transit service in the Capital Region. The results identified transit improvement in for the near-term (2010-2014), mid-term (2015-2024) and long-term (2025-2050) that included service improvements to existing transit systems and capital investments in premium transit solutions. An evaluation matrix was developed to evaluate proposed transit service improvements on the measures to determine transit priorities.

The matrix below summarizes the evaluation of the key criteria for comparison between the proposed transit service improvements. All Satellite Transfer Centers and Regional Park-and-Ride Facilities detailed in Technical Memorandum #3 - Transit Service Improvements are not included in the evaluation matrix, as they are recommended to support the transit service improvements. Ratings were developed based on analysis conducted in this study. To assist in the evaluation of each transit service improvement, a score has been assigned to each symbol. Table 2-1 displays the evaluation matrix.

## Regional Transit Study

Table 2-1: Transit Service Improvement Evaluation Matrix

Improvement	Transit Dependent	Choice Riders	Major Employment	Major Activity Centers	Transfer Opportunities	Potential Ridership	Capital Cost	Annual O&M Cost	Total Score
NEAR-TERM IMPROVEMENTS (2010-2014)									
<i>StarMetro Local Bus Service Expansion</i>									
CCOC/Southwood	-	+	+	+	o	o	+	+	6.0
Tram Road	+	+	+	+	o	o	o	-	5.5
<i>Express Bus Service</i>									
Crawfordville Express	o	+	+	+	o	o	o	o	5.5
MID-TERM IMPROVEMENTS (2015-2024)									
<i>StarMetro Local Bus Service Expansion</i>									
North Leon County Service	-	+	o	o	o	o	o	o	4.0
East Leon County Service	-	+	o	o	o	o	o	o	4.0
<i>Rural Local Bus Service</i>									
Quincy Fixed Route Expansion	+	o	o	o	o	o	+	o	5.0
Havana Fixed/Deviated Route	+	o	o	o	o	o	+	o	5.0
Monticello Fixed/Deviated Route	+	o	o	o	o	o	+	o	5.0
<i>Express Bus Service</i>									
Woodville Highway Express	o	o	+	+	o	o	+	+	6.0
Capital Circle East Express	-	+	+	+	o	o	+	o	5.5
Havana Express	o	o	+	+	o	o	+	o	5.5
Monticello Express	o	o	+	+	o	o	+	o	5.5
Airport Express	o	o	+	+	o	o	+	+	6.0
<i>Bus Rapid Transit (BRT) Service</i>									
West Tennessee BRT	o	o	+	+	+	+	+	o	6.5
Thomasville Road BRT	-	+	+	+	+	+	o	o	6.0
Apalachee Parkway BRT	-	+	+	+	+	+	o	o	6.0
<i>Streetcar Service</i>									
Gaines Street Line	o	o	+	+	+	o	-	o	5.0
Campus Line	o	o	+	+	+	o	-	o	5.0
LONG-TERM IMPROVEMENTS (2025-2050)									
<i>StarMetro Local Bus Service Expansion</i>									
LRT Feeder Service	-	+	-	-	+	o	o	o	3.5
<i>Rural Local Bus Service</i>									
Crawfordville Fixed Route	+	o	o	o	o	o	+	o	5.0
Quincy Fixed Route Expansion	+	o	o	o	o	o	+	o	5.0
Havana Fixed/Deviated Route Expansion	+	o	o	o	o	o	+	o	5.0
<i>Express Bus Service</i>									
Havana-Quincy Express	o	o	o	-	o	o	+	o	4.0
Capital Circle Southwest Express	-	o	o	o	-	o	+	o	3.5
<i>Bus Rapid Transit (BRT) Service</i>									
West Tennessee BRT Extension	-	o	o	o	-	+	o	o	3.5
Capital Circle East BRT	-	+	+	+	+	+	o	o	6.0
Monroe BRT	-	+	+	+	+	+	o	o	6.0
East Tennessee BRT	-	+	+	+	+	+	+	o	6.5
<i>Light Rail Transit (LRT) Service</i>									
Airport to Downtown LRT	-	+	+	+	o	-	-	-	3.5
Downtown to I-10 High Speed Rail Station LRT	-	+	+	+	o	-	-	-	3.5
<i>Commuter Rail Service</i>									
Quincy to Downtown	-	o	o	o	o	-	-	-	2.0
Havana to Downtown	-	o	o	o	o	-	-	-	2.0
Monticello to Downtown	-	o	o	o	o	-	-	-	2.0

\*Score Range - 0.0 -7.0

- +
 Positive rating with regard to criterion = 1.0
- o
 Neutral rating with regard to criterion = 0.5
- 
 Negative rating with regard to criterion = 0.0

The proposed transit service improvements that would not be suggested as part of the recommended plan based on evaluation criteria include:

- LRT Feeder Service
- Capital Circle Southwest Express Bus
- West Tennessee BRT Extension
- Light Rail Transit Service
- Commuter Rail Service

The preliminary analysis conducted in this study concludes that these transit options would not be recommended as high priority transit investments in the region due to negative ratings (total score of 3.5 or less), such as high costs to build, operate and maintain these improvements, as well as not meeting other important criteria. These projects still could be pursued in the Capital Region, if further, more detailed studies were conducted to determine the feasibility.

### **2.3 Recommended Transit Service Plan**

After receiving input from the public, Stakeholder Group and Steering Committee and evaluating each potential transit service improvement, a transit service plan was developed to address the transit needs in the region and serve the projected growth in the Capital Region by Year 2050. The recommended plan has been developed to support a phased implementation to address the needs in a logical manner. The recommended improvements identified below are described in greater detail in Technical Memorandum #3 – Transit Service Improvements.

Capital and annual operating costs were estimated based on 2009 dollars. The annual operating costs were calculated as cumulative costs over each transit plan period and do not include StarMetro's current operating budget of 15,642,812; Big Bend Transit's operating budget of \$4,469,202 (plus \$92,880 for Gadsden Express Bus Service); and Wakulla County Transportation of operating budget of \$418,407. The cost estimates for the recommended transit service plan are representative of costs for additional transit services and improvements beyond what transit services currently exist.

#### ***Near-Term (2010-2014)***

The Near-Term Plan focuses on enhancing local service within the City of Tallahassee, Gadsden and Wakulla counties. The StarMetro NOVA 2010 plan to “decentralize” the current bus service forms the local transit framework in the Near-Term, with added service in the rapidly-developing southeast quadrant of the city. Two express routes are planned in the Near-Term between Quincy and Tallahassee, and Crawfordville and Tallahassee. Both of these routes will be served by new park and ride lots at the end of lines in the out-counties. Finally, three transfer centers are proposed to provide for better connections between the decentralized StarMetro routes, planned express routes, and future BRT routes proposed in the later phases.

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**Table 2-2: Capital and O&M Cost Estimates for Recommended Near-Term Plan (\$2009)**

Improvement	Capital Costs	Annual Operating Cost
<b>NEAR-TERM IMPROVEMENTS (2010-2014)</b>		
StarMetro Local Bus Service Expansion	\$5,784,000	\$4,101,000
Express Bus Service	\$945,000	\$898,000
Satellite Transfer Centers	\$4,563,000	\$30,000
Regional Park-and-Ride Facilities	\$763,000	\$20,000
<b>Subtotal of Near-Term Costs</b>	<b>\$12,055,000</b>	<b>\$5,049,000</b>

\*Include projects identified in Table 2-1 and detailed in Technical Memorandum #3

### **Mid-Term (2015-2024)**

The Mid-Term Plan builds upon the Near-Term by two adding additional areas of local service, five new regional express routes, and three BRT routes. Fixed-guideway transit is introduced in this phase, as two streetcar routes are planned as circulators connecting key employment and education centers in downtown Tallahassee. Four transfer centers and two park and ride lots are planned to serve the new transit routes.

**Table 2-3: Capital and O&M Cost Estimates for Recommended Mid-Term Plan (\$2009)**

Improvement	Capital Costs	Annual Operating Cost
<b>MID-TERM IMPROVEMENTS (2015-2024)</b>		
StarMetro Local Bus Service Expansion	\$3,305,000	\$6,340,000
Rural Local Bus Service	\$868,000	\$2,709,000
Express Bus Service	\$3,464,000	\$4,692,000
Bus Rapid Transit (BRT) Service	\$45,739,000	\$5,421,000
Streetcar Service	\$210,501,000	\$6,739,000
Satellite Transfer Centers	\$6,085,000	\$70,000
Regional Park-and-Ride Facilities	\$763,000	\$40,000
<b>Subtotal of Mid-Term Costs</b>	<b>\$270,725,000</b>	<b>\$26,011,000</b>

\*Include projects identified in Table 2-1 and detailed in Technical Memorandum #3

### **Long-Term (2025-2050)**

The Long-Term Plan is the third and final phase of proposed transit improvements. Included in this phase are a few capital projects including three BRT corridors, and an express bus route. Local service improvements include a fixed route circulator in Crawfordville.



## Regional Transit Study

**Table 2-4: Capital and O&M Cost Estimates for Recommended Long-Term Plan (\$2009)**

Improvement	Capital Costs	Annual Operating Cost
<b>LONG-TERM IMPROVEMENTS (2025-2050)</b>		
StarMetro Local Bus Service Expansion	\$0	\$6,340,000
Rural Local Bus Service	\$868,000	\$5,418,000
Express Bus Service	\$630,000	\$5,377,000
Bus Rapid Transit (BRT) Service	\$76,976,000	\$13,501,000
Streetcar Service	\$0	\$6,739,000
Satellite Transfer Centers	\$0	\$70,000
Regional Park-and-Ride Facilities	\$763,000	\$60,000
<b>Subtotal of Long-Term Costs</b>	<b>\$79,237,000</b>	<b>\$37,505,000</b>

\*Include projects identified in Table 2-1 and detailed in Technical Memorandum #3

## 2.4 Implementation Strategies

### *Near-Term (2010-2014)*

The immediate implementation actions for the Capital Region, as outlined in the recommendations section of the *Institutional Structure and Funding Options* memorandum, are relatively straightforward and are intended to support the near-term local and express bus transit improvements described above.

From a governance perspective, in fact, the near-term strategy can be characterized as “less is more.” The current institutional arrangement for cross-jurisdictional services, whereby counties can contract directly (via intergovernmental agreements) with StarMetro or Big Bend Transit for service, appears to be working well. For a modest expansion of local and express bus service, this arrangement should continue to be sufficient. If greater coordination between jurisdictions is needed, an *ad hoc* committee (most likely under the umbrella of CRTPA) should be able to address most service planning issues. Most importantly, local jurisdictions should avoid the creation of any new local transit providers. Experience suggests that the creation of a truly integrated regional transit provider in the future will become significantly more difficult if there are more existing local transit providers.

However, from a funding perspective, the necessary near-term actions are more challenging. Even the modest local and express bus expansions shown in Table 2-2 will not be possible without new funding. The most readily available source of funding for these near-term improvements is the local option gas tax (LOGT). Although raising the gas tax is likely to encounter opposition, officials in each county in the region should begin to work with their citizens and business community to explore this possibility.

### *Mid-Term (2015-2024) and Long-Term (2025-2050)*

The long-term recommendation for the Capital Region is a Regional Transit Authority (RTA) with dedicated funding and the responsibility for fixed guideway services and cross-jurisdictional bus services. But the region cannot (and should not) attempt to make an immediate move from

## Regional Transit Study

the current decentralized structure to a full-blown RTA. The process will likely unfold over a number of years, with the following key steps to establish a RTA:

- ***Undertake preparatory work with citizens, the business community, and the Legislature:*** Laying the groundwork for an RTA and for designated funding can begin almost immediately. While many in the transportation community are familiar with the idea of an RTA, transit's relative lack of prominence in the Capital Region means that a significant education process will be required. (And even the passage of RTA enabling legislation at the State level will not guarantee success unless local stakeholders are engaged and willing to support the RTA with funding.)
- ***Inaugurate a Capital Region RTA:*** If the creation of an RTA is enabled by the Legislature and the voters in the region approve, a Capital Region RTA can be inaugurated. Initially, the RTA will likely have few powers, and it may act simply as a planning body for transit in the region.
- ***Designate the RTA as a regional CTC:*** As noted in the preliminary recommendations in Technical Memorandum #4 – *Institutional Structure and Funding Options*, services for the transportation disadvantaged (TD) are a natural candidate for regionalization. Following the creation of the new RTA, it could be designated as the Community Transportation Coordinator (CTC) for the entire region, and its first major responsibility could be the provision of truly regional TD services. Assuming that it performs this task successfully over the first few years, this will provide a base of goodwill and expertise for the expansion of the RTA's responsibilities. The regionalization of TD service may or may not require additional funds to operate, based on the consolidation of functions such as operation, maintenance, scheduling and dispatch.
- ***Dedicate funding to the RTA:*** The success or failure of an RTA for the region will depend largely on funding. The RTA may be able to successfully deliver TD services by relying only on annual allocations from local jurisdictions and state agencies. However, the delivery of bus services and fixed guideway services will require dedicated funding. As noted in Technical Memorandum #4, the most likely candidate for long-term dedicated funding in the Capital Region is a sales tax. However, there will be many difficult steps necessary to achieve a dedicated regional sales tax for transit. Statutory changes will likely be required, and then the approval of voters in each county will be needed. As with the creation of the RTA, this will necessitate a major public education and outreach process.
- ***Shift cross-jurisdictional bus services to the RTA:*** The responsibility for planning, funding, and operating existing and future cross-jurisdictional bus services would then be shifted from the local jurisdictions to the RTA. Local bus services would remain under the control of the local jurisdictions.
- ***Deliver regional BRT and streetcar services through the RTA:*** The delivery of premium transit such as BRT and streetcar service will mark the culmination of the RTA.

### 3.0 Business Plan

#### 3.1 Balancing Projected Costs and Revenues

As discussed in detail in the *Institutional Structure and Funding Options* memorandum, the two most likely dedicated funding sources for the proposed transit improvements are the local option gas tax and a dedicated sales tax. (Acknowledging, of course, that significant legal and political barriers will need to be surmounted before a regional sales tax could be implemented.) This section will demonstrate how those potential future funding sources, along with other revenues from fares and state and federal grant programs, could be used to support the proposed transit improvements.

This projection of costs and revenues is very high-level, and it is intended only to provide an “order of magnitude” assessment of the feasibility of funding the proposed transit projects with the recommended revenue sources. A more formal and detailed financial analysis will be required before the region can or should move forward with attempting to approve and utilize these revenue sources.

In addition, this projection relies on a number of simplifying assumptions. Chief among them is the fact that the region will need to rely on bond financing for its capital investments. A very simple estimate of bonding capacity is used here which does not include issuance costs, sinking fund requirements, or other costs and requirements for issuing debt. The basic assumptions in this financial projection are summarized below:

##### Operating Funding Assumptions

- Farebox recovery rate for new services: 25%
- State operating support (% of expenses): 10%
- Federal operating support (% of expenses)<sup>1</sup>: 10%

##### Capital Funding & Financing Assumptions

- Combined state and federal share of capital costs (%)
  - Streetcar: 25%
  - Bus rapid transit (BRT) corridors: 40%
  - Other projects (bus, transfer centers, park-and-rides): 70%
- Bond interest rate for local share of capital costs: 5%
- Bond term for local capital costs: 20 years

The capital funding assumptions reflect the consultant team’s assessment of the likelihood of receiving significant state and/or federal grant funding for each particular transit investment category. Given the overall constraints on funding, we assume that a larger state/federal funding share can be achieved on smaller projects. That is, it will be easier for FDOT to support smaller projects, and the region should be able to bring together a range of different federal sources for smaller bus projects (such as 5307 and 5309 formula funds, as well as discretionary 5309 bus funds and other federal earmarks). Thus, the assumed state/federal share for the smaller proposed transit investments is 70%, which means the local share of the capital costs will be 30%.

