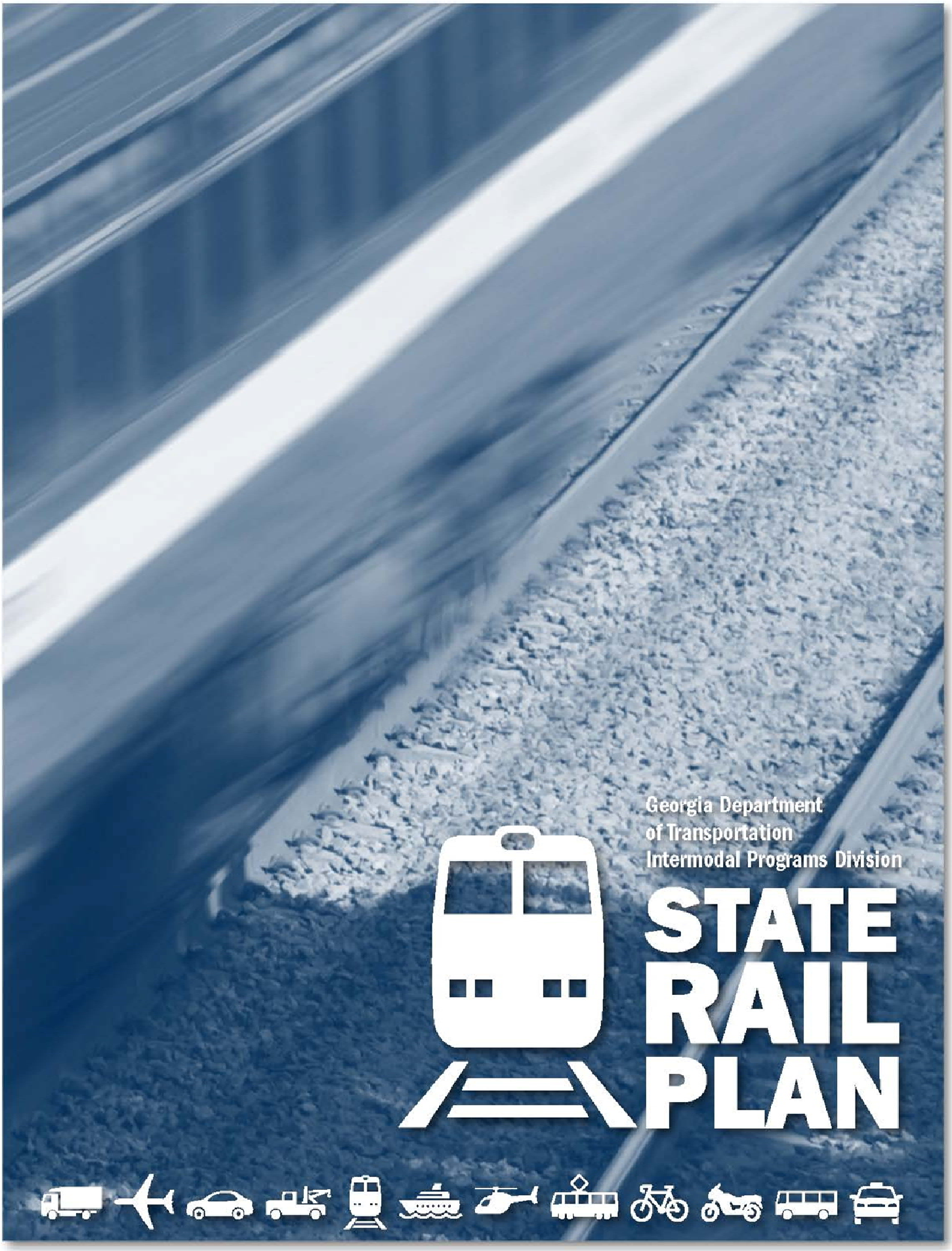

Georgia Department
of Transportation
Intermodal Programs Division

STATE RAIL PLAN

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EXECUTIVE SUMMARY

The 2009 Georgia State Rail Plan (SRP) has been prepared by the Georgia Department of Transportation (GDOT), Intermodal Programs Division. The 2009 SRP is an effort to combine the state's planning for freight and passenger rail into one single coordinated effort and is broader in its scope than the previous efforts. This 2009 SRP is based on and complies with the requirements of the current federal guidelines established in The Passenger Rail Investment and Improvement Act (PRIIA) of 2008.

While it is recognized that there are currently planning and study activities occurring throughout the State of Georgia, this document which is a cursory effort to comply with Federal regulations, will concentrate on State Railroad Projects and Planning efforts and those rail programs currently available for funding by the various Federal Government Assistance programs. A comprehensive State Rail Plan, envisioned for completion in 2011, will include regional and local planning efforts and programs.

CHAPTER 1 of the 2009 SRP covers the plan goals, authority, and the vision for rail in the State of Georgia. It also reviews the applicable federal guidelines and planning requirements necessary for the state rail plan.

The vision for rail transportation in Georgia is to have a

- System that serves Georgians well for both passenger & freight services
- System that provides a preferred choice for intra-state travelers & shippers
- System that provides seamless & energy-efficient intermodal connections from origin to destination
- System that supports economic growth and development

Departmental assistance has allowed the State of Georgia to maintain its industrial and economic competitiveness, providing reduced transportation cost to freight customers, increase rail safety, efficiency and preserve right of way for future rail use.

Chapter 1 also provides an overview of the plans and initiatives related to both freight and passenger elements that were undertaken by the state of Georgia. It also provides a brief overview of the national initiatives related to intercity passenger rail and high-speed rail services.

CHAPTER 2 of the 2009 SRP provides an overview of the freight rail element by documenting the existing rail network inventory both in terms of trackage and traffic levels. This chapter also briefly addresses the freight rail operations in the state of Georgia for Class I railroads and the shortlines (state-owned and non-state owned).

The Georgia Rail system is comprised of 5,039 miles of railroad. Georgia is home to six of the top 50 cargo carriers, including the world's largest, UPS. Between the years of 2010 and 2027, rail tonnage in Georgia is projected to grow by 30%. According to the American Association of Railroads (AAR), rail tonnage in the U.S. is expected to grow by 90% between 2005 and 2035.

In the State of Georgia, Class I railroads, CSXT and NS, operate four major general freight corridors in and through Georgia.

This chapter deals with the state's freight rail assistance program, abandoned rail lines, and Class I railroads bottleneck areas. It also covers the intermodal facilities and connections in the areas of logistics, rail intermodal terminals, ports, and aviation. It summarizes the freight rail funding needs for the state of Georgia with a reference to the national perspective.

GDOT has invested over $27 million in the acquisition and rehabilitation of abandoned rail line segments in Georgia. GDOT owns 19 line segments, totaling 540 miles.

The State Rail Freight Assistance Program helps to maintain economic competitiveness and preserve rail freight service to 78 businesses with 2,100 employees, primarily in rural towns. It also reduces shipping costs by $20 million annually, with 175,000 carloads shipped a year.

Macon is a major classification yard, and it is the second busiest NS main line junction point in Georgia after Atlanta.

Georgia's top-10 trading partnerships are also all top-10 in the nation, four are 4th or better. Georgia's container terminal is the 3rd largest in the Nation (behind only #1-LA/LB, #2-NY/NJ); shipping over 2,616 million TEU's in 2008.

Georgia's freight investment needs for GDOT owned lines follow the national trend as outlined above and hence GDOT has identified the following overall needs for GDOT owned freight rail investment:

- ✓ Accommodate existing traffic safely and efficiently
- ✓ Handle increased use of high axle load cars
- ✓ Ability to return track structure to a state of good repair
- ✓ Maintain load bearing capacity on existing bridges
- ✓ Provide mode choice for shippers

CHAPTER 3 of the 2009 SRP provides an overview of the passenger rail element by documenting GDOT's previous studies and plans for passenger rail. It also provides an in-depth look at all the studies and reports prepared by GDOT related to the high-speed rail corridor development. This chapter also briefly addresses the existing and proposed passenger rail operations – Amtrak, High-Speed Rail, and Intercity passenger rail services. Chapter 3also provides a quick overview of the excursion train operations in the state of Georgia.

Individual trips within the corridor between Atlanta and Macon are projected to grow at a phenomenal rate of 103% This equates to 10 million annual round trips within the corridor by 2020 compared to 1990 levels. Atlanta is the largest urban area within the Piedmont Atlantic Mega Region which also includes Birmingham, Charlotte, and Raleigh.

10 intercity rail lines linking 9 of Georgia's largest cities and towns with the Macon area as well as linking two of the largest travel markets in adjoining states are being proposed by the state of Georgia. 2.1 million passengers are projected to ride intercity passenger rail annually by 2030.

CHAPTER 4 of the 2009 SRP provides an overview of the station planning and economic impacts of rail transportation. This chapter deals with passenger station planning elements with emphasis on the state-wide rail station connectivity framework and the "hub locations" for intercity and high-speed rail service. Chapter 4 provides an overview of the station platforms and general

station site requirements. It also deals with the transit oriented development element with preferred rail development corridors and growth patterns.

Chapter 4 provides a quick summary of the economic benefits of rail programs with a national perspective as well as the state's recently completed study on Investments in Tomorrow's Transportation Today (IT3). The benefits of high-speed rail and specifically related to the southeast high speed corridor are also discussed in this chapter.

Macon will be a hub for rail service to many points in middle Georgia and South Georgia. An investment of $148 billion (in 2007 dollars) for rail freight infrastructure expansion over the next 28 years is required to keep pace with economic growth and meet the U.S. Department of Transportation's (DOT) forecast demand through 2035.

Based on a recently completed "2009 Georgia Annual Logistics Report", freight rail investment in the amount of $9.7 billion in 2008 dollars would result in significant benefits to the State of Georgia. By capturing the freight opportunity, Georgia could generate approximately $61 billion in economic benefits over 30 years.

CHAPTER 5 of the 2009 SRP covers the overall infrastructure program for Class III railroads, shortlines – both state-owned and non-state owned, and also provides a quick overview of the available funding options (national, state, and regional levels). This chapter covers the public and private benefits related to rail related investments and also provides a good overview of the tax credits that need to be explored in the future.

Railroads spend about five times more to maintain their systems and equipment than the average U.S. manufacturer spends on plants and equipment. Based on the state-wide freight plan updates conducted in 2000 and 2002/2003, an estimated total of $105.1 million (costs updated to 2008$) is needed for capital improvements, with short-term capital needs (0-5 years) totaling $56.3 million and long-term needs (5-10 years) totaling another $48.8 million for the non-state owned shortlines.

Based on the recent 2008 state-owned shortline freight plan update, an estimated total of $69.4 million (2008$) is needed for capital improvements, with short-term capital needs (0-3 years) totaling $37 million and long-term needs (3-10 years) totaling another $32.4 million for the state owned shortlines.

CHAPTER 6 of the 2009 SRP provides a quick overview of the states the policy statements that the state of Georgia needs to adopt for future rail planning and implementation.

POLICY STATEMENT # 1: Maintain the freight rail system in a state of good repair to move freight traffic efficiently.

POLICY STATEMENT # 2: Explore additional funding mechanisms to bring the existing freight lines to a state of good repair.

POLICY STATEMENT # 3: Implement initial intercity passenger rail service between Atlanta and Macon.

POLICY STATEMENT # 4: Take an active leadership role in the incremental development and implementation of High Speed Passenger rail service with efforts to

realize 200 mph service in the future. Work with our sister states and create a high-speed rail network connecting major southeastern cities with Atlanta and Macon as multimodal hubs in the State of Georgia.

POLICY STATEMENT # 5: Work with the Georgia Center of Innovation for Logistics to identify and develop a comprehensive plan for capacity improvements to ensure proper movement of goods and maintain the State of Georgia as a leader in logistics.

POLICY STATEMENT # 6: Enhance state's economic development potential by providing state-wide rail connectivity and subsequently providing high quality job opportunities

POLICY STATEMENT # 7: Provide a key operational role for any and all potential passenger rail operators in the implementation of state's passenger rail service.

I IDENTIFICATION OF PLAN GOALS, AUTHORITY, AND VISION

A. Review of Applicable Federal Guidelines and Requirements

The 2009 Georgia State Rail Plan (SRP) has been prepared by the Georgia Department of Transportation (GDOT), Intermodal Programs Division. The 2009 SRP is an effort to combine the state's planning for freight and passenger rail into one single coordinated effort and is broader in its scope than the previous efforts. This 2009 SRP is based on and complies with the requirements of the current federal guidelines established in The Passenger Rail Investment and Improvement Act (PRIIA) of 2008.

The Federal government requires that each state develop, maintain, and update a Statewide Transportation Plan (SWTP). These requirements are codified in 23 CFR 450.212 and 450.214. Accordingly, the Georgia State Transportation Board has adopted the following policy for the Georgia Department of Transportation (GDOT) to follow:

> *The Department shall develop and maintain a long-range state transportation plan for all areas of the State as required under Title 32 of the Georgia Code, Section 32-2-3, and 23 Code of Federal Regulations, Part 450, Section 214. This plan shall provide for the development of transportation facilities that will function as an intermodal state transportation system and that will be a guide for implementation of transportation facilities in the State of Georgia.*

The Rail Safety Improvement Act of 2008 and the Passenger Rail Investment and Improvement Act of 2008 were signed by the President on October 15, 2008. The Passenger Investment and Rail Improvement Act of 2008 established for the first time an intercity passenger rail capital grant program for states. States must identify intercity passenger rail corridor improvement projects in their current state rail plans to be eligible for the federal capital grant programs that are proposed.

The 2009 Georgia SRP will serve to fulfill all applicable federal planning requirements, including:

- The planning regulations of the federal Local Rail Freight Assistance Program remain in effect *(see 49 CFR 266.15)*, although the program is not currently funded.
- Federal planning guidelines, as contained in Title 49, Part 266 of the Code of Federal Regulations, require the State Rail Plan to provide a description and assessment of the condition of the state's rail system.
- The federal planning regulations as outlined in the Passenger Rail Investment and Improvement Act of 2008 under sections 303, 307, and 501.

B. Overview & Vision of Rail Transportation in Georgia

The State of Georgia has prospered economically through the vision of its leaders and the productivity of its citizens. That vision has always understood the importance of mobility of people and goods in Georgia through transportation systems that are among the best in the world. The world's busiest airport in Hartsfield-Jackson Atlanta International Airport (HJAIA), a highway system consistently ranked as the best maintained in the nation, rapidly growing port activities in the Ports of Savannah and Brunswick and burgeoning freight rail activity all reflect that understanding.

That focus on mobility has allowed Georgia to grow during the last two decades at an unparalleled rate. Based on 2006 reports, population in the State of Georgia ranked 10th in the nation at 9,363,941 and is projected to grow to 12,017,838 to become the 8th most populated state in the United States. However, even with continuing significant investments in the airports and highways of Georgia, the growth in passenger travel has begun to tax the ability of the transportation system to keep up with the needs of its citizens and visitors. There is another mode of passenger transportation that was once a significant contributor to meeting transportation needs – rail transportation to handle passengers and freight.

The vision for rail transportation in Georgia is to have a

- System that serves Georgians well for both passenger & freight services
- System that provides a preferred choice for intra-state travelers & shippers
- System that provides seamless & energy-efficient intermodal connections from origin to destination
- System that supports economic growth and development

C. Plans & Initiatives

The State of Georgia is traversed by a 5,039 mile network of railroads, many of which are operating below their capacity. Even the busiest lines have capacity for expansion within existing right of way at a reasonable cost.

i. Passenger

GDOT has completed studies of the potential for Commuter Rail operations in the metropolitan Atlanta region and Intrastate Passenger Rail service throughout Georgia. Those studies found, through an exhaustive study of passenger travel by mode and trip preference surveys, that Georgians would make 7 to 10 million trips a year by passenger rail if it were provided at a reasonable cost, was reliable, and provided a frequency of service to meet their travel needs. GDOT prepared detailed commuter rail plans (1995), intercity rail plans (1997), Georgia Rail Passenger

Program (GRPP – 1999). Since 2000, GDOT focused its efforts in preparing detailed Environmental Assessments (EA) for the Atlanta-Macon corridor, Atlanta-Athens corridor, Concept development and environmental updates for the Atlanta Multi-Modal Passenger Terminal (MMPT), and GRPP costs and ridership update.

The State of Georgia is focused on developing intercity rail and assisting the region with its vision for future commuter rail service.

ii. Freight

GDOT stands committed to Freight Rail Transportation and will continue to work with private railroad companies, state and local governments to preserve and expand freight railroad services in Georgia.

Departmental assistance has allowed the State of Georgia to maintain its industrial and economic competitiveness, providing reduced transportation cost to freight customers, increase rail safety, efficiency a preserve right of way for future rail use.

The State Rail Freight Plan Update fulfills FRA requirements that the State of Georgia, establishes, update, and revise a Rail Plan at periodic intervals in order to receive Local Rail Freight Assistance funds. GDOT first published the State Rail Freight Plan in 1978 to address a series of rail line abandonments experienced in the state since the 1960s. Subsequent updates were published in 1980, 1985, 1989, 2000, and 2003. *A recent update focusing on only the GDOT owned shortline railroads was undertaken in 2008 and was completed in June 2009.* The 2008 Georgia Railroad Freight Plan Update consists of GDOT-owned railroad segments leased and operated by shortline railroads; Ogeechee Railroad Company (ORC), Georgia Northeastern Railroad (GNRR), Chattooga and Chickamauga Railway (CCKY), Georgia and Florida Railroad (GFRR), Heart of Georgia Railroad (HOG) and Georgia Southwestern Railroad (GSWR). These segments have very low freight traffic density and were last reviewed in the 2003 State Rail Freight Plan.

The State initiated its freight planning efforts consistent with federal regulations. The federal rail service assistance program was established by the Federal Railroad Revitalization and Regulatory Reform Act of 1976 (4R Act), and was amended by the Local Rail Service Assistance (LRSA) Act of 1978 and the Omnibus Budget Reconciliation Act of 1981. The LRSA program provided funding on a federal/local matching share basis for four types of projects: rehabilitation, new construction, substitute service, and acquisition. The LRSA Program permitted states to provide funds on a grant or loan basis.

