



COASTAL REGION MPO

REGIONAL PARK + RIDE INITIATIVE

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Technical Memorandum #5 Financial Analysis and Management Options

August 2014



PARK AND RIDE LOT STUDY

Submitted by:



In Association With:



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Appendix A

1. Introduction

The Coastal Region Metropolitan Planning Organization (CORE MPO) *Transit Mobility Vision Plan* (TMVP), completed in 2011, presented a regional vision for transit in the Savannah area. One of the recommendations in the TMVP was the development of a park-and-ride lot program. This study is intended to advance the TMVP recommendations for park and ride lots and supporting transit services in the greater Savannah region, primarily in Bryan, Chatham, and Effingham Counties.

This is the fifth Technical Memorandum prepared as part of this regional Park-and-Ride Lot Study. The prior technical memoranda presented the study's project management plan (Tech Memo #1), estimates of regional transit service demand (Tech Memo #2), a site evaluation of potential park-and-ride lot locations (Tech Memo #3) and a potential transit service plan to serve proposed park-and-ride lot locations (Tech Memo #4).

The purpose of Technical Memorandum #5 is to present development options and estimated costs for the proposed park-and-ride lot facilities, as well as potential funding sources and management options for both the park-and-ride lots and the proposed express transit services identified in the prior technical memoranda.

2. Park and Ride Lot Development

As presented in the prior technical memoranda for the study, seven recommended locations for park-and-ride lots were advanced for further consideration. These locations are listed below by corridor and are identified as either an existing Georgia Department of Transportation (GDOT) park-and-ride lot or a potential new park-and-ride lot.

Northwest Corridor

- I-95 and SR 21 (Existing)
- SR 21 South of Rincon (New)
- SR 17 in Guyton (Existing)

West Corridor

- I-16 and US 280/SR 30 (Existing)
- US 80 and Bloomingdale Road (New)

South Corridor

- US 17 in the vicinity of Walmart (New)
- Either at US 17 & SR 144 or I-95 & SR 144 (New)

2.1 Development Options

Several options exist for advancing these park-and-ride locations as part of the regional park-and-ride system. Options for both existing and new park-and-ride lots are discussed in this section.

Existing GDOT Park-and-Ride Lots

Of the seven park-and-ride lots recommended, three are existing dedicated lots owned by GDOT. As noted in a prior technical memorandum, these existing park-and-ride lots are small, ranging from 20 to 35 spaces. The lot at I-95 and SR 21 is well-used, and was observed to be over-utilized with additional vehicles parked illegally. The other two lots were observed to be under-utilized.

Improvements to Existing Lots

Each of these existing lots would benefit from at least limited improvements to encourage usage. As previously noted, all lots are in need of major rehabilitation including paving and restriping of parking spaces. The three lots have good access, but lack adequate directional signage, which could limit commuter knowledge of lot locations and impact lot utilization. While these lots have lighting, observations indicate that additional lighting is necessary to increase the appearance of a safe location to park a vehicle. Landscaping and irrigation to improve the appearance and appeal of the lot, as well as amenities, such as shelters, bike racks, and trash receptacles, should also be added.

Expansion to Accommodate Demand

Should expansion of one or more of these lots be needed to accommodate anticipated demand for parking spaces, there would be significant costs. Costs would include engineering, acquisition of adjacent land, and construction to expand the lot.

New Park-and-Ride Lots

The remaining four recommended locations would require the establishment of new park-and-ride lots. Several options exist for the implementation of these lots, as described below.

Publicly Owned Dedicated Lots

Dedicated park-and-ride lots are those that are planned, designed, constructed and operated specifically to serve as park and ride facilities where users can carpool, vanpool, or catch a bus. Dedicated lots require significant capital costs and long implementation timeframes if construction occurs on vacant land.

The existing GDOT park-and-ride lots in the Savannah region are examples of publicly owned dedicated lots. The development of additional GDOT lots is one option available to the region. Alternatively, park-and-ride lots could be owned and developed by local governments or transit agencies. In the Atlanta Region, for example, park-and-ride lots are owned by a variety of agencies: GDOT, the Georgia Regional Transportation Authority (GRTA), the Metropolitan Atlanta Rapid Transit Authority (MARTA), and local governments operating transit services (e.g., Cobb County).

Shared Use Lots

A common trend in developing park-and-ride lots is the shared use of existing parking lots at commercial establishments such as shopping centers, movie theaters, and other businesses, churches, universities, or government facilities. This option involves entering into an agreement with an existing parking lot owner to dedicate certain spaces for park-and-ride use. These arrangements generally work best when the peak parking demand for the land owner does not coincide with the peak park-and-ride demand, such as a shopping center whose usage peaks on weekends or a church whose usage peaks on Sundays.

The advantages of shared use park-and-ride lots are generally short implementation timeframes since the infrastructure is already in place as well as low initial capital costs. Shared use park-and-ride lots can also provide opportunities to test demand for carpool, vanpool, and transit use prior to making major financial investments in new facilities. When co-located with retail sites, there is also potential for benefit to the property owner, as park-and-ride users may shop there before or after work.

Possible disadvantages of shared use park-and-ride lots are that there may be space or design limitations that affect the number of parking spaces or bus access. Conflicts in use of the spaces may also arise, particularly during peak retail seasons. Additionally, it is generally better not to be a tenant. Private landowners have been known to terminate agreements for shared use parking. For these reasons, formal agreements delineating lease terms are highly encouraged.

Typical lease agreements contain certain elements, including:

- Lease fees and payment terms,
- Time period of the agreement and minimum termination notice periods,
- Specific location of the park-and-ride and number of parking spaces,
- Days and times park-and-ride use is permitted,
- Use of property and responsibility for specific improvements to be made (e.g., lighting, signage, handicapped spaces, sidewalks, crosswalks, and shelters),
- Liability insurance,
- Maintenance responsibilities, and
- Security and cleaning responsibilities.

Stakeholder committee members noted that if parking spaces are reserved for park-and-ride purposes, the local government may need to modify their zoning ordinance to allow for shared parking or otherwise adjust so the development will be in compliance with local parking requirements.

To ensure suitability of a leased site for park-and-ride purposes, the need for minor improvements and fixtures is assumed. Improvements and fixtures may include items such as repaving, curbing, landscaping and irrigation, utilities, lighting, bus shelters, bike racks, signage, and trash receptacles.

Development Agreements

New dedicated park-and-ride lots are most likely to be developed by public agencies. There may be, however, circumstances that make provision of dedicated park-and-ride lots by private parties possible through the development approval process or public-private partnerships. Possible development approval mechanisms that could result in the provision of infrastructure improvements benefitting the public, such as park-and-ride lots, include development agreements, conditional zoning, development impact fees, and developments of regional impact.

An example in Georgia is the park-and-ride lot in Gwinnett County at I-85 and Sugarloaf Parkway, which serves several Gwinnett County Transit express routes. This lot is located adjacent to the Discover Mills Mall (now Sugarloaf Mills) in the state right-of-way near the interchange. Design and construction of the park-and-ride lot were paid for by the mall developer as a condition of zoning.