<sup>1</sup> Federal operating support is not provided directly, but instead takes the form of 5307 Urbanized Area program funds used for ‘preventive maintenance’ expenses.

## Regional Transit Study

Conversely, for a very sizable project like the streetcar, unless the region is very successful in the FTA New Starts program (see following paragraph), most of the funding will likely come from local sources, so the assumed state/federal share for the streetcar is only 25%. BRT projects occupy somewhat of a “middle ground” for potential grant funding. A federal funding share of 40% is typical for a successful Small Starts or Very Small Starts BRT project. We assume that the Capital Region will be able to compete for and win Small Starts or Very Small Starts funding for some of its BRT corridors, but not all. However, FDOT should also be able to provide state-level funding. Between those two sources, we assume that the combined state and federal funding share for the entire group of BRT projects will average 40%, leaving 60% of the BRT capital costs to be funded locally.

It should be re-emphasized that the potential does exist for the region’s fixed guideway transit projects (the streetcar and the BRT corridors) to compete for and win federal funding. FTA’s New Starts/Small Starts program is very competitive, but the project evaluation criteria have recently been modified, and the program appears to now be more favorable to streetcars.<sup>2</sup> If the City of Tallahassee and the Capital Region were able coalesce behind a strong, competitive streetcar project, then \$50 to \$75 million out of the \$210 million capital cost of the streetcar could potentially be federally funded. If the streetcar were also able to attract private sector funding (e.g., for station development), then the local tax dollars would go that much farther in supporting operating costs and other transit investments. The funding of a major project like the streetcar will be complex, and if the Capital Region is going to seriously pursue a streetcar in the mid-term timeframe, a rigorous financial planning analysis of the project will need to be undertaken relatively soon.

Finally, all costs and revenues are shown in current year (2009) dollars. The comparisons that follow implicitly assume that costs and revenues will inflate at the same rate in the future. This assumption is optimistic for gas tax revenues, which in recent years have not kept pace with inflation. In the long-term, the outlook for gas tax revenues is even more pessimistic, as alternative fuels and power sources for private automobiles become more common. For this reason, the long-term revenue and expense projection reduces the LOGT revenue to zero, and the region is assumed to rely entirely on the sales tax in the long term. For sales tax revenues, growth in line with cost inflation is a more reasonable assumption. In the past, sales tax revenues have tended to grow faster than inflation (reflecting overall population growth and economic growth), but recent data indicate that sales tax revenue growth is moderating nationwide, and even when the current recession ends, a return to previous growth rates is unlikely.

The methodology behind the projections is straightforward. From the available dedicated revenues, the region first must cover any committed debt service expenses from the previous period. After that, the region must fund operating expenses that are not supported by fare revenues or state/federal grant funds. Any funds remaining after that are then available to pay new debt service on the local share of the capital costs for that period. The original dedicated funding amount can then be modified so that all local operating and capital costs are covered and small positive balance remains.

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<sup>2</sup> See [http://www.fta.dot.gov/planning/planning\\_environment\\_11045.html](http://www.fta.dot.gov/planning/planning_environment_11045.html) for an explanation of the policy shift.

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### Near-Term (2010-2014)

In the near-term, we assume that only LOGT funds are used to support the proposed capital and operating expenses of the transit improvements. We can solve for the LOGT rate (out of the available five cents) that is needed to support these improvements. As shown in Table 3-1 below, approximately half (2.5 cents) of the available LOGT tax is necessary to support the near-term local bus, express bus, and park-and-ride/transfer expenses while leaving a modest annual surplus. The near-term projects are all relatively small, and thus the state/federal funding share is shown at 70%.

**Table 3-1: Near-Term Revenues and Expenses**

LOGT Revenue (cents)	2.5	\$3,671,578
Surtax Revenue (%)	0%	\$0
<i>Less: Revenue Already Committed to Debt Service</i>		<u>\$0</u>
<b>Available Annual Dedicated Revenue (Near-Term)</b>		<b>\$3,671,578</b>
Near-Term Annual Operating Costs		\$5,049,000
<i>Less: Fare Revenue</i>	25%	(\$1,262,250)
<i>Less: State Support</i>	10%	(\$504,900)
<i>Less: Federal Support (PM)</i>	10%	(\$504,900)
<b>Local Annual Subsidy Required</b>		<b>\$2,776,950</b>
<b>Remaining Dedicated Revenue</b>		<b>\$894,628</b>
Near-Term Capital Costs		\$12,055,000
<i>Less: State/Federal Capital Grants</i>	70%	(\$8,438,500)
<b>Local Share of Capital Costs</b>		<b>\$3,616,500</b>
<b>Required Annual Debt Service (20 years @ 5%)</b>		<b>\$290,197</b>
<b>Annual Surplus / (Deficit)</b>		<b>\$604,430</b>

### Mid-Term (2015-2024)

Major investments are projected for the mid-term timeframe, including \$210 million for a streetcar and \$45 million for BRT corridors. In the mid-term, we assume that the remaining 2.5 cents from the LOGT is approved and dedicated to transit. Then a surtax of approximately 0.6% is necessary to generate sufficient funding for all the capital and operating expenses of the proposed mid-term improvements, while again leaving a modest annual surplus. The mid-term revenues and expenses are shown in Table 3-2. The state/federal share of capital costs is shown at 30%, which is a weighted average across the streetcar (25%), the BRT projects (40%), and the smaller bus projects (70%).

## Regional Transit Study

Table 3-2: Mid-Term Revenues and Expenses

LOGT Revenue (cents)	5.0	\$7,343,155
Surtax Revenue (%)	0.60%	\$23,095,324
<i>Less: Revenue Already Committed to Debt Service</i>		<u>(\$290,197)</u>
<b>Available Annual Dedicated Revenue (Mid-Term)</b>		<b>\$30,148,282</b>
Cumulative Mid-Term Annual Operating Costs		\$26,011,000
<i>Less: Fare Revenue</i>	25%	(\$6,502,750)
<i>Less: State Support</i>	10%	(\$2,601,100)
<i>Less: Federal Support (PM)</i>	10%	<u>(\$2,601,100)</u>
<b>Local Annual Subsidy Required</b>		<b>\$14,306,050</b>
<b>Remaining Dedicated Revenue</b>		<b>\$15,842,232</b>
Mid-Term Capital Costs		\$270,725,000
<i>Less: State/Federal Capital Grants</i>	30%	<u>(\$81,217,500)</u>
<b>Local Share of Capital Costs</b>		<b>\$189,507,500</b>
<b>Required Annual Debt Service (20 years @ 5%)</b>		<b>\$15,206,572</b>
<b>Annual Surplus / (Deficit)</b>		<b>\$635,660</b>

**Long-Term (2025-2050)**

With the anticipated elimination of the LOGT as a reliable funding source, the only available revenue for the long-term projects is the hypothetical region-wide dedicated sales tax. A surtax of roughly 1.05% is needed to support existing debt service<sup>3</sup>, new debt service, and the complete system operating costs. The state/federal participation in capital funding is shown at 40%, since proposed BRT corridors represent almost the entire set of long-term capital investments.

<sup>3</sup> This calculation assumes that the debt service incurred for the near-term projects is paid off by the time the long-term projects are initiated; however, debt service requirements for the mid-term projects are still in force.

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Table 3-3: Long-Term Revenues and Expenses

LOGT Revenue (cents)	0.0	\$0
Surtax Revenue (%)	1.05%	\$40,416,817
<i>Less: Revenue Already Committed to Debt Service</i>		<u>(\$15,206,572)</u>
<b>Available Annual Dedicated Revenue (Long-Term)</b>		<b>\$25,210,245</b>
Cumulative Long-Term Annual Operating Costs		\$37,505,000
<i>Less: Fare Revenue</i>	25%	<u>(\$9,376,250)</u>
<i>Less: State Support</i>	10%	<u>(\$3,750,500)</u>
<i>Less: Federal Support (PM)</i>	10%	<u>(\$3,750,500)</u>
<b>Local Annual Subsidy Required</b>		<b>\$20,627,750</b>
<b>Remaining Dedicated Revenue</b>		<b>\$4,582,495</b>
Long-Term Capital Costs		\$79,237,000
<i>Less: State/Federal Capital Grants</i>	40%	<u>(\$31,694,800)</u>
Local Share of Capital Costs		<b>\$47,542,200</b>
<b>Required Annual Debt Service (20 years @ 5%)</b>		<b>\$3,814,909</b>
<b>Annual Surplus / (Deficit)</b>		<b>\$767,586</b>

### 3.2 Policy Decisions

The final question for the Capital Region is a practical one. Given the recommendations and strategies and options presented in this Regional Transit Study, how should the region proceed? CRTPA, StarMetro, and the region's local elected officials face a number of key policy decisions in the coming months and years.

- **What existing and/or new funding sources are available?** The proposed transit improvements will require dedicated funding to operate and maintain the new services. Additional funding will be required to pay for the planning, engineering, construction of the premium transit services. Existing and new funding sources will need to be identified to fund these improvements.
- **Will the region pursue near-term bus improvements?** The proposed local bus, express bus, and park-and-ride/transfer improvements will improve transit options for commuters and begin to raise the profile of transit in the region. But these improvements cannot be undertaken using existing funding sources. The three policy options are: fund the improvements with a local option gas tax (LOGT); fund the improvements with a different funding source (such as general funds); or defer the improvements.
- **Is an *ad hoc* coordinating committee needed?** As express bus services and cross-jurisdictional services are implemented in the region, greater coordination among the local governments may be needed. A decision should be made about creating a committee (under the umbrella of the CRTPA or another regional body) where regional bus service planning issues can be formally raised and addressed.

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- **Should the region begin to pursue enabling legislation for a Regional Transit Authority (RTA)?** If the answer is yes, this pursuit will need to include legislative efforts and formal exploration of options for organization, governing board composition, functional responsibilities, and legal requirements. It also will have to include extensive citizen and business community outreach in the form of town hall meetings, opinion polling, public relations and media efforts.
- **Should the designation of a regional CTC (TD service provider) be pursued?** If the regional stakeholders believe that the potential gains to riders will outweigh the potential costs, then this designation should be explored at the State level with the Commission for the Transportation Disadvantaged (CTD). This would need to be examined in greater detail to determine if regionalizing the TD service would create additional costs or potential savings due to the potential consolidation of functions of the individual CTC's.
- **Can the region begin a feasibility study and/or alternatives analysis (AA) for any of the proposed premium transit investments?** The lead time on major transit capital projects can stretch many years from project conception to the first shovel actually going in the ground. If the Capital Region is serious about pursuing a streetcar or a major BRT corridor in the mid-term timeframe, these studies need to begin in earnest now.
- **How will the region pay for the proposed transit improvements?** All new transit services will require dedicated funding from identified sources. LOGT funds are recommended to support the proposed capital and operating expenses of the transit improvements in the near-term. If the Capital Region is to successfully pursue a streetcar or major BRT corridor, dedicated funding will absolutely be needed. A dedicated sales tax is by no means a perfect funding source, but it has many positive qualities. Yet it would be very difficult to implement a true regionwide dedicated sales tax given the current statutory and political environment. The region's stakeholders need to achieve consensus on whether to begin the difficult work of changing that environment.



February 2010

# REGIONAL TRANSIT STUDY



## Technical Memorandum #6 Development Review Guidelines and Design Standards

*Prepared for:*  
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**CAPITAL REGION TRANSPORTATION PLANNING AGENCY  
REGIONAL TRANSIT STUDY**

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Development Review Guidelines and Design  
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***February 2010***



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## **1.0 Introduction**

The Capital Region has experienced significant growth over the past twenty years. Much of the new growth, both residential and employment has occurred outside the urban core (e.g., Capital Circle, Apalachee Parkway, Thomasville Road, etc.). Trip patterns, which once were largely radially focused on downtown Tallahassee, are becoming increasingly dispersed. To exacerbate the dispersion of development and travel patterns, most new developments, particularly those that occur in suburban and semi-rural fringe areas, have not always been well coordinated with other land use and transportation plans. It is becoming increasingly difficult for public transit to offer a viable alternative to the private automobile in this changing environment.

In reviewing comprehensive plans, land development codes and review guidelines within the state, it often becomes clear that current zoning regulations actually discourage preferred compact development patterns and vibrant activity centers as envisioned in the local government's Future Land Use, Transportation and Vision Plans. However, there are a number of innovative development standards developed and utilized within the state that can be used as a foundation for a comprehensive approach to transit related development review guideline and design standards. The purpose of this task is to support CRTPA and its planning partners in the Capital Region by preparing transit-related development review guidelines that will enable StarMetro, CRTPA and other agencies to review new development projects from the perspective of how the developments can better accommodate alternative modes of transportation. In addition, a parallel purpose is to develop recommended development design standards that will encourage new developments to incorporate pedestrian and transit-friendly design features.

Specifically, the goal of this assignment is to prepare land use standards that will encourage and facilitate high-value development in multi-modal corridors and urban/suburban mixed-use activity centers in appropriate locations in the region. These standards should cover elements such as appropriate density, use diversity, urban design, multi-modal transportation, open space and parks, and conservation.

This assignment will be carried out in three steps. The first is production of this Existing Conditions Diagnosis that presents an assessment of the extent to which current city and county comprehensive plans and land use regulations encourage and facilitate multi-modal centers, urban/suburban activity centers and transit friendly development in appropriate locations. Step two is to draft transit related development review guidelines for city and county staffs to utilize when reviewing Developments of Regional Impact (DRI) or large scale Planned Developments (PD). Finally, step three is to draft development design standards to be utilized by both the private and public sectors in the development process.





## **2.0 Existing Conditions Diagnosis**

In order to review the comprehensive plans and land use regulations, a list of key issues related to successful transit related activity centers and development was compiled. These include:

1. Density
2. Location and size
3. Uses (type, mix, diversity)
4. Dimensional standards (e.g., height, setbacks, lot width, maximum coverage)
5. Design and development standards (e.g., parking, landscaping, open space, mobility, building design)
6. Administration/development review

### **2.1 Key Elements for Mixed-Use Transit Related Development**

The following paragraphs address each topic as it relates to mixed-use transit related activity centers, as well as provide a discussion of the preferred policy direction (e.g., encourage compact, higher density development in mixed-use centers) to encourage and facilitate major multi-modal mixed-use activity centers. This is followed by a review of each county's (and major city if available) comprehensive plan and land development code.

#### **2.1.1 Density/Intensity**

A key element to the success of mixed-use activity centers is sufficient intensity of commercial development and density of residential development. Adequate intensity/density supports transit and the wide variety of uses enables a vibrant urban experience. Compact, higher density development can help reduce sprawl and protect sensitive natural areas and open space. It is common for development codes to purport to have urban level of development. However, in response to of citizen opposition to denser developments, the development has suburban residential density. Since developers build to density less than allowed under zoning regulations and cater to market forces for lower density, suburban residential development patterns also cause the lack of sufficient density/intensity in mixed-use centers.

Major mixed-use activity centers that are successful typically include minimum residential densities of 15 dwelling units per acre at their core. In order to support transit, higher densities exceeding 30 units per acre are usually recommended. Often, local regulations establish minimum densities to ensure that developments are of urban scale. Of course, more intense urban activity centers have developments that are six to eight stories and with core lot coverage approaching 100 percent.