In 1977 the Georgia Legislature adopted legislation that authorized GDOT as the designated state agency to offer financial assistance to enable the continuation of rail service that may otherwise have been abandoned.

iii. National Initiatives

In February 2009, President Barack Obama established High-Speed Rail (HSR) as a national priority and a significant element of the American Recovery and reinvestment Act (ARRA) to assist the United States "build a robust, green economy, gain energy independence, reverse global climate change, and foster more livable, connected communities".

On June 17, 2009 the Federal Railroad Administration released interim guidance that provided information on qualified applicants to apply for federal funding through select funding tracks. The interim guidance from FRA consolidated previously passed intercity and high-speed rail funding acts into one document. Consolidated documents include:

- The High-Speed Rail Corridor Development program, authorized under Section 501 of the Passenger Rail Investment and Improvement Act of 2008 *("PRIIA," Division B of Pub. L. 110-432, October 16, 2008, codified at 49 U.S.C. 26106)*

- The Intercity Passenger Rail Service Corridor Capital Assistance program, authorized under Section 301 of PRIIA *(codified at 49 U.S.C. chapter 244);*
- The Congestion Grants program, authorized under Section 302 of PRIIA *(codified at 49 U.S.C. 24105*);
- The Fiscal Year (FY) 2009 Capital Assistance to States – Intercity Passenger Rail Service program, authorized and funded under the Department of Transportation Appropriations Act, 2009 *("FY 2009 DOT Appropriations Act," Title I of Division I of Pub. L. 111-8, March 11, 2009)*
- The FY 2008 Capital Assistance to States – Intercity Passenger Rail Service program, authorized and funded under the Department of Transportation Appropriations Act, 2008 *("FY 2008 DOT Appropriations Act," Title I of Division K of Pub. L. 110-161, December 26, 2007)*.
- Interim guidance required for this program pursuant to the American Recovery and Reinvestment Act of 2009 ("ARRA," Pub. L. 111-5, February 17, 2009) Sections 301, 302, and 501; and (ii) interim guidance required pursuant to 49 U.S.C. 24402(a) (2).
- Funding made available under this financial assistance announcement was appropriated under ARRA, and the FY 2008/2009 DOT Appropriations Act. The funding opportunities described in this guidance are available under Catalog of Federal Domestic Assistance (CFDA) numbers 20.317 and 20.319.

The USDOT High-Speed Rail Corridor Map shown in Figure 1 indicates high-speed rail corridors defined in the past decade. The map includes the corridors that are being considered today. In April of 2009, President Obama presented his vision for a National High-Speed Rail System. In addition, his vision is funded for a solid start to a long journey to establish express high-speed rail connectivity.

Figure 1. High-Speed Rail Corridors

As seen from the map in Figure 1, Georgia currently hosts three designated high-speed rail corridors - the Gulf Coast Corridor, and a central and Atlantic branch of the Southeast corridor. With three designated high-speed rail corridors, Georgia becomes a major hub and its capital, Atlanta becomes a major terminal junction for high-speed passenger rail.

Additional corridors under consideration include:

- Atlanta – Chattanooga – Louisville
- Houston – Austin
- Orlando – Jacksonville
- Pittsburgh – Cleveland
- Sacramento – Eugene
- Los Angeles – Las Vegas
- Denver along the front range

iv. Existing State and Local Plans within Georgia

GDOT's Office of Planning is responsible for developing the Statewide Transportation Plan (SWTP). The 2005 Plan update was the third SWTP update prepared by GDOT in the past 12 years. Given that a major update was undertaken in 2000, the 2005 Plan was intended to provide continuity with that prior effort and was not intended to initiate major new policy initiatives. Highways, Bus, Rail, Air, Bicycle, and Pedestrian modes of transportation were addressed in the 2005 SWTP.

The 2005 SWTP Plan was not intended to select specific projects, but rather to present a programmatic assessment of the State's transportation systems. The goals for the 2005 SWTP Development were similar to those for the 2000 Statewide Plan and were affirmed/developed early in the public outreach process, and were consistent with Federal requirements:

- Support the economic vitality of the United States, and the entire State of Georgia; especially by enabling global competitiveness, productivity and efficiency;
- Increase the safety of the transportation system for all motorized and non-motorized users;
- Increase the ability of the transportation system to support homeland security and to safeguard the personal security of all motorized and non-motorized users;
- Increase accessibility and mobility of people and freight;
- Protect and enhance the environment, promote energy conservation, improve the quality of life, and promote consistency between transportation improvements and State and local planned growth and economic development patterns;

- Enhance the integration and connectivity of the transportation system, across and between modes throughout the State, for people and freight;
- Promote efficient system management and operation;
- Emphasize the preservation of the existing transportation system.

The SWTP Update encompassed the jurisdictions of a number of agencies responsible for formulation of policies and implementation with respect to transportation projects. Coordination efforts with various agencies were conducted through a Stakeholder Advisory Committee that met at key milestones during the SWTP Update process. The Advisory Committee consisted of transportation agency staff and officials from the non-MPO areas of the State. Members of the committee were asked to provide feedback to the project team early in the project in order to identify key concerns and priorities, and were tasked to review preliminary findings and solicit community perspectives on the Statewide Transportation Plan Update. The agency involvement process was structured to provide insight and recommendations at key milestones during the process. Members of the Stakeholder Advisory Committee included representatives from the following organizations:

- ✓ Association of County Commissioners of Georgia (ACCG)
- ✓ Central Savannah River Area RDC
- ✓ Chattahoochee/Flint RDC
- ✓ Coastal Georgia RDC
- ✓ Coosa Valley RDC
- ✓ Georgia Economic Developers Association (GEDA)
- ✓ Georgia Mountains RDC
- ✓ Georgia Municipal Association
- ✓ Georgia Rural Development Council
- ✓ Georgia Transit Association
- ✓ Heart of Georgia-Altamaha RDC
- ✓ Lower Chattahoochee RDC
- ✓ McIntosh Trail RDC
- ✓ Middle Flint RDC
- ✓ Middle Georgia RDC
- ✓ North Georgia RDC
- ✓ Northeast Georgia RDC
- ✓ South Georgia RDC
- ✓ Southeast Georgia RDC
- ✓ Southwest Georgia RDC
- ✓ Georgia Department of Natural Resources
- ✓ Georgia Department of Economic Development
- ✓ Georgia Department of Community Affairs
- ✓ State Road and Tollway Authority (SRTA)
- ✓ State Transportation Board

The SWTP included an existing conditions inventory, forecast of no-build and fiscally constrained alternatives, and funding sources (state and local) for rail transit in the state of Georgia.

D. Development Authority of State Rail Plan

The entity responsible for the preparation, maintenance, and update of the state-wide rail plan is Georgia Department of Transportation. Mr. Erik Steavens, Division Director Intermodal Programs, GDOT, will be the point of contact for the Department in terms of preparation, maintenance, and any related updates to the statewide rail plan.

II FREIGHT RAIL

A. Existing Rail Network Inventory

i. Existing Trackage Inventory

The Georgia Rail system is comprised of 5,039 miles of railroad.

Two Class I railroads, Norfolk Southern Railway (NS) and CSX Transportation (CSXT) own or operate approximately 70% of the total mileage. Class I railroads, as defined by the Surface Transportation Board (STB), are line haul freight railroads with 2007 operating revenue in excess of $359.6 million dollars. The remaining 30% of track is operated by 25 Class III (shortline) railroads. A Class III is defined as having annual operating revenues of less than $40 million dollars and generally has less than 100 miles of mainline track. Class II is classified by STB as railroads having operating revenues between $40 million and $359.6 million. There are no Class II railroads in Georgia.

Figure 2 shows the existing rail system in the State of Georgia. This figure depicts Class I railroads (NS & CSXT), Shortlines, GDOT completed rehabilitation projects, and abandonment projects throughout the State of Georgia. Table 1 also summarizes the existing rail system both in terms of ownership as well as the existing trackage inventory in the State of Georgia.

ii. Current Traffic Levels and Trends

Table 2 summarizes the rail tonnage in Georgia in terms of leading originating, terminating, and overhead freight commodities. The current freight traffic levels and trends are summarized in Table 3. As shown in Table 3, the total freight traffic originating is about 26,850,727 tons and the terminating traffic is approximately 75,457,891 tons. The freight traffic in terms of intrastate travel is about 13,968,300 tons and approximately 98,624,964 tons is the through traffic in the State of Georgia. The key rail tonnage routes are shown in Figure 3.

Based on a recently completed "2009 Georgia Annual Logistics Report", Georgia is home to six of the top 50 cargo carriers, including the world's largest, UPS. Cargo from Georgia is within two or fewer days from 80% of the nation's commercial and

industrial markets. Each week a combined 12 million tons of cargo moves on Georgia's 21,000 miles of highways. Georgia is the origin for approximately 27 million rail-tons and destination for 75 million rail-tons of cargo every year.

Georgia is home to six of the top 50 cargo carriers, including the world's largest, UPS.

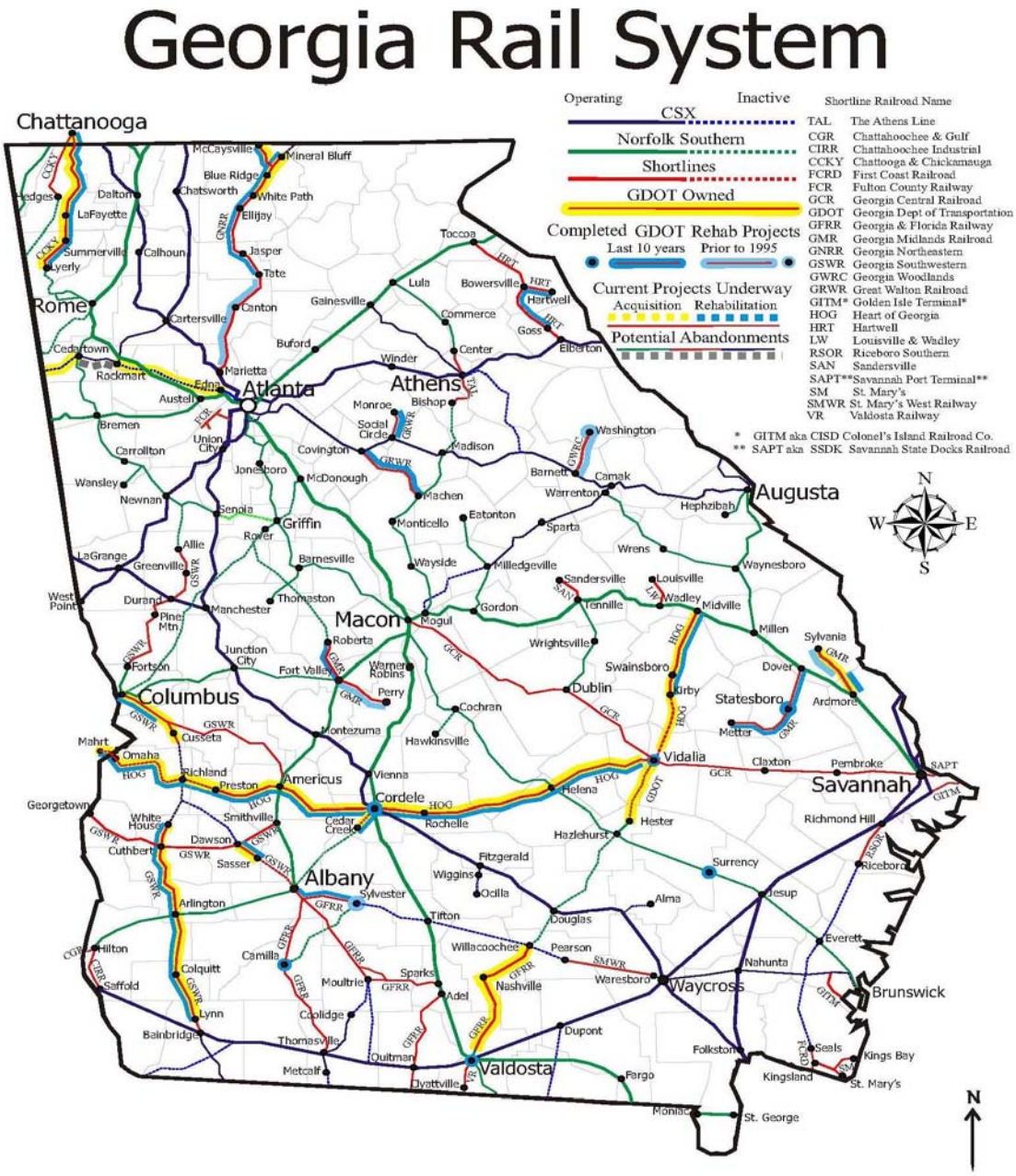


Figure 2. Existing Rail System in Georgia

Table 1. Existing Georgia Railroads - Estimated 2009 Track Route Mileage

	Class 1 Railroads				Main Line		Light Density	
				Total Miles	Miles	Percent	Miles	Percent
	Norfolk Southern			**1,908**	**1,079**	**56%**	**829**	**44%**
	CSX Transportation			**1,626**	**1,384**	**85%**	**242**	**15%**
	Subtotal (Class I)			*3,534*	*2,463*	*69%*	*1,071*	*31%*
	Georgia Shortline Railroads	Abbreviation		**Total Miles**	**Miles**		**Miles**	
1	The Athens Line	ABR		*19*	*0*		19	
2	Chattahoochee & Gulf	CGR		2	*0*		2	
3	Chattahoochee Industrial	CIRR		16	*0*		16	
4	Chattooga & Chickamauga	CCKY		68	*0*		68	
5	First Coast Railroad	FCRD		8	*0*		8	
6	Fulton County Railway	FCR		55	*0*		55	
7	Georgia Central	GCR		152	*0*		152	
8	Georgia & Florida Railway	GFRR		232	*0*		232	
9	Georgia Midland Railroad	GMR		57	*0*		57	
10	Ogeecheee Railroad Company	ORC		21	*0*		21	
11	Georgia Northeastern	GNRR		100	*0*		100	
12	Georgia Southwestern	GSWR		294	*0*		294	
13	Georgia Woodlands	GWRC		17	*0*		17	
14	Golden Isle Terminal	GITM		19	*0*		19	
15	Great Walton	GRWR		36	*0*		36	
16	Hartwell	HRT		58	*0*		58	
17	Heart of Georgia	HOG		226	*0*		226	
18	Louisville & Wadley	LW		10	*0*		10	
19	Riceboro Southern	RSOR		19	*0*		19	
20	Saint Mary's	SM		18	*0*		18	
21	Saint Mary's West Railway	SMWR		23	*0*		23	
22	Sandersville	SAN		13	*0*		13	
23	Savannah Port Terminal	SAPT		10	*0*		10	
24	Squaw Creek Southern Railroad	SCS		22	*0*		22	
25	Valdosta Railway	VR		10	*0*		10	
	Subtotal (Shortlines)			**1,505**	**0**		**1,505**	
	Total Railroad Mileage			**5,039**	**2,463**	mainline	**2,576**	Low den.

Notes:
1. Some rail mileage listed above is not in service, but still active.

Source: GDOT Intermodal Programs Division

Table 2. Rail Tonnage in Georgia

Year	Carloads	% change	Year	Tons	% change
2004*	**3,934,239**	**8.7%**	**2004***	**214,901,882**	**7.2%**
2003	3,619,915		2003	200,449,328	
	Historical View			**Historical View**	
1998	3,504,493	0.7%	1998	194,838,359	-0.2%
1997	3,480,524	3.7%	1997	195,213,778	3.1%
1996	3,354,951	7.1%	1996	189,311,662	8.0%
1995	3,133,450	0.5%	1995	175,210,017	0.9%
1994	3,119,027	10.0%	1994	173,710,342	10.8%
1993	2,836,746	4.4%	1993	156,845,338	3.4%
1992	2,717,213		1992	151,667,735	

Georgia's Leading ORIGINATING Freight Commodities

Commodity	Tonnage	% of Total
CLAY, CONCRETE,GLASS OR STONE	5,361,536	20.0%
NONMETALLIC MINERALS	4,154,574	15.5%
MISC MIXED SHIPMENTS	3,522,680	13.1%
PULP, PAPER OR ALLIED PRODUCTS	3,234,780	12.0%
LUMBER OR WOOD PRODUCTS	2,287,650	8.5%
All other commodities	*8,289,507*	*30.9%*
Total	**26,850,727**	100.0%

Georgia's Leading TERMINATING Freight Commodities

Commodity	Tonnage	% of Total
COAL	36,683,206	48.6%
FARM PRODUCTS	7,011,333	9.3%
CHEMICALS OR ALLIED PRODUCTS	4,655,368	6.2%
MISC MIXED SHIPMENTS	4,560,760	6.0%
FOOD OR KINDRED PRODUCTS	3,897,664	5.2%
All other commodities	18,649,560	*24.7%*
Total	75,457,891	100.0%