Alternatively, park-and-ride lots could be located at sites where both a public agency and a private party have invested in the costs of acquiring and developing the property as a public-private partnership. This approach may work best in locations where the local government has adopted Transit Oriented Development (TOD) policies.

Incorporate into Larger Construction Projects

As suggested by the stakeholder committee, this option involves incorporating park-and-ride lots in the design and construction of larger construction projects, such as GDOT highway projects. It may be possible to realize cost savings by combining park-and-ride lot costs into larger projects. If this option is pursued, discussions with the project sponsor should begin early in the project development process. In

essence, if a project is under construction or under final design, it is difficult, if not impossible to site a park-and-ride lot within the project boundaries. The best case is when the highway project is in the preliminary engineering stage or under planning study. During these stages, the highway project can be planned and designed with a park-and-ride facility in mind, which could impact alignment, right-of-way acquisitions, pond and drainage locations, limited access limits, roadway widths and intersections, and signing and striping. As discussed further below, this option was specifically suggested by stakeholders for the proposed new lot at US 80 and Bloomingdale Road, given the nearby proposed Jimmy DeLoach Parkway Extension and interchange projects.

2.2 Development Scenarios

Applying the development options discussed in the previous section to the seven proposed park-and-ride lots, Table 2-1 presents potential development scenarios for each lot.

Table 2-1
Potential Park-and-Ride Lot Development Scenarios

Corridor	Location	Existing GDOT Lot	New Publicly Owned Dedicated Lot	Shared Use Privately Owned Lot	Development Agreement	Incorporate into Larger Project
Northwest	I-95 & SR 21	✓				
	SR 21 South of Rincon		✓	✓	✓	
	SR 17 in Guyton	✓				
West	I-16 & US 280/SR 30	✓				
	US 80 & Bloomingdale Rd.		✓	✓	✓	✓
South	US 17 & Vicinity of Walmart		✓	✓	✓	
	I-95 & SR 144 OR US 17 & SR 144		✓	✓	✓	

2.3 Development Assumptions

Building on the prior study technical memoranda, the following assumptions were made regarding the development options for each park-and-ride lot for costing purposes.

Northwest Corridor

I-95 and SR 21 is an existing GDOT lot with close proximity to I-95 that was identified as a preferred location by project stakeholders. Expansion of the existing 35 space park-and-ride lot is supported by the prior analyses in both the base year and horizon year, and is assumed for costing purposes.

SR 21 South of Rincon on the boundary of Chatham and Effingham Counties was identified as a preferred location by project stakeholders. The prior site evaluation identified numerous opportunities in the area for a shared use park-and-ride lot, which is assumed for costing purposes.

SR 17 in Guyton is an existing GDOT lot that is recommended to continue to be a part of the regional park-and-ride lot system. No expansion of the lot has been assumed.

West Corridor

I-16 and US 280/SR 30 is an existing park-and-ride lot located in Bryan County. As travel demand is expected to continue to grow in the corridor, expansion of the lot is assumed in the horizon year.

US 80 and Bloomingdale Road in Chatham County was identified as a preferred location by project stakeholders. This area has few opportunities for a shared use park-and-ride lot. Given its close proximity to the proposed Jimmy DeLoach Parkway projects, stakeholders suggested investigating the possibility of incorporating a park-and-ride lot into the highway projects. As noted earlier, it is important to begin discussions about incorporating a park-and-ride lot during concept development. After following-up with Chatham County, it was determined that both the extension and interchange projects have already received environmental approval and right-of-way acquisition is imminent. Adding a park-and-ride lot at this stage would require revisions to the environmental document, which would cause delays. For this reason, incorporating a lot into the Jimmy DeLoach Parkway projects was determined to be not feasible. For the purposes of costing, therefore, a new publicly owned dedicated lot is assumed.

South Corridor

US 17 in the Vicinity of Walmart in Chatham County was identified as a preferred location by project stakeholders. Given existing commercial uses as well as vacant commercial establishments in this corridor, a shared used park-and-ride lot is assumed for costing purposes.

The second location in this corridor was identified at either **US 17 & SR 144** or at **I-95 & SR 144** in Bryan County. Potential shared use opportunities exist at the US 17 & SR 144 location, while new park-and-ride lot construction would likely be required at the I-95 & SR 144 location. The I-95 & SR 144 location had a higher number of trips in its catchment area than the US 17 & SR 144 location. For conservative costing purposes, a new publicly owned dedicated lot at the I-95 & SR 144 location is assumed.

Table 2-2 summarizes assumptions for each location that has been assumed in this study for costing purposes.

Table 2-2
Park-and-Ride Lot Development Assumptions

Corridor	Location	Improve Existing GDOT Lot	Expand Existing GDOT Lot	New Publicly Owned Dedicated Lot	Shared Use Privately Owned Lot
Northwest	I-95 & SR 21		✓		
	SR 21 South of Rincon				✓
	SR 17 in Guyton	✓			
West	I-16 & US 280/SR 30		✓		
	US 80 & Bloomingdale Rd.			✓	
South	US 17 & Vicinity of Walmart				✓
	I-95 & SR 144			✓	

3. Park and Ride Lot Potential Costs

This section presents the potential costs of the proposed park-and-ride lots. It begins with a discussion of cost components and assumptions used to develop order of magnitude cost estimates and ends with the resulting estimates.

3.1 Cost Components and Assumptions

For each park-and-ride lot, there are both one-time capital costs and recurring annual costs. The cost components of each are summarized below.

One-Time Capital Costs

One-time capital costs include land acquisition, engineering costs, and construction costs.

Land Acquisition Costs

As described in the prior section, two new publicly owned dedicated park-and-ride lots are being assumed for costing purposes. Additionally, the expansion of two existing GDOT park-and-ride lots is assumed. For each of these four lots, a key cost component will be the acquisition of land. Land acquisition costs can vary significantly from location to location depending on factors such as accessibility to major roadways, distance from downtown, adjacent development, and existing zoning.

Land acquisition cost assumptions were made for each lot based on land values of sites near the respective interchanges from the applicable County's Tax Assessors Office. Assessed land values for these sites range from approximately \$66,000 to \$501,000 per acre.


Engineering Costs

Engineering costs, whether for a new or an expanded park-and-ride lot, are an important cost component. Engineering costs typically include preliminary engineering, final design, construction plans, and preparation of specifications. These costs are generally derived as a percentage of construction costs. As suggested in the *2012 Florida Department of Transportation State Park-and-Ride Guide*, engineering costs are conservatively estimated to be 20% of the cost of construction for estimation purposes.

Construction Costs: New Lots

For new publicly owned dedicated lots, consultant team member Moffatt and Nichol provided a conceptual Opinion of Probable Cost for a 100-space park-and-ride lot in the Savannah area, as shown in Figure 3-1. At a total cost of approximately \$820,000, this cost equates to \$8,200 per parking space, and is assumed for costing purposes. As a point of comparison, the *2012 Florida Department of Transportation State Park-and-Ride Guide* estimated a cost of \$9,000 per parking space for surface park-and-ride lots. The Florida unit cost is based on park-and-ride lots along the SunRail commuter rail line extending north of Orlando.