Figure 1: Example of High-Density Mixed-Use Activity Center



**Preliminary Recommendations:** A review of comprehensive plan and other policy documents make clear that the region's governments must permit and require higher densities and intensity of development than has been allowed or achieved in existing suburban activity centers. Minimum urban activity center densities of 15 units/net developable acre and 30 units near transit stations should be considered, as should minimum FARs of 0.3 overall and 0.6 to 1.0 near transit stations. Suburban activity centers should have a minimum density of 8 du/acre and up to 16 in transit station areas. As an alternative, a minimum density of 7 units per acre for all transit-oriented districts and a system of density bonuses for developers who transfer density from greenbelts and low-density residential areas to the center of a mixed-use activity center or near a transit stop can also be utilized. In more urban development sites in the region, the local governments should consider allowing densities for multi-family residential developments in major mixed-use activity centers as high as 100 du/acre, particularly close to transit stops, with a minimum density no lower than 15 du/acre. With regard to commercial projects (including offices), a maximum FAR of 3.0 with a minimum of at least 0.4 increasing to at least 1.0 in a transit station area is recommended.

### 2.1.2 Location

Mixed-use activity centers require superior access and quality links to the transportation network. These centers should be located on or very near to major arterials or limited access highways, and/or on an existing or planned transit route or near a planned transit station. Centers should be designed to encourage and accommodate linkage with the regional transit system. A major guiding principle is the creation of an interconnected multi-modal transportation system with multi-modal stations.

**Preliminary Recommendation:** Major urban activity centers should be required to locate at the intersection of two major arterials, along the region's planned transit system, near a multi-modal station, and/or in close proximity to limited access freeways and interstate highways.

### 2.1.3 Size

The size (acreage) of the activity center is a key issue. If it is too small in area, the necessary level of development to create a lively mixed-use community may not occur. However, if the activity center is allowed to cover too large an expanse of land, the critical mass required for a successful center may not occur. The size of individual buildings is another key issue. Most communities attempt to limit the size of commercial buildings in mixed-use areas so that they are not dominated by big-box stores and their associated parking and auto-oriented characteristics.

Research undertaken by others regarding the size of major mixed-use activity centers located in suburban locations indicates that the most successful activity centers range in size from 50 to 250 acres. Centers in excess of 250 acres have been found to struggle to create any type of critical mass among uses. Regarding the issue of appropriate size of individual buildings, it has been found that limiting the size of commercial establishments by limited building size or restricting the overall size of blocks, especially in the core of the activity center, is important.

**Preliminary Recommendation:** Depending upon the location within the region, the recommended minimum/maximum site size limit for major mixed-use activity centers is from 120 to 250 acres. Regarding individual use size for retail establishments, a 20,000 square foot limit for the core of any activity center is recommended. Retail businesses greater than that size generally would not be in keeping with a compact mixed-use activity center as they reduce street activity and require large surface parking lots.

### 2.1.4 Uses (type/mix)

A mixed-use activity center should have a mix of use types (residential, commercial, office, lodging, institutional, etc.) that serves the needs of visitors, employees, and residents. Local land development codes and development orders accomplish this by specifying a preferred mix of uses in terms of maximum or minimum percentages of various use types. Some jurisdictions also address the timing of when each type of use is developed.

Most mixed-use districts allow a wide range of uses. Modern uses lists usually are relatively short and attempt to consolidate long lists of permitted uses into broad categories that are carefully defined. Most jurisdictions have broad, but carefully defined lists of permitted uses in their codes, but also have a list of uses that are undesirable and prohibited. For example, mixed-use district use lists often prohibit certain uses (such as drive-through facilities) that may encourage more auto traffic within the core of the district or that may make creation of a compact center more difficult.

Figure 2: Example of Mixed-Use Activity Center



The location of use is also very important. Many jurisdictions' codes restrict ground floor residential and office uses in mixed-use activity centers, preferring instead that such space be occupied by retail uses. In addition, jurisdictions are requiring a variety of housing types in mixed-use activity center, including multi-family buildings with a range of bedrooms and unit sizes, town homes, and very small lot single-family dwellings. The theory and practice has shown that a range of dwelling types and sizes can contribute to a lively and diverse community with a range of incomes and household sizes.

**Preliminary Recommendations:** The following bullets summarize the preliminary recommendations for the use category.

- Mix of uses. As national experience shows that detailed mandatory mix of uses can actually retard developers from embracing the mixed-use concepts, local jurisdictions should be more flexible to encourage mixed-use development. Thus, requiring that 3 principal uses types be represented in any activity center development with fairly wide minimum/maximum ranges (e.g., 10-80%) appears to be more appropriate for the Capital region area. The requisite mix of uses should be required in each major phase of a mixed-use activity center. Local jurisdictions may also wish to consider creating an incentive system for density and intensity to achieve a better use mix.
- Use lists. Use lists should be consolidated by grouping similar uses in a few major categories (e.g., residential, retail, office, etc.) accompanied by clear definitions with specific examples of uses that qualify and those that are prohibited.

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- Retail location. Local jurisdictions should require first floor commercial or retail in the core of the mixed-use activity center. It should also consider requiring that parking structures have their first floor wrapped with commercial uses.
- Housing variety. With regard to housing variety, mixed-use developments that have experienced success have a mix of townhomes and multi-family buildings. Local jurisdiction's should also require that the multi-family buildings have units of different size (e.g., 1, 2, and 3 bedrooms), which brings for-sale and rental units to the market at different price points.

### 2.1.5 Dimensional Standards (height, setbacks, lot coverage, etc.)

The dimensional standards found in most zoning codes often restrict the compact, urban-scale mixed-use development and success of urban and suburban activity centers. Standard dimensional regulations contained in the zoning ordinances are geared mainly for expansive greenfield suburban development. Examples include overly restrictive height limits (typically 36 feet or 3 stories), unrealistic setbacks for commercial/office uses (25+ feet) and strict lot coverage limitations. More urban standards for activity centers and infill development such as maximum setbacks (e.g., either no setback from the sidewalk is allowed or only a modest setback of up to ten feet) and much more liberal height limitations are found in more progressive land development and zoning codes.

**Preliminary Recommendations.** Best practices nationally for mixed-use development recommend the following:

- Setbacks. Setbacks for all uses within the mixed-use activity center should be reduced to 10 feet, thus permitting buildings to be built up to the sidewalk. Slightly deeper setbacks might be appropriate for multifamily located on arterial streets. In addition, "build-to" lines should be specified that define maximum setbacks for street classifications.
- Height. The height limits in most zoning ordinances are prescribed at 35 feet, particularly if a development is located near a residential neighborhood, which is too short for a successful large mixed-use activity center. Local jurisdictions should consider a base height limit of 90 feet with the potential of taller buildings if the developer secures development rights from open space/conservation areas. However, a wider range of transitional standards will be required to protect existing single-family neighborhoods near new activity centers.
- Lot Coverage. Realistic urban lot coverage limits of 100% for commercial uses in the core of mixed-use activity centers should be considered. Multi-family residential developments should have stricter lot coverage. However, multi-family lot coverage of up to 75% and possibly more in the densest core areas should be considered.

### 2.1.6 Design/Development Standards

This category covers a wide range of development elements including mobility, parking, landscaping, natural resource protection, and open space. Traditional development standards related to topics such as parking and landscaping can create significant obstacles to urban mixed-use activity centers. Even with innovative design and development standards that



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promote mixed-use development in a positive way, many codes have more standard regulations for lower density suburban development that contradicts or undermine mixed-use activity centers.

**Preliminary Recommendations:** The following bullets summarize the preliminary recommendations for the development standard category.

- Mobility/Pedestrian Scale. The mobility/pedestrian system related regulations for major mixed-use activity centers should contain strong language requiring integrated, unified projects built at a pedestrian scale and with strong pedestrian and vehicle connections between parcels, an interconnected bicycle/pedestrian system and limits to block sizes to enhance walking.
- Parking. Most zoning code's parking regulations are traditional and geared primarily for suburban greenfield developments. Thus, parking requirements are high and no credit is allowed for mixed-use development or proximity to a transit line. Parking regulations should be geared to limiting parking to reflect the desired pedestrian nature and compact configuration of the centers. Regulations should cover the following subjects: parking reductions to reflect reduced demand due to mixed-use and transit development; credit for nearby on-street parking and innovative programs that reduce parking demand; maximum parking limits; maximum street frontage for parking lots; shared and joint parking arrangements; incentives to promote structured parking and design standards for parking structures; location of parking away from the street or transit stops; and reduced buffers and use of ornamental metal fencing instead of landscaping.
- Landscaping/Streetscape/Vegetation Protection. Landscaping regulations more appropriate for a major mixed-use activity center should be considered for the local land development and zoning codes. Thus, suburban features such as berms should be prohibited and the use of attractive screening structures encouraged as a substitute for perimeter parking lot landscaping requirements as well as the use of some hardscape. Regarding tree and vegetation protection, incentives should be created to integrate existing healthy vegetation and trees into landscaping plans. Although large trees should also be afforded special protection, the standards need to recognize that mitigation (e.g., caliper/caliper replacement elsewhere on the site) may be a necessary option in an urban activity center development setting.
- Buffers/Transitional Standards. Traditional buffers push developments apart and chew up valuable developable land. The mixed-use activity center regulations should encourage the use of attractive walls and fencing supplemented with landscaping for buffers. In addition, urban transitional standards that utilize a variety of techniques to ensure compatibility in a more compact urban settings, including building stepdowns, controls on the location of balconies and building orientation, use of similar building forms, and use of small green spaces, plazas, and squares.
- Building. Local jurisdictions should encourage high-quality environment and compact development pattern through adoption of urban design standards. These mixed-use activity center standards should include sections on architectural elements, façade standards, and similar issues.

- Natural Features/Environment. Obviously, paramount in this category is protection of natural resources, wildlife habitat, and the environment. Some local jurisdictions require property owners to acquire land or development rights outside their proposed development area to offset the impact of their projects. Any standards included in the activity center regulations should be carefully coordinated with other environmental protection standards so as not to create conflicts or overlaps that may unduly complicate mixed-use development.
- Open Space/Recreation. Development of mixed-use activity centers is often restricted by open space standards that are geared towards less intensive suburban development. Open-space set-aside percentages make a compact development pattern very difficult to achieve and do not recognize that open space in a more intense urban environment might take different forms such as plazas, public squares, recreation centers, and similar facilities. Similarly, restrictions in zoning ordinances regarding recreation areas have the same impact. Mixed-use activity center standards should offer a new approach to open space that better reflects the goal of creating compact developments and a more intensive level of development. Developments should not be exempt from open space regulations, but should be provided a menu of alternatives rather than setting aside a percentage of open space on a site. These menus can include, but not be limited to landscaped mini-parks and greens, public plazas and patios, urban gardens, outdoor public art, indoor recreation centers, amenitized storm water detention facilities, and similar features.

**Figure 3: Example of Open Space within Mixed-Use Development**



- Fencing/Walls. In mixed-use activity centers, requirements for fencing or walls between multi-family residential and commercial development should be removed. In addition, tall fencing should not be allowed in front and side yards and permitted only to screen loading and service areas with only limited exceptions. Shorter, attractive fences and walls can

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supplement to landscaped buffers, particularly around parking lots and between commercial and residential uses such as town houses.

- Streets/Blocks. A key aspect of a successful mixed-use activity center is the street network. A well-designed street network can define block edges and thus create a human-scale development pattern, create continuous pedestrian connections, and integrate pedestrian travel with other modes of transportation. A number of communities are adopting special street sections for mixed-use activity centers that permit narrow widths, smaller building setbacks, and on-street parking. It is important to coordinate street standards with transit standards relating to location of transit rights-of-way, and passenger amenities. The public works and engineering departments of local governments must also allow flexibility on issues such as pavement and lane width, turning radii, tree lawns, bike lanes, block length, and other key elements.
- Transit Station Area Design. This category includes urban design guidelines for transit station areas that provide transit supportive density and development mix requirements as well as urban design provisions addressing street networks, building massing and location, open space layouts and locations, and parking layouts and locations. In addition, standards should be included that address the maximum distance of a transit station area from the center of a mixed-use activity center, pedestrian shelters, right-of-way reservation, and similar issues.
- Signs. Signage in activity center core areas is typically limited to wall signs or projecting building signs; freestanding signs are limited.
- Sustainability Provisions. In developing activity center regulations to support transit, the Capital region has the opportunity to integrate provisions that address issues such as climate change (e.g., green and cool roofs), and energy production (solar orientation and wind power).

### 2.1.7 Administration/Development Review

As mixed-use activity centers typically face a host of challenges and hurdles ranging from market resistance to additional development standards beyond that applicable to traditional projects, the respective local jurisdictions should consider some special administrative provisions to make the development review process more expeditious and efficient.

## 2.2 Local Review

The purpose of this section of the diagnosis is to summarize a brief review of the Capital Region's local comprehensive plans (Future Land Use and Transportation Elements) and Land Development Codes/zoning ordinances. This review was conducted for both the counties and the major city within the county, where available. This review is presented in alphabetical order. It should be noted that, with the exception of Tallahassee/Leon County, the Comprehensive Plans and corresponding Land Development Codes reviewed have not been updated based on the current Evaluation and Appraisal Reports (EAR), so the plans and codes reviewed are several years old. In addition, it should be noted that several of these local jurisdictions have little or no existing transit service and are primarily rural in nature; thus it is logical that they do not have mixed use activity center or transit friendly policies and



implementing language in the respective documents. Furthermore, some of these areas may not have transit in the future, and may not need the aforementioned policies and implementing language.

### **2.2.1 Gadsden County**

The Gadsden County Future Land Use Element has policy language that contemplates and sets the stage for mixed use activity centers and transit friendly development. For example, FLU Policy 1.10.1 has language that allows higher densities and intensities in the Urban Service Areas to discourage urban sprawl, and FLU Policy 1.10.3 directs future land use at appropriate densities and intensities to control strip, leapfrog and scattered development patterns. Furthermore, FLU Policy 1.10.2 states *“The County shall encourage the use of innovative land use development techniques such as clustering, transfer of development rights, and mixed use. The type and character of such innovative land development techniques shall be consistent with and further the intent of the Future Land Use Element.”* However, the Land Development Code currently does not have any significant implementing language regarding clustering, transfer of development rights or mixed use. A review of the Traffic Circulation Element indicated that mixed use and transit friendly practices and principles have not been addressed, to date.

#### ***Quincy, Florida***

A review of the Quincy Zoning Ordinance and Comprehensive Plan indicates no policy or implementing language that supports mixed-use activity center or transit friendly development.

### **2.2.2 Jefferson County**

While the Jefferson County Future Land Use Element does not have policy language that supports mixed-use activity and transit friendly development, the Traffic Circulation Element has an objective with several policies that can be interpreted as supportive of multi-modal transportation, particularly bicycle and pedestrian travel. Objective 4 states, “Provisions shall be adopted in the LDC which ensure safe and adequate movement of pedestrians and bicyclists.” The ensuing policies (4-1 through 4-4) outline requirements for bicycle and pedestrians circulation as part of highway management and roadway improvements; provision of pedestrian and bicycle facilities oriented to the establishment of networks along roadways between residential centers and schools, employment and retail commercial areas, and recreation and other public facilities; and reviewing development in its accommodation of bicycle and pedestrian needs.

With regard to the Land Development Code, the transit friendly focus is on parking. For example, parking can be deferred if public transportation is available; if alternative access is available such as public or private car/van pools; if parking must be paid for; if subscription bus service is provided; if flexible work hour scheduling is required; if the developer provides capital funding for transit; if a ridesharing program is instituted; if the development has a ridesharing/transportation coordinator; if bicycle facilities are provided; or if Transportation Systems and Demand Management techniques are implemented.

#### ***Monticello, Florida***

A review of the Monticello Comprehensive Plan indicates no policy language that supports mixed-use activity center or transit friendly development. However, the Land Development Code has a best development practices list (Sec.54-72) that can be considered “transit friendly.”