Georgia's Leading OVERHEAD Freight Commodities

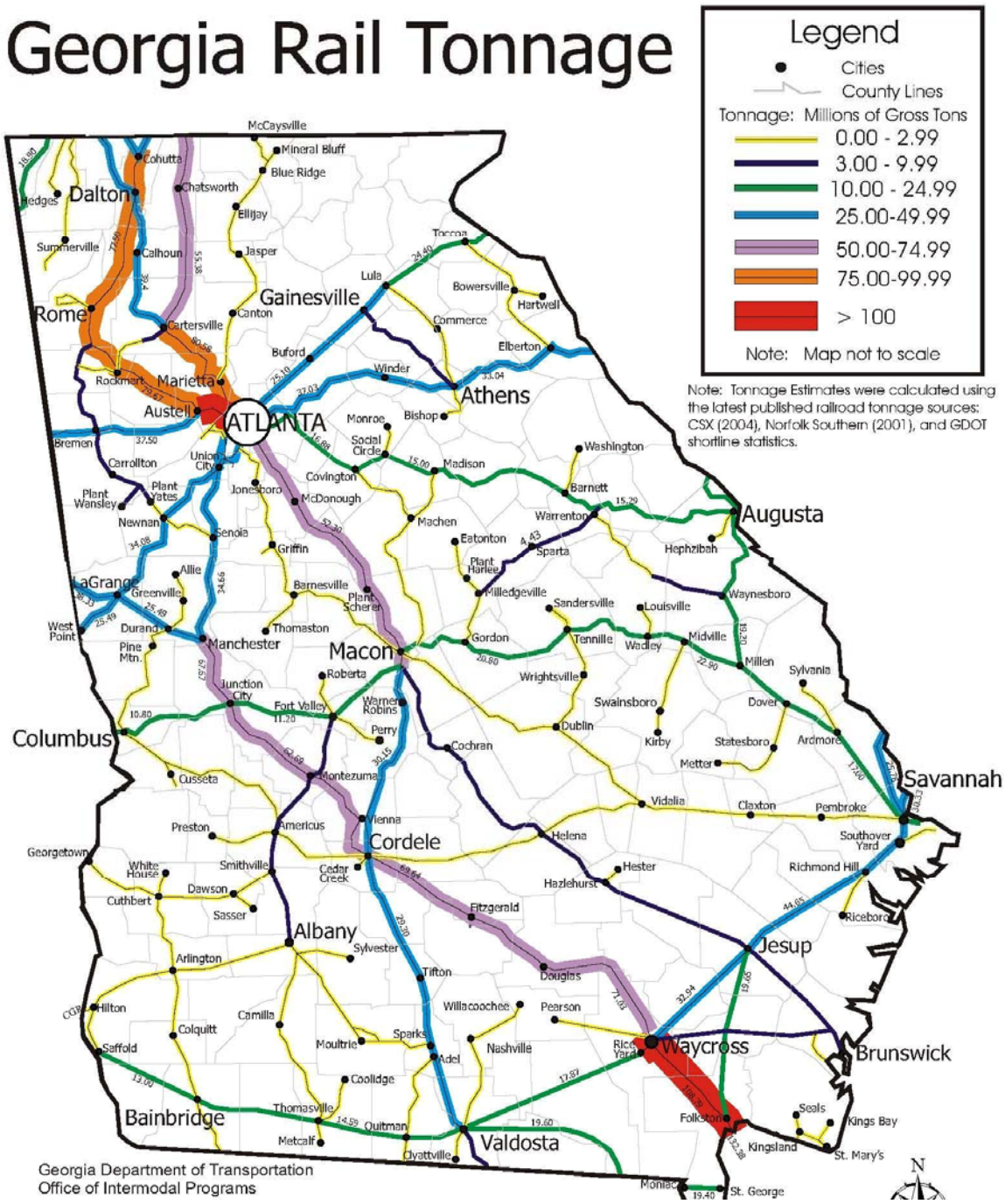
Commodity	Tonnage	% of Total
COAL	24,882,934	25.2%
CHEMICALS OR ALLIED PRODUCTS	12,253,288	12.4%
HAZARDOUS MATERIALS OR SUBSTANCES	8,925,098	9.0%
FOOD OR KINDRED PRODUCTS	7,437,732	7.5%
MISC MIXED SHIPMENTS	6,855,720	7.0%
All other commodities	38,270,192	*38.8%*
Total	98,624,964	100.0%

Source: GDOT Intermodal Programs Division

Table 3. 2004 Georgia Rail Freight Traffic by Commodity

STCC	Commodity	Originating	Terminating	Intrastate	Through	Total Tons
1	FARM PRODUCTS	467,384	**7,011,333**	159,016	**4,190,093**	**11,827,826**
8	FOREST PRODUCTS	0	0	0	71,560	**71,560**
9	FRESH FISH OR MARINE RODUCTS	0	3,280	0	11,760	**15,040**
10	METALLIC ORES	219,880	198,348	169,516	917,916	**1,505,660**
11	COAL	4,040	**36,683,206**	31,407	**24,882,934**	**61,601,587**
14	NONMETALLIC MINERALS	**4,154,574**	1,847,092	6,456,786	2,626,742	**15,085,194**
19	ORDNANCE OR ACCESSORIES	0	4,440	0	60,984	**65,424**
20	FOOD OR KINDRED PRODUCTS	1,131,488	**3,897,664**	196,524	**7,437,732**	**12,663,408**
22	TEXTILE MILL PRODUCTS	123,480	8,960	0	19,360	**151,800**
23	APPAREL OR RELATED PRODUCTS	126,680	101,080	0	517,840	**745,600**
24	LUMBER OR WOOD PRODUCTS	2,287,650	2,051,948	1,685,644	**3,386,820**	**9,412,062**
25	FURNITURE OR FIXTURES	16,160	20,320	0	116,960	**153,440**
26	PULP, PAPER OR ALLIED PRODUCTS	**3,234,780**	2,431,292	549,280	**6,629,872**	**12,845,224**
27	PRINTED MATTER	19,600	27,680	0	60,880	**108,160**
28	CHEMICALS OR ALLIED PRODUCTS	1,084,752	**4,655,368**	444,208	**12,253,288**	**18,437,616**
29	PETROLEUM OR COAL PRODUCTS	80,868	704,738	155,655	**3,936,645**	**4,877,906**
30	RUBBER OR MISC PLASTICS	116,040	67,560	5,960	243,840	**433,400**
31	LEATHER OR LEATHER PRODUCTS	0	1,040	0	17,880	**18,920**
32	CLAY, CONCRETE, GLASS OR STONE	**5,361,536**	**3,884,476**	2,402,920	**4,391,020**	**16,039,952**
33	PRIMARY METAL PRODUCTS	275,668	1,055,944	0	**3,795,076**	**5,126,688**
34	FABRICATED METAL PRODUCTS	19,320	16,840	0	77,440	**113,600**
35	MACHINERY	13,640	37,200	3,000	118,712	**172,552**
36	ELECTRICAL EQUIPMENT	61,640	77,440	0	241,840	**380,920**
37	TRANSPORTATION EQUIPMENT	932,984	1,580,380	28,900	**3,223,884**	**5,766,148**
38	INSTRUM, PHOTO EQUIP, OPTICAL Q	520	1,960	0	4,880	**7,360**
39	MISC MANUFACTURING PRODUCTS	13,160	30,720	0	63,320	**107,200**
40	WASTE OR SCRAP MATERIALS	1,481,784	1,351,612	270,532	2,449,016	**5,552,944**
41	MISC FREIGHT SHIPMENTS	109,535	128,526	69,716	272,892	**580,669**
42	SHIPPING CONTAINERS	354,840	334,000	152,320	511,080	**1,352,240**
43	MAIL OR CONTRACT TRAFFIC	46,260	90,560	0	105,520	**242,340**
44	FREIGHT FORWARDER TRAFFIC	2,680	720	0	4,160	**7,560**
45	SHIPPER ASSOCIATION TRAFFIC	2,120	6,040	0	78,840	**87,000**
46	MISC MIXED SHIPMENTS	**3,522,680**	**4,560,760**	468,400	**6,855,720**	**15,407,560**
47	SMALL PACKAGED FREIGHT SHIPMENTS	640	7,000	0	2,480	**10,120**
48	WASTE	25,720	0	0	119,160	**144,880**
49	HAZARDOUS MATERIALS OR SUBSTANCES	1,558,624	2,578,364	718,516	**8,925,098**	**13,780,602**
50	SECONDARY TRAFFIC	0	0	0	1,720	**1,720**
	TOTAL	*26,850,727*	*75,457,891*	*13,968,300*	*98,624,964*	***214,901,882***

Source: GDOT Intermodal Programs Division


Georgia Rail Tonnage
Legend
Cities
County Lines
Tonnage: Millions of Gross Tons
0.00 - 2.99
3.00 - 9.99
10.00 - 24.99
25.00-49.99
50.00-74.99
75.00-99.99
> 100
Note: Map not to scale
Note: Tonnage Estimates were calculated using the latest published railroad tonnage sources: CSX (2004), Norfolk Southern (2001), and GDOT shortline statistics.
Georgia Department of Transportation
Office of Intermodal Programs
ATLANTA
Augusta
Savannah
Columbus
Macon
Cordele
Albany
Waycross
Brunswick
Jesup
Valdosta
Athens
Gainesville
Rome
Dalton
Marietta
Austell
LaGrange
Bainbridge
Manchester
Thomaston
Griffin
McDonough
Covington
Madison
Washington
Barnett
Warrenton
Sparta
Milledgeville
Sandersville
Louisville
Waynesboro
Dublin
Swainsboro
Statesboro
Vidalia
Claxton
Pembroke
Hazlehurst
Douglas
Fitzgerald
Tifton
Moultrie
Thomasville
Quitman
Metcalf
Folkston
Kingsland
St. Mary's
St. George
Kings Bay
Seals
Richmond Hill
Southover Yard
Riceboro
Ardmore
Sylvania
Dover
Millen
Midville
Wadley
Tennille
Gordon
Wrightsville
Cochran
Perry
Warner Robins
Fort Valley
Junction City
Roberta
Montezuma
Vienna
Americus
Preston
Cusseta
Georgetown
White House
Smithville
Dawson
Cuthbert
Sasser
Cedar Creek
Helena
Hester
Pearson
Willacoochee
Nashville
Adel
Sparks
Camilla
Colquitt
Arlington
Sylvester
Hilton
Saffold
Coolidge
Ocilla
Cyattville
Metcalf
Pine Mtn.
West Point
Durand
Greenville
Allie
Newnan
Senoia
Carrollton
Plant Wansley
Plant Yates
Bremen
Union City
Jonesboro
Rockmart
Cartersville
Calhoun
Summerville
Hedges
Cohutta
Chatsworth
Ellijay
Jasper
Canton
Buford
Lula
Winder
Monroe
Social Circle
Bishop
Commerce
Bowersville
Hartwell
Elberton
Toccoa
Mineral Bluff
Blue Ridge
McCaysville
Eatonton
Plant Harlee
Plant Scherer
Barnesville
Machen
Hephzibah
Sylvania
Metter
Claxton
Helena
Hazlehurst
Douglas
Pearson
Rice Yard
Kingsland
Folkston
Nashville
Willacoochee
Sylvester
Cordele
Cedar Creek
Americus
Vienna
Montezuma
Cusseta
Fort Valley
Warner Robins
Perry
Cochran
Dublin
Kirby
Statesboro
Metter
Swainsboro
Wrightsville
Gordon
Tennille
Wadley
Midville
Millen
Sylvania
Dover
Ardmore
Riceboro
Richmond Hill
Southover Yard
Pembroke
Vidalia
Claxton
Hazlehurst
Hester
Fitzgerald
Douglas
Tifton
Sylvester
Albany
Arlington
Hilton
Colquitt
Camilla
Moultrie
Sparks
Adel
Nashville
Coolidge
Thomasville
Quitman
Metcalf
Cyattville
Valdosta
Bainbridge
Saffold
Cuthbert
Sasser
Dawson
Smithville
White House
Georgetown
Preston
Cusseta

Based on a recently completed "2009 Georgia Annual Logistics Report", between the years of 2010 and 2027, truck tonnage in Georgia is projected to grow by 260 million tons or an increase of 50%. 2007 truck tonnage totaled 641 million tons, had a value of $1.9 trillion, and required roughly 53 million movements.

Freight tonnage moves through Georgia from a variety of locations such as:

- Mobile, Alabama
- New Orleans, Louisiana
- Tampa, Florida
- Jacksonville, Florida
- Savannah, Georgia
- Brunswick, Georgia

The top truck origin and destination state is Florida, sending 26% of total tonnage into Georgia and receiving 15%. The furthest top ten origin and destination states include California, Texas, New York and Illinois. 2007 rail tonnage totaled 215 million tons, had a value of $209 billion, and required roughly 3.8 million movements.

According to the American Association of Railroads (AAR), rail tonnage in the U.S. is expected to grow by 90% between 2005 and 2035.

The top rail origin state was Tennessee with 26% of the total import tonnage; top destination was Florida with 26% of total export tonnage. Roughly 4.2 million tons of cargo entered or exited the U.S. from outside of Georgia and yet either started or ended up here. In 2007 approximately 51% of all intra-state truck cargo movements were empty; totaling 12.6 million movements (most were also intra-county).

The railroads in Georgia are seeking an advantage over their chief rivals, long-haul trucking, which has struggled with rising fuel costs, driver shortages and highway congestion. Railroads can move cargo by rail using about a third as much fuel as it takes to haul it by truck. Furthermore, rail transport is becoming even more efficient as the railroads upgrade their lines and logistics companies build large warehouses – distribution centers – along their routes. Railroads in Georgia are eager to capture a fair share of the projected increase in cargo movement.

B. Freight Rail Operations

The transport of freight is an issue that encompasses the highway (as trucking), rail, water, and air modes. While the needs, deficiencies, and recommendations for each of these modes, including those related to freight, were addressed within the 2005-2035 SWTP, it is useful to provide a context for freight that addresses existing and future

freight demand across all of these modes. The analysis completed as part of the 2005-2035 SWTP documented the flow of freight as tonnage, to better understand the demands placed on the transportation infrastructure, the flow of freight as dollar value, and the importance to the economy.

The state's rail system is comprised of 5,039 route miles over which 25 rail carriers operate. Like the rest of the country, Georgia has experienced line abandonments (1,144 miles since 1965) and has seen the creation of a number of shortline railroads as the Class I railroads, NS and CSX Transportation in Georgia, have pared down their systems of line segments with low traffic densities in order to reduce their costs.

The largest volume corridor is north-south or northwest-southeast between eastern Tennessee through Atlanta to northeast Florida (I-75). The second largest volume corridor is northeast-southwest between western South Carolina through Atlanta to east-central Alabama (I-85 and north I-85/west I-20). The third major corridor is north-south along the eastern border of the state from Augusta through Savannah to Jacksonville, Florida (I-26/I-95). The fourth major corridor, located between Atlanta, Augusta, and Savannah (I-20 east and I-16), is less well defined than the other three.

In the State of Georgia, Class I railroads, CSXT and NS, operate four major general freight corridors in and through Georgia.

i. Norfolk Southern Railway (NS)

Norfolk Southern owns and operates a large rail network extending from New York City to Chicago and Kansas City, New Orleans, and Jacksonville, Florida. NS has 21,800 route miles and 35,600 employees throughout the country. Within Georgia, NS owns or operates 1,908 route miles. Georgia is located in the southeast corner of the NS network, and Macon is a hub for traffic consolidation and distribution.

A major NS corridor in the state is from east Tennessee through Atlanta, Macon, and Valdosta to Jacksonville, Florida. Another major corridor is from Greenville, South Carolina through Atlanta to Birmingham, Alabama. These two corridors share double main track between Atlanta and Austell, and represent the heaviest density in the state. Savannah is another major element of NS traffic in Georgia, as it is an important port connection that is served through Augusta and Macon.

In addition to these main corridors, NS also operates secondary lines from Macon to Dothan, Alabama and from Alabama (via Albany) to Brunswick. The route between Macon and Columbus is another secondary track, which connects to the NS network in Birmingham, Alabama.

ii. CSX Transportation (CSXT)

CSX Transportation owns and operates a large rail network in much the same regions as NS. The CSXT railroad network extends from Boston to mid-Michigan and Chicago, New Orleans, and Miami. CSXT has 23,000 route miles and 35,000 employees throughout the country. CSXT operates more through or overhead traffic (traffic that passes through, but does not originate or terminate in Georgia) than NS.

Within Georgia, CSXT owns or operates 1,626 route miles. CSXT operates five main corridors through Georgia. The Chicago-Southeast corridor in and near Georgia is located between Birmingham, AL and Waycross via Manchester or Bainbridge. The New Orleans Gateway through Georgia is Montgomery (Alabama) - Atlanta - Greenwood (South Carolina) route. The Atlantic Coast corridor between Boston (Massachusetts) and Miami (Florida) in Georgia is located between Savannah and Callahan (Florida) via either Nahunta or Waycross. The Michigan-Florida corridor in and near Georgia is operated Knoxville (Tennessee) - Cartersville - Atlanta - Waycross - Jacksonville (Florida). The Central Service corridor from Detroit (Michigan), Chicago (Illinois), and St. Louis (Missouri) to Savannah is operated Greenwood (South Carolina) - Augusta - Savannah. This corridor skirts the eastside of Georgia in that the line is located on the eastside of the Savannah River, 30 miles north of Savannah, though it serves Augusta.

iii. Shortlines

Since the spin-off of minor spurs and under-utilized Class I railroad mileage phenomenon started in the early 1980's, 1,294 miles of the state's Class I network have been converted to operation by 25 shortline railroads. Shortline and terminal railroads now operate 30 percent (30%) of the state's system.

Thirty-six percent (36%) of the state rail system is comprised of light density lines (those transporting less than 3 million gross ton-miles per mile per year). The shortline segments in the State of Georgia are shown in Figure 4.

GDOT has invested over $27 million in the acquisition and rehabilitation of these abandoned rail line segments in Georgia. GDOT owns 19 line segments, totaling 540 miles.

The total acquisition cost of $27 million was funded by 100 percent (100%) state monies. In addition, GDOT has invested in the rehabilitation of 57 line segments, totaling 1,117 miles, at a cost of $52.2 million. Seventy-six percent (76%) of the rehabilitation projects were funded with state monies, while the remaining twenty-four percent (24%) were funded with railroad contributions. The State Property Commission also owns 136 miles of line, which is leased to CSXT. Table 4 includes a detailed list of the freight rehabilitation projects where GDOT and railroads contributed funds toward railroad rehab improvements. Table 5 provides a listing of the GDOT acquisition projects as part of the freight rail assistance program.

The program has increased road safety and efficiency (700,000 fewer truck loads on rural roads per year), as well as rail freight safety and efficiency. It also preserves scarce linear right-of-way for future rail uses. Approximately $1 million each year was appropriated until recently by the Georgia Legislature for freight rail assistance.

The State Rail Freight Assistance Program helps to maintain economic competitiveness and preserve rail freight service to 78 businesses with 2,100 employees, primarily in rural towns. It also reduces shipping costs by $20 million annually, with 175,000 carloads shipped a year.