Figure 3-1
Savannah Park-and-Ride Opinion of Probable Cost

OPINION OF PROBABLE COST				DATE PREPARED	30-Apr-14	SHEET		Page 1 of 1
ACTIVITY AND LOCATION				ESTIMATED BY				
Park and Ride Lot Savannah, Georgia				Moffatt & Nichol				
PROJECT TITLE				STATUS OF DESIGN		JOB ORDER NUMBER		
Parking Lot Construction 100-space Layout				10% Conceptual		8209		
ITEM DESCRIPTION	QUANTITY NUMBER	UNIT	MATERIAL & EQUIPMENT COST UNIT COST TOTAL		LABOR COST UNIT COST TOTAL		ENGINEERING ESTIMATE UNIT COST TOTAL	
Demolition								
Misc. Demolition	1	LS	\$10,000.00	\$10,000.00	\$5,000.00	\$5,000.00	\$15,000.00	\$15,000.00
Civil Site Work								
Construction Surveying	1	LS	\$13,500.00	\$13,500.00	\$6,500.00	\$6,500.00	\$20,000.00	\$20,000.00
Grading (1.0 AC)	1	LS	\$35,000.00	\$35,000.00	\$15,000.00	\$15,000.00	\$50,000.00	\$50,000.00
Drainage (1.0 AC)	1	LS	\$70,000.00	\$70,000.00	\$30,000.00	\$30,000.00	\$100,000.00	\$100,000.00
Erosion Control	1	LS	\$10,000.00	\$10,000.00	\$2,000.00	\$2,000.00	\$12,000.00	\$12,000.00
Landscaping - (includes lighting)	1	LS	\$60,000.00	\$60,000.00	\$35,000.00	\$35,000.00	\$95,000.00	\$95,000.00
Canopy - Bus Terminal (1,040 LF)	1	LS	\$84,000.00	\$84,000.00	\$36,000.00	\$36,000.00	\$120,000.00	\$120,000.00
3" Pavement Surface Course	627	TON	\$35.00	\$21,945.00	\$15.00	\$9,405.00	\$50.00	\$31,350.00
6" ABC Pavement Base Course	1,282	TON	\$14.00	\$17,949.75	\$6.00	\$7,692.75	\$20.00	\$25,642.50
Concrete Curb & Gutter	800	LF	\$2.50	\$2,000.00	\$2.90	\$2,320.00	\$5.40	\$4,320.00
Concrete Islands	50	SY	\$5.00	\$250.00	\$5.20	\$260.00	\$10.20	\$510.00
Concrete Sidewalk	350	SY	\$28.00	\$9,800.00	\$12.00	\$4,200.00	\$40.00	\$14,000.00
Paint Striping	3,000	LF	\$0.30	\$900.00	\$0.10	\$300.00	\$0.40	\$1,200.00
Paint Symbols	10	EA	\$33.60	\$336.00	\$14.40	\$144.00	\$48.00	\$480.00
Paint Striping (Crosswalk)	24	SY	\$2.10	\$50.40	\$0.90	\$21.60	\$3.00	\$72.00
Bike Racks	5	EA	\$500.00	\$2,500.00	\$150.00	\$750.00	\$650.00	\$3,250.00
Signs	6	EA	\$70.00	\$420.00	\$30.00	\$180.00	\$100.00	\$600.00
Project Sub-Total								
				\$338,651.15		\$154,773.35		\$493,424.50
Insurance and Taxes	35%					\$54,170.67		\$54,170.67
Sales Tax	4%			\$13,546.05				\$13,546.05
Overhead and Profit Materials	13%			\$44,024.65				\$44,024.65
Overhead and Profit Labor	13%					\$20,120.54		\$20,120.54
Sub-Total								
								\$625,286.40
Contingency	20%							\$125,057.28
Mobilization and Demobilization	10%							\$62,528.64
Total Opinion of Probable Cost								\$812,872.32
							SAY	\$820,000

Construction Costs: Existing Lots

As discussed in the previous section, for both existing GDOT and recommended shared use park-and-ride lots, improvements and fixtures will be needed. The level of investment in each lot will vary depending on a number of factors, including lot configuration and current conditions. For cost estimation purposes, a conservative estimate of \$1,600 per parking space is assumed. This amounts to approximately 20% of construction costs for a new dedicated lot. This unit cost appears to be reasonable based on a review of detailed shared use park-and-ride cost estimates developed for the *Jacksonville Transportation Authority Park-and-Ride Study*.

Annual Costs

Recurring annual costs include routine maintenance and lease costs, where applicable.

Routine Maintenance Costs

Routine maintenance would be a recurring annual cost for each park-and-ride lot. Proactive maintenance ensures safety for individuals using the lot and extends the life of the lot before expensive reconstruction, repair, or replacements are needed. Routine maintenance generally includes items such as maintenance of pavement, lighting, landscaping, signage, shelters, and other features, as well as trash removal and cleaning.

Chatham Area Transit (CAT) currently pays \$2,400 annually for maintenance of the existing 34-space GDOT park-and-ride lot at I-95 & SR 204. This equates to approximately \$70 per space. However, the maintenance consists only of mowing the grass surrounding the lot. The *2012 Florida Department of Transportation State Park-and-Ride Guide* suggests a cost of \$100 per parking space per year. This unit cost is assumed for cost estimating purposes.

Lease Costs

As discussed in the last section, formal agreements delineating lease terms for shared use park-and-ride lots are highly encouraged. A review of several park-and-ride lease agreements between GRTA and private property owners (shopping centers and churches) suggests a cost of \$10 per parking space per month, or \$120 per space annually. This unit cost is assumed for cost estimating purposes.

3.2 Potential Costs

Order of magnitude costs for both one-time capital costs and annual costs associated with the seven proposed park-and-ride lots were calculated using the assumptions described in the preceding sections. Estimates were developed for both the base year and the horizon year of 2040. New dedicated park-and-ride lots or expansions of lots assume either 50 or 100 spaces, requiring a half acre or one acre of land, respectively.

The total number of park-and-ride spaces in the base (current) year is generally assumed to be in the 130 to 150 space range per corridor, with the northwest and south corridors on the upper end of the

range based on earlier travel demand analysis and stakeholder committee feedback. For the horizon year (2040), the number of park-and-ride spaces is assumed to grow to a general range of 180 to 200 spaces per corridor based on projected demand, again with the northwest and south corridors on the upper end of the range. These parking space ranges are generally in-line with the corridor transit ridership projections that were presented in Technical Memorandum #4.

Parking Space Assumptions by Corridor

Specific assumptions for each corridor and park-and-ride lot are summarized below.

Northwest Corridor

I-95 and SR 21. This existing 35-space GDOT lot is assumed to be expanded by 50 spaces (to 85 spaces) in the base year. Additional expansion in the horizon year is not proposed.

SR 21 South of Rincon. This proposed shared use park-and-ride facility is assumed as a 50-space lot in the base year, and would be expanded to 100 spaces in the horizon year.

SR 17 in Guyton. This existing 20-space GDOT lot is assumed to remain in the base year and the horizon year with no expansion.

West Corridor

I-16 and US 280/SR 30. This existing 33-space GDOT lot is assumed to be expanded by 50 spaces (to 83 spaces) in the horizon year.