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There are best practices for land use, transportation, environmental and housing. Unfortunately, as indicated in this section, strict adherence is not required.

The land use practices include such items as the reduction of vehicle miles of travel and strip development by encouraging mixed-use development; the mention of jobs to housing balance; the encouragement of a mixture of land uses; the placement of higher density housing near commercial centers and parks; the development of neighborhoods with well-defined edges and centers; concentration commercial development in compact centers or districts; minimizing the impact of auto-oriented land use and incorporating pedestrian linkages by clearly establishing pedestrian walkways and bikeways.

Transportation practices include designing the street network with multiple connections and relatively direct routes; keeping all streets as narrow as possible; aligning streets to give buildings energy-efficient orientation; providing networks for pedestrians and bicyclists as good as the network for motorists; and providing pedestrians and bicyclists with shortcuts and alternatives to travel along high-volume streets.

### 2.2.3 Tallahassee-Leon County

The Tallahassee-Leon County Comprehensive Plan and Land Development Codes were reviewed. The following paragraphs present the results of that review.

**Figure 4: Downtown Tallahassee**



#### ***Comprehensive Plan***

The Tallahassee-Leon County Comprehensive Plan Future Land Use and Transportation Elements have many policy sections that address mixed-use activity centers or can be considered transit friendly. Several of the more relevant Future Land Use policies are summarized below.

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- **Policy 1.4.21:** The intent of this policy is to require land development regulations to promote the infill of vacant land and the redevelopment of non-residential areas. This policy provides for the relaxation of parking, landscape, and buffering standards to encourage a wider variety of uses and greater range of economic development, allowing important housing opportunities in close proximity to the downtown area, the universities, and employment centers. Utilization of the Urban Planned Unit Development zoning district allows for the establishment of Live-work units with access to any (functional) classification of street.
- **Policy 1.7.7:** The intent of this policy is to establish Urban Pedestrian Centers which are intended to encourage compact, linear and pedestrian scale urban development along arterial roadways that provide a wide range of uses and activities to serve both the corridor itself and surrounding areas with higher densities and floor area ratios. The arterial roadway in the Center is characterized by relatively high volume traffic with lower traffic speeds, served by mass transit, with pedestrian activity.
- **Policy 2.2.10:** This policy is for downtown. It is intended to develop that area into an urban activity center providing shopping, entertainment, adequate parking and close in, with pedestrian mobility integrated into a linear park and open space system planned to interconnect downtown. Residential development may be permitted up to 150 units per acre.
- **Policy 10.1.3:** This policy establishes transportation guidelines for the Southeast Sector. Among the more relevant guidelines are promoting alternatives to single-occupancy vehicle travel and to capture internal trips; designing commercial, office, employment and higher-density residential areas to be pedestrian and bicycle friendly; and placing focus on alternative transportation modes.
- **Policy 13.1.4:** This policy focuses on the Toe and Heel section of Leon County, again, focusing on development design to capture internal trips, promotion of alternatives to single-occupancy vehicle travel and the support of a mixed-use development pattern. The transportation network in the area should encourage walkability and pedestrian accessibility, provide a road network with connectivity onsite and encourage transit and other modes of transportation. It requires that all land uses provide for alternative modes of transportation, with connections to the transit hub and bus shelters. In addition, there are pedestrian and bicycle requirements, as well as requirements for Transportation Demand Management (TDM) strategies, as appropriate, to reduce single-occupancy vehicle trips. Such strategies may include, but are not limited to, alternative work schedules, transportation allowances (car pool and van pool programs), guaranteed ride home programs, telecommuting, transit supportive facilities (bus stops, shelters, etc.), and additional bicycle and pedestrian facilities and equipment.
- **Policy LU 13.1.6:** This policy addresses General Design Standards for PUD development which will insure and guide mixed-use, integrated development that is pedestrian-friendly. Standards address sidewalk provision and location; parking requirements, location and on street parking; buildings orientation, design and setbacks; integrated parking management strategies designed to achieve more efficient utilization of parking resources, building heights; signage, and landscaping.

Several of the more relevant Transportation policies are summarized below:

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- **Policy 1.4.1:** This policy address roadway level of service, and is significant in that lower levels of service are allowable in the urban core, and in areas where the local government is encouraging PUD and activity center development. The policy also allows for developer contribution for public road capacity improvements, public road right-of-way acquisition, mass transit system implementation or facility improvements, or bike or pedestrian facility improvements
- **Policy 1.4.2:** This policy addresses the development of guidelines for granting an exception from the concurrency requirement for transportation facilities if the proposed development is otherwise consistent with the adopted Tallahassee-Leon County Comprehensive Plan and is a project that promotes public transportation or is located within an area designated in the Comprehensive Plan for: urban infill development, urban redevelopment or downtown revitalization.
- **Policy 1.6.1:** This policy emphasizes land use densities and arrangements which support reduced travel demand and shorter trip lengths by promoting neighborhood parks to reduce the need for long distance transportation to recreation; encouraging mixed-use development (with sufficient amenities) including the location of offices within sites to reduce auto trips, increase ride sharing, and encourage mass transit use; and developing and promoting the central business district as an 18-hour activity center, by providing housing, restaurants, and cultural activities to encourage use beyond working hours.
- **Policy 1.6.2:** This policy promotes the development of pedestrian scale mixed use neighborhoods that incorporate residential, retail, employment and recreational opportunities on site and that minimize the volume of external vehicular trips by incorporating internal pedestrian and bicycle features and by locating within 1/4 mile of a mass transit route. It also provides for incentives in the form of reduced street standards, reduced parking standards for retail and commercial and higher residential densities for projects which incorporate features to encourage walking and bicycle usage.
- **Policy 1.6.3:** This policy addresses land development regulations requiring vehicular, pedestrian, and bicycle interconnections between adjacent, compatible development.
- **Policy 1.6.9:** This policy requires that all development plans contribute to developing a local and collector street and unified circulation system that will allow multimodal access to and from the proposed development, as well as access to surrounding developments.
- **Policy 1.6.11:** This policy addresses the creation of a Multimodal Transportation District which comprises Downtown, Midtown, Florida State University, Florida A & M University, including areas designated for University Transition.
- **Policy 1.6.12:** By December 1, 2010, the City and County shall develop a coordinated transportation/land use vision based on a regional concept. This vision will consider more sustainable practices such as denser development along the arterials and collectors, with concentrations around major intersections where transit facilities can be located, greater interconnectivity between centers of activity, and implementation of the Bicycle and Pedestrian Master Plan, Greenways Master Plan, and Transit Development

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Plan priorities. Also, conceptual guidelines shall be provided for how these concepts can be incorporated into future Urban Service Area expansions.

- **Policy 1.7.1:** This addresses the establishment of a Transportation Management Association composed of the major employers in Leon County which will meet on a regular basis to discuss programs and adopt policies for traffic reduction during peak hours. The policy also addresses the establishment of a ridesharing program designed to match motorists with similar origin and destination commuter trips.
- **Policy 1.8.1:** This policy addresses the Tallahassee-Leon County Bikeway Plan and existing and proposed routes. It states that funding for bikeway and sidewalk projects will be included as an incidental cost of roadway multi-laning and upgrading projects and designated resurfacing projects. Additional funding sources will be identified on a continuous basis for construction of bikeway and sidewalk projects independent of other roadway upgradings.
- **Policy 1.8.2:** This policy requires the establishment and maintenance of a safe and effective system of bicycle lanes, bicycle paths, and sidewalks in conjunction with existing and planned roadways, the potential separation of bicycle and pedestrian traffic from vehicular traffic, bicycle access, and provision of adequate and secure bicycle parking facilities at major destinations.
- **Policy 1.8.7:** This policy requires that all City and County resurfacing projects be evaluated for the addition bicycle lanes or paved shoulders and transit shelters where they did not previously exist.
- **Goal 2:** This goal states that, because transportation levels of service and concurrency requirements can have the unintended impact of encouraging development in outlying locations where there is excess roadway capacity, Tallahassee and Leon County shall adopt mobility strategies which reduce these impacts, encourage infill and redevelopment at targeted locations, and promote alternatives to the use of the automobile, such as mass transit, bicycle, and pedestrian modes. The ensuing policy, 2.1.3, outlines aggressive multi-modal level of service standards and performance targets, including area wide levels of service of C for transit and E+50% for roadways, and modal splits of 40% for transit and 30% for bike/pedestrian. In addition, the policy has aggressive bicycle, transit and pedestrian mobility requirements. For example, for transit mobility such as 80% of transit routes must operate with 20 minute headways or less; 80% of employees and dwelling units must be served by routes operating at least 16 hours a day; 40% of transit stops include benches, signage, lights, and covered or enclosed waiting areas; and 80% of employees and dwelling units must be within 1 mile of a transit superstop
- **Policy 2.1.4:** This land use related policy provides for appropriate densities, intensities and mixture of land uses to support 18-hour activity and multimodal transportation, and has a list of targets regarding density and mix ratios.
- **Policy 2.1.6:** This policy addresses development regulations which require that buildings and blocks be oriented to provide pedestrians and bicyclists easy access and a visually interesting environment; easy access to/from transit stops and surrounding land uses; recognition of more intense densities and intensities around center(s); special design considerations to support compatibility between uses, particularly between residential

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and non-residential uses; creating active sidewalks with buildings opening onto streets; transparency (i.e., windows) and active uses at ground levels; parking generally located to the sides and rear, internal to blocks, and/or in structured or off-site facilities; maximum parking standards that discourage single-occupant vehicle commuting and reinforce non-auto modes; use of shared parking; and for multifamily developments, pricing of parking separately from the units;

- **Policy 2.1.7:** This policy addresses multimodal street cross-sections, design standards, and operational measures (e.g. pre-emptive signals, dedicated bus lanes, etc.) established to ensure streets are safe, convenient and appealing for all modes of travel, including transit, automobiles, trucks, bicycles and pedestrians
- **Policy 2.1.10:** This policy requires the activity center and transit oriented development districts to be well-connected via transit to major trip generators and attractors, requires transit stops and waiting areas to be safe and comfortable, and requires that intermodal connections be made where feasible.
- **Policy 2.1.12:** This policy requires new developments or redevelopment projects to contribute to providing a safe, convenient, comfortable and aesthetically pleasing transportation environment that promotes walking, cycling, and transit use. Appropriate improvements or enhancements to the multimodal network may be required as a condition of development approval, such as, but not limited to, the following: full accommodations for pedestrian access and movement, including shaded sidewalks, benches and enhanced crossings; full accommodations for bicycles, including lockers, showers, and racks; direct connections between the district and the regional bicycle/pedestrian network; installation of shared use paths in accordance with the FDOT Bicycle Facilities Planning and Design Guidelines Handbook; well-designed accommodations for transfer of passengers at designated transit facilities; preferential parking for rideshare participants; well designed access for motor vehicle passenger drop-offs and pick-ups at designated transit facilities and at commercial and office development sites; full accommodation for the mobility impaired, including parking spaces, sidewalks and ramps for handicapped access; and weather protection at transit stops.

Finally there are several Transit specific policies in the Transportation Element. The overall goal is to develop and improve the mass transit system so that it becomes an alternative to the automobile as a means of transportation, with the objective of expanding the integration of mass transit planning into the overall transportation delivery system by coordination of the short-range transit operations plan, long range transit feasibility plan and 2015 Transportation Plan development. The policies mirror much of what have been outlined above, and address planning, operations, service provision, development design and funding.

### ***Land Development Code***

The Tallahassee-Leon County Land Development Code has many items that encourage mixed-use activity centers and transit oriented development. Several of these items are summarized below.

- **Sec. 10-167. High Intensity Urban Activity Center District.** As stated in the code, the purpose and intent of the high intensity urban activity center district is to establish an urban activity center providing for community wide or regional commercial activities



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located in proximity to multifamily housing and office employment centers. The high intensity urban activity center district promotes the efficiency of the transportation system through consolidation of trips and promotes synergy between the different allowable land uses. An integrated pedestrian and bicycle access system is to be provided to afford safe and accessible foot and bike travel between the land uses. The high intensity urban activity center district will also allow residential development of complimentary intensity of 16 to 45 dwelling units per acre.

- **Sec. 10-168. Central Urban District.** Central urban districts are intended to provide residential (one to 45 du/ac), employment (includes manufacturing), office and commercial activities; and encourage infill and intensive development of existing urban areas with readily available services and infrastructure. Land use intensity in the central urban districts is intended to be higher due to presence of requisite infrastructure and location to employment and activity centers. The central urban districts allow for bonus density or incentives for the creation of low and very low-income housing. This district maximizes opportunities for pedestrian and bicycle traffic, reducing the need for automobile dependency and the demand for parking.

This district has general guidelines which address building and entrance orientation, restrictions on blank walls, the requirement that parking structures have leasable area on ground floor, covered walkways and canopies, balconies, plazas, public art and water features. This district also has bonus credit for floor area ratios for mixed use, creative parking alternatives, pedestrian features, and public plaza and art. Only those properties with a floor area ratio of 3.0 are eligible for the bonus credit.

- **Sec. 10-289. Central Core Density/Intensity Bonus.** Bonus density or intensity is available in select zoning districts located within the Central Core area. In order to receive a bonus credit, the development plan must clearly address provision of the qualifying project enhancements, and the enhancements must be constructed before issuance of the certificate of occupancy for the principal use. The total land area is used in calculation of bonus eligibility.

Each of the enhancements are worth a five percent increase in density or intensity, up to a maximum of 35 percent in U-PUD or 25 percent in other districts. The enhancements include:

- Provision of mixed use with a mixture of at least two of the following: Medium- or high-density residential; retail trade; or, office activities.
- Provision of creative parking alternatives, such as shared parking, flex hours.
- Provision of pedestrian walks, plazas.
- Provision of fountains, sculptures or other public art works located external to the building and visible from public right-of-way.
- Provision of continuous sidewalk coverings in the form of awnings, canopies, arcades, colonnades, or verandahs.
- Provision of functional balconies on the second through fourth floors of a building.
- Provision of bay windows on the second through fourth floors of a building.

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- Provision of public outdoor space, e.g., plazas, miniparks.
  - Provision of semipublic outdoor space, e.g., courtyards, forecourts, or gardens accessible to the public for uses such as dining, including open building facades at street level.
  - Provision of atriums accessible to the public.
  - Provision of an integrated streetscape design, including trees and seating, along collector and arterial streets.
  - Provision of a front porch or stoop of no less than eight-foot depth along the entryway exterior wall of residential buildings.
  - Weather protected, and lighted mass transit stops, the design of which shall be approved during U-PUD review process.
- **Sec. 10-362. Bicycle Parking.** The Code has a requirement for the provision of bicycle spaces for development.
  - **Sec. 10-363. Parking Deferral.** The Code allows for the deferral of parking. In order to obtain a partial deferral by the parking standards committee, the developer and standards committee can agree that alternative programs such as the following be implemented: private and public car pools and van pools; charging for parking; Subscription bus services; flexible work-hour scheduling; capital improvement for transit services; ride sharing; or establishment of a transportation coordinator position to implement car pool, van pool, and transit programs.

The percentage of parking spaces sought to be deferred corresponds to the percentage of residents, employees, and customers who regularly walk, use bicycles and other non-motorized forms of transportation, or use mass transportation to come to the facility.

### *Community Code*

Tallahassee-Leon County is developing a Community Code the will include design standards that;

- improve urban design,
- promote in-town amenities and destinations,
- increase bicycle and pedestrian mobility, and
- support the parallel efforts of StarMetro.