Figure 4. Georgia Shortlines

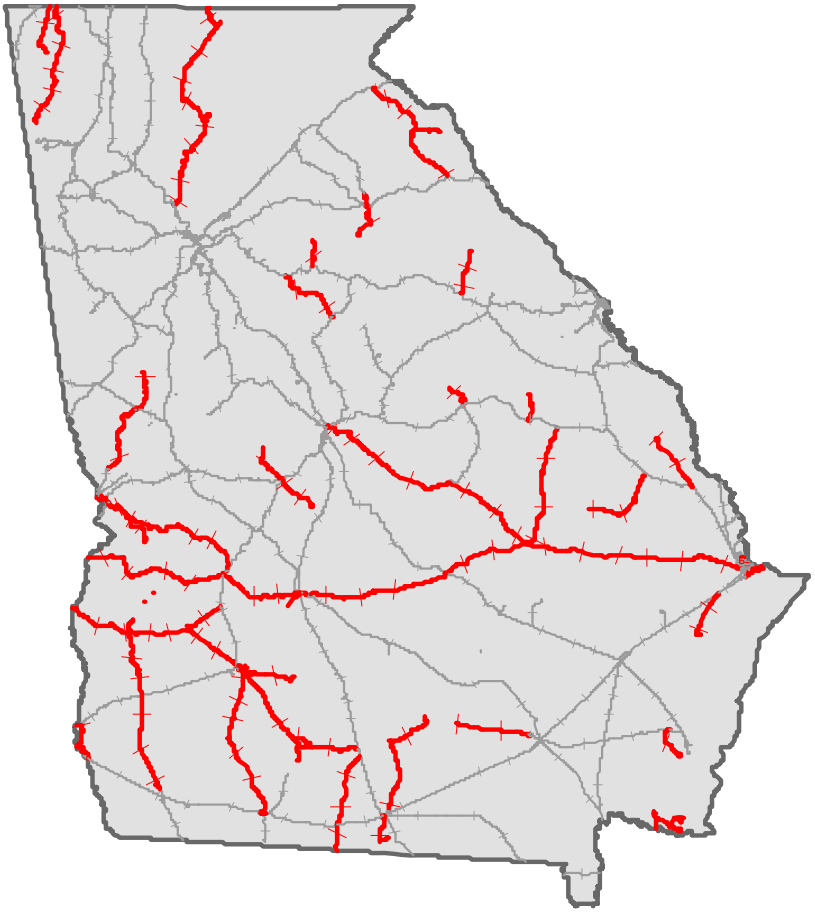


Table 4. Rehabilitation Projects – GDOT & Railroad Funded

	Line	Miles	RR	Year	GDOT Share	Other Share	Total Cost
1	Perry-Fort Valley, GA	13.00	NS	1981	$105,000.00	$1,821,638.00	$1,926,638.00
2	Sylvester, GA	1.70	CSX	1983	$0.00	$198,507.00	$198,507.00
3	Dawson-Albany, GA	20.00	CSX	1984			$0.00
4	Blue Ridge-McCaysville-Mineral Bluff	15.90	CSX	1985	$235,133.00	$134,884.00	$370,017.00
5	Washington-Barnett, GA	15.00	GWRC	1991	$25,519.00	$0.00	$25,519.00
6	Elizabeth-Ellijay, GA	71.80	GNRR	1991	$46,040.00	$414,360.00	$460,400.00
7	Hartwell to Bowersville, GA	9.60	HRT	1992	$33,505.00	$301,541.00	$335,046.00
8	Hartwell to Bowersville (Phase 2)		HRT	1995	$287,481.00	$123,206.00	$410,687.00
9	Social Circle-Monroe, GA	9.00	GRWR	1995	$187,519.00	$80,366.00	$267,885.00
10	Washington-Wilkes Spur, GA	0.70	GWRC	1996	$200,000.00	$252,000.00	$452,000.00
11	Camilla, GA	2.00	GFRR	1996	$1,421,000.00	$690,000.00	$2,111,000.00
12	Ardmore-Sylvania, GA	21.10	OGEE	1996	$600,000.00	$0.00	$600,000.00
13	Vidalia, GA	2.60	GCR	1996	$320,000.00	$140,000.00	$460,000.00
14	Vidalia-Rochelle, GA (Phase I)	67.15	GCR	1997	$57,500.00	$0.00	$57,500.00
15	Vidalia-Rochelle, GA (Phase 2)		GCR	1997	$15,000.00	$0.00	$15,000.00
16	Vidalia-Rochelle, GA (Phase 3)		GSWR	1998	$3,997,700.00	$0.00	$3,997,700.00
17	Roberta-Fort Valley, GA	26.00	OGEE	1998	$600,000.00	$0.00	$600,000.00
18	McCaysville-White Path, GA	22.30	GNRR	1998	$735,000.00	$0.00	$735,000.00
19	Sylvester Society St. to Albany Yard	22.00	GFRR	1999	$560,000.00	$240,000.00	$800,000.00
20	Dover-Metter, GA	17.00	OGEE	1999	$420,000.00	$180,000.00	$600,000.00
21	Vidalia-Rochelle, GA (Phase 4)		GSWR	1999	$3,735,000.00	$0.00	$3,735,000.00
22	Lyerly, GA to Chattanooga, TN	41.90	CCKY	1999	$1,165,000.00	$0.00	$1,165,000.00
23	Ross Siding, Cordele, GA	0.42	CSX	1999	$265,000.00	$0.00	$265,000.00
24	Sylvania-Ardmore, GA	3.30	OGEE	1999	$650,000.00	$0.00	$650,000.00
25	Dover-Metter, GA	12.00	OGEE	1999	$560,000.00	$240,000.00	$800,000.00
26	White Path-Tate, GA	31.80	GNRR	2000	$700,000.00	$0.00	$700,000.00
27	Preston-Omaha, GA(Phase 1)	42.13	HOG	2000	$275,000.00	$0.00	$275,000.00
28	Rochelle-Preston, GA	68.00	HOG	2000	$80,000.00	$0.00	$80,000.00
29	City of Valdosta Industrial Line	0.98	CITY	2000	$500,000.00	$387,000.00	$887,000.00
30	Appling County Industrial Line	1.69	CTY	2001	$400,000.00	$474,686.00	$874,686.00
31	Shady Dale-Covington (Bowersville-Goss)	50.70	HRTGRWR	2001	$1,220,000.00	$522,857.00	$1,742,857.00
32	Preston-Omaha, GA (phase 2)		HOG	2001	$819,798.45	$0.00	$819,798.45
33	Preston-Rochelle (phase 2)		HOG	2001	$6,200,000.00	$0.00	$6,200,000.00
34	Lake Blackshear Bridge, Cordele	0.10	HOG	2001	$575,000.00	$0.00	$575,000.00
35	Extend Siding near Cordele, GA	0.31	HOG	2001	$52,595.77	$0.00	$52,595.77
36	Bulloch Lead Statesboro, GA	2.20	OGEE	2002	$600,000.00	$20,803.45	$620,803.45
37	Lyerly-Chattanooga (Phase 1)	X'ngs	CCKY	2002	$122,675.00	$0.00	$122,675.00
38	McCaysville-White Path, GA	8.80	GNRR	2002	$560,000.00	$0.00	$560,000.00
39	Midville-R&M Bridge Repair No.1	0.10	OGEE	2002	$15,500.00	$0.00	$15,500.00
40	Midville- R&M Bridge Repair #2	0.10	OGEE	2002	$15,500.00	$0.00	$15,500.00

	Line	Miles	RR	Year	GDOT Share	Other Share	Total Cost
41	Ardmore-Sylvania-Runaround	9.00	OGEE	2003	$833,000.00	$0.00	$833,000.00
42	Lyerly-Chattanooga (Phase 2)	0.10	CCKY	2003	$296,189.00	$0.00	$296,189.00
43	Cuthbert-Lynn, GA	68.50	GSWR	2003	$1,283,065.23	$25,974.24	$1,309,039.47
44	Lyerly-Chattanooga (Phase 3)	41.90	CCKY	2003	$595,343.42	$0.00	$595,343.42
45	Dawson-Sasser & Columbus Cussetta	16.30	GSWR	2004	$1,300,000.00	$0.00	$ 1,300,000.00
46	Cedar Creek Industrial Park	2.00	HOG	2004	$344,950.00	$ -	$ 344,950.00
47	Midville-Kirby, GA	7.50	HOG (OGEE)	2004	$ 500,000.00	$ -	$ 500,000.00
48	Columbus-Cusseta Ft. Benning Bridge Repair	0.10	GSWR	2004	$ 145,000.00	$ -	$ 145,000.00
49	White Path - McCaysville (rail)	0.30	GNRR	2005	$ 20,457.00	$ 2,273.00	$ 22,730.00
50	Valdosta – Willacoochee	44.60	GFRR	2005	$ 2,318,000.00	$ -	$ 2,318,000.00
51	NS - CSX Brunswick Connection	1.44	NS	2005	$ 1,000,000.00	$3,383,037.30	$ 4,383,037.30
52	Hedges-Chattanooga	Bridge	CCKY	2005	$ 186,525.50	$ 79,939.50	$ 266,465.00
53	Vidalia Pole Plant	3.2	GCR Vidalia	2007	$1,500,000.00	$45,599.00	$ 1,545,599.00
54	Rochelle-Preston R&M Bridge Repair MP693.10	Bridge	HOG	2007	$24,700.00	$0.00	$ 24,700.00
55	Vidalia-Rochelle R&M Bridge Repairs MP 627.40 & 642.10	Bridge	HOG	2007	$80,831.00	$9,851.87	$ 90,682.87
56	Midville-Vidalia R&M Bridge Repair MP 183.90	Bridge	HOG (OGEE)	2007	$20,713.00	$4,286.91	$ 24,999.91
57	NS 12,000 TF Siding near Jesup	Bridge New 2.9	NS SGJDA	2009	$1,050,000.00	$2,547,752.82	$3,597,752.82
Subtotal Rehabilitation Projects		**1,116.69**			**$39,856,240.37**	**$12,320,563.09**	**$52,176,803.46**

Pending Projects

	Line	Miles	RR	Year	GDOT Share	Other Share	Total Cost
1	Cordele - Owens Corning Plant	1.00	HOG	2009	$ 800,000.00	$ 732,523.00	$ 1,532,523.00
2	Lyerly, GA-Chattanooga, TN	41.90	CCKY	2009	$ 3,050,000.00	$254,109.00	$3, 304,109.00
	Subtotal Rehabilitation Projects	**42.90**			**$3,850,000.00**	**$986,632.00**	**$4,836,632.00**

Table 5. GDOT Acquisition Projects

	Line	Miles	Acreage	Bought from	Year	GDOT Paid	Leased to
1	Ardmore-Sylvania	21.10	366.91	CSX	1995	$ 795,759.00	GMR***
2	Edna-Rockmart	37.00		CSX	1992	$ 7,100,000.00	DNR
3	Mineral Bluff-Murphy Jct	2.89		CSX	1994	$ 45,000.00	GNRR
4	Blue Ridge-White Path*	8.10		CSX	1995	$0.00	GNRR
5	Vidalia-Helena-Rhine	51.40	1181.97	GCR	1995	$ 1,733,000.00	HOG
6	Rhine-Rochelle	15.45	332.05	GSW/CSX	1996	$ 702,500.00	HOG
7	Blue Ridge McCaysville	14.23		CSX	1996	$ 535,000.00	GNRR
8	Midville-Vidalia	42.40		NS	1998	$ 1,100,000.00	HOG***
9	Lyerly to Chattanooga	48.90	403.50	NS	1998	$ 650,000.00	CCKY
10	Preston-Omaha	40.00	626.90	CSX	1999	$ 2,905,000.00	HOG
11	Rochelle-Preston	69.00	836.36	GSWR	2000	$ 2,050,000.00	HOG
12	Omaha-Mahrt, AL **	2.13		GSWR	2000	$0.00	HOG
13	Cedartown-AL line	8.30		CSX	2001	$0.00	DNR
14	West End (Atlanta)	3.20		CSX	2001	$ 1,175,000.00	N/A
15	Wylie Street-(Atlanta)	0.40	6.15	CSX	2001	$ 459,000.00	N/A
16	GSWR:					$ 5,350,000.00	
	A- Columbus-Cusseta	24.60	400.17	RailAmerica	2002		GSWR
	B- Cuthbert-Bainbridge	68.30	1125.69	RailAmerica	2002		GSWR
	C- Dawson-Sasser	9.30	149.47	RailAmerica	2002		GSWR
17	Cedar Creek Ind Lead	5.80		HOG	2003	$ 155,050.00	HOG
18	Vidalia- Hester	24.60	500.00	NS	2004	$ 569,500.00	Not known
19	Valdosta-Willachoochee	42.80	900.00	GFRR	2004	$ 1,682,000.00	GFRR
	Total Acquisition Mileage	**539.90**			**Total:**	**$ 27,006,809.00**	

* State Properties Commission acquired April 25, 1990 transferred to GDOT June 7, 1995
** Acquired as part of Rochelle-Preston rail line
***By Assignment from Ogeechee

iv. Abandoned Rail Lines

Since the 1960's, approximately 1,045 miles of track in Georgia has been abandoned by Class I railroads. These abandonments have usually occurred due to line segments no longer being in the railroads' financial interest to maintain and operate. In order to preserve and enhance valuable, existing right of way, the State of Georgia has acquired 540 miles of track and rehabilitated over 750 miles of track over the past 40 years. Tables 6 and 7 show the abandoned rail lines for both NS & CSX respectively.

GDOT envisioned the use of the Decatur Belt for southeast high speed rail and commuter rail service from Gainesville to Atlanta. The Decatur Belt is a 4.3 mile rail spur located in northeast Atlanta and formerly owned by Norfolk Southern Railway (NS) that was subsequently sold to Atlanta BeltLine, Inc. (ABI). The spur extends from the NS rail connecting Atlanta and Charlotte to Decatur Street. However, due to extensive redevelopment in the area and the relocation of industrial facilities, the spur has been inactive for over 8 years. After ABI's purchase of the corridor, NS filed for the abandonment of the 30-foot rail easement with the Federal Surface Transportation Board (STB) on December 2, 2008 and the STB subsequently allowed the abandonment exemption to be effective on April 10, 2009.

The "Western Trunk", defined as the section of railroad between Howell Junction on the north and roughly the Circle Track on the south in the Downtown Atlanta Gulch area, is a section of railroad that is of great future importance to both freight and passenger transport, could be a potential alternative for passenger rail to access the Downtown Atlanta Multimodal Passenger Terminal (MMPT) with the NS abandonment of the Decatur Belt. However, for this option to be viable to meet the capacity needs of future freight and full build-out of all the passenger rail services, there would have to be significant new capacity along the West Trunk or, preferably a freight by-pass around downtown Atlanta.

v. Identification of Traffic Bottlenecks

Based on Class I railroads long term planning efforts and their knowledge of the current operational problems, key rail bottlenecks along with suggested required improvement areas in the State of Georgia were identified. During the state-wide planning process, the "Western Trunk" was identified as a critical bottleneck by both NS and CSX.

CSXT Bottlenecks

CSXT defines "bottleneck" a little more broadly as they consider "bottleneck" as a route or corridor, more so than a specific location. Downtown Atlanta would be site specific location, impacted by a multitude of current and potential issues. However, the actual route(s) that rely on Atlanta's connectivity are more broadly considered a "bottleneck." Such assessment is based on CSXT's current operation and its expectations for long-term freight demand.

Table 6. Abandoned Rail Lines - Norfolk Southern

#	Line	Year	Miles	County Location	Original Ownership
1	Sparks-Adel, GA	1965	3.18	Cook	G&F
2	Nashville-Sparks, GA	1965	11.83	Cook, Berrien	G&F
3	Midville-Hephzibah, GA	1966	37.00	Burke, Richmond	G&F
4	Cuthbert Jct.-Ft. Gaines, GA	1967	19.95	Randolph, Blay	C of GA
5	Barwick-Boston, GA	1970	8.50	Thomas	GN
6	Ashburn-Sylvester, GA	1971	15.81	Turner, Worth	GAS & GN
7	Hawkinsville, GA	1975	0.72	Pulaski	SOU
8	Pavo-Barwick, GA	1976	4.60	Brooks, Thomas	GN
9	Albany-Cordele, GA	1977	33.06	Dougherty, Lee, Worth, Crisp	GN
10	Rome, GA/AL Line	1977	21.00	Floyd, Polk	SOU
11	Bridgeboro-Sylvester, GA	1982	13.60	Worth	GN
12	Hedges, GA-Ewing, AL	1982	23.00	Walker, Chattooga	TAG
13	Brunswick, GA (Cockran Ave)	1982	2.20	Clynn	C of GA
14	Douglas-Hazlehurst, GA	1982	26.10	Jeff Davis, Coffee	C of GA
15	Hazelhurst-Kirby, GA	1983	46.00	Jeff Davis, Toombs, Montgomery	C of GA
16	Savannah, GA (Terminal)	1984	0.67	Chatham	C of GA
17	Torbit-Gough, GA	1986	3.00	Burke	C of GA
18	Rover-Meyer, GA	1988	67.00	Spalding, Pike, Muscogee	C of GA
19	N. Roberta-Roberta, GA	1988	4.40	Crawford	C of GA
20	Bishop-Madison, GA	1988	16.00	Oconee, Morgan	C of GA
21	Griffin-Towalga, GA	1988	6.78	Spalding	C of GA
22	Atlanta, GA (Spring Track)	1988	0.39	Fulton	unknown
23	Hawkinsville, GA	1988	0.71	Pulaski	C of GA
24	Covington-Porterdale, GA	1988	2.80	Newton	C of GA
25	Krannert Jct.-Lyerly, GA	1989	15.20	Floyd, Chattooga	C of GA
26	Griffin-Senoia, GA	1989	12.70	Spalding, Fayette, Coweta	C of GA
27	Moultrie-Pavo, GA	1989	15.00	Colquitt, Thomas, Brooks	GN
28	N. Allie-Allie, GA	1989	1.00	Meriwether	C of GA
29	Dublin, GA	1994	0.94	Laurens	C of GA
30	Meyer, GA-Columbus, GA	1994	7.40	Muscogee	C of GA
31	Elberton, GA	1995	1.90	Elbert	SOU
32	Kirby-Vidalia (GDOT owned)	1995	19.00	Emaunel, Toombs	G & F
33	Atlanta, GA (Magnolia St)	1995	0.30	Fulton	C of GA
34	Vidalia-Hester(GDOT owned)	1995	24.60	Toombs, Montgomery, Jeff Davis	G & F
35	Douglas-Nashville, GA	1995	35.80	Coffee, Berrien, Atkinson	G & F
36	Cochran-Hawkinsville, GA	1996	9.53	Bleckley, Pulaski	SOU, ORC
37	Bridgeboro-Camilla, GA	1996	18.00	Mitchell, Worth	GS & F
38	Camilla, GA	1996	1.60	Mitchell	GS & F
39	Moultrie, GA	1996	3.90	Colquitt, Thomas, Brooks	GS & F
40	Atlanta, GA	2009	4.30	Fulton County	NS
	Subtotal (NS)		**539.47**		