US 80 and Bloomingdale Road. This proposed new dedicated park-and-ride lot is assumed as a 100-space lot in both the base year and the horizon year.

South Corridor

US 17 in the Vicinity of Walmart. This proposed new shared use park-and-ride facility is assumed as a 100-space lot in both the base year and the horizon year.

I-95 & SR 144. This proposed new dedicated park-and-ride facility is assumed as a 50-space lot in the base year, to be expanded by 50 spaces (to 100 spaces) in the horizon year.

Order of Magnitude Costs

This section summarizes the estimated park-and-ride lot costs for the base and horizon years. In the base year, the number of park-and-ride spaces would increase from 88 to 438 spaces. Total estimated one-time capital costs are just over \$3 million and annual maintenance and lease costs are estimated at \$70,300. In the horizon year, the number of park-and-ride spaces would increase by 150 spaces to a total of 588 spaces. Total estimated one-time capital costs would increase by \$1,275,500 to almost \$4.3 million. Recurring maintenance and lease costs would increase by \$21,000 to \$91,300 per year.

Detailed cost tables may be found in Appendix A.

Table 3-1
Base Year Order of Magnitude Park-and-Ride Lot Costs

Corridor	Park & Ride Lot	Type	Number of Spaces			One-Time Costs: Land, Engineering, Construction	Annual Costs: Maintenance and/or Lease
			Existing	Change	Total		
Northwest Corridor	I-95 & SR 21	Expand Existing	35	50	85	\$809,700	\$8,500
	SR 21 South of Rincon	Leased	0	50	50	\$96,000	\$19,500
	SR 17 in Guyton	Existing	20	0	20	\$38,400	\$2,000
	Corridor Total		55	100	155	\$944,100	\$30,000
West Corridor	I-16 & US 280/SR 30	Existing	33	0	33	\$63,360	\$3,300
	US 80 & Bloomingdale Rd	Publicly-Owned	0	100	100	\$1,162,100	\$10,000
	Corridor Total		33	100	133	\$1,225,460	\$13,300
South Corridor	US 17 & Vicinity of Wal-Mart	Leased	0	100	100	\$192,000	\$22,000
	I-95 & SR 144	Publicly-Owned	0	50	50	\$654,500	\$5,000
	Corridor Total		0	150	150	\$846,500	\$27,000
TOTALS			88	350	438	\$3,016,060	\$70,300

Table 3-2
Horizon Year Order of Magnitude Park-and-Ride Lot Costs

Corridor	Park & Ride Lot	Type	Number of Spaces			One-Time Costs: Land, Engineering, Construction	Change from Base Year	Annual Costs: Maintenance and/or Lease	Change from Base Year
			Base Year	Change	Total				
Northwest Corridor	I-95 & SR 21	Expand Existing	85	0	85	\$809,700	\$0	\$8,500	\$0
	SR 21 South of Rincon	Leased	50	50	100	\$192,000	\$96,000	\$30,500	\$11,000
	SR 17 in Guyton	Existing	20	0	20	\$38,400	\$0	\$2,000	\$0
	Corridor Total		155	50	205	\$1,040,100	\$96,000	\$41,000	\$11,000
West Corridor	I-16 & US 280/SR 30	Expand Existing	33	50	83	\$588,400	\$525,000	\$8,300	\$5,000
	US 80 & Bloomingdale Rd	Publicly-Owned	100	0	100	\$1,162,100	\$0	\$10,000	\$0
	Corridor Total		133	50	183	\$1,750,500	\$525,000	\$18,300	\$5,000
South Corridor	US 17 & Vicinity of Wal-Mart	Leased	100	0	100	\$192,000	\$0	\$22,000	\$0
	I-95 & SR 144	Expand Publicly-Owned	50	50	100	\$1,309,000	\$654,500	\$10,000	\$5,000
	Corridor Total		150	50	200	\$1,501,000	\$654,500	\$32,000	\$5,000
TOTALS			438	150	588	\$4,291,600	\$1,275,500	\$91,300	\$21,000

4. Potential Funding Sources and Management Options

This section provides a framework to fund, construct, and operate the park-and-ride lots and transit services proposed for the Savannah region. Potential funding sources and management options are described in the following sections.

4.1 Potential Funding Sources

This section outlines potential federal, state, local and public/private sources of revenue that could be used to fund the capital and operating costs associated with the park-and-ride lots and the planned transit services. There are a number of federal programs, primarily through the Federal Transit Administration (FTA) and the Federal Highway Administration (FHWA), which may be used for these purposes.

In recent years, however, more agencies are relying on non-federal funding for transportation improvements and are also using innovative approaches to minimize the extent of capital investment. Some of the constraints and challenges agencies are facing with regard to federal funding include flat or declining funding, increasing competition among projects, fewer guaranteed funding sources, and reduced federal discretionary sources. Additionally, the Highway Trust Fund, which funds both highway and transit projects, is rapidly nearing insolvency.

Federal Funding Sources

On July 6, 2012, President Obama signed the current transportation authorization, Moving Ahead for Progress in the 21st Century Act (MAP-21), into law. MAP-21 places an increased emphasis on safety, state of good repair, performance and program efficiency. MAP-21 authorizes programs for the two year period from October 1, 2012 through September 30, 2014.

As of July 2014, no action has been taken on the proposed new transportation authorization, known as the Generating Renewal, Opportunity, and Work with Accelerated Mobility, Efficiency, and Rebuilding of Infrastructure and Communities throughout America (GROW America) Act. Instead, a short-term extension of MAP-21 is expected, along with actions to bailout the Highway Trust Fund.

The primary sources of federal funds for which the capital and operating costs associated with the park-and-ride lots and transit services are eligible under MAP-21 are discussed below. A key federal funding consideration is that most federal grants require non-federal matching funds. The non-federal matching funding requirements vary by program and by purpose (i.e., capital vs. operating). These non-federal funds can be state or local, and vary by grant.

FTA Section 5307 Urbanized Area Formula Program

The FTA's Section 5307 Urbanized Area Formula program is the largest of FTA's grant programs. It provides grants to the Savannah Urbanized Area (UZA) for public transit capital, planning, job access and reverse commute (which is focused on providing service to low income individuals to access jobs), as

well as operating assistance in certain circumstances. All preventive maintenance and some ADA complementary paratransit service are considered capital costs.

As a large urbanized area with over 200,000 in population, Savannah receives Section 5307 funds directly from the FTA. Savannah's Section 5307 designated recipient is Chatham Area Transit (CAT). Funding is distributed by formula based on a combination of population, population density, the number of low-income individuals, and transit service levels. Figure 4-1 shows the geographic limits of the current Savannah Urbanized Area as delineated by the Census Bureau.

The federal share for planning and capital assistance projects is generally 80% of the net project cost. Net project cost is that portion of the cost of a project that cannot be reasonably financed from revenues. There are some exceptions to the 80% federal share for capital projects. For example, an 85% federal share is allowed for the cost of vehicles to comply with the ADA or the Clean Air Act, and a 90% federal share is allowed for the cost of vehicle-related equipment and facilities to comply with the ADA or the Clean Air Act.