The goal of the Community Code is to incorporate New Urbanism and form-based codes with design standards that include:

- Reduced building setbacks,
- On-street and rear parking,
- Multimodal streets with pedestrian, bicycle, and auto amenities,
- Tree-lined streets, and
- Wider sidewalks.

The Community Code design standards will promote a more compact development pattern to support mass transit. The Community Code is anticipated for adoption by the Planning and City Commissions in the April/May 2010 timeframe.



**2.2.4 Wakulla County**

Wakulla County's Future Land Use Element has an entire policy section (FLU 1.2.9) entitled "Sustainable Community." As described in the policy, "this mixed use designation promotes the creation of self-contained new communities in unincorporated Wakulla County. The designation provides for an integrated mix of land uses which address the social, environmental, economic, and infrastructure needs of the county into the next century. Distinguishable features of a Sustainable Community may include pedestrian and unpaved bicycle trails; public transit and alternative transportation modes; public open spaces; nature parks, conservation areas, environmental preserves and greenway linkages; facilities for public and higher education; police and fire protection services; building energy efficiency; crime prevention through environmental design (CPTED); affordable housing; and commercial and light industrial areas located in proximity to residential areas. The designation of Sustainable Community shall be applied by Wakulla County to further eight broad principles of sustainability: restoring key ecosystems; achieving a more clean, healthy environment; limiting urban sprawl; protecting wildlife and natural areas; protecting natural groundwater resources and aquifer recharge areas; advancing the efficient use of land and other resources; creating quality communities and jobs; and minimizing external traffic impacts and maximizing internal capture rates."

According to the policy, a Sustainable Community is a development that will not customarily be built-out within less than a ten (10) year planning time frame, during which long-term sustainable development patterns will be promoted, as outlined in best Development Practices (DCA, March 1997) and Pedestrian and Transit Friendly Designs (FDOT March 1996 as updated). A review of the permitted and prohibited uses indicates that the scope and scale of the anticipated sustainable communities is residential based, located at major crossroads. The maximum residential density is 10 units per acre and the maximum non-residential density is a Floor Area ratio of 0.5. The policy has a distribution of mix table, where minimum residential land use is 40% to a maximum of 48%. Open space is a minimum of 45%. In addition, the policy contains jobs to housing ratio of 1.5 jobs to 1 residential unit.

There is also a list of Special Development Standards for Sustainable Communities. Most notable is the potential for concurrency exceptions and the requirement that each development shall participate in the Transit/TDM plan required by Transportation Policy (TCE policy) 1.5., requiring the design to result in a minimum internal capture rate of 15% for trips, and making provisions for implementing Transit/TDM measures. As indicated in the policy, the Transit/TDM measures shall include, but not be limited to, provision of on-site park and ride facilities, implementation of measures identified in the Transit/TDM plan when developed, and incorporation of pedestrian and transit friendly design consideration. In addition, there is a requirement that each development be designed to incorporate an overall pedestrian/bikeway network that links open space, residential and non-residential development within the Sustainable Community, as well as connecting to other open space, and bike and pedestrian facilities off-site when feasible.

Policy 1.5 of the Traffic Circulation Element indicates that the County is to establish a Transit/Transportation Demand Management (TDM) program. The proposed Transit/TDM program is to consider: parking management provisions; mandatory display of transit and current ridesharing information; work hour adjustments such as compressed work weeks, staggered work hours and flexible work hours; facilitation of increase in non-automotive transit

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services and implementation of a shuttle service; establishment of a program to help coordinate ride sharing, transit information and use, flex time, telecommuting, and traffic condition reporting; County promotion of the use of non-automotive transit service through fare discounts; and required consideration of dedicated easements and improved pathways for use by bicyclists and pedestrians in all development plans in the Sustainable Community land use category.

With regard to the Land Development/Zoning Code, there is implementing language regarding sustainable communities that can be considered “transit-friendly.” Section 5-50, in part, outlines the intent for planned unit development (PUD) and sustainable community planned unit development (SC-PUD). Section 5-52 provides site development standards for the PUD and SC-PUD zoning districts. While the development density shall be consistent with the Comprehensive Plan, a Performance Factor Density Increase may be permitted based on the provision of significant employment, affordable housing or public/private partnership infrastructure facilities. The allowable density within the proposed SC-PUD is based on the entire site, consistent with the provisions of the Sustainable Community future land use designation. The density can be as high as 16 units per acre, but residential development cannot exceed 75% of the overall land area. Nonresidential development is still a maximum FAR of 0.5 unless a substantial amount of public open space has been set aside as Excess Open Space. Then, development may be permitted with a maximum FAR of 0.7. Combined commercial and light industrial use is limited to a maximum of thirty-five (35) percent of the total land area and overall nonresidential use is not to exceed fifty (50) percent of the total land area.

### ***St. Mark's, Florida***

A review of the St. Mark's Zoning Ordinance and Comprehensive Plan indicates no policy or implementing language that supports mixed-use activity center or transit friendly development.

### 3.0 Transit-Related Development Review Guidelines

A sustainable region offers its residents a broad range of choices in employment, housing, and life style and accommodates different types of homes, neighborhoods, employment, recreational activities, transportation, and social interactions in order to enhance its citizens' quality of life. As can be seen in the previous *Existing Conditions Diagnostic*, many local governments in the Capital Region have the building blocks for transit friendly and compact mixed-use communities with employment, entertainment, health care, shopping, and housing -- all within walking distance of each other. The Capital Region's transportation system must serve these communities by balancing the needs of transit, automobiles, bicycles, and pedestrians. Transit can connect places best where there are walkable, mixed-use nodes with park and ride facilities and connecting regional and local buses. When walking, bicycling, and transit are considered viable transportation options, the result is fewer vehicle trips, less traffic congestion, improved air quality and improved quality of life.

Two basic types of incentives are available to government bodies to create transit-friendly communities: public investment incentives and public policy incentives. Local governments can create strong incentives for private sector investment by improving their development approval processes and creating legally adopted plans that align community needs with private and public sector capabilities. As a start, the objectives and policies of the respective Comprehensive Plans must contain language that encourages transit-oriented, and where appropriate, mixed use activity center development. These strategies include planning, zoning, and development techniques that encourage activity center development, compact urban growth, and transit-oriented development. During the upcoming EAR-based Comprehensive Plan updates, additional specificity should be added to both the Future Land Use and Transportation Elements, as well as to the Land Development and Zoning Codes.

**Figure 5: Example of Transit-Oriented Development**



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Public investment incentives are, perhaps, the most valuable tool local governments have to shape the form of land use in their community. Much of how the Capital Region looks and works has been formed by public investment decisions in infrastructure, some of which encouraged sprawl while other decisions encouraged focused development. How and where a government invests its resources in infrastructure (schools, parks, sewers, roads, etc.) informs future private development. Up to this point in time, the Capital Region has, for the most part, invested solely in the roadway network. With the advent of the *Regional Transit Study*, which will recommend a staged implementation of the regional transit system, the Capital Region will hopefully begin to invest in infrastructure that will help to create transit friendly communities. Land-use patterns clearly drive the need for transportation services and investments. Consequently, integrating land-use choices with transportation investment choices is the best approach to addressing the Capital Region's challenges and to promoting healthy, sustainable economic development and quality communities.

This section addresses the first type of public incentive mentioned above, public policy. Even without the appropriate land development regulations, local governments can interpret current zoning regulations and codes creatively, steering the respective development proposals to a more transit and pedestrian friendly design.

### 3.1 Basis for Planning

The development of these review guidelines followed five broad goals. These guiding principles include:

- To encourage mixed uses in appropriate locations that support walking between uses and decreases dependency on the automobile.
- To encourage efficient and effective site design which accommodates pedestrian and transit activity.
- To assist in accommodating different types of homes, neighborhoods, employment, recreational activities, and interactions in order to enhance its citizens' quality of life, and to encourage quality development that balances the needs of transit, automobiles, bicycles, and pedestrians.
- To assist in facilitating a balanced multi-modal transportation system that encourages increased mobility options, and provides for energy efficient transportation alternatives while minimizing environmental impacts.
- To assist in creating a safe, accessible, convenient, and efficient transportation system for residents, employees and visitors, in coordination with the needs of land use activities, population densities, housing and employment patterns.

Transit service, interconnected streets, direct and safe pedestrian and bicycle routes are essential components of mobility. The positive effects of a better transportation system, as outlined in the final results of the *Regional Transit Study* are amplified when coupled with well-designed development at higher densities and intensities in appropriate locations. Development that incorporates neo-traditional, new urbanism, or mixed-use standards as a means to accommodate future growth and discourage auto-dependent mobility shall be supported by these development review guidelines and supporting design guidelines. By implementing transit/pedestrian friendly design and coordinating transportation investment with land use, local governments within the Capital Region are attempting to improve the

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quality of life of its citizens, employment base, and visitors. The benefits of this approach are many, and include:

- Provision of mobility choices, especially for the young, old, those without cars and the disabled.
- Increase in transit ridership, which assists in the provision of transportation system capacity.
- Reduction of Vehicle Miles of Travel (VMT), on a household basis by 20 to 40%.
- Increase in disposable household income, though the reduction of driving related costs.
- Reduction of air pollution and energy consumption rates.
- Protection of existing single-family neighborhoods by directing higher density development to appropriate areas.
- Economic development in declining areas and enhancing tax revenues for local jurisdictions.
- Contribution to more affordable housing.
- Reduction in infrastructure costs due to more compact and infill development.

In order to assist the local government review process, major developments should be required to submit a comprehensive transportation analysis. Unlike the traffic impact analysis of the past, these studies should cover all of the existing and future modes available to the proposed development. A comprehensive transportation should include, but not be limited to, the items outlined below. The transportation improvements identified as an outcome of these studies must be agreed upon by the development applicant and respective local government prior to development approval.

- On-site pedestrian circulation improvements, including connecting the public sidewalk to the primary building entrance and direct cross access connections to all adjacent parcels,
- Pedestrian access requirements, including extending the sidewalk network on all public streets within ¼ mile of the parcel,
- Bicycle parking requirements,
- Bicycle connections to adjacent parcels,
- Bicycle circulation from adjacent public streets and off-street bike trails to bicycle parking area,
- Connection of established transit stops to the sidewalk network,
- New transit shelters and transfer centers,
- Improvements to existing transit routes including increased service levels,
- Improvements to increase the capacity of the commuter rail system,
- New transit fixed routes,
- Transit circulator routes,
- New transit fixed facilities such as Light Rail Transit (LRT) and Bus Rapid Transit (BRT),
- Incorporation of established transit stops into the site's building placement and design,

- Bus stop amenities,
- Roadway widenings,
- Improvements to parallel facilities,
- Creation of parallel facilities,
- Intersection improvements,
- Traffic calming measures,
- Transportation System Management (TSM) improvements,
- Intelligent Transportation Systems (ITS) improvements, and
- Transportation Demand Management (TDM) techniques.

The following sections provide suggested development review guidelines for bicycle, pedestrian, vehicular and transit vehicle circulation, transit facilities, and building location and design.

### 3.2 Bicycle Circulation

With the proper land use planning and urban design, pedestrian and bicycle systems are alternative modes of travel to the personal vehicle that can serve to enhance overall mobility. In order to fully realize the potential of these systems as alternative transportation modes within urban areas, the appropriate mix of land uses must exist within a relatively close proximity, the infrastructure for utilizing these alternative modes must be in place and a viable interface between these alternative modes with other modes of travel, such as the personal vehicle and public transit, must be developed. The following bicycle related criteria are recommended in the review of development submittals.

- **Bicycle Lanes.** Bicycle lanes should be required on all major subdivision roadways, to be determined by the respective local government. Bicycle lanes are a portion of a roadway that have been designated for the preferential or exclusive use of the bicycle. It is important to note that sidewalks are not to be utilized as substitutes for bicycle lanes. Bicycle lanes shall be developed to discourage cyclists from using sidewalks to reduce bicycle related accidents. Bicycle routes should provide the most direct, safe and convenient service possible to encourage transit usage. The State of Florida Department of Transportation's Bicycle Facilities Planning and Design Manual shall be consulted when designing bicycle lanes.



Figure 6: Example of Bicycle Lanes



- Bicycle Paths.** In addition to bicycle lanes, the applicant should be required to establish bicycle paths in the development, where practical. Bicycle paths are facilities on exclusive rights-of-way with minimal cross flow by motor vehicles. Similar to highways for the automobile, bicycle paths are intended for the exclusive or preferential use of bicycles. Not to be confused with sidewalks, bicycle paths should not be immediately adjacent to streets and highways. The State of Florida Department of Transportation's Bicycle Facilities Planning and Design Manual shall be consulted when designing bicycle paths.
- Provide Adequate Bicycle Storage Facilities.** The development should be required to meet established minimum bicycle parking requirements. The provision of adequate bicycle parking facilities is dependent on understanding the number of bicyclists using particular land uses. Specific requirements should be developed with the local government's development community. The following is a list of suggested standards.

#### ***Entertainment and Recreation***

Theaters, Auditoriums, Sports Arenas	10 % of Vehicle Parking
Billiards/Pool Rooms	20 % of Vehicle Parking
Bowling Alleys	15 % of Vehicle Parking
Health Spas & Gymnasiums	25 % of Vehicle Parking
Swimming/Public and Private Clubs	25 % of Vehicle Parking

#### ***Service Uses***

Finance, Banks, Insurance	10 % of Vehicle Parking
Laundry Services	3 Spaces
Barber & Beauty	10 % of Vehicle Parking

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Repair Service	5 Spaces
Medical & Dental	5 % of Vehicle Parking
Hospital	5 % of Vehicle Parking

### *Educational Services*

Day Care Centers	1 per every 4 employees
Libraries	20 % of Vehicle Parking
Elementary Schools	100 % of Vehicle Parking
Middle Schools	50 % of Vehicle Parking
High Schools	50 % of Vehicle Parking
Trade, Vocational, Businesses	20 % of Vehicle Parking

### *Retail and Trade*

Food & Convenience	10 % of Vehicle Parking
Eating and Drinking Establishments	10 % of Vehicle Parking
Eating and Drinking w/o Seating	None
Neighborhood Shopping (<150,000 sq.ft).	10 % of Vehicle Parking

- **Provide Clear Bicycle Facility Signage.** The development applicant should provide adequate bicycle signage. Signs to properly indicate the beginning and end of bike routes and location of bicycle parking areas should identify bicycle facilities. When developing bicycle signage, specifications can be found in the Federal Highway Administration's Manual on Uniform Traffic Control Devices.
- **Adding Capacity to the Region's System.** Development should be encouraged to provide enhancements to the Capital Region's system of greenways, bike paths, and trails, which increases the system's utility for multi-modal transportation. Such enhancements may include, but not be limited to:
  1. Trail amenities such as benches, directional signage, or safety systems;
  2. Bicycle parking at entry points or connecting with transit lines;
  3. Land acquisition for expansion or better connectivity of the trail system;
  4. Additional entry points to the trail system;
  5. Bridges spanning creeks or wetland areas; and/or,
  6. Appropriate trail surfacing.

### 3.3 Pedestrian Circulation

Walking (the activity) and walkability (the quality of walking conditions, including safety, comfort and convenience) provides a variety of benefits to basic mobility. In order to be effective, the development should provide continuously linked walkways with shade trees, plantings, benches, transit stop shelters, and directions to places of interest where appropriate. The following pedestrian criteria are recommended in the review of development submittals.