Table 7. Abandoned Rail Lines – CSX Transportation

#	Line	Year	Miles	County Location	Original Ownership
1	Abbeville-Fitzgerald, GA	-	22.00	Wilcox, Ben Hill	SAL/SCL
2	Fitzgerald-Tifton, GA	-	26.00	Irwin, Tift	SAL/SCL
3	Tifton-Moultrie, GA	-	27.00	Colquitt, Tift	ABC/ACL
4	Kimbrough-Dawson, GA	1981	18.00	Webster, Terrell	SAL/SCL
5	Climax, GA-Chattahoochee, FL	1983	29.00	Decatur	SAL/SCL
6	Union Point-Athens, GA	1984	36.00	Oglethorpe, Clarke, Greene	GA
7	Milledgeville-Macon, GA	1984	23.00	Baldwin, Jones, Bibb	GA
8	Riceboro-Thalman, GA	1985	33.00	Liberty, Glynn, McIntosh	SBD/SAL
9	Alma-Sessions, GA	1986	8.00	Bacon	ABC/SBD
10	Mineral Bluff, GA-Murphy, NC	1986	20.00	Fannin	MNG/LN
11	Pearson-Sylvester, GA	1986	59.00	Worth, Tift, Berrien, Atkinson	ACL/SBD
12	Columbus, GA (Dunny track)	1986	1.35	Muscogee	SAL/SCL
13	Atlanta, GA (Bellwood Lead)	1986	0.31	Fulton	ABC
14	Thalman-Bladen, GA	1987	4.00	Glynn	SBD/SAL
15	Rockmart-Powder Springs, GA	1988	24.68	Polk, Paulding	SAL
16	DuPont, GA-Live Oak, FL	1988	48.00	Clinch, Echols	ACL
17	Balden-Seals, GA	1988	25.00	Glynn, Camden	SBD/SAL
18	Cedartown, GA-Maxwell, AL	1988	9.40	Polk	SAL
19	Powder Springs-Edna, GA	1989	12.12	Cobb	SAL
20	White Path-Blue Ridge, GA	1989	8.10	Gilmer, Fannin	MNG/LN
21	Kingwood-Coolidge, GA	1989	15.09	Colquitt, Thomas	ABC/SBD
22	Wiggins-Ocilla, GA	1990	3.81	Irwin	SAL
23	Riceboro, GA (US 17/SR 25)	1990	1.62	Liberty	SBD/SAL
24	Metcalf, GA-Monticello, FL	1991	2.00	Thomas	ACL
25	Mineral Bluff-Murphy Jct.	1993	2.20	Fannin	MNG/LN
26	Atlanta, GA (Bankhead)	1994	0.50	Fulton	CSX
27	Blue Ridge-McCaysville, GA	1995	15.00	Fannin	L&N
28	Metcalf, GA	1995	1.51	Thomas	ACL
29	Fitzgerald-Wiggins, GA	1995	2.71	Ben Hill, Irwin	SAL
30	Cusseta-Cuthbert, GA	1995	38.10	Chattahoochee, Stewart, Randolph	SAL
31	Fitzgerald, GA	1995	0.48	Ben Hill	unknown
32	Hutchinson Island, GA	1996	0.69	Chatham	SAL
33	Hutchinson Island Spur–	1998	1.73	Chatham	SAL
	-Hardeeville, SC			Note: 12.47miles in SC	unknown
34	Athens, GA-East Athens, GA	1998	1.90	Clarke	GA
35	Atlanta, GA (Wylie St-Memorial Dr)	1998	0.35	Fulton	CSX
36	Pearson, GA	1998	0.51	Atkinson	SBD/ACL
37	Atlanta, GA (Wheeler St-Simpson St)	1998	0.58	Fulton	CSX
38	Pearson – Waresboro, GA	2004	23.25	Atkinson, Ware	CSX
38	Gainesville, GA	2005	0.85	Hall	CSX
39	Waycross, GA	2008	1.08	Ware	CSX
	Subtotal (CSX)		**509.82**		

It is important to note that the introduction of passenger or commuter operations will undoubtedly create new bottlenecks and operational challenges – not only along the specific routes handling such operations, but will also impact CSXT's entire rail network. CSX, the State of Georgia, and its constituents will benefit from mitigating bottlenecks that result from passenger or commuter operations and ensuring the safe, efficient, and competitive ability of CSXT to sustain and grow its freight rail operations.

Since identifying such bottlenecks requires the validation of study and modeling, the list presented below does not reflect potential bottlenecks that result from increased, new, or high-speed rail/passenger and/or commuter operations. However, it is reasonable to assume that many of the routes identified below will require additional investments to facilitate the long-term growth of safe and efficient freight rail operations. In addition, the list is not prioritized and relies on a combination of current and projected volumes and operations.

1. W&A (Atlanta to Chattanooga) – capacity improvements into/out of Atlanta
2. Abbeville Sub (Atlanta to Charlotte) – capacity improvements
3. SW Atlanta Connectivity – train velocity, capacity, and routing options/flexibility
4. Bowline (Montgomery to Bainbridge to Waycross) – connectivity to Florida, as well as capacity/clearances
5. Fitzgerald Sub (Atlanta to Waycross) – capacity and fluidity
6. Yard Improvements (throughout state) – capacity and efficiency/thru put
7. Manchester Sub (Atlanta routings) – capacity and fluidity
8. Etowah Sub (Atlanta to Etowah, TN) – siding capacity
9. Nahunta Sum (Waycross to Jacksonville) – capacity and velocity
10. A-Line Improvements (Savannah to Florida) – capacity and velocity

NS Bottlenecks

NS staff, based on their long term planning efforts as well as current operational problems, provided some specific rail traffic bottleneck areas. According to NS staff, Metro Atlanta is the biggest NS bottleneck in Georgia. Five NS main lines from three divisions come together here and Atlanta is extremely important for freight traffic movement. NS staff also indicated that the efforts should be focused on the following three "bottleneck" areas in addition to the obvious bottleneck in the "Western Trunk" portion of Atlanta.

1. Atlanta – Birmingham: This is an existing Amtrak route and is part of the "federally designated high-speed rail" system. NS expects substantial freight growth (including high priority Crescent Corridor Intermodal traffic) on this line which, again, feeds into Atlanta via Austell. Capacity and Velocity improvements are required to address this bottleneck issue.

2. Macon – Savannah: NS experienced a substantial traffic increase (particularly in Intermodal) on this line in recent years, and expects this trend to continue. Capacity and Velocity (particularly in Intermodal capacity) are the suggested improvements.

Macon is a major classification yard and it is the second busiest NS main line junction point in Georgia after Atlanta.

3. Macon Terminal: This terminal is directly impacted by traffic growth from the Savannah District, and it also impacts several shortline railroads.

C. Intermodal Facilities and Connections

i. Logistics

According to the "2009 Georgia Logistics Report" prepared by the Georgia Center of Innovation for Logistics, the State's international trade figures totaled $93.8 billion in 2008: $33.6 billion in exports and $60.2 billion in imports.

For over 6 years *Georgia's container terminal has been the fastest growing in the Country* with recent growth in 2005 being 14.3%, in 2006 being 13.6%, and in 2007 being 20.6%. Food exports out of Savannah increased 23% in 2008 over 2007.

Georgia's top-10 trading partnerships are also top-10 in the Nation, four are 4th or better. Georgia's container terminal is the 3rd largest in the Nation (behind only #1-LA/LB, #2-NY/NY); shipping over 2,616 million TEU's in 2008.

Georgia is ranked #1 in 2007 for exporting wood pulp and importing heavy construction equipment. 74% of Georgia's sea cargo imports originated in NE and SE Asia, 47% for exports. The NE Asia trade lane is Savannah's fastest growing with

a 55% increase during 2004-2008. Atlanta processed a combined 1.7 billion pounds into and out of the Hartsfield-Jackson air-cargo port in 2007. The Hartsfield-Jackson International is the busiest passenger airport in the world; ranked in the top 11 US airports for cargo volumes.

Atlanta was ranked the 5th largest overall logistics employer in the Nation in 2001 that includes users & providers. The State's University and Technical College Systems offer over 100 programs related to logistics, providing classes, certificates and degrees. Georgia ranks 3rd in the southeast for transportation and warehousing industry labor productivity and 21st in the nation. Four out of the five provider categories in Georgia with less than 10 employees have sales productivity greater than that of the overall private industry. The cost of freight logistics in the U.S. was $1.4 trillion in 2007; equivalent to 10.1 percent of GDP. World air cargo growth is expected to expand at an average annual rate of 5.8% during the next two decades, with a three-fold increase in worldwide air freight.

The 2009 Georgia Logistics Report also indicated that the continued success of Georgia's ports will be a big plus for the railroads. Inter-modal shipping of consumer goods and light industrial products will grow, and there also will be more shipments of industrial and communications equipment. Also, railroads should not have any problem passing fuel costs onto shippers, since rail is an extremely fuel-efficient transportation mode. High trucking costs, increased highway congestion and more concern about air quality are some additional factors that favor the railroads.

Shipments of agricultural products, processed food, electrical equipment, machinery and coal will increase slightly. Shipments of consumer goods probably will decline slightly in the first part of the year, but should rebound in second half. Chemicals volume probably will be flat or down only slightly. The outlook anticipates lower shipments of building materials, however. Coal is the rail industry's largest source of shipments and a major contributor to its profits, and due to increases in power consumption, electric utilities are expected to use more coal. High natural gas prices will be a significant factor behind utilities rising demand for coal.

A listing of the approved intermodal connectors is identified in Table 8.

Table 8. Approved Intermodal Connectors

ID#	Jurisdiction	Facility
GA3R	Fulton	Atlanta Hulsey Rail Yard
GA4R/GA 59R	Fulton	NS Inman Rail Yard/CSX Tilford Yard
GA58R	Fulton	Howell CSX Rail Yard
GA57R	Fulton	Industry CSX Rail Yard
GA5R	Fulton	NS Industry Yard, East Point
GA56R	Cobb	NS Whitaker Intermodal Rail Yard
GA54R	Clayton	NS Forest Park Rail Yard
GA8S	Fulton	Brookwood Amtrak Station
GA6L	Fulton	Chattahoochee Colonial Pipeline
GA32R	Fulton	Fairburn CSX Industry Yard
GA60R	Spalding	Griffin NS Rail Yard
GA52B	Fulton	Atlanta Greyhound Bus Terminal
GA43T	Fulton	Arts Center MARTA Station
GA46T	Clayton	Airport MARTA Station
GA1L	Dougherty	Colonial Pipeline, Albany
GA20L	Bibb	Colonial Pipeline, Macon
GA21L	Bibb	Colonial Pipeline, South Macon
GA22L	Floyd	Colonial Pipeline, Rome
GA24P	Chatham	Garden City Terminal, Savannah
GA25P	Chatham	Savannah Ocean Terminal
GA26R	Chatham	CSX Rail Yard, Savannah
GA28L	Spalding	Colonial Pipeline, Griffin
GA31R	Glynn	Colonel's Island Rail Yard, Brunswick
GA30P	Glynn	Colonel's Island Terminal, Brunswick
GA33P	Chatham	Port of Savannah
GA62S	Chatham	Savannah AMTRAK Station
GA63B	Chatham	Savannah Greyhound Bus Terminal
GA61A	Chatham	Savannah-Hilton Head International Airport

ii. Rail Intermodal Terminals

NS

Atlanta, Macon and Savannah are major NS system terminals in the State of Georgia. Inman Yard, formerly a classification yard, is a major intermodal yard located at the NS Atlanta crossroads. NS has an intermodal yard west of Atlanta in Austell. Industry Yard at East Point is an intermodal facility for road railer technology ((Triple Crown service). Garden City Yard in Savannah is an intermodal yard. Macon is the location of Brosnan Yard, a classification yard constructed in the late 1950s.

CSXT

CSXT operates Tilford (Atlanta) and Rice (Waycross) classification yards, two of twelve such yards system wide. Tilford Yard was constructed in the early to mid-1950s, and Rice Yard was constructed in the early 1970s. Atlanta is also the location of Hulsey and Fairburn intermodal yards. Hulsey Yard in the 1980's was rearranged from a flat marshal yard to an intermodal yard about a decade ago. Fairburn was constructed and opened in 1999.

Cordele Intermodal Center

This proposed intermodal center in Cordele, scheduled to open in early 2010, will improve shipping services to and from firms in Southwest Georgia, Alabama, Mississippi and the Florida Panhandle. This project will effectively link the Port of Savannah with the four-state area by rail, using the Heart of Georgia (HOG) and Georgia Central railroads.

Industries are expected to ship their products, by truck or rail, to the Intermodal Center where they will be loaded into containers and then shipped by rail (HOG, Georgia Central Railroad and CSX) to the Port of Savannah at Garden City. Once loaded onto ships at the port, empty containers would be shipped back to the Cordele facility by rail to await more products.

The 50 to 100 new jobs expected to be generated will be at the Intermodal Center as well as in ancillary areas such as warehousing, distribution and trucking. It is estimated that over the next five to 10 years, there could be between 2,000 and 3,000 new jobs within a 40-mile radius of Cordele directly related to the new facility. The Intermodal Center in Warren County, Va., which has similar demographics as Southwest Georgia, produced 12,000 to 15,000 jobs in the 10 years it's been in existence.

The state of Georgia has committed to funding the repair of two bridges, one over the Oconee River and the other over the Ocmulgee River, on the HOG line at a cost of $1.2 million, and work is expected to begin in September or October of 2009.

iii. Ports

Rail tonnage is expected to grow nationally by 90% between 2005 and 2035. Georgia's deepwater ports industry will thrive by tapping directly into the growth that is taking place nationally and overseas, by diversifying its services and by taking market shares from other U.S. ports. In 2009, the ports will set another in a long series of new records in terms of cargo volumes. Traffic volumes appear to be ahead of long-term projections.

For example, the latest cargo statistics from Savannah's port indicate that in fiscal year 2008, the port experienced a 14.9 percent increase in the number of Twenty-foot Equivalent Units (TEU's), establishing itself as the nation's fourth busiest and fastest growing container facility.

The Port of Brunswick is seeing gains, too, especially in the shipping of agricultural products. The recently completed harbor deepening project helped the Colonel's Island Terminal in Brunswick to post a 29.4 percent year-over-year increase in tons handled; and its break-bulk facility reported an 85.6 percent increase bulk cargoes activity.

The superb performance of Georgia's ports relative to other ports reflects strong comparative advantages that allow them to expand their share of regional and national waterborne cargo traffic. These comparative advantages are the result of a series of strategic expansions over many years. The Georgia Port Authority indicates that access to the Port of Savannah directly from both I-16 and 95 eases surface street traffic and simultaneously improves the port's productivity.

The deepwater ports also create substantial economic impacts. Together, they generate $58 billion in sales and $25 billion in gross state product, and support 286,000 full- and part-time jobs. This means that about one job out of fourteen depends on them in some way. Ports operations also help to preserve Georgia's manufacturing base and foster growth of the state's massive logistics, distribution and warehousing industries. The Ports of Brunswick and Bainbridge/Columbus (on the inland waterway system) serve smaller niche roles and have not seen the kind of growth evident at the Port of Savannah.

iv. Aviation

The aviation system in Georgia consists of 106 open-to-the-public airports. Of these facilities, nine are commercial air carrier airports, including Hartsfield-Jackson Atlanta International Airport (HJAIA). The remaining open-to-the-public airports include 94 publicly owned general aviation facilities and three privately owned facilities. The nine air carrier airports handled over 1.4 million aircraft operations and over 43 million enplaned passengers in 2004.

With nearly 42 million passengers passing through, HJAIA, which continues to be the world's busiest airport. One of the objectives of the implementation of Intercity and High Speed rail is too create a modal connection from rail too aviation. This connection would permit passenger rail service to provide the first and or final travel link on domestic and international air travel. The development of a station site at HJAIA would allow passengers from communities within a 500 to 600 mile radius the advantage to travel to a local departure point and disembark within a short distance of the terminals to continue their journey. This interconnection of modes will also be explored for the light freight markets. This would be of value as Georgia is home to the world's largest freight carrier, United Parcel Service (UPS). Other sites within Georgia for the interconnection of modes are the eight air carrier airports outside of Atlanta, Savannah-Hilton International and Augusta Regional at Bush Field are the busiest airports and would be likely future candidates for connection to the Intercity or High Speed Rail. While HJAIA handles almost all air cargo in Georgia, small amounts are also handled by the Savannah-Hilton and Southwest Georgia Regional airports. No dollars are currently available or budgeted for aviation projects of this nature during the life of the current $7.3 billion Master Plan. Table 9 includes the outgoing air cargo from the key airports around the state of Georgia.

Table 9. Outgoing Air Cargo - 2007 & 2008 (Jan.-Sept.)