Section 5307 funds generally cannot be used for operating costs in large urbanized areas. However, under MAP-21, operating costs are eligible up to certain limits for grantees like Chatham Area Transit (CAT) which operate up to 100 buses in fixed route service during peak service hours. The specific limits depend on whether the grantee operates 75 or fewer buses or 76 to 100 buses during peak service hours.

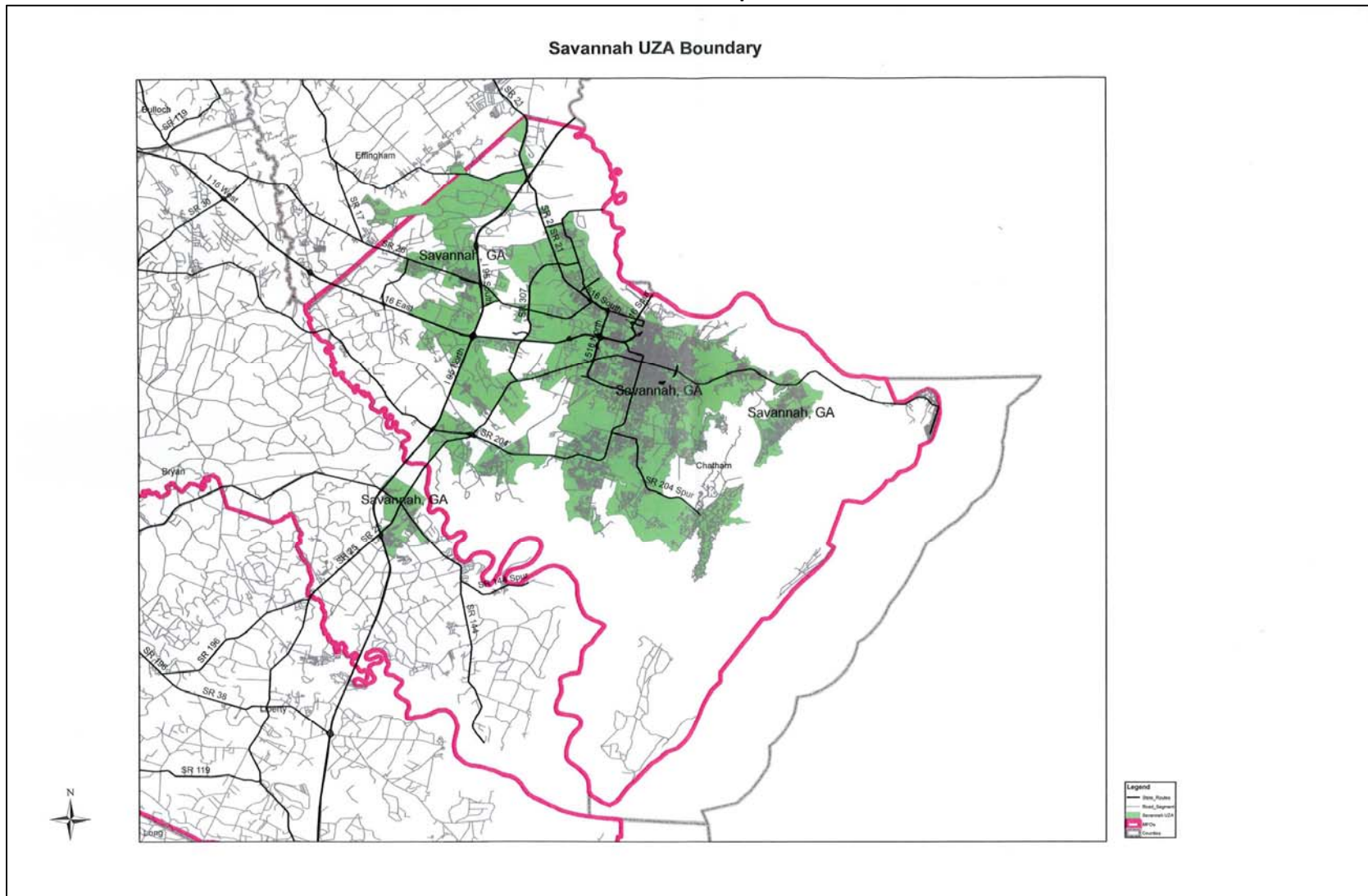
GDOT generally provides one-half of the 20% non-federal share for capital projects (10%). That is, most capital projects would be funded 80/10/10 with Section 5307 Federal funds/State funds/local funds, respectively. The State currently does not provide operating assistance.

FTA Section 5311 Non-Urbanized Area Formula Program

This FTA program is the counterpart to the Section 5307 program in non-urbanized (or rural) areas, defined as areas with populations less than 50,000. The Section 5311 program provides planning, capital and operating assistance. Eligible Section 5311 activities under MAP-21 have been expanded to include planning and job access and reverse commute service. Under MAP-21, this program's rural area funds are apportioned to states using a formula that is based primarily on rural land area and population and secondarily on land area, transit service levels, and low-income individuals in rural areas.

The federal share for Section 5311 funds is 80% for capital projects, 50% for operating assistance, and 80% for ADA paratransit up to 10% of a recipient's apportionment. GDOT generally provides one-half of the 20% non-federal share for capital projects (10%). That is, most capital projects would be funded 80/10/10 with Section 5311 Federal funds/State funds/local funds, respectively. The State currently does not provide operating assistance.

Figure 4-1
Savannah Urbanized Area per 2010 Census



Public transit service provided by the Coastal Regional Commission (CRC) is funded through the Section 5311 program. CRC provides rural public transit service, as well as coordinated human service transportation, across 10 counties and 35 municipalities within the coastal region of Georgia. Counties serviced include Bryan, Bulloch, Camden, Chatham, Effingham, Glynn, Liberty, Long, McIntosh, and Screven Counties and the respective municipalities. Since the goal of Section 5311 is to enhance the overall mobility of people living in non-urbanized areas, the Section 5311 funding may be used to provide transportation to and from urbanized areas. As such, the operating vehicles may access the urbanized areas such as Savannah UZA, but only to the extent that passengers are either picked up or dropped off in an urbanized area. In other words, at least one end of each public transit must be within the rural area.

FTA Section 5339 Bus and Bus Facilities Program

Under MAP-21, the Section 5339 formula program provides capital assistance to purchase, rehabilitate, and replace buses, vans and related equipment and to construct bus-related facilities. The funding from this program is not eligible to be used to cover any operating expenses.

The federal share of the net project cost is a maximum of 80% with non-federal sources providing the balance. As with other capital programs, GDOT provides one-half of the 20% non-federal share for Section 5339 projects.

FHWA Surface Transportation Program (STP)

A key feature of recent transportation authorizations has been the flexibility provision that provides the option to state and local governments of transferring some categories of FHWA funds to one of FTA funding programs for transit projects. The flexible funds feature is continued under MAP-21. STP funds may be flexed for transit capital projects, including facilities and vehicles. Additionally, STP funds are eligible for carpool projects, fringe and corridor parking facilities and programs, bicycle transportation and pedestrian walkways, and ADA sidewalk modification.