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- **Connectivity.** In order to provide safe and convenient movement on the development site for all users, particularly pedestrians, any and all development or redevelopment should provide the following:
  - a. All subdivisions and development within the project should be linked together by pedestrian facilities. Linking subdivisions with pedestrian connections will facilitate movements that were once only possible by automobile.
  - b. Sidewalk connections from the development to existing and planned public sidewalk along the development frontage.
  - c. Deeding of land or conveyance of required easements along the property frontage to the respective local government, as needed, for the construction of public sidewalks, bus turn-out facilities and/or bus shelters. Such deeding or conveyance of required easements, or a portion of same, shall not be required if it would render the property unusable for development.
  - d. Provide safe and convenient on-site pedestrian circulation such as sidewalks and crosswalks connecting buildings and parking areas at the development site.

**Figure 7: Example of Pedestrian Circulation Treatments**



- **Provide Linkages For All Pedestrian Movements.** All individual developments should provide for pedestrian movement, especially in the activity center(s). Internal pedestrian circulation is a fundamental element of a “park once” environment, where individuals can comfortably walk between buildings and not consider using the automobile for trips other than for their arrival and departure.
- **Link Adjacent Land Uses.** The development should provide direct pedestrian linkages to neighboring land use without requiring the use of the street. Often, the only pedestrian connection to neighboring land uses is along the street, many times discouraging

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pedestrian activity. These additional connections will significantly shorten walking distances and encourage a pedestrian atmosphere.

- **Provide Pedestrian Access To Street.** The development should provide pedestrian access to the street. Providing multiple points of pedestrian access to the street will encourage pedestrian activity. Simple pedestrian "break-outs" through subdivision walls will increase resident mobility and transit accessibility.
- **Design Direct Pedestrian Routes.** Pedestrian routes in the development should be direct. Many times, pedestrian paths and connections are circuitous and indirect. Circuitous routes considerably lengthen the actual walking distances for pedestrians, discouraging pedestrian activity. Pedestrian paths should provide the most direct and convenient routes possible.
- **Curb Cuts.** Curb cut ramps should be utilized for the pedestrian network. Curb cut ramps are used to allow the elderly and handicapped access to the pedestrian network. These ramps should be comprehensively interwoven into the pedestrian network and provided at all intersections and pedestrian crossings. Ramps must, at a minimum, be 36 inches wide (excluding slope) and must not exceed a one-inch rise for every 12 inches of run (1:12 ratio). In areas where 48 inches is not available behind each curb-cut, both the ramp and flared sides must not exceed the 1:12 rise-to-run ratio.
- **Clearly Delineate Pedestrian Paths Through Parking Lots.** As part of the individual site design, the pedestrian paths should be clearly delineated. Most everyone walks through parking lots; automobile drivers, pedestrians, and transit riders all traverse an environment designed for cars. Clearly delineated paths through parking lots should be designed to safely accommodate pedestrian activity.
- **Buffer Sidewalk With Landscaping.** Design of the project should focus on the creation of a pleasant environment for the pedestrian. The streetscape can influence the number of individuals willing to walk. Wide-open areas with busy traffic passing close by should be avoided in the design. Pedestrians are drawn to streets with a feeling of safety and comfort. This feeling can be created by locating buildings close to the sidewalks, by lining trees along the street, or by buffering the sidewalk with landscaping.
- **Design Pedestrian Facilities For All Users.** Public sidewalks should be wide enough to accommodate the volume and type of pedestrian traffic expected in the area and should be provided on both sides of all urban area roadways. All sidewalks should be designed to have a minimum width of 5 feet (the minimum width that will allow two wheelchairs to pass one another). Sidewalks located on the street curbs should have a minimum width of 6 feet. Sidewalks and pedestrian facilities should be designed to cater to the needs of the disabled and elderly. Curbs and stairways can be formidable barriers to those in wheelchairs or for whom walking is difficult. The Americans with Disabilities Act (ADA) provides specifications to help overcome such barriers to mobility. Refer to the *ADA Handbook* for more details.

Figure 8: Example of ADA Pedestrian Treatments



- **Intersections.** Wherever possible, design features that cause cars to slow down when turning and reduce the amount of time a walker spends crossing traffic should be used to provide safe and convenient on-site pedestrian circulation at the development site.
- **Roadways.** Local governments should, where appropriate, require development to include pedestrian facilities on any new or reconstructed street in accordance with the *Florida Pedestrian Facilities Planning and Design Handbook*.

### 3.4 Vehicular Circulation

Vehicular circulation is a critical element to the success of any development from both an on-site and off-site standpoint. It is equally critical to the success of pedestrian and transit friendly projects. The following vehicular circulation criteria are recommended in the review of development submittals.

- **Interconnect Street System.** All development should provide street connections for vehicles in all major directions to and from a site. The development should also connect to anticipated neighboring development with street dedications or interim “stub-outs”. As development matures, street connections will evolve into a complete street system, providing a high level of mobility. The mobility provided by a completed street system offers the opportunity to eventually route transit directly through a series of communities, serving more residents and providing more convenient service. Complete street systems bring all travel origins and destinations closer together, reducing driving time and sometimes turning driving trips into walking or bicycle trips.

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- **Design Streets For All Users.** Streets should be designed to serve vehicular traffic as well as walkers, bicyclists and transit customers. Having a wide variety of street design features can be implemented as a way to make streets usable for all travel. These measures, variously termed “Neighborhood Traffic Control”, “Traffic Calming” or “Livable Streets”, have certain key elements in common: they slow vehicle speeds, provide drivers with “reminders” of other users, and buffer pedestrians from traffic flow. Some techniques include streetscapes that narrow the street and widened the sidewalk; brick-paved “slow points” that slows down traffic and reminds drivers that they are passing through a neighborhood; brick-paved streets that reduce vehicle speeds and improve the pedestrian atmosphere; “bulb-outs” that alert drivers that they are sharing the roadway with pedestrians while shortening the walking distance for pedestrians crossing the street; and bus “pull-outs” which facilitate traffic flow when transit buses need extended dwell time at bus stops for transfers and scheduling.
- **Cross Access/Joint Driveways.** Development should be encouraged to provide cross-access connections/easements or joint driveways, where available and economically feasible. In addition, reduction of access through closure of existing excessive, duplicative, or unsafe curb cuts or narrowing of overly wide curb cuts at the development site assists in providing additional capacity on the adjacent roadway facilities off-site, reduces the number of potential vehicular/pedestrian conflicts on site, and reduces the amount of pavement for automobiles which can be used for additional building intensity/density, pedestrian/bicycle amenities or transit facilities.

### 3.5 Transit Vehicle Circulation

Effective land use planning can promote the development of a successful transit system. Land design measures should be implemented to allow transit convenient access to community centers, provide for direct transit routes, locate stops on streets, allow for convenient extensions of existing transit routes, and design routes to be functionally adequate for transit vehicle use. The following transit vehicle circulation criteria are recommended in the review of development submittals.



Figure 9: Example of Transit Vehicle Circulation



- **Design For Direct Transit Access To Community Centers.** The transit circulation for all new development should provide for direct transit service to the center of the proposed community. Direct routing through the center of a community, rather than around the periphery, is preferred in order to maximize coverage and minimize the distance traveled.
- **Provide More Direct Transit Routes.** The transportation network for the development should allow direct transit routing. Direct transit routes reduce the operational cost of providing transit service. Circuitous routes increase the number of revenue miles and revenue hours. Therefore, developments that provide for direct routing will allow more efficient and less expensive transit service. Monies saved because of direct routing then may be used to increase the frequency of headways, providing a higher quality service to transit customers.
- **Locate Transit Stops On Streets.** The location of transit stops on streets greatly influences the efficiency and attractiveness of transit service. Transit stops should be located to increase running speed and reduce needless route diversions. Transit stop locations should not require buses to “backtrack” or provide indirect service. Transit stops should be located on the street so as to eliminate significant diversions that decrease running speed, such as getting delayed in the peak period congestion of parking areas. Service off the street often requires bus vehicles to make turns to a proposed transit stop which are difficult, time-consuming, delay buses and add operation costs.
- **Design Sites To Be Functionally Adequate For Transit Use.** Creating an environment conducive to the development of a balanced transportation system requires the circulation

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system to be engineered to the functional requirement of transit vehicles. Designing for the functional requirements of transit vehicles means creating suitable facilities in which transit vehicles can operate properly and passengers can wait in comfort. This includes designing streets, intersections and adjacent development to facilitate bus vehicle dimensions as well as vertical and horizontal clearances for buses.

- **Transit Facility Dimensional Requirements.** The development applicant should work with the respective local governments to establish bus turnout locations. Bus turnouts are used to facilitate traffic flow when buses need extended layover time for transfers and scheduling. While turnouts are advantageous to traffic circulation, turnouts make it difficult for buses to reenter traffic.

Figure 10: Example of Bus Turnout



- **Intersection Design for Bus Turns.** The development applicant should work with the respective local government to designate certain streets as transit streets or potential transit streets. All intersections along those streets should be designed for bus turning radii.

### 3.6 Transit Facilities

Transit supportive land uses and increased connectivity are required to improve multi-modal opportunities. Local governments within the Capital Region should identify opportunities to establish viable transit-oriented/multi-modal land development that can support and be served by a variety of transit options and help create vibrant mixed-use activity centers around transit stops proposed in this *Regional Transit Study*. In order for this strategy to be successful,

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appropriate transit related improvements require identification and as land development occurs, implementation. Relative to other types of infrastructure, transit has the potential to “extend the life” of roadway capacity by reducing trips and congestion. In addition, transit supports economic development by offering mobility to workers who cannot or choose not to travel to work by car.

Over the next several years, transit service in Capital Region is planned to grow beyond the traditional fixed route bus to a multi-modal network that will include transit centers, park and ride, express routes, bus rapid transit (BRT), and potentially light rail or streetcar. This multi-modal system will better meet the wide range of mobility needs throughout the region as efficiently and effectively as possible. This will require a new service structure and new transit facilities, most of which will be required of new development or redevelopment. A summary of these future improvements and the suggested criteria recommended in the review of development submittals is presented below.

- **Design Bus Stops To Functional Standards.** In addition to designing to the functional and operational standards of transit buses, development should be required to provide mobility stations to ensure access and convenience to as many people as possible. All mobility stations (transit facilities) should be accessible by physically challenged persons. These requirements pertain not only within the actual structures but include efforts to provide circulation connections to adjacent developments. The mobility stations should provide transit service and route information.
- **Provide Transit Service and Route Information For Riders.** All mobility stations should be identified with a transit sign and corresponding route numbers. A telephone number should also be included for people seeking other transit information. For sheltered stations, route maps and schedules, and community information shall be clearly presented.
- **Provide Amenities For Pedestrians.** Passenger comfort and convenience is critical to the success of a transit stop. Comfortable waiting areas should be designed and installed to provide the appropriate level of amenities for each stop type. The design of all passenger amenities should be suitable to the land use location. Only the higher volume stops will necessitate structures and a higher level of passenger amenities. Seating elements are also beneficial, but the most desired amenity is shelter. Passenger shelters should be provided at any location having an estimated 50 boardings or more per day. All transit facilities should be accessible from adjacent development by barrier-free paved walks.
- **Provide Sheltered Bicycle Storage.** Transit service can tap into the potentially large market of “bike-and-ride” commuters by providing bicycle storage areas at the appropriate stops. Bicycle storage may range from the necessity of a secure rack to the added benefit of overhead cover. The respective local government should work with the developer to designate locations where the developer should provide bicycle storage.
- **Bus Facility Features.** Depending upon the size of the development, the developer should be required to design and construct bus facilities throughout the development. The type of land use creates a natural hierarchy in determining which facilities should be developed. The general transit station types are the local transit stop, primary local stop, superstop,



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transit center, and park-and-ride lot. These stations are located in residential, commercial, entertainment areas, activity center/urban core areas, and special district land uses. The types and features are summarized below.

- **Local Transit Stop.** An access point serving primarily residential areas and generating the minimum specific rider boarding volume. Bus stops should be provided every 600 to 900 feet for local routes.
- **Primary Local Transit Stop.** Access points that receive regular use several times a day. Stops may be located in all land use types. The higher frequency of use dictates additional passenger amenities, possibly a shelter. Passenger shelters should be provided at any location having an estimated 50 boardings or more per day.
- **Superstop.** Superstops should serve as neighborhood focal points and community centers. They will be located near parks, activity centers, schools, government centers and shopping centers. Superstops are facilities with a focus on community and commercial conveniences in residential and mixed use land types.

Figure 11: Example of Superstop



- **Transit/Intermodal Center.** This type of facility serves as a base for the regional transit network of local circulator service, express routes, and other modes of transportation. These centers operate specifically as easy transfer points between transportation modes and transit. Transit/intermodal centers focus on service in major activity centers which are themselves the focus of extensive local services.



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Transit/intermodal centers will occur in commercial or mixed-use land use types. Neighborhood parks may also be associated with or integral to the transit center.

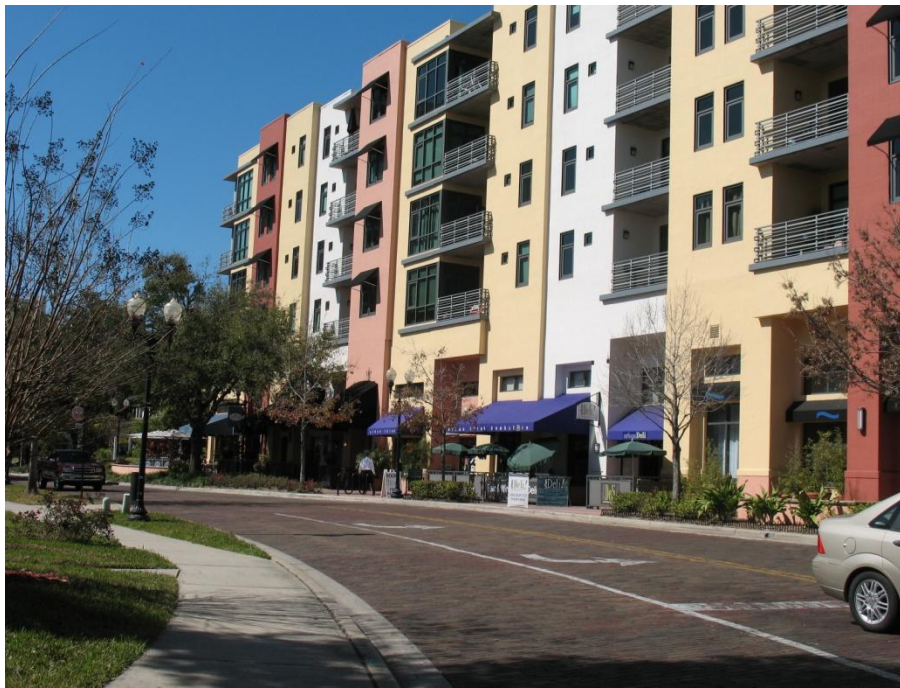
- **Park-and-Ride Lot.** The normal flow of traffic from a commuter shed can be intercepted along the predominate path toward major employment destinations. Park-and-ride lots may occur in three areas: residential areas, churches, libraries, meeting halls, parks, etc.; commercial land uses; and adjacent to transportation major corridors. These facilities may be combined with transit center operations.

### 3.7 Building Location/Design

Land use should be organized in such a way that the densities and intensities promote transit usage, primarily with higher density uses such as commercial offices, multifamily residential, and institutions shall be located within walking distance to activities along the transit major route. The densities along perpendicular facilities to the major route will decrease as distance from the major route increases. In order to create pedestrian oriented areas and surroundings so that transit-related development will be able to function effectively as an asset to the community, buildings should be located and oriented in a manner that accommodates alternative modes of travel in addition to the automobile, and that contributes to an active street scene. The impact of the building facades at the street level and design features that are human in scale and comprehensible to pedestrians shall be considered in the design and subsequent review of development. The following building location/design criteria are recommended in the review of development submittals.