Airport			2007 Total Freight (LBS)	2008* Freight (LBS)
ATL	Atlanta	Hartsfield-Jackson	749,688,823	525,113,728
ABY	Albany	Albany Dougherty County	29,722,808	21,301,102
SAV	Savannah	Savannah/Hilton Head Int.	6,768,617	2,240,390
SVN	Savannah	Hunter Army Air Field	1,106,208	504,496
LSF	Columbus	Lawson Army Air Field	533,123	-
CSG	Columbus	Columbus Metropolitan	288,796	178,831
WRB	Macon	Robins Air Force Base	226,966	142,904
LZU	Lawrenceville	Gwinnett County	32,044	7,548
AHN	Athens	Athens Municipal	28,008	10,313
GVL	Gainesville	Gainesville Municipal	24,120	-
PDK	Atlanta	DeKalb Peachtree	21,960	-
AGS	Augusta	Bush Field	2,704	16,117
MCN	Macon	Lewis B Wilson Int.	1,822	1,282
QQT	Peachtree City	Peachtree City-Falcon Field	1,252	-
		Total	788,447,304	549,516,711

Source: 2009 Georgia Logistics Report

Based on the existing rail systems inventory and operations, the Department has identified the following needs for general rail Investment:

- Growth in the last two decades at an unparallel rate
- Focus on mobility of people and goods
- Growing port activities
- Burgeoning freight rail activity
- Investments in airports and highway system unable to relieve congestion
- Untapped capacity in existing railroads

D. Freight Rail Funding Needs

The AASHTO Freight Rail Bottom Line Report provides scenarios for freight rail funding needs at several levels. These include:

- *No Growth* – where, with minimal investment the railroads could carry approximately the same amount of traffic in 2020 that they carry today, thereby shifting large amounts of freight tonnage onto trucks.
- *Constrained Investment* – under this scenario, railroads could afford improvements paid for by revenues and borrowing – the railroads could handle additional traffic but not keep pace with increasing freight traffic.
- *Base Case* - where, with a higher level of investment, the freight system could keep its current share of traffic and accommodate a greater share of forecasted increases. Funding would come from a combination of railroad investment and public sector participation.
- *Aggressive Investment* – where, with even a higher level of investment railroads could capture an even larger share of freight traffic than under the Base Case

scenario. Funding at this level would be instrumental in relieving highway and truck traffic congestion.

To give some idea of funding needs for the freight rail system, an outline is given using the Base Case scenario. While needs cannot be exactly determined, a general estimate shows the following costs.

- ✓ Rail Safety Needs - $13.8 billion – This estimate includes needs for additional warning systems, highway-rail grade crossing needs, grade separations and track relocation.
- ✓ Class 1 Infrastructure Repair and Maintenance - $4-$5 billion annually, or $80 to $100 billion over 20 years
- ✓ Class 1 Infrastructure Improvements, above and beyond Repair and Maintenance - $3.5 billion annually or $70 billion over 20 years.
- ✓ Short Line Improvements - $11.8 billion – This includes funding for improvements such as upgrading track to handle heavier railcars, safety and speed improvements and need for deferred maintenance.

The total estimated cost for the base case scenario is estimated at $175 to $195 billion over 20 years. According to a more recent AASHTO report, "Transportation–Invest in Our Future" February 2007, the "cost to maintain freight rail's current market share," in 2007 is estimated at $2.75 - $12 billion annually in public support and $9.25 billion annually in railroad private capital investment. These figures are believed to be very conservative.

Georgia's freight investment needs follow the national trend as outlined above and hence GDOT has identified the following overall needs for GDOT owned freight rail investment:

- ✓ Accommodate existing traffic safely and efficiently
- ✓ Handle increased use of high axle load cars
- ✓ Ability to return track structure to a state of good repair
- ✓ Maintain load bearing capacity on existing bridges
- ✓ Provide mode choice for shippers

III PASSENGER RAIL

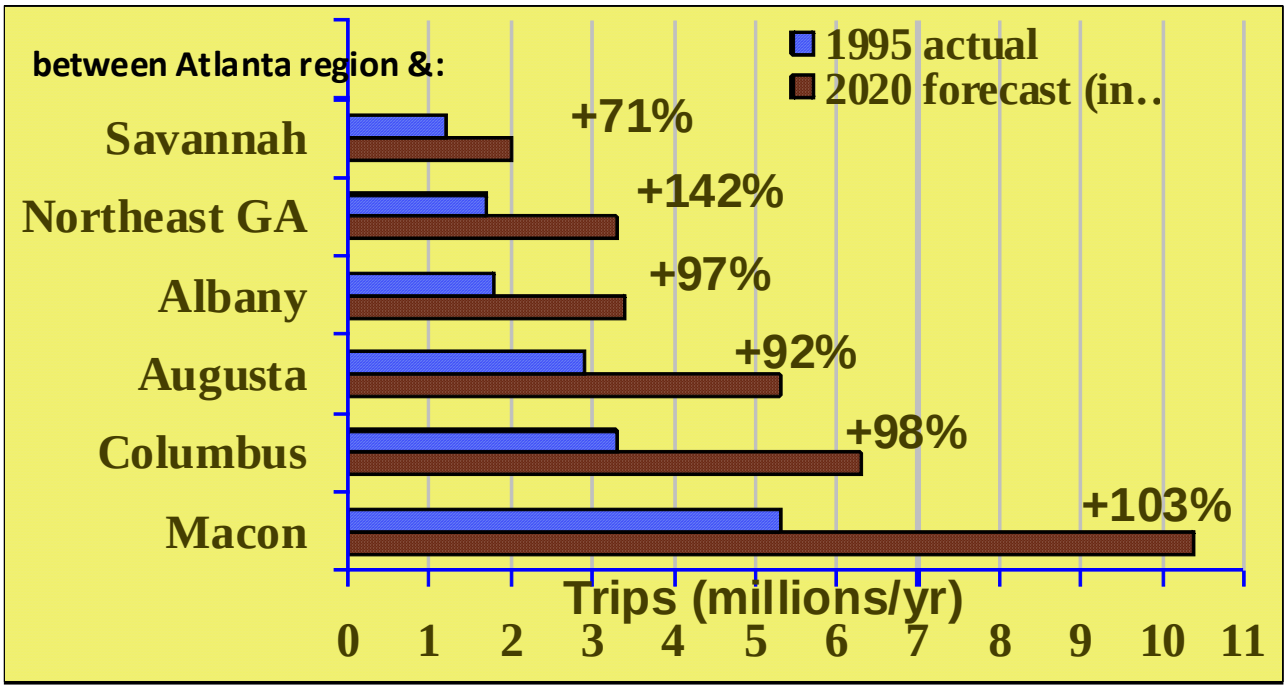
A. Previous Studies and Plans for Passenger Rail

GDOT conducted several feasible studies as well as prepared plans for Commuter Rail in the Metro Atlanta region, Intercity rail service between Atlanta and key cities, and for High-Speed Rail (HSR) service along both designated and yet to be designated high-speed rail corridors. Based on previous intercity studies conducted by GDOT in late 1990's, Table 10 below shows the projected growth in intercity travel between Atlanta and other key cities in the state of Georgia.

Based on the studies conducted to date by GDOT, the following needs have been documented for investment in passenger rail:

- Forecast growth in Vehicles and Vehicles Miles of Travel (VMT) exceed the pace of highway construction
- 2030 Forecasts for Population and Employment to double from existing levels
- Provides mode choice for SOV commuters to help ease peak period congestion
- Shared use of 12 active freight rail lines to provide needed mobility

Table 10. Projected Intercity Travel Growth



Source: GDOT 1997 Intercity Rail Plan

As is evident from the table above, the trips in the corridor between Atlanta and Macon are projected to grow at a phenomenal rate of 103% to carry more than 10 million annual round trips by 2020.

The corridor to northeast GA also shows an extremely high growth rate of 142%. However, the number of trips projected to grow by 2020 in the Atlanta-Macon corridor resulted in GDOT planning for initiating intercity service in that corridor.

The trips in the corridor between Atlanta and Macon are projected to grow at a phenomenal rate of 103% to carry more than 10 million annual round trips by 2020.

During the preparation of the State-wide Intercity Rail Plan, GDOT conducted several surveys to obtain public input related to intercity rail service. These surveys were conducted along all the key intercity corridors and were done using several methods covering a variety of commuters, including but not limited to auto, bus, and air travelers. The survey locations are shown in Figure 5 below.

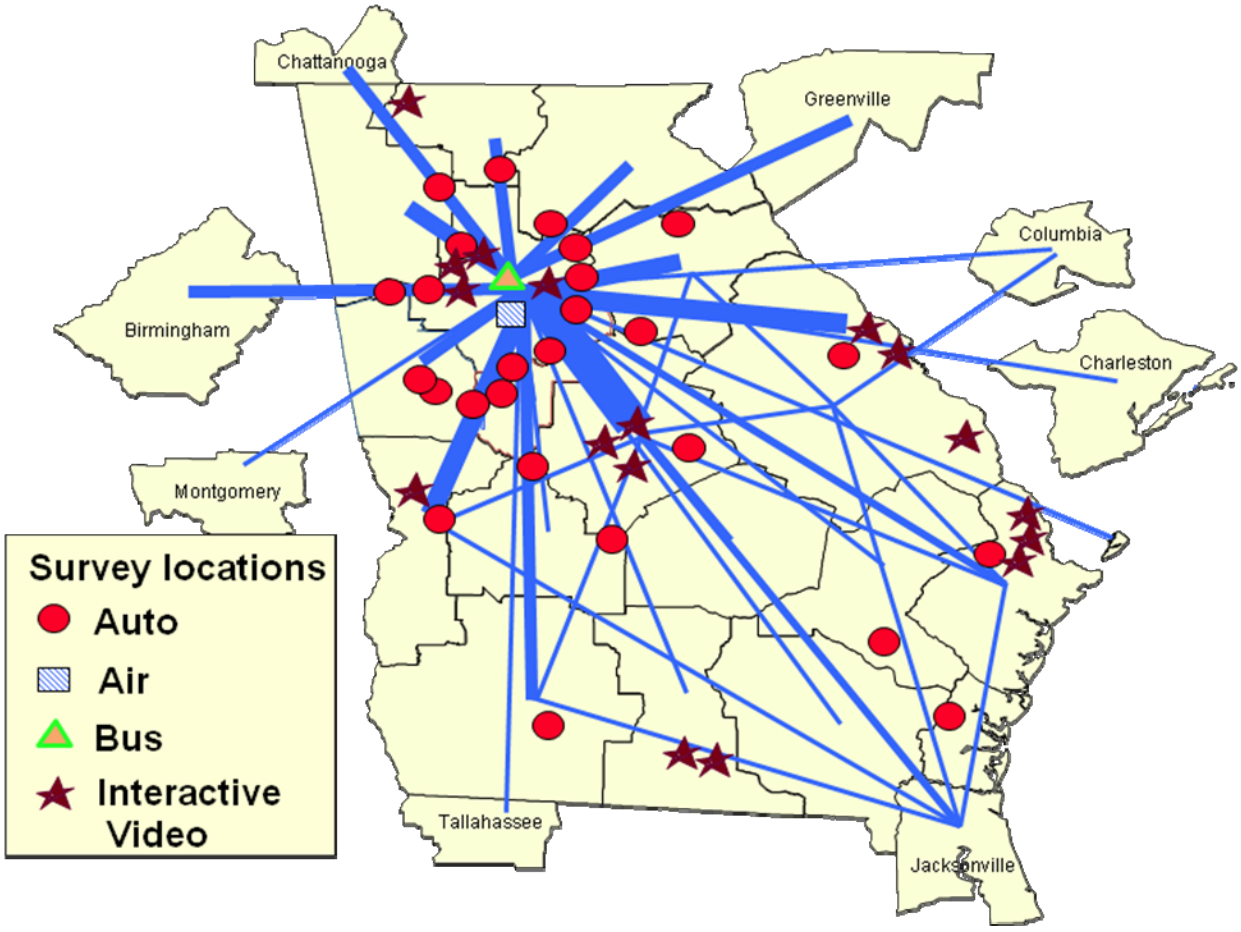


Figure 5. Intercity Surveys and Travel

The forecasting element of intercity rail travel and revenue for the Intercity Rail Plan prepared by GDOT emphasized the following areas:

- Statewide intercity traveler surveys and new travel model development
- Comparison of air, bus, & driving time / cost to rail time / cost
- Market-driven selection of corridors, cities served, speeds, fares, & frequencies
- Goal of no operating support

Some of the key intercity rail service assumptions are as follows:

- Tracks would be upgraded for joint freight/passenger use
  - up to 110 mph for intercity service
- Track capacity increases would be based on future volumes of freight and passenger trains
- Costs are based on conditions and work in Georgia
- Train set costs (coaches and locomotives) are based on current procurements in U.S.
- Operating costs are estimated from actual requirements using prevailing prices and work conditions

GDOT conducted a review of the recommended alignment between Columbus and Atlanta, Georgia for Passenger Rail Service in August 2001.

B. Studies and Reports on High-Speed Rail Corridor Development

The state of Georgia is included in both the federally designated Southeast HSR Corridor and the Gulf Coast HSR Corridor and hence is in a prominent juxtaposition. A corridor north to Tennessee also is under regional discussion. Atlanta is the primary destination and market for these corridors in the Southeast. A terminus Intermodal station and center, the Atlanta Multi-Modal Passenger Terminal (MMPT) is being proposed that would provide robust passenger service connectivity between the proposed High-Speed Rail system and local, regional, and statewide intermodal systems, as well as major airports.

i. 2004 SEHSR Corridor Study

GDOT prepared a study of the rail line between Macon and Charlotte to determine track improvements, ridership, costs and benefits to add rail passenger service and improve operating speeds. The Southeast High-Speed Rail (SEHSR) Corridor is one of eleven national high-speed corridors. Virginia and North Carolina are already improving rail freight lines in the SEHSR corridor between Washington DC and Charlotte. This study examined the potential for improving another 366 miles of Norfolk Southern freight line between Charlotte, Spartanburg, Greenville, Atlanta, and Macon, and operating 2-6 daily high-speed trains, connecting with trains to

points farther north (see map in Figure 6). The South Carolina, North Carolina, and Georgia Departments of Transportation, and the US DOT's Federal Railroad Administration funded this study.

Faster passenger trains are the key to providing an attractive alternative to driving or air. The most cost-effective strategy for this freight line, with many curves, is to use tilting trains like those running in the U.S. Northwest or the Northeast Corridor, which allow faster speed through curves, and will save over an hour between Atlanta and Charlotte compared to Amtrak's Crescent service. Top train speeds of 79, 90, and 110 mph were evaluated. At 79 mph, improvements would include additional track space, upgraded track and signaling, improved at-grade road crossing protections, and refurbished stations and maintenance facilities. With improved tracks and signaling to allow 90 mph speeds, added track capacity, and 28 miles of sharper curves relocated, another 40 minutes could be cut from the Charlotte – Atlanta trip. Top speeds of 110 mph could be reached with $735 million more capital; however only a few minutes would be saved, with $1 million in new revenue and 28,000 more riders.

ii. 2003 Atlanta to Jacksonville Intercity Passenger Rail Service Study

GDOT and the Georgia Regional Passenger Authority (GRPA) worked in conjunction with AMTRAK to conduct analysis and prepare a study of the rail line from Atlanta-Jacksonville to determine the necessary track and signal improvements for implementation of rail passenger service. The Legislature directed the Authority to make an evaluation of potential intercity passenger train service between Atlanta, Georgia and Jacksonville, Florida, via Macon and Jesup. The evaluation was completed and a Draft Final Report developed in 2002, with an update completed in Winter 2003.

The following three alternatives were studied for service evaluation:

- Conventional Service: Operate one daily round-trip operating at a top speed of 79 mph providing a six-hour service between Atlanta and Jacksonville. Two train sets would be required to provide the service.
- Moderate Service: Operate a minimum of three daily round-trips operating at top speeds of 79 miles per hour and six-hour trip times between Atlanta and Jacksonville. Four train sets would be required to provide the service.
- High-Speed Service: Operate a minimum of three daily round trips with tilting trains, achieving top speeds of 110 mph, with a five-hour Atlanta-Jacksonville trip. Three train sets would be required to provide the service.

No major adverse environmental issues were identified during the course of this study. Costs for infrastructure range from $104 million to $393 million depending on the type of service with conventional being at the low-end and high- speed service at $393 million.

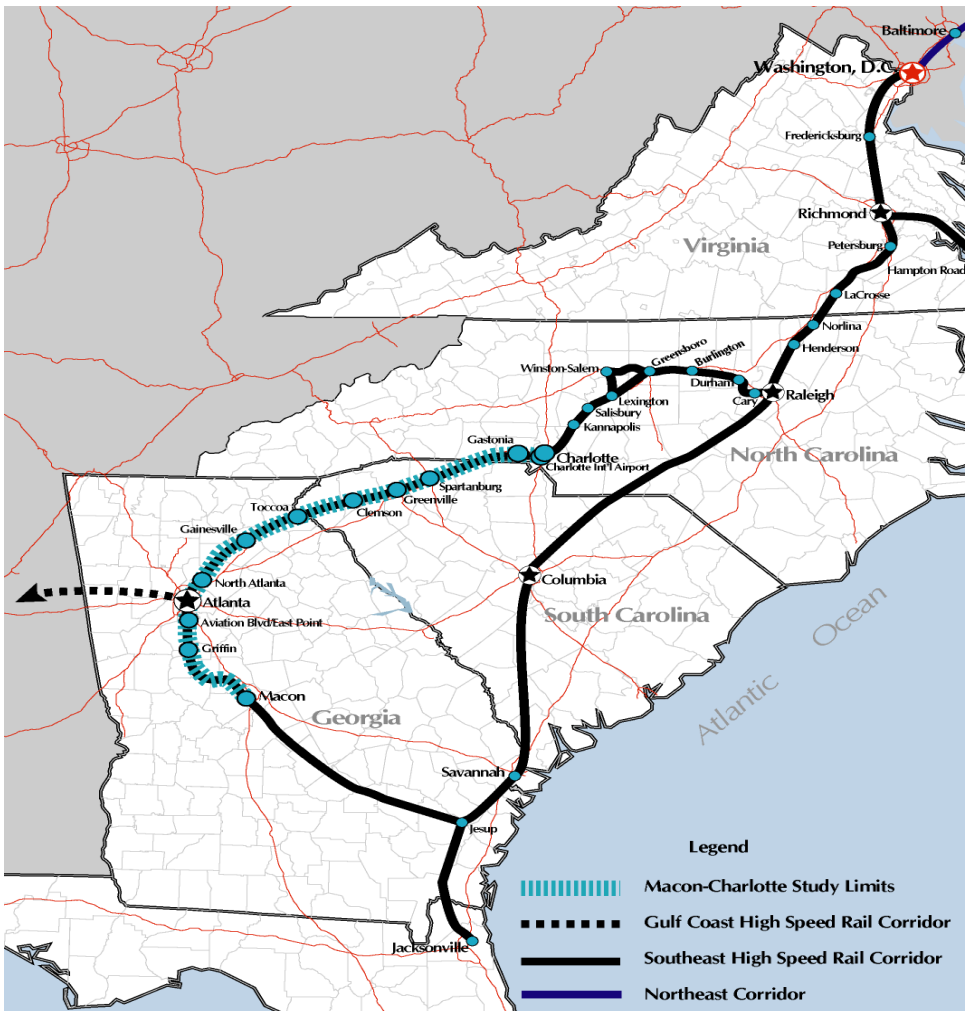


Figure 6. SEHSR Corridor Study Map

iii. 2008 SEHSR Feasibility Study

GDOT in partnership with North Carolina and South Carolina DOT's conducted a planning and feasibility study for improved intercity passenger rail service in the Macon-Atlanta-Charlotte southeast high-speed rail corridor. Scenarios were defined by variations in assumptions regarding technology/speed and alignment, stations, and connecting service options. Route location, demand and revenue estimation, operating and maintenance costs, and financial analysis were developed for each scenario. The assumed frequency was 6 trains per day each way.