The STP funding is at the 80% federal share and may be used for all capital projects eligible for funding under current FTA programs. However, in Savannah, like most areas, the number of identified transportation needs far exceed available federal assistance from STP and other programs. Therefore, project prioritization and funding decisions must be developed cooperatively by the area's local governments, transit operators, and GDOT acting through the CORE MPO transportation planning process.

Transportation Investment Generating Economic Recovery (TIGER) Grants

Since 2009, Congress has dedicated more than \$4.1 billion for six rounds from the TIGER program to projects across the U.S. These grants are awarded on a competitive basis for major capital investments. Any surface transportation project is eligible and any public agency is eligible to apply directly to USDOT. The evaluation criteria focus on economic benefits, sustainability, livability, safety, state of good repair, partnership (including local financial commitment), and innovation.

These grants are extremely competitive and demand typically far exceeds the amount of funding. TIGER applications in FY 2014 totaled 15 times the amount of available funding.

State Funds

The Georgia Public Transportation Code authorizes GDOT to participate in providing public transportation services in Georgia. However, the State of Georgia does not have any funds specifically designated for transit purposes. GDOT has provided some funding for transit capital projects, such as park & ride lots, and for assistance with the non-federal matching share of capital and preventive maintenance projects. GDOT provides this funding through State General Fund budget requests. Typically, GDOT is able to request State General Funds for one-half of the non-federal match or 10% of the total project cost of the 80/20, federal/non-federal share capital projects.

The State funds are administered by the GDOT Intermodal Division. In spring of each year, the Division requests the transit providers to submit their state assistance needs for two years in advance. The CORE MPO would need to work closely with GDOT to include the transit projects in the region's TIP, as well as work with GDOT and the local legislative delegation during upcoming sessions of the Georgia General Assembly to secure the State funding.

Local Funds

Local funds will be necessary to provide the local match share of the federal capital grants and operating costs not covered by the passenger farebox revenue and/or federal operating assistance. Besides passenger farebox revenues, local general funds are the primary local funding source for most Georgia transit agencies. CAT receives local funding through Chatham County in the form of a portion of the county's property tax dedicated to transit, as well as through the Special Purpose Local Option Sales Tax (SPLOST).

As federal funding has become increasingly limited, local funding has become more and more critical to CAT's ability to meet the demand for transit services. It is important for CAT to continue to use local funding to leverage federal and state transit funding. However, additional local funding sources should also be explored.

There are a number of different mechanisms to raise local funding for transit services. While general fund appropriations, property taxes and sales taxes are the most common sources to fund transit systems, the possibilities are virtually endless. Below is a summary of existing and potential local transit funding sources.

Special District Transit Tax

A special district for transit services created by the Commissioners of Chatham County allows for levying ad valorem taxes for the provision of the services by Chatham County who in turn provides funding to CAT. CAT can establish a budget and request an ad valorem millage that must be approved each year. This annual process places CAT in a competitive position with other ad valorem budgeted services. Currently, the millage rate is set at 1.0.

Special Purpose Local Option Sales Taxes (SPLOST)

Georgia law allows local jurisdictions to use SPLOST proceeds for capital improvement projects that would otherwise be paid for with general funds and property tax revenues. This one-cent sales tax is part of the sales tax that the public currently pays on items purchased in Chatham County. The SPLOST program provides funding for some of CAT's capital projects. The use of SPLOST funds for park-and-ride lots in Chatham County could be explored.

General Fund Appropriations

The additional costs of the public transit services are often covered by reallocating funds within local general funds. Historically, the use of the general funds for transit services reduces the long-term reliability of transit funding, especially when down economies result in fewer available funds. General revenue funding is typically used to provide local match for capital expenditures such as buses and customer amenities, as well as to off-set operating deficits after passenger farebox revenues, other direct operating revenues, and federal operating assistance funds are applied.

Other Local Taxes

Other common sources of local taxes that could be used for transit include:

- A dedicated tax or fee on the sale or registration of vehicles,
- Several fuel tax options (above and beyond the current federal, state, and local taxes) on motor fuels purchased in the area,
- Occupational taxes, and
- Selective taxes applied to specific items such as tobacco, alcohol, and tourism related activities such as hotels or rental cars.

Sale of Advertising Rights

While usually a very small component of operating costs, most transit agencies do gain some revenue from advertising. Transit systems now sell the rights for companies to advertise on buses, benches, shelters, transfer facilities, kiosks, schedules, transfers, passes, system maps, etc. The transit system can realize cash revenue, or be compensated in trade (e.g., getting "free" advertising on radio stations that are advertising on the bus). CAT actively promotes advertising on (bus wraps) or in its buses to generate revenue.

Public-Private Partnerships

Transit systems can leverage their limited resources by forging new partnerships that can bring non-traditional sources of support (including cash, facilities and equipment, in-kind services, and financing mechanisms) that pay partially or fully for new services or facilities where they would not otherwise be feasible. Local governments and transit agencies are expanding their list of partners to include developers, major employers, universities, public school systems, utilities, property managers and various other entities.

Value Capture Mechanisms

Value capture mechanisms use the expected future value created by projects as capital to fund the projects. Common value capture mechanisms include tax increment financing, special assessment districts, and development impact fees. Tax increment financing (TIF) uses the expected increase in revenue from increased property value to pay for current improvements to generate the value increase. Special assessment districts levy an additional increment on property taxes for properties located near the transit service. Development impact fees charge fees to new residential or commercial development and use the revenues to help fund transportation expenses.

Financing Mechanisms

Financing mechanisms refer to bonds, notes, leases and other forms of debt which are supported by a pledge of future revenues from one, or more, funding sources. Public entities use financing because it provides the ability to access the capital markets and secure sufficient resources to implement a capital project within an optimal time period. Without debt financing, public entities would be limited to a pay-as-you-go approach where only annual revenues generated from taxes, user fees and other sources could be used to fund a project.

The following mechanisms may be appropriate to the scale and capital needs of the proposed park-and-ride lots and transit services.

Lease Payment

FTA funds may be used to lease, rather than purchase, transit equipment and facilities. The FTA 5307-Urbanized Formula program may be used to cover the costs of new and pre-existing leases, so long as leasing is more cost effective than a direct purchase. FTA regulations at 49 C.F.R. Part 639 prescribe how leasing of transit equipment may be eligible. Moreover, FTA permits on a case-by-case basis, using slightly different criteria, such as leasing under the 5309 and 5311 programs.

This capability also applies to the capital and interest costs of contracting for service, referred to as “Capital Cost of Contracting.” Under a lease structure (provided the grantee demonstrated that a lease was more cost-effective than direct purchase) the equipment or facility could be purchased by a leasing company, and then leased to the grantee. The grantee would make lease payments from a combination of federal funds and local matching funds. The primary benefit of such a structure is that it allows the grantee to arrange its cash flow needs on a more level basis. Secondary benefits include the ability to bank the local share, allowing it to earn interest pending its use for making lease payments, as well as the ability to reprogram some of the current formula grant funds to other projects.

Georgia Transportation Infrastructure Bank (GTIB)

In 2009, the Georgia General Assembly created the Georgia Transportation Infrastructure Bank (GTIB) to serve as a revolving loan fund that provides grants and loans to Community Improvement Districts (CIDs) and state, regional, and local government entities for transportation projects. It is administered by the State Road and Tollway Authority (SRTA).