- **Put Buildings Closer To Street.** Buildings should be placed adjacent to the streets to the maximum extent possible. This simple, highly effective measure reduces the walking distance from the transit stop. Parking, unchanged in quantity but rearranged in layout, is as accessible as before, but not as visible. Over time, development forms a continuous street front that restores the pedestrian atmosphere to the street.
- **Cluster Buildings On Multi-Building Sites.** The development should cluster buildings on multi-building sites, either along a short pedestrian spine or around a single focal point surrounding the transit stop. In addition, there should be attention to filling corners of the commercial development with attractive, lively retail uses, such as fast food, convenience shopping and services.
- **Provide Varied And Detailed Building Facades.** The development applicant should be encouraged to provide varied and detailed building facades. Detailed building facades generally focus pedestrian attention on the environmental setting rather than the walk. The perceived time and length of the walk is shortened. The visual quality of the trip is important to facilitate pedestrian activities. Two of the most significant barriers to walking are related to distance and time associated with a walking trip. Visual stimulation is important to make walking pleasant for pedestrians. Varied, pedestrian friendly facades promote the concept of a “park once” environment by providing for interesting walks and pedestrian spaces. Residential building facades also influence the quality of pedestrian activities. Auto-oriented residential neighborhoods should be avoided, as they diminish the pedestrian experience.

Figure 12: Example of Varied Building Facade



- **Provide Shelter For Pedestrian Circulation.** The development should provide shelter for pedestrian circulation. Protection from the weather is an important feature for new development to incorporate into pedestrian circulation systems and building design. Building designs should incorporate awnings, arcades and shelters into facade architecture to protect pedestrians from the rain and sun.
- **Incorporate Transit Stops Into Building Architecture.** Incorporating transit stops and terminals into building design will eliminate many barriers associated with riding transit. The respective local governments should work with the development community to increase the accessibility of developments and the desirability of alternative forms of transportation in major buildings, especially within the activity center(s).
- **Parking.** To balance the need for parking and access management, parking supply should be based on average demand, not peak demand, using shared parking to accommodate demand peaks. Parking should be located on the side streets, behind buildings, and in carefully designed and located parking structures. Parking lots should have a carefully planned and clearly marked pedestrian circulation system and a landscape architecture plan that aid storm water management.

## 4.0 Transit-Related Design Standards

Ultimately, transit oriented and transit friendly developments are implemented through a combination of strategies applied by local governments in the comprehensive plan, land development/zoning code and development review. These strategies can be grouped by categories, and include a land use mix, network connectivity and urban design strategies. The land use mix strategy provides for the density and intensity of development needed to support mobility alternatives. The network connectivity strategy provides for reduced and more direct travel making walking and cycling more feasible. The urban design strategy provides for a pleasant experience whether on foot, cycle, bus, train, or car. These are briefly described below. No single strategy will address all transportation problems for future Capital Region residents whether they locate in or out of the respective urban areas. Using multiple, diverse, incremental, and innovative strategies rather than relying on a few, major, expensive capacity expansion projects to solve transportation problems is a more effective approach.

### *Land Use Mix Strategy*

The land use mix strategy encourages development that supports all forms of mobility, especially walking, cycling, and transit use through: standards for developing projects at or near maximum allowable densities and intensities with transit supportive building and site designs; providing credits toward meeting the required development standards for developments meeting standards such as neo-traditional, New Urbanism, or mixed-use development at transit oriented densities; policies in the Future Land Use Element and Transportation Element as well as in the Land Development Code that support and promote land use patterns for transit hubs, especially as related to Activity Centers; and by encouraging redevelopment near existing and future transit hubs by reducing the number of trips for which development standards must be met.

The objective of the land use mix strategy is to support a land use pattern that allows for shorter trip lengths and fewer trips. Daily activities can be located within walking distance of residences over time, resulting in fewer vehicle trips. A greater mix and range of land uses can be located within walking distance of transit stops, thereby improving the convenience of bus or train travel. Even if trips are made using a vehicle, a greater mix of land uses with the appropriate site design can reduce the number of individual vehicle trips by parking once and conveniently and comfortably walking to multiple destinations in the same district.

### *Network Connectivity Strategy*

The network connectivity strategy requires all development in appropriate locations to provide mobility-enhancing features at the development site. The features required by the local government of the development during the development plan approval process should relate to the particular site and transportation conditions where the development is located. Standards relate to improving the overall transportation network connectivity.

The objectives of the network connectivity strategy are to increase personal route options and allow more direct travel between destinations. Each development site, depending on size and location, will contribute sidewalks, crosswalks, driveways, and bus facilities to form a larger transportation network over time. These facilities will provide safe and convenient movement on the development site for all users, particularly pedestrians. Developments generating significant trips will contribute other types of facilities that will help improve the transportation

network connectivity. These facilities, especially off-site ones, will provide safe and convenient movement to the development site. As connectivity increases, travel distances decrease.

### ***Urban Design Strategy***

The urban design portion of the strategy encourages pedestrian, bicycle, and transit use within the transit friendly developments by requiring design features that create safe, comfortable, and attractive environments for residents, employees and visitors. Development requirements include implementation of neo-traditional, New Urbanism, or mixed-use standards. As part of the urban design strategy, local governments should implement street design standards that ensure that new streets are designed for transportation modal choice. Alternative transportation modes become more viable when both the density of development reaches a critical mass and, the safety, comfort, and convenience needs of users are met.

The objective of the urban design strategy is to use the design of the built environment to influence peoples' choice of transportation mode. The particular site and transportation conditions where the development is located will dictate which specific development standards are appropriate. Some areas will benefit from transit features, such as bus shelters, while other areas will benefit more from pedestrian features, such as wide sidewalks and canopies over sidewalks, or cyclist features, such as secure and covered bicycle parking. The hope is that residents will consider walking, bicycling, bus, and eventually train travel as realistic options for some of their trips and will choose to exercise these options, based partly upon developments designed with amenities meeting their travel needs.

The following pages suggest a set of transit related design standards for the local governments within the Capital Region. These design standards are in summary form, and are based upon the *Existing Conditions Diagnosis* that included a review of the Capital Region's comprehensive plans and land development/zoning codes as well as industry standards; and the *Development Review Guidelines*, which provided suggested criteria for site plan review to encourage transit oriented and friendly development. For consistency purposes, these transit related design standards are presented in the same order as the development review guidelines.

## **4.1 Bicycle Circulation**

The following bicycle related design criteria are recommended in order to promote alternative modes of transportation and transit friendly development.

1. Bicycle lanes are a portion of a roadway that have been designated for the preferential or exclusive use of the bicycle. Bicycle lanes should be required on all major subdivision roadways, to be determined by the respective local government. Furthermore, bicycle lanes should be provided on new or reconstructed arterials and major collector roadways adjacent to and within the subject development. The State of Florida Department of Transportation's *Bicycle Facilities Planning and Design Manual* shall be consulted when designing bicycle lanes.
2. Bicycle paths are facilities on exclusive rights-of-way with minimal cross flow by motor vehicles. Bicycle paths are intended for the exclusive or preferential use of bicycles and should not be immediately adjacent to streets and highways. Larger and mixed-use developments should be required to establish bicycle paths. The State of Florida Department of Transportation's *Bicycle Facilities Planning and Design Manual* shall be consulted when designing bicycle paths.

Figure 13: Example of Mixed-Use Trail



3. The development should be required to meet established minimum bicycle parking requirements. The provision of adequate bicycle parking facilities is dependent on understanding the number of bicyclists using particular land uses. Specific requirements should be developed with the local government's development community. The previously presented *Development Review Standards* provided a list of suggested standards. Bicycle racks and secured storage facilities should be located in convenient, visible, well-lit areas with easy access and near main entrances of all commercial, residential, and institutional buildings. Such locations should be clearly noted with signage. The racks and storage facilities should be located so they do not interfere with pedestrian traffic and shall be protected from potential damage by motor vehicles.



Figure 14: Example of Bicycle Facilities



4. The development applicant should provide adequate bicycle signage. When developing bicycle signage, precise specifications can be found in the Federal Highway Administration's *Manual on Uniform Traffic Control Devices*.
5. Development should be required to provide enhancements to the Capital Region's system of greenways, bike paths, and trails, which increases the system's utility for multi-modal transportation. Such enhancements may include, but not be limited to:
  - a. Trail amenities such as benches, directional signage, or safety systems;
  - b. Bicycle parking at entry points or connecting with transit lines;
  - c. Land acquisition for expansion or better connectivity of the trail system;
  - d. Additional entry points to the trail system;
  - e. Bridges spanning creeks or wetland areas; and/or,
  - f. Appropriate trail surfacing.

## 4.2 Pedestrian Circulation

The following pedestrian criteria are recommended in order to promote alternative modes of transportation and transit friendly development.

1. In order to provide safe and convenient movement on the development site for all users, particularly pedestrians, any and all development or redevelopment should provide the following:

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- a. All subdivisions and development within the project should be linked together by pedestrian facilities. Linking subdivisions with pedestrian connections will facilitate movements that were once only possible by automobile.
  - b. Sidewalk connections from the development to existing and planned public sidewalk along the development frontage.
  - c. Deeding of land or conveyance of required easements along the property frontage to the respective local government, as needed, for the construction of public sidewalks, bus turn-out facilities and/or bus shelters. Such deeding or conveyance of required easements, or a portion of same, shall not be required if it would render the property unusable for development.
  - d. Provide safe and convenient on-site pedestrian circulation such as sidewalks and crosswalks connecting buildings and parking areas at the development site.
2. Development should provide direct pedestrian linkages to neighboring land use without requiring the use of the street.
  3. Development should provide pedestrian access to the street. Providing multiple points of pedestrian access to the street will encourage pedestrian activity. Simple pedestrian "break-outs" through subdivision walls will increase resident mobility and transit accessibility.
  4. A 20-foot wide mid-block pedestrian easement should be provided to pass through blocks in excess of 600 feet, unless environmental or topographic conditions dictate otherwise, or when a plaza or courtyard is contained in the building design.
  5. In activity center development, shelter should be provided for pedestrian circulation. Protection from the weather is an important feature for new development to incorporate into pedestrian circulation systems and building design. Building designs should incorporate awnings, arcades and shelters into facade architecture to protect pedestrians from the rain and sun.
  6. Pedestrian routes in the development should be direct and should provide the most direct and convenient routes possible.
  7. As part of the individual site design, the pedestrian paths should be clearly delineated. Clearly delineated paths through parking lots should be designed to safely accommodate pedestrian activity and should be constructed of an alternative paving material other than asphalt (e.g., stained and stamped concrete or brick pavers, not paint).
  8. Design of the project should focus on the creation of a pleasant environment for the pedestrian. The streetscape should influence the number of individuals willing to walk. Wide-open areas with busy traffic passing close by shall be avoided in the design. Buildings should be located close to the sidewalks, by lining trees along the street, or by buffering the sidewalk with landscaping.

Figure 15: Example of Pedestrian-Friendly Streetscape



9. Public sidewalks should be wide enough to accommodate the volume and type of pedestrian traffic expected in the area and should be provided on both sides of all urban area roadways. All sidewalks should be designed to have a minimum width of 5 feet (the minimum width that will allow two wheelchairs to pass one another). Sidewalks located on the street curbs should have a minimum width of 6 feet. Sidewalks and pedestrian facilities should be designed to cater to the needs of the disabled and elderly. Curbs and stairways can be formidable barriers to those in wheelchairs or for whom walking is difficult. The Americans with Disabilities Act (ADA) provides specifications to help overcome such barriers to mobility. Refer to the *ADA Handbook* for more details.
10. Curb cut ramps should be utilized for the pedestrian network. Curb cut ramps are used to allow the elderly and handicapped access to the pedestrian network. These ramps should be comprehensively interwoven into the pedestrian network and provided at all intersections and pedestrian crossings. Ramps must, at a minimum, be 36 inches wide (excluding slope) and must not exceed a one-inch rise for every 12 inches of run (1:12 ratio). In areas where 48 inches is not available behind each curb-cut, both the ramp and flared sides must not exceed the 1:12 rise-to-run ratio.
11. Wherever possible, design features that cause cars to slow down when turning and reduce the amount of time a walker spends crossing traffic should be used to provide safe and convenient on-site pedestrian circulation at the development site.
12. Local governments should require development to include pedestrian facilities on any new or reconstructed street in accordance with the *Florida Pedestrian Facilities Planning and Design Handbook*.

### 4.3 Vehicular Circulation



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The following vehicular circulation design criteria are recommended in order to promote alternative modes of transportation and transit friendly development.

1. No preliminary subdivision plan or development plan for a large development, Planned Development or development along a major arterial shall be approved prior to the approval of a conceptual master street and block plan. At a minimum the master street and block plan shall identify the general location of public circulator street(s), major local streets(s), and defined internal circulator/corridors (defined as other than maneuvering lanes, but less than public streets). Special attention shall be paid to cross access between adjacent parcels. The plan shall be approved with the adoption of the first land use plan approval for the property.
2. All development should provide street connections for vehicles in all major directions to and from a site. The development should also connect to anticipated neighboring development with street dedications or interim “stub-outs”. As development matures, street connections will evolve into a complete street system, providing a high level of mobility. The mobility provided by a completed street system offers the opportunity to eventually route transit directly through a series of communities, serving more residents and providing more convenient service.
3. Streets should be designed to serve vehicular traffic as well as walkers, bicyclists and transit customers. Collector and local streets shall include one or more traffic calming measures to improve conditions for bicyclists and pedestrians by altering driver behavior to reduce vehicle speed and traffic volume. These design features have certain key elements in common: they slow vehicle speeds, provide drivers with “reminders” of other users, and buffer pedestrians from traffic flow. Techniques include, but are not limited to streetscapes that narrow the street and widened the sidewalk; brick-paved “slow points” that slows down traffic and reminds drivers that they are passing through a neighborhood; brick-paved streets that reduce vehicle speeds and improve the pedestrian atmosphere; “bulb-outs” that alert drivers that they are sharing the roadway with pedestrians while shortening the walking distance for pedestrians crossing the street; and bus “pull-outs” which facilitate traffic flow when transit buses need extended dwell time at bus stops for transfers and scheduling.

**Figure 16: Example of Traffic Calming Treatments on Residential Street**

4. Development should be required to provide cross-access connections/easements or joint driveways, where available and economically feasible. In addition, reduction of access through closure of existing excessive, duplicative, or unsafe curb cuts or narrowing of overly wide curb cuts at the development site assists in providing additional capacity on the adjacent roadway facilities off-site, reduces the number of potential vehicular/pedestrian conflicts on site, and reduces the amount of pavement for automobiles which can be used for additional building intensity/density, pedestrian/bicycle amenities or transit facilities.
5. The maximum preferred block length in an activity center within a large development is 600 feet, and the average perimeter block length shall not exceed 2,400 feet. Larger or smaller block lengths may be necessary and may be permitted by the county to accommodate variations in building types, to protect existing natural areas and topography of a site, to align with existing or planned street connections, and similar considerations. In such cases, the determination of block length shall be identified and approved through the preliminary subdivision or development review process. Average block length shall be measured from a street crossing or public open space.
6. Cul-de-sacs, T-turnarounds, or dead-end streets are not permitted unless otherwise approved by the local government in cases such as where their use is in connection with the preservation of sensitive natural areas such as wetlands, specimen trees, or ecologically significant vegetative communities.
7. In order to promote livability, bicycle and transit utilization, the public works and engineering departments should allow flexibility on issues such as pavement and lane width, turning radii, tree lawns, bike lanes, block length, and other key elements.

#### **4.4 Transit Vehicle Circulation**

The following transit vehicle circulation design criteria are recommended in order to promote alternative modes of transportation and transit friendly development.