The "best case" scenario is either the 125 mph or 150 mph Diesel HSR technology with 14 station stops in the corridor and good connections to improved rail service North of Charlotte. This case balances passenger demand and revenues, operating

costs and initial capital requirements. The following are the key recommendations from this study:

- Additional rail planning should probably focus on the 125 mph and 150 mph diesel technologies.
- The States in the corridor need to develop a political consensus concerning innovative approaches to pay for capital costs and initial operating deficits.

iv. Atlanta to Chattanooga High-speed Ground Transportation Tier I EIS Study

The concept of high-speed ground transportation (HSGT) service between Atlanta, Georgia and Chattanooga, Tennessee has been a subject of study for ten years. Initially, Georgia Department of Transportation (GDOT) studied this corridor as part of the 1997 Intercity Rail Plan. The Atlanta Regional Commission (ARC) analyzed the 110-mile Atlanta-Chattanooga corridor over a four-year period from 1999 to 2003, exploring mobility options and the opportunity for high-speed passenger service. The Tennessee Department of Transportation prepared a statewide rail plan in 2003, which recommended high-speed rail connectivity with neighboring states. With high-speed rail corridors in the planning stages to the east, west, and south of the Atlanta-Chattanooga corridor, this corridor is a major piece in the completion of a future hub system of high-speed train service from Atlanta throughout the Southeast.

The current Tier I EIS study is being conducted by GDOT in partnership with the Tennessee Department of Transportation (TNDOT) and in cooperation with both the Federal Railroad Administration (FRA) and Federal Highway Administration (FHWA). The study involves planning for the deployment of a High-Speed Ground Transportation (HSGT) system in the 110-mile corridor between Hartsfield-Jackson International Airport in Atlanta, Georgia, and Chattanooga, Tennessee, that can provide competitive travel times with other travel modes. Preliminary engineering and environmental analysis for the deployment of a full 110-mile project is the subject of this study that includes completion of a Tier 1 Environmental Impact Statement (EIS) for the corridor. Should implementation funding become available in the future, a completed Tier 1 EIS, with a Record of Decision (ROD) could allow for advancement of selected shorter sections in the Atlanta - Chattanooga corridor, as well as advanced acquisition within the selected corridor, if needed.

Work completed to date includes scoping, preparation of need and purpose statement, documentation of existing conditions, model development, and alternatives analysis (AA). The Tier 1 EIS is incorporating and building upon previous studies of maglev and steel wheel HSGT concepts prepared by the ARC. The Tier 1 EIS will identify logical termini for sub-sections within the corridor, analyze all reasonable location and technology alternatives, estimate potential ridership, determine an initial operating section, identify general station locations, and identify possible implementation phasing. An analysis of projected ridership,

revenue, capital costs and economic impact will also be conducted. The Tier 1 EIS is being prepared at a conceptual level of detail appropriate for a programmatic analysis using recorded data, available mapping and GIS techniques.

C. Passenger Rail Operations – Existing & Future

i. Amtrak Rail Corridors

Amtrak currently operates the following rail services in the State of Georgia:

- **Silver Meteor and Silver Star** offer service between New York City and Florida through coastal Georgia. Services on Silver Service trains include Sleeping and Dining Car accommodations or reserved Coach Class seating.

- **Palmetto** offers service between New York City and Georgia with Business Class service.

- **Crescent** offers daily trips between New York City and New Orleans via Atlanta and it serves the Charlotte-Atlanta SEHSR corridor. Services include Reserved Coach seating, Sleeper Service accommodations, Dining Car, and Lounge Car.

Through the 1970 act that created it, Amtrak is the only entity with legal authority to operate on any freight railroad nationwide. In addition, Amtrak has a national reservations system that would help in ticketing and making connections with the railroad's national network.

ii. High-Speed Rail Corridors

Mega Regions

Mega-Regions recognize the natural, economic, and social characteristics that transcend political boundaries. Current established FRA High-Speed Rail Corridors are within United States Mega Regions as illustrated by the Regional Planning Association (RPA) in Figure 7. High-Speed Rail provides a significant part to transportation solutions to population growth and congestion within Mega Regions.

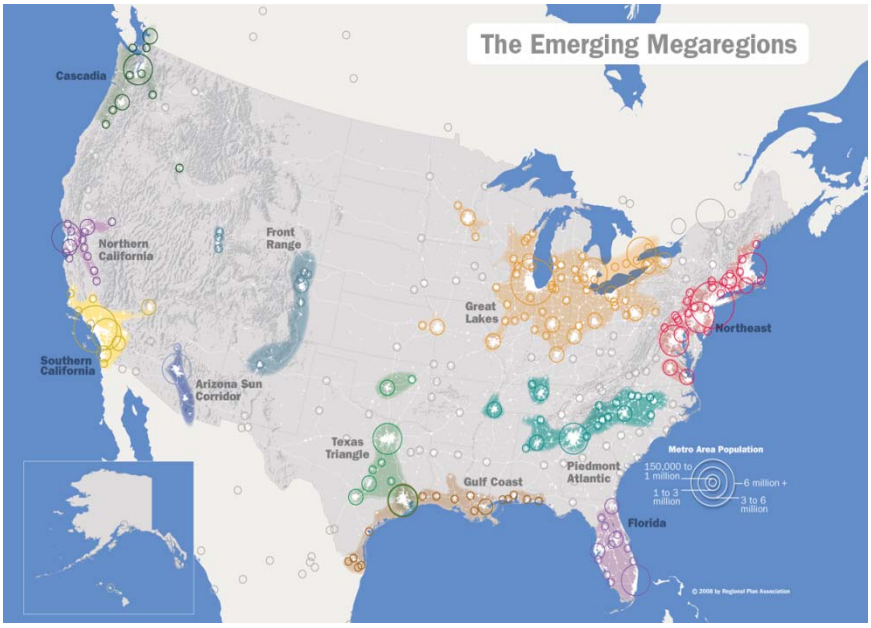


Figure 7. Mega Regions RPA, 2006

Atlanta is the largest urban area within the Piedmont Atlantic Mega Region which also includes Birmingham, Charlotte, and Raleigh. Atlanta's central position makes it a logical hub for future High-Speed Rail Systems connecting the Piedmont Atlantic to the Great Lakes, Gulf Coast and Florida Mega-Regions.

Atlanta is the largest urban area within the Piedmont Atlantic Mega Region, which also includes Birmingham,

Georgia High-Speed Rail Corridors

The state of Georgia currently hosts three designated high-speed rail corridors - the Gulf Coast Corridor, and a central and Atlantic branch of the Southeast corridor. In addition, a fourth corridor, currently under study for high-speed ground

transportation, likely, is soon to be requested as a designated HSR corridor (see Figure 8). With this addition, Georgia becomes a major hub and its capital, Atlanta becomes a major terminal junction for high-speed passenger rail.

Atlanta will play a significant and central role in the advancement of the greatly needed initiative to inaugurate and implement a new and enhanced National High-Speed Rail system. This most progressive transportation advancement, of such critical value, providing vastly improved mobility, economic and community development, as well as significant environmental and energy improvements, is largely dependent upon the HSR crossroads projected for Atlanta.

As proposals advance to add and refine federally designated high-speed rail corridors, altering the Corridor map above and illustrating the National High-Speed Rail system, Atlanta will be recognized as a very critical juxtaposition within the system and key to the Southeast contribution to the National system.

Figure 8. Atlanta, Georgia High-Speed Rail Connectivity

The state of Georgia recognizes the gap in the HSR network between Louisville, Kentucky via Nashville and Chattanooga, Tennessee and onto Atlanta, Georgia. Georgia will work closely with the states of Kentucky and Tennessee to highlight the feasibility of the HSR corridor between Atlanta and Louisville so there will not be a void in the network.

A typical High-Speed Rail trip could include a single individual or group of people leaving a home or office and driving on the regional network of streets and

highways or taking bus or rapid rail transit to the High-Speed Passenger Rail Station e.g. the proposed Atlanta Multi-Modal Passenger Terminal or to a High-Speed Rail Station at the Airport. Ticketing could be handled via the internet or locally at the station. High-Speed trains are designed for comfort and leisure, and the business traveler. Trains are configurable to provide conference rooms, and include food service. There are no limitations on the use of cell phones or computers.

On adjacent platforms, one might notice intercity or commuter trains arriving, passengers unloading and walking towards their place of work or local connection - shuttle, bus, and heavy urban rail (MARTA).

The High-Speed Train would leave the station and operate over tracks within existing joint-use rail right of way possibly shared with freight or regional commuter trains. In this first part of the trip, the high-speed train does not attain its top speed, but gradually speeds up consistent with other users of the joint right-of-way.

As High-Speed Trains leave the urban core, they accelerate onto dedicated right of way and accelerate to their maximum speed. This is much like automobiles entering the Interstate Highway System and accelerating to maximum allowable speed. Passengers riding on these trains may see a regional commuter rail, with typical trip distances of 65-80 miles from the Core, traveling on adjacent tracks not far away but headed on a different alignment to their destination e.g. Athens or Griffin.

Positive Train Control

One of the emerging issues in the passenger rail industry and is also mandated by Section 104 of the Rail Safety Act of 2008 is the Positive Train Control (PTC). This PTC issue will be required on all rail lines and needs to be included in all future rail planning efforts. A PTC System means a system designed to prevent train-to train collisions, over-speed derailments, incursions into established work zone limits, and the movement of a train through a switch left in the wrong position. PTC System technology is in development. The Act spurred on by the September 12, 2008 fatal head-on collision between a Metrolink Commuter Train and a Union Pacific Railroad Freight Train at Chatsworth, California requires:

- April 2010 - Each affected railroad and agency/entity must provide to the Secretary of Transportation its plan defining how they will implement PTC safety systems by 2015.
- December 31, 2015 - PTC must be operational on all required lines.

Future Planning Efforts for South East High-Speed Rail (SEHSR)

Georgia, North Carolina, and South Carolina are currently working on a new Memorandum of Understanding (MOU) for future joint work along the SEHSR line between Charlotte, North Carolina and Jacksonville, FL through Atlanta and Macon, GA. Florida DOT has agreed to participate in a joint application effort to

seek funding from FRA for the SEHSR corridor. A new ridership/revenue study is proposed to be conducted to include travel beyond the currently designated corridor to Washington DC and the Northeast corridor. Travel intercept studies would be conducted with study segments to include:

- Charlotte - Macon
- Macon - Savannah - Jacksonville
- Raleigh – Florence – Charleston – Savannah

Efforts are also underway to scope and fund the Environmental Impact Study for the corridor. SEHSR corridor trains are proposed to be traveling at speeds of 90 - 110 mph linking those cities where highway and airline congestion are the greatest in the State of Georgia.

Future Planning Efforts for **Gulf Coast High Speed Rail**

Atlanta to Birmingham

As part of a coordinated high speed / intercity rail effort the States of Alabama and Georgia, are also working to ensure that the corridors of the Gulf Coast/Southeast will be constructed and rail service implemented in a manner that allows for the construction and opertation of a coordinated and sustainable rail service. Currently Amtrak operates its Cresent service in the corridor between Atlanta and Birmingham. However, the current alignment does not permit speeds over 50 MPH and currently provides trip speed of only 35 to 40 MPH. As we look to upgrade and improve the quality of service within this corridor, we will look to efficiencies throughout our planning and development efforts.

Future services are envisioned to be compatable in areas of technology, general operations and infrastucture thus allowing cross corridor uninterupted travel.

iii. Intercity Passenger Rail Service

Passenger Rail service is also planned to be operated on existing mainline track in the State of Georgia, and there are plans to re- introduce Intercity rail services, connecting the larger population centers of the state. The proposed Intercity rail initiative includes:

- 10 intercity lines linking 9 of Georgia's largest cities and towns with the Macon area; as well as linking two of the largest travel markets in adjoining states. 2.1 million intercity riders are projected to ride intercity passenger rail by 2030.

Macon will play a significant and central role in the advancement of the Georgia Intercity passenger rail initiative to inaugurate and implement a state-wide intercity passenger rail system. The initiation of the Atlanta-Macon intercity passenger rail service will be the back bone of the proposed intercity rail system for the state of Georgia.

The Georgia Rail Passenger Program (GRPP) identified detailed capital improvement costs for the entire system and included North Georgia commuter service, statewide intercity service, and the downtown Atlanta Multimodal Passenger Terminal (MMPT). Estimated annual operating assistance/surplus values were published based on projected fares, ridership, and other anticipated revenue sources. The scenario for passenger commuter rail is taken to be the cost of providing statewide intercity services, and commuter rail service throughout North Georgia. The latter would be centered on Atlanta and would provide peak-period service along seven lines to 45 proposed stations, including Macon, Griffin, Athens, Canton, Bremen, Augusta, Senoia, and Gainesville. Current estimates provide service for 10.7 million commuters and 2.1 million intercity passengers in 2030.

Macon-Atlanta Intercity Rail: The implementation of rail service in the Macon-Atlanta Corridor is the key infrastructure by which High-Speed and intercity rail services will operate. This line impacts include the Southeast High-Speed Rail (HSR) corridor connecting services in the Southern HSR corridor, intercity services to Georgia cities including Albany, Augusta, Savannah, Columbus and Valdosta envisioned in the State of Georgia Rail plan. This will include track and grade crossing improvements, signaling, stations, and other support facilities which would be shared, making such of all segment implementations easier and less expensive. In turn, the implementation of this intercity rail services could make the HSR services more cost effective through the sharing of common infrastructures. The proposed type of improvements on this intercity rail line include, but are not limited to track (repair and new), sub-base, base, and other civil works required, signal upgrades, grade crossing upgrades and eliminations where possible, station (new or restoration/ refurbishment and station inprovements for baggae and parcel

handling ADA requirements), parking (re) surfacing, consist maintenance and cleaning, and crew layover facilities.

Three daily express intercity trains will operate each way with tilting train sets, stopping at Griffin, a Hartsfield Airport-related station and Atlanta. Feeder bus service will add passengers from Twiggs, Houston and Peach Counties to the trains at Macon. It is estimated that capital costs to make track and signal improvements will require $235 million. 275,000 passengers are estimated to use the service in 2030, with operating assistance of $3.7 million per year.

The Federal Transit Administration has issued an environmental Finding of No Significant Impact (FONSI) for previously planned commuter rail service on the Macon-Atlanta NS line. The line has been included in the regional and state long-range transportation plans and the current Atlanta Regional Commission (ARC) Transportation Improvement Plan.

Agreement needs to be reached with the owner of the rail line – Norfolk Southern Railway (NS) on track improvements and operations, as well as with local governments on final station locations, station area development, and partnerships for stable and reliable operating funding.

- **Albany - Macon – Atlanta Intercity Rail:** This 106-mile extension of the Macon – Atlanta segment of intercity rail will use an NS freight line, with stops in Dougherty and Sumter counties. The capital cost to provide capacity for 2030 ridership is estimated at $156 million. 271,000 passengers are forecast in 2030, with an operating surplus of $3.7 million per year.

- **Savannah - Macon – Atlanta Intercity Rail:** This service will link the Coastal Empire with Macon and Atlanta and with current intercity and future High-Speed Rail Service at both ends. The three trains daily each way will double the service between Macon and Atlanta. From Macon to Savannah, the service will use either: (a) the NS freight line to Jesup and the CSX line from Jesup to Savannah with stations in Dodge, Wayne, and Chatham counties (204 miles), or (b) the Georgia Central line, with stops in Toombs and Chatham counties (171 miles). The projected capital costs based on the NS/CSX route is estimated at $326 million to provide capacity for 2030 traffic. An additional 551,000 passengers would use the service, with an operating surplus of $2.5 million per year in 2030. Opening could be within two years of start of service between Atlanta and Macon.

- **Jacksonville Intercity Rail Extension:** Opening within a year of service to Savannah, this 91-mile extension from the Savannah service will use the CSX line between Jesup and Jacksonville. Capital costs are estimated at $149 million in order to provide capacity for 2030. An additional 161,000 passengers are

expected to ride, generating an operating surplus of $0.6 million per year in 2030.

- **Atlanta - Athens - Augusta Intercity Rail:** Three daily express intercity trains will operate each way with tilting train sets. Feeder bus service will add passengers from the counties along this intercity rail corridor. The Federal Transit Administration has issued an environmental Finding of No Significant Impact for previously planned commuter rail service on the Athens-Atlanta CSX line.

  This 171-mile service will use a CSX freight line, with three daily intercity trains each way between Augusta, Athens and Atlanta. Capital costs are projected to be at $357 million, to Augusta. 145,000 intercity trips are projected with operating assistance of $5.9 million per year in 2030.

  Agreement needs to be reached with the owner of the rail line – CSX Transportation (CSXT) on track improvements and operations, as well as with local governments on final station locations, station area development, and partnerships for stable and reliable operating funding. As a first step in the negotiations, CSXT is conducting an operations assessment study to determine what specific investments will be needed to ensure on-time passenger rail service and accommodate future freight traffic growth in the greater Atlanta area. The study is expected to be complete by the end of 2009.

- **Columbus - Atlanta Intercity Rail:** This 78-mile extension of service will branch off of the Atlanta-Griffin NS line, and then use a combination of NS line, abandoned freight line segments, and new alignment with direct service from Spalding to Muscogee counties. It will add another three trains daily on the segment between Griffin and Atlanta. Capital costs are estimated at $448 million for handling 2030 traffic levels. An additional 234,000 passengers will use the train yearly in 2030, with $2.3 million in operating assistance needed per year.