The program is limited to various forms of highway improvements, from new road construction to lighting improvements and traffic signal upgrades. Transit and airport projects are not eligible because the infrastructure bank's primary source of funding is Georgia's motor-fuels tax, which by law can only be spent on road projects. However, it is assumed that this financing mechanism could be used for provision of park-and-ride lots based on experience with the park-and-ride lots associated with the Gwinnett County Transit start-up project.

4.2 Potential Management Options

This section evaluates the various management options for establishing and maintaining the proposed park-and-ride lots and operating the proposed transit services. The management structure must allow for effective and efficient management and control of costs while being consistent with the laws and regulations that define each participating public agency's powers.

Park-and Ride Lots

To advance the seven proposed park-and-ride lots, decisions will have to be made regarding who is responsible for:

- Implementation or expansion of publicly owned dedicated lots,
- Implementation of privately shared use lots, and
- Maintenance of lots.

It seems likely that the primary responsibility for each lot would depend on whether it is already owned by GDOT and whether it is located in Chatham, Bryan, or Effingham County, with either GDOT or the county taking the lead. However, as a regional system of park-and-ride lots is the ultimate intent, a cooperative process involving GDOT, CORE MPO, CRC, local governments, and CAT to establish responsibilities is recommended. Ideally, this process would be led by the two regional planning agencies (CORE MPO and CRC), with an end goal of developing a multi-agency agreement.

Transit Services

There are a number of potential management options available to local and regional officials to implement and operate the proposed transit services linking the park-and-ride lots with Downtown Savannah and the Airport/Gulfstream/Crossroads area. Each management option has distinct advantages and disadvantages that can vary significantly depending on overall objectives, financial resources, accountability, ease of implementation, legal constraints, and other issues. Two broad options are to either directly operate or to contract out the service.

Directly Operated Service

In the case of directly operated service, either CAT or CRC would most likely have the primary responsibility to plan, finance and operate the transit service, including purchasing vehicles and employing the personnel required for service delivery.

CAT is currently authorized to operate only within the transit tax district for fixed route service, which includes the City of Savannah, parts of Garden City, Thunderbolt and unincorporated Chatham County. As many of the park-and-ride lots are located either outside Chatham County or within Chatham County jurisdictions that opted out of the tax district, CAT's geographic limits are problematic for operation of much of the proposed express service. However, at the June 2014 stakeholder committee meeting, CAT indicated that they are already taking a more regional approach. CAT's 5-year Transit Development Plan, *Making Connections*, includes conceptual regional service to outlying counties, including Bryan and Effingham. The CAT charter includes eligibility for both counties to participate in regional transit services.

As discussed earlier, CRC's use of Section 5311 funds for public transit services come with the limitation that these funds can only be used for trips with at least one end in the rural area. Thus, the Section 5311 funds available to CRC could be used for trips from park-and-ride lots located outside the Savannah Urbanized Area, including the proposed lot along SR 21 South of Rincon, and the existing lots at I-16 and US 280/SR 30, and at SR 17 in Guyton. The remaining proposed park-and-ride lots are located within the Savannah Urbanized Area and local governments would likely have to provide operating funds for trips to and from these park-and-ride lots.

Contract Service

This option would involve a public agency (or agencies), contracting with a service provider, which would be responsible for providing all or some aspects of the proposed transit services. Several variations of contract service are possible. Some transit agencies choose to own some or all of the transit assets, such as vehicles and/or facilities. The service provider would be retained by contract to hire the employees, operate, and maintain the new transit services. This is the model CAT used prior to 2013, when it contracted out transit operations and maintenance.

It is important to note that the service provider could be private or public. Thus, CAT, CRC, or any one of the numerous companies providing contract transit services could propose and be selected to provide the services.

Under this approach, the public agency would most likely issue a Request for Proposals (RFP) to qualified operators who would develop technical and cost proposals for a pre-determined level of service specified in the RFP. Then, the agency would receive proposals, evaluate, and select the best qualified service provider based on a set of pre-determined evaluation criteria.

One benefit from contracting service is the potential to obtain a lower cost through competitive bidding. The competitive process would give bidders an incentive to offer their services at the lowest possible cost. A second benefit is flexibility in dealing with employees and workplace issues. Where public employees provide public services, it can be difficult to make major changes, such as major expansion or reduction in the amount of service provided. By contrast, when a service provider is retained by contract to provide service, the contracts can be structured to be periodically reviewed, or to require regular renewal or renegotiations at which time changes can be made. Also, if any of the new proposed

transit services proved to be unsuccessful, the public agency likely could more easily discontinue that service if it was contracted out.

While the discussion above centered on operations by CAT, CRC, or both, another option would be an interagency operating agreement wherein a public partnership would be formed between two or more partners. Potential partners could include CAT, CRC, and the jurisdictions where services are operated. The agreement would establish partner roles and responsibilities for administration, planning, financing, operating and maintaining the various transportation services.

Appendix A

Detailed Park-and-Ride Lot Order of Magnitude Costs

Northwest Corridor Park-and-Ride Base Year Costs

Estimated One-Time Capital Costs

Cost Item	Unit Cost	Unit Type	Units	Total Cost Estimate
I-95 & SR 21 - Expanded Existing GDOT Lot				
Land Acquisition	\$500,933	Acre	0.5	\$250,467
Construction	\$8,200	Parking Space	50	\$410,000
Improvements and Fixtures	\$1,600	Parking Space	35	\$56,000
Engineering	20%	of Construction	1	\$93,200
Total Cost				\$809,667
SR 21 South of Rincon - Leased Lot				
Improvements and Fixtures	\$1,600	Parking Space	50	\$80,000
Engineering	20%	of Construction	1	\$16,000
Total Cost				\$96,000
SR 17 in Guyton - Existing GDOT Lot				
Improvements and Fixtures	\$1,600	Parking Space	20	\$32,000
Engineering	20%	of Construction	1	\$6,400
Total Cost				\$38,400
ESTIMATED TOTAL CONSTRUCTION COST				\$944,067

Estimated Annual Costs

Cost Item	Unit Cost	Unit Type	Units	Total Cost Estimate
I-95 & SR 21 - Expanded Existing GDOT Lot				
Annual Maintenance	\$100	Parking Space	85	\$8,500
SR 21 South of Rincon - Leased Lot				
Annual Maintenance	\$100	Parking Space	50	\$5,000
Annual Lease	\$120	Parking Space	50	\$6,000
Total Annual Cost				\$19,500
SR 17 in Guyton - Existing GDOT Lot				
Annual Maintenance	\$100	Parking Space	20	\$2,000
ESTIMATED TOTAL ANNUAL COST				\$30,000