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1. All proposed large developments and developments along existing and planned major transit facilities must submit a general mobility plan. The mobility plan for the development shall depict a transportation network that allows direct transit routing that will reduce operational costs, be more efficient and provide transit more attractive to riders. Circuitous routes increase the number of revenue miles and revenue hours, and should be avoided. Streets and intersections shall be designed to facilitate bus vehicle dimensions as well as vertical and horizontal bus clearances. The development applicant should work with the respective local government to designate certain streets as transit streets, or potential transit streets. All intersections along those streets shall be designed for bus turning radii.

**Figure 17: Example of Bus Stop**



2. The transit circulation for all new development should provide for direct transit service to the center of the proposed community. Direct routing through the center of a community, rather than around the periphery, is preferred in order to maximize coverage and minimize the distance traveled.
3. Transit stops should be located to increase running speed and reduce needless route diversions. Transit stop location should not require buses to “backtrack” or provide indirect service. Transit stops should be located on the street so as to eliminate significant diversions that decrease running speed, such as getting delayed in the peak period congestion of parking areas; and avoid requiring bus vehicles to make left hand turns to a proposed transit stop.
4. The circulation system shall to be engineered to the functional requirement of transit vehicles. Designing for the functional requirements of transit vehicles means creating suitable facilities in which transit vehicles can operate properly and passengers can wait in

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comfort. This includes designing streets, intersections and adjacent development to facilitate bus vehicle dimensions as well as vertical and horizontal clearances for buses.

5. The development shall establish bus turnout locations in conjunction with the local transit provider and the local government. Bus turnouts are used to facilitate traffic flow when buses need extended layover time for transfers and scheduling. While turnouts are advantageous to traffic circulation, turnouts make it difficult for buses to reenter traffic.

### 4.5 Transit Facilities

As previously mentioned, transit service in Capital Region should grow in the next several years beyond the traditional fixed route bus to a multi-modal network that will include transit centers, park and ride, express routes, bus rapid transit (BRT), and potentially light rail or streetcar. This multi-modal system will better meet the wide range of mobility needs throughout the region as efficiently and effectively as possible. This will require a new service structure and new transit facilities, most of which will be required of new development or redevelopment. A summary of these future transit facility improvements design criteria are summarized below.

1. Development should be required to provide mobility stations to ensure access and convenience to as many people as possible. All mobility stations (transit facilities) should be accessible by physically challenged persons. These requirements pertain not only within the actual structures but include efforts to provide circulation connections to adjacent developments. The mobility stations should provide transit service and route information. All mobility stations should be identified with a transit sign and corresponding route numbers. A telephone number should also be included for people seeking other transit information. For sheltered stations, route maps and schedules, and community information shall be clearly presented.
2. Transit stop design shall include a clearly defined waiting area for transit riders, open to the public at large. Such area shall be equipped with amenities for bicyclists and pedestrians including but not limited to adequate lighting, benches, weather protection, system information, maps, trash bins, bicycle parking, and a land pad accessible to a disabled person.



Figure 18: Example of Bus Stop with Layover Area



3. Passenger comfort and convenience is critical to the success of a transit stop. Comfortable waiting areas should be designed and installed to provide the appropriate level of amenities for each stop type. The design of all passenger amenities should be suitable to the land use location. Only the higher volume stops will necessitate structures and a higher level of passenger amenities. Seating elements are also beneficial, but the most desired amenity is shelter. Passenger shelters should be provided at any location having an estimated 15 boardings or more per day. All transit facilities should be accessible from adjacent development by barrier-free paved walks.
4. Transit service can tap into the potentially large market of “bike-and-ride” commuters by providing bicycle storage areas at the appropriate stops. Bicycle storage may range from the necessity of a secure rack to the added benefit of overhead cover.
5. Depending upon the size of the development, the developer should be required to design and construct bus facilities throughout the development. The type of land use creates a natural hierarchy in determining which facilities should be developed. The general transit station types are the local transit stop, primary local stop, superstop, transit center, and park-and-ride lot. These stations are located in residential, commercial, entertainment areas, activity center/urban core areas, and special district land uses. The types and features are summarized below.

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- a. **Local Transit Stop.** An access point serving primarily residential areas and generating the minimum specific rider boarding volume; occasionally used. Bus stops should be provided every 600 to 900 feet for local routes.
- b. **Primary Local Transit Stop.** Access points that receive regular use several times a day. Stops may be located in all land use types. The higher frequency of use dictates additional passenger amenities, possibly a shelter. Passenger shelters should be provided at any location having an estimated 15 boardings or more per day.

Figure 19: Example of Primary Local Transit Stop



- c. **Superstop.** Superstops should serve as neighborhood focal points and community centers. They will be located near parks, activity centers, schools, government centers and shopping centers. Superstops are facilities with a focus on community and commercial conveniences in residential and mixed use land types.
  - d. **Transit/Intermodal Center.** This type of facility serves as a base for the regional transit network of local circulator service, express routes, and other modes of transportation. These centers operate specifically as easy transfer points between transportation modes and transit. Transit/intermodal centers focus on service in major activity centers which are themselves the focus of extensive local services. Transit/intermodal centers will occur in commercial or mixed-use land use types. Neighborhood parks may also be associated with or integral to the transit center.
  - e. **Park-and-Ride Lot.** The normal flow of traffic from a commuter shed can be intercepted along the predominate path toward major employment destinations. Park-and-ride lots may occur in three areas: residential areas, churches, libraries, meeting halls, parks, etc.; commercial land uses; and adjacent to transportation major corridors. These facilities may be combined with transit center operations.
6. Where relevant, transit stops should be integrated into building design and layout to provide convenient access for riders.

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### 4.6 Building Location/Design

The following building location/design criteria are recommended in order to promote alternative modes of transportation and transit friendly development.

1. Buildings should be placed adjacent to the streets to the maximum extent possible. This simple, highly effective measure reduces the walking distance from the transit stop. Parking, unchanged in quantity but rearranged in layout, is as accessible as before, but not as visible. Over time, development forms a continuous street front that restores the pedestrian atmosphere to the street.
2. The development should cluster buildings on multi-building sites, either along a short pedestrian spine or around a single focal point surrounding the transit stop. In addition, there should be attention to filling corners of the commercial development with attractive, lively retail uses, such as fast food, convenience shopping and services.
3. The development applicant should be required to provide varied and detained building facades. Detailed building facades generally focus pedestrian attention on the environmental setting, rather than the walk. Varied, pedestrian friendly facades promote the concept of a “park once” environment by providing for interesting walks and pedestrian spaces. Residential building facades also influence the quality of pedestrian activities. Auto-oriented residential neighborhoods shall be avoided, as they diminish the pedestrian experience.

**Figure 20: Example of Pedestrian-Friendly Street**



4. The development should provide shelter for pedestrian circulation. Protection from the weather is an important feature for new development to incorporate into pedestrian circulation systems and building design. Building designs should incorporate awnings, arcades and shelters into facade architecture to protect pedestrians from the rain and sun.



**Figure 21: Example of Pedestrian-Friendly Street**



5. The development shall incorporate transit stops and terminals into building design where appropriate, thus eliminating many barriers associated with riding transit, especially within the activity center(s).
6. To balance the need for parking and access management, parking supply shall be based on average demand, not peak demand, using shared parking to accommodate demand peaks. Parking should be located on the side streets, behind buildings, and in carefully designed and located parking structures. Parking lots should have a carefully planned and clearly marked pedestrian circulation system and a landscape architecture plan that aid storm water management. Parking reductions should reflect reduced demand due to mixed-use and transit development and credit should be given for nearby on-street parking and innovative programs that reduce parking demand. Parking requirement listed in code should be maximum parking limits, not minimum, and shared and joint parking arrangements should be encouraged in activity centers. There should be incentives to promote structured parking and design standards for parking structures, and the location of parking should be away from the street or transit stop.

#### **4.7 Land Use/Site Design/Development Standards**

The following land use/site design criteria are recommended in order to promote alternative modes of transportation and transit friendly development.

1. Major urban and suburban activity centers should be required to locate at the intersection of two major arterials, along the region's planned transit system, near a multi-modal station, and/or in close proximity to limited access freeways and interstate highways.
2. Depending upon the location within the region, the recommended minimum/maximum site size limit for major mixed-use activity centers is from 50 to 120 acres. Regarding individual use size for retail establishments, a 20,000 square foot limit for the core of any activity center is recommended. Retail businesses greater than that size generally would not be in



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keeping with a compact mixed-use activity center as they reduce street activity and require large surface parking lots.

3. Minimum urban activity center densities of 15 units/net developable acre and 30 units near transit stations should be considered, as should minimum FARs of 0.3 overall and 0.6 to 1.0 near transit stations. Suburban activity centers should have a minimum density of 8 du/acre and up to 16 in transit station areas. As an alternative, a minimum density of 7 units per acre for all transit-oriented districts and a system of density bonuses for developers who transfer density from greenbelts and low-density residential areas to the center of a mixed-use activity center or near a transit stop can also be utilized. In more urban development sites in the region, the local governments should consider allowing densities for multi-family residential developments in major mixed-use activities centers as high as 100 du/acre, particularly close to transit stops, with a minimum density no lower than 15 du/acre. With regard to commercial projects (including offices), a maximum FAR of 3.0 with a minimum of at least 0.4 increasing to at least 1.0 in a transit station area is recommended.
4. Activity Center developments should have a use mix requirement of 3 principal uses types. Fairly wide minimum/maximum ranges (e.g., 10-80%) appear to be more appropriate for the Capital region area. The requisite mix of uses should be required in each major phase of a mixed-use activity center. Local jurisdictions should consider creating an incentive system for density and intensity to achieve a better use mix.
5. Use lists should be consolidated by grouping similar uses in a few major categories (e.g., residential, retail, office, etc.) accompanied by clear definitions with specific examples of uses that qualify and those that are prohibited.
6. First floor commercial or retail should be required in the core of the mixed-use activity center. Parking structures should have their first floor wrapped with commercial uses.

**Figure 22: Example of Parking Structure with First Floor Retail**



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7. Mixed-use developments shall have a mix of townhomes and multi-family buildings, with the requirement that the multi-family buildings have units of different size (e.g., 1, 2, and 3 bedrooms), which brings for-sale and rental units to the market at different price points.
8. Setbacks for all uses within the mixed-use activity center should be reduced to 10 feet, thus permitting buildings to be built up to the sidewalk. Slightly deeper setbacks might be appropriate for multifamily located on arterial streets.
9. The height limits in most zoning ordinances are prescribed at 35 feet, particularly if a development is located near a residential neighborhood, which is too short for a successful large mixed-use activity center. Local jurisdictions should consider a base height limit of 90 feet with the potential of taller buildings if the developer secures development rights from open space/conservation areas. A wider range of transitional standards will be required to protect existing single-family neighborhoods near new activity centers.
10. Realistic urban lot coverage limits of 100% for commercial uses in the core of mixed-use activity centers should be considered. Multi-family residential developments should have stricter lot coverage; multi-family lot coverage of up to 75% and possibly more in the densest core areas should be considered.
11. Landscaping regulations should be appropriate for major mixed-use activity centers. Suburban features such as berms should be prohibited and the use of attractive screening structures encouraged as a substitute for perimeter parking lot landscaping requirements as well as the use of some hardscape. Incentives should be created to integrate existing healthy vegetation and trees into landscaping plans. Although large trees should also be afforded special protection, mitigation (e.g., caliper/caliper replacement elsewhere on the site) may be a necessary option in an urban activity center development setting.
12. The mixed-use activity center require the use of attractive walls and fencing supplemented with landscaping for buffers. Building stepdowns, the location of balconies and building orientation, similar building forms, and small green spaces, plazas, and squares should be utilized to the maximum extent possible to ensure compatibility in compact urban settings.
13. Mixed-use activity center developments should not be exempt from open space regulations, but should be provided a menu of alternatives rather than setting aside a percentage of open space on a site, including, but not be limited to landscaped mini-parks and greens, public plazas and patios, urban gardens, outdoor public art, indoor recreation centers, amenitized storm water detention facilities, and similar features.

Figure 23: Example of Open Space



14. In mixed-use activity centers, requirements for fencing or walls between multi-family residential and commercial development should be removed. In addition, tall fencing should not be allowed in front and side yards and permitted only to screen loading and service areas with only limited exceptions, with shorter, attractive fences and walls supplementing landscaped buffers, particularly around parking lots and between commercial and residential uses such as town houses.
15. Signage in activity center core areas should be limited to wall signs or projecting building signs; freestanding signs are limited and are a special exception.



## 5.0 Conclusions

The report, *Building Transit Oriented Communities in Established Communities*, (Center for Urban Transportation Research CUTR, November 2002) suggests that good transit oriented design alone is not enough to make transit oriented and friendly development work. It must be supported by some combination of other tools, including but not limited to:

- Developing financing methods
- Offering financial incentives to land developers
- Coordinating stakeholders
- Careful tailoring of land development regulations
- Crafting transit supportive design guidelines
- Providing effective access by alternative transportation modes
- Managing parking
- Predesignating transit corridors and incorporating transit service into future development
- Adapting transit services to suburban areas
- Providing home loan incentives to homebuyers
- Addressing and overcoming community resistance through public education

Thus, establishment of these development review guidelines and design standards are just one of the many steps need to promote and facilitate transit oriented and friendly design.

One of the most effective and nationally known sets of transit supportive guidelines comes from Snohomish County, north of Seattle, Washington. *A Guide to Land Use and Public Transportation*, developed by Snohomish County Transit (SNO-TRANS), not only addresses new development but provide suggestions on how to retrofit car-oriented suburban development over time to become more mixed-use and transit-oriented. In conclusion, this document also presents several observations and conclusions regarding activity center development, transit oriented (TOD) and transit friendly development that is relevant to the Capital Region:

- The acceptance and adoption of TOD in established communities is an incremental process that may take decades to come to fruition.
- Developing transit oriented communities will have a greater chance of success when a combination of tools are used together, including regulations such as zoning and parking ordinances, together with incentives such as tax exemptions, an expedited permit review process, density bonuses, or a reduction or waiver of certain development fees.
- For TOD projects to be successful, they must strive to capture most of the traditional suburban amenities that are so valued by suburbanites, such as the perception of quiet, spaciousness, light, privacy, safety, and security, while capitalizing on its unique strengths not shared with suburbia. These strengths include more

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stimulating commercial opportunities within walking distance and a cohesive sense of community.

- TOD has the capacity to break ground in our culture. While suburbia offers socio-economic homogeneity, TOD offers the opportunity to arrange cultural and socio-economic diversity that is appealing. For example, TOD can be designed to increase livability for children, the elderly, and persons with disabilities. Development policies in TOD to intersperse affordable housing with middle-income and affluent housing can soften the demarcation between “us” and “them” and alleviate the desire to find socio-economic sanctuary in suburbia. Social programs, education, and services that elevate low-income persons from poverty and revitalize urban neighborhoods, have the potential to slow suburbanization.
- For TOD to be successful and for residents to truly rely less on automobiles, residents must be able to make most routine personal trips by foot. There will have to be a sufficient variety of retail establishments to meet resident needs, within walking distance from home or by uncomplicated transit trips. This suggests finding a workable balance between providing sufficient development density while preserving other elements of suburban appeal.
- TOD retrofitting has the best current chance of success in areas with initially amenable markets, such as high concentrations of single adults, “empty nesters,” childless couples, and immigrants.
- TOD approaches can differ significantly from place to place depending upon factors and circumstances such as land development regulations, zoning ordinances, market factors, development opportunities, available public transportation services, resources, and the regional economy.
- New technologies add some degree of optimism for the future of transit to better serve suburbia as it exists today.