Northwest Corridor Park-and-Ride Horizon Year Costs

Estimated One-Time Capital Costs

Cost Item	Unit Cost	Unit Type	Units	Total Cost Estimate	Change from Base Year
I-95 & SR 21 - Expanded Existing GDOT Lot					
Land Acquisition	\$500,933	Acre	0.5	\$250,467	\$0
Construction	\$8,200	Parking Space	50	\$410,000	\$0
Improvements and Fixtures	\$1,600	Parking Space	35	\$56,000	\$0
Engineering	20%	of Construction	1	\$93,200	\$0
Total Cost				\$809,667	\$0
SR 21 South of Rincon - Leased Lot					
Improvements and Fixtures	\$1,600	Parking Space	100	\$160,000	\$80,000
Engineering	20%	of Construction	1	\$32,000	\$16,000
Total Cost				\$192,000	\$96,000
SR 17 in Guyton - Existing GDOT Lot					
Improvements and Fixtures	\$1,600	Parking Space	20	\$32,000	\$0
Engineering	20%	of Construction	1	\$6,400	\$0
Total Cost				\$38,400	\$0
ESTIMATED TOTAL CONSTRUCTION COST				\$1,040,067	\$96,000

Estimated Annual Costs

Cost Item	Unit Cost	Unit Type	Units	Total Cost Estimate	Change from Base Year
I-95 & SR 21 - Expanded Existing GDOT Lot					
Annual Maintenance	\$100	Parking Space	85	\$8,500	\$0
SR 21 South of Rincon - Leased Lot					
Annual Maintenance	\$100	Parking Space	100	\$10,000	\$5,000
Annual Lease	\$120	Parking Space	100	\$12,000	\$6,000
Total Annual Cost				\$30,500	\$11,000
SR 17 in Guyton - Existing GDOT Lot					
Annual Maintenance	\$100	Parking Space	20	\$2,000	\$0
ESTIMATED TOTAL ANNUAL COST				\$41,000	\$11,000

West Corridor Park-and-Ride Base Year Costs

Estimated One-Time Capital Costs

Cost Item	Unit Cost	Unit Type	Units	Total Cost Estimate
I-16 & US 280/SR 30 - Existing GDOT Lot				
Improvements and Fixtures	\$1,600	Parking Space	33	\$52,800
Engineering	20%	of Construction	1	\$10,560
Total Cost				\$63,360
US 80 & Bloomingdale Rd - New Publicly-Owned Lot				
Land Acquisition	\$178,098	Acre	1	\$178,098
Construction	\$8,200	Parking Space	100	\$820,000
Engineering	20%	of Construction	1	\$164,000
Total Cost				\$1,162,098
ESTIMATED TOTAL CONSTRUCTION COST				\$1,225,458

Estimated Annual Costs

Cost Item	Unit Cost	Unit Type	Units	Total Cost Estimate
I-16 & US 280/SR 30 - Existing GDOT Lot				
Annual Maintenance	\$100	Parking Space	33	\$3,300
US 80 & Bloomingdale Rd - New Publicly-Owned Lot				
Annual Maintenance	\$100	Parking Space	100	\$10,000
ESTIMATED TOTAL ANNUAL COST				\$13,300

West Corridor Park-and-Ride Horizon Year Costs

Estimated One-Time Capital Costs

Cost Item	Unit Cost	Unit Type	Units	Total Cost Estimate	Change from Base Year
I-16 & US 280/SR 30 - Expanded Existing GDOT Lot					
Land Acquisition	\$65,986	Acre	0.5	\$32,993	\$32,993
Construction	\$8,200	Parking Space	50	\$410,000	\$410,000
Improvements and Fixtures	\$1,600	Parking Space	33	\$52,800	\$0
Engineering	20%	of Construction	1	\$92,560	\$82,000
Total Cost				\$588,353	\$524,993
US 80 & Bloomingdale Rd - New Publicly-Owned Lot					
Land Acquisition	\$178,098	Acre	1	\$178,098	\$0
Construction	\$8,200	Parking Space	100	\$820,000	\$0
Engineering	20%	of Construction	1	\$164,000	\$0
Total Cost				\$1,162,098	\$0
ESTIMATED TOTAL CONSTRUCTION COST				\$1,750,451	\$524,993

Estimated Annual Costs

Cost Item	Unit Cost	Unit Type	Units	Total Cost Estimate	Change from Base Year
I-16 & US 280/SR 30 - Expanded Existing GDOT Lot					
Annual Maintenance	\$100	Parking Space	83	\$8,300	\$5,000
US 80 & Bloomingdale Rd - New Publicly-Owned Lot					
Annual Maintenance	\$100	Parking Space	100	\$10,000	\$0
ESTIMATED TOTAL ANNUAL COST				\$18,300	\$5,000

South Corridor Park-and-Ride Base Year Costs

Estimated One-Time Capital Costs

Cost Item	Unit Cost	Unit Type	Units	Total Cost Estimate
US 17 & Vicinity of Wal-Mart - Leased Lot				
Improvements and Fixtures	\$1,600	Parking Space	100	\$160,000
Engineering	20%	of Construction	1	\$32,000
Total Cost				\$192,000
I-95 & SR 144 - New Publicly-Owned Lot				
Land Acquisition	\$325,000	Acre	0.5	\$162,500
Construction	\$8,200	Parking Space	50	\$410,000
Engineering	20%	of Construction	1	\$82,000
Total Cost				\$654,500
ESTIMATED TOTAL CONSTRUCTION COST				\$846,500

Estimated Annual Costs

Cost Item	Unit Cost	Unit Type	Units	Total Cost Estimate
US 17 & Vicinity of Wal-Mart - Leased Lot				
Annual Maintenance	\$100	Parking Space	100	\$10,000
Annual Lease	\$120	Parking Space	100	\$12,000
Total Annual Cost				\$22,000
I-95 & SR 144 - New Publicly-Owned Lot				
Annual Maintenance	\$100	Parking Space	50	\$5,000
ESTIMATED TOTAL ANNUAL COST				\$27,000

South Corridor Park-and-Ride Horizon Year Costs

Estimated One-Time Capital Costs

Cost Item	Unit Cost	Unit Type	Units	Total Cost Estimate	Change from Base Year
US 17 & Vicinity of Wal-Mart - Leased Lot					
Improvements and Fixtures	\$1,600	Parking Space	100	\$160,000	\$0
Engineering	20%	of Construction	1	\$32,000	\$0
Total Cost				\$192,000	\$0
I-95 & SR 144 - New Publicly-Owned Lot					
Land Acquisition	\$325,000	Acre	1	\$325,000	\$162,500
Construction	\$8,200	Parking Space	100	\$820,000	\$410,000
Engineering	20%	of Construction	1	\$164,000	\$82,000
Total Cost				\$1,309,000	\$654,500
ESTIMATED TOTAL CONSTRUCTION COST				\$1,501,000	\$654,500

Estimated Annual Costs

Cost Item	Unit Cost	Unit Type	Units	Total Cost Estimate	Change from Base Year
US 17 & Vicinity of Wal-Mart - Leased Lot					
Annual Maintenance	\$100	Parking Space	100	\$10,000	\$0
Annual Lease	\$120	Parking Space	100	\$12,000	\$0
Total Annual Cost				\$22,000	\$0
I-95 & SR 144 - New Publicly-Owned Lot					
Annual Maintenance	\$100	Parking Space	100	\$10,000	\$5,000
ESTIMATED TOTAL ANNUAL COST				\$32,000	\$5,000