- **Valdosta - Cordele - Macon - Atlanta Intercity Rail:** This extension of service will use NS line to Cordele from Macon and continue on to Valdosta serving Bibb, Houston, Dooly, Crisp, Turner, Tift, Cook, and Lowndes. It will add another three trains daily on the segment between Macon and Atlanta.

- **Columbus - Macon - Savannah Intercity Rail:** This proposed "east-west corridor" intercity service will use Georgia Central Railroad between Savannah and Macon and then use NS line between Macon and Columbus.

- **Augusta - Savannah Intercity Rail:** This proposed intercity service will use the NS line between August and Savannah.

- **Waycross - Cordele - Macon Intercity Rail:** This proposed intercity service will use the CSX line between Waycross and Cordele and then use the NS line between Cordele and Macon.

Figure 9 shows Georgia's proposed intercity and high-speed rail passenger lines as well as federally designated and state legislated routes.

iv. Excursion Passenger Train Services

There are weekend excursion trains that run on shortline tracks in Georgia by the Georgia Department of Natural Resources (DNR), Blue Ridge Scenic Railroad, and the Tennessee Valley Railroad Museum.

SAM Shortline Excursion Train: The SAM Shortline is operated by the Georgia DNR under the guidance of the Southwest Georgia Railroad Excursion Authority. Management is provided by staff at the Depot in Cordele. While the cars are owned by the Excursion Authority, the engine is owned and operated by the Heart of Georgia Railroad Company. Depending on the type of train run, the train stops at towns along the 34 mile route between Cordele and Archery, GA with stops at Georgia Veterans State Park, City of Leslie, City of Americus, and the City of Plains. The trains are run as Americus Adventure, Archery Explorer, Peanut Express, Presidential Flyer, Southwest Georgia Arrow, and the River Runner.

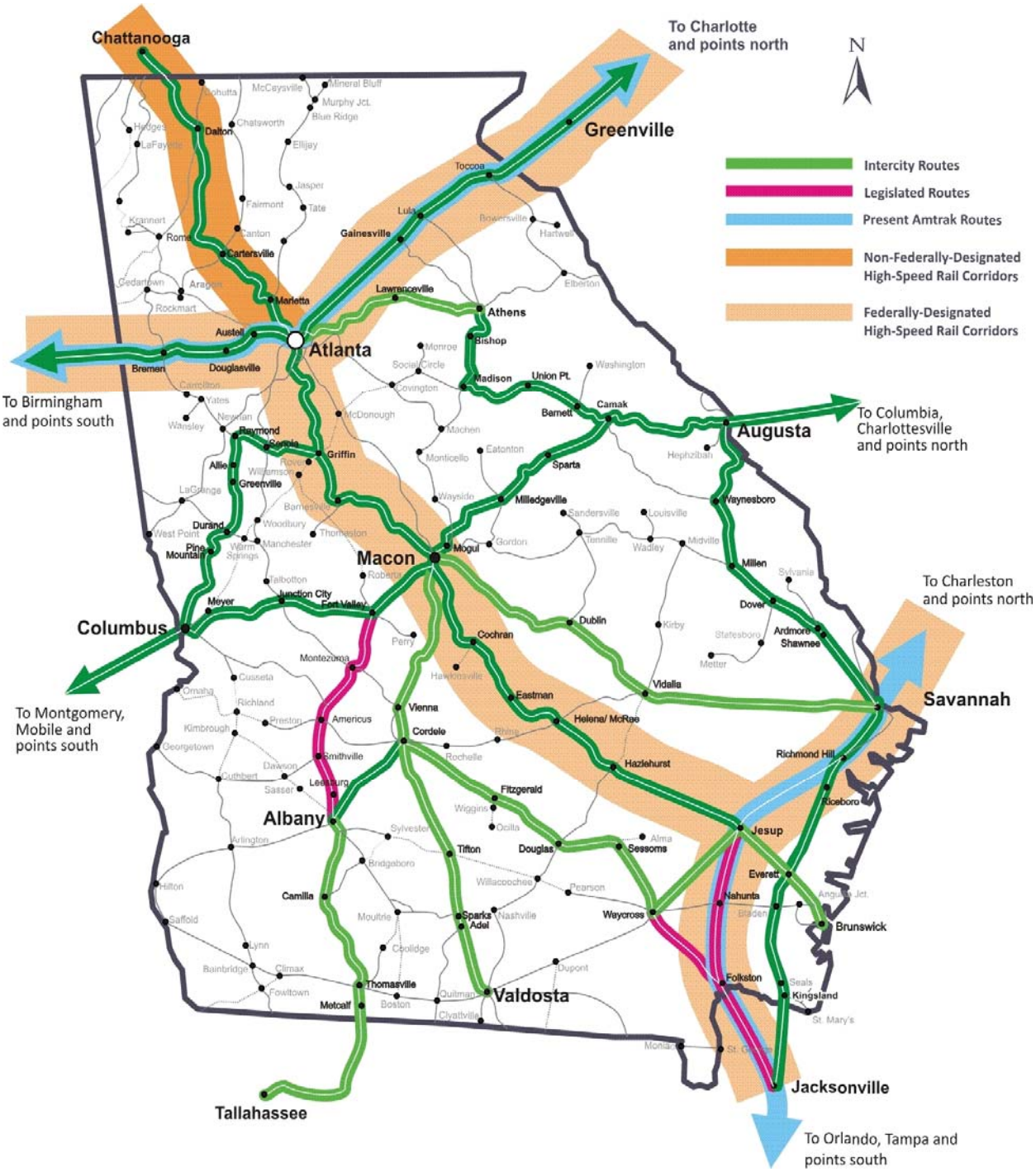


Figure 9. Georgia Intercity/High-Speed Rail Plan

Blue Ridge: The route consists of a 26-mile round trip through historic Murphy Junction along the beautiful Toccoa River. This railroad was built over 100 years ago and is the only mainline railroad excursion service based in Georgia. Each trip begins at the depot in Blue Ridge, Georgia and includes a stop in McCaysville that permits passengers to disembark and stretch their legs while exploring the downtown communities of McCaysville, Georgia and Copperhill, Tennessee. Each round trip takes approximately 4 hours.

Tennessee Valley Railway Museum: This route takes customers to historic Chickamauga, Ga. The trip lasts approximately 6-1/4 hours and includes a 1-3/4 hour stop (layover) in Chickamauga and a shorter layover at Wilder Tower in Chickamauga-Chattanooga National Military Park during the return trip to Chattanooga. The train travels through pre-Civil War Missionary Ridge Tunnel and later passes Chickamauga Battlefield enroute to the Town of Chickamauga.

Excursion travel is a valuable part of the state's economic development as these services attract tourists to the areas they operate.

IV STATION PLANNING & ECONOMIC IMPACTS OF RAIL TRANSPORTATION

A. Passenger Station Planning

i. Statewide rail station connectivity framework

Passenger rail customers looking for intercity and high-speed rail systems are influenced by the vehicle and station design and functionality. High-Speed rail stations include in-line, terminal, and airport stations. The emphasis in station design is accessibility and intermodal connectivity. In-line stations are typically on the main line or on a siding to the main line, allowing for rapid approach and departure of a high-speed train.

- The exterior train sets are designed with paint schemes and markings to market the service. Entry level and regional level systems typically will have train sets similar to the AMTRAK ACELA, stainless steel fabrication, and structurally built for crash worthiness in a freight rail environment. Express high-speed rail vehicles, not yet approved for operation in the United States, are typically of much lighter construction and are made of aluminum and carbon fiber.
- Terminal stations, like the existing Macon terminal and the proposed Atlanta Multi-Modal Terminal, are major intermodal centers, where intercity and high-speed trains interconnect with local, and regional transit, and typically a robust connection to the city or regions airport. A high-speed train approach to a terminal station is typically slower due to typical train congestion near regional centers.
- In-Line stations, located between the major urban centers, are designed for a quick connection to significant centers of economic activity smaller in size than the major urban centers anchoring each segment of a HSR system.
- Airport stations provide direct interconnectivity with medium and long distance air travel. Efforts to improve and streamline interconnectivity - luggage, ticketing, have recently been initiated and are continuing to be improved.

ii. Identification of Potential Station Locations

Identification of potential station locations will be focused on the 8 major cities in Georgia outside of Atlanta. These municipalities include Albany, Athens, Augusta, Brunswick, Columbus, Savannah, Waycross and Valdosta. These locations would be based on site visits and meetings/recommendations of local officials. While concentration will be on corridors to the major cities, the intermediate to smaller communities may also be desirable locations for intermediate stops and would be determined as alignments and funding allow for opportunities.

Potential station sites will depend on the potential for attracting ridership generated from the area served by the station. Factors involved will be ease of parking of automobiles, access to and for local transit providers and walking distances, again depending on the community. Choices of location within the large cities will exist between the selection of suburban and urban station locations. Other requirements that could create potential use of a terminal site would be a local transit system that feeds into the downtown or a significant redevelopment, either planned or completed, that would generate walk-up passengers.

Macon Terminal Station

The City of Macon has repurchased Macon Terminal Station from the Georgia Power Company, and is now in the process of developing the structure as an intermodal gateway facility. Intercity trains will use this station once it becomes available.

Ultimately, Macon will be a hub for rail service to many points in middle Georgia and south Georgia.

Atlanta Multimodal Passenger Terminal (MMPT)

The location and siting of a suitable HSR terminal within "the gulch" area of Downtown Atlanta should be initiated soon. This facility will be urgently required to serve as an intermodal intercept and trans-service point as well as an important multi-purposed destination facility and center within Georgia and Atlanta.

The Multi Modal Passenger Terminal (MMPT) design for Atlanta must take into account a range of factors that will dictate the details of its design and implementation. As the State of Georgia broadens its focus toward Intercity, High-Speed Passenger Rail, and Commuter rail, the need for development and operation of a multi-modal passenger terminal (MMPT) station for Atlanta is extremely important.

A key characteristic of a well planned MMPT ensures that every rail network user/operator has an equal opportunity to run their trains efficiently and cooperatively now and into the future. The operating characteristics of long distance, high-speed, intercity rail service determine the orientation of station platforms to the rail network. Recent studies and special task force initiatives reviewed and evaluated freight train movements that use the existing rail network through downtown Atlanta, an area commonly referred to as "the gulch", as well as potential future passenger train movements in the same corridor. One of the findings is that a station configuration that serves intercity and high-speed rail passengers is better located adjacent to the existing track network in a north-south orientation. Such a location accommodates 'pass – through' train sets and quicker access to mainline tracks.

The site needs to be of a size and dimension that are amenable to the improved design and construction of station tracks that can serve both intercity trains and HSR trains. Based on work performed by the Department to date, six tracks and approximately 800-foot passenger station platforms would be necessary. Platform widths need to be around 30 feet.

The simplest and most straightforward track configuration includes medium speed turnouts from the eastern most NS main track at both the north and south ends. Simple horizontal curvatures were used with a minimum degree of curvature of eight degrees, acceptable for the slower speeds typical of entering and exiting a Terminal MMPT station. Vertical track alignment is anticipated to be comparable with the existing NS main tracks. The turnouts from the main to the station would connect to six track "ladders" that would connect the station tracks from south to north. Two tracks, closest to the main line, are designated as High-Speed Rail tracks with a single center placed platform. Four tracks are designated as Intercity tracks with center platforms between each pair of tracks.

If train service demands increased significantly, additional turnouts to each of the separate sections of the station would permit parallel simultaneous train movements at both ends of the station. A track arrangement such as this would allow HSR and Intercity trains to arrive and depart without interfering with each other, subject to the operational constraints of operations on the main tracks. While it might not be necessary to construct this type of enhanced design at the outset, making provision for this type of expansion at the outset can save significantly in both avoided capital costs and service interruption.

MMPT Location and Access

Enhanced streetscape environments are typical of surrounding areas of Terminal Stations. A current trend exhibited in recent Atlanta Projects has been to reduce the number of roadway lanes on major thoroughfares for single occupancy vehicles and expand the area dedicated to pedestrians, bicycle riders and landscaping. This trend compliments the development of the MMPT as well as adjacent Transit Oriented Development.

Enhanced streetscape as well as possible people mover systems can ensure quick connectivity to the MARTA Five Points Station The proposed Downtown MMPT is a key element of the overarching Central Atlanta Progress Green Line concept. The Green Line plan was developed by CAP in partnership with area stakeholders (including input by DOT leadership) as a vision for the broader east-west corridor of Downtown that stretches from the state Capitol area to Phillips Arena. The vision is for a linear park, pedestrian-friendly development, and the Downtown MMPT as the lynchpin of increased multimodal connectivity. Previous GDOT studies analyzed local and regional bus routes serving the Atlanta MMPT.

Station Platforms & ADA Access

Station platform heights require more detailed analysis, including the following factors:

- USDOT standards that may be established in the near future
- ADA requirements – this is an emerging issue
- Station platform requirements for all stations on routes feeding Atlanta and Macon will be 8" above the top of rail. The maximum degree of curvature that can be used for high level platforms are 1°40'. This value can vary depending on the railroad utilizing the platforms.
- NS, CSXT, and other rail owner requirements will be recognized and addressed
- Outlying station requirements for both HSR and Intercity service may be a factor
- Passenger rail car floor heights vary from car builder to builder

General station site requirements

The general station site requirements are dependent on the following factors:

- ✓ Density of local population, economic activities or tourist activities
- ✓ Mainline track or siding with 1500 or more feet of track preferably not on a curve.
- ✓ Available property along trackage for the construction of ADA conforming boarding platforms
- ✓ Level terrain with few obstructions and good drainage
- ✓ Adjacent property for the creation of sufficient vehicle parking for the estimated passenger demand, depending on municipal population
- ✓ Existing or potential development space for maintenance facilities and storage track within a one mile distance of the end station or in a location convenient to the final station site

B. Transit Oriented Development

i. Identify Preferred Rail Development Corridors and Growth Patterns

Identification of preferred rail development corridors and growth patterns is critical for smart growth around the potential station locations in Georgia. Transit Oriented Development (TOD) is gaining momentum across the United States with more TOD planning and implementation than any time in the country's history. Increasing congestion, the "move back" to cities, support for "smart growth," a record number of rail New Starts and the federal administration's emphasis on land use in funding recommendations for New Starts drive an interest in TOD.

Community driven design process will be adopted to define corridors and station locations early in the design process to maximize TOD opportunities, ridership, community fit, transit operations and access all to build community ownership.

The existing Macon terminal station and a Downtown MMPT in Atlanta offer potential overbuild opportunities that would tie together the vertical circulation between the train platforms, local ground transportation and potential retail, office and residential developments. A range of development scenarios envisioning a mix of mid rise vertical developments of approximately five stories in height as well as high rise developments in excess of 100 feet of vertical construction could potentially add mixed-use space to both the Macon and Atlanta markets.

Transit Oriented Development (TOD) at High-Speed Rail Station provides options for greater distance commuting as well as location for business, institutional, commercial and residential development. Airport Stations act as a collector for passengers traveling longer distances by air. Terminal Stations such as the existing Macon Terminal Station and the proposed Atlanta Multi-Modal Terminal are planned and designed in consideration of economic development, and transportation connectivity to local, regional, and intercity buses, regional commuter rail. These stations also provide a robust, quick connection to the airport.

C. Economic Benefits of Rail Programs

National Perspective

The National Rail Freight Infrastructure Capacity and Investment Study was conducted in 2008 by the Association of American Railroads (AAR) at the request of the National Surface Transportation Policy and Revenue Study Commission. This study assessed the long-term capacity expansion needs of the continental U.S. freight railroads.

The study found that an investment of $148 billion (in 2007 dollars) for rail freight infrastructure expansion over the next 28 years is required to keep pace with economic growth and meet the U.S. Department of Transpor-tation's (DOT) forecast demand through 2035

IT3 Recommendations

The state of Georgia conducted an assessment of statewide transportation investments in 2008 related to the Investments in Tomorrow's Transportation Today (IT3) and published the report titled "IT3 Scenario Results and Implications". The key findings from the document related to rail transportation are as follows:

- Additional investment in limited access bypasses connecting other significant (but lower volume) freight origins and destinations (e.g., connecting Augusta and Savannah, Albany and Tallahassee) is necessary
- Investments would likely be made instead of "big bet on rail," but could be treated as additional (e.g., new freight rail lines Connecting Savannah and Atlanta)
- Grade separate major at-grade rail crossings (e.g., Howell Mill Junction, Central Junction near port)
- Invest to create new freight rail lines (e.g., new freight rail lines connecting Savannah and Atlanta

Freight Rail Investment in the amount of $9.7 billion in 2008 dollars would result in significant benefits to the State of Georgia. Freight investment scenarios "preserve" the key flows to and from the Port of Savannah.

By capturing the freight opportunity, Georgia could generate ~$61 billion in economic benefits over 30 years.

Investing in high-speed rail primarily benefits Atlanta, Macon and Savannah by linking the labor markets and making the amenities of each city more available to the others. For example, Atlanta gains access to a beach in 2 hours, while Savannah and Macon gain access to Atlanta.

The "2009 Georgia Logistics Report" reports that despite the poor prospects for U.S. GDP growth, business conditions favor the railroads. Demand growth will exceed capacity growth, but the growth rates will be lower and they will converge. These growth dynamics will keep rates high, but probably will prevent them from going any higher unless fuel prices spike. Overall profits will increase only slightly in 2009.

The continued success of Georgia's ports will be a big plus for the railroads. Inter-modal shipping of consumer goods and light industrial products will grow, and there also will be more shipments of industrial and communications equipment. Also, railroads should not have any problem passing fuel costs onto shippers, since rail is an extremely fuel-efficient transportation mode. High trucking costs, increased highway congestion and more concern about air quality are some additional factors that favor the railroads.

Shipments of agricultural products, processed food, electrical equipment, machinery and coal will increase slightly. Shipments of consumer goods probably will decline slightly in the first part of the year, but should rebound in second half. Chemicals volume probably will be flat or down only slightly and the outlook anticipates lower shipments of building materials. Coal is the rail industry's largest source of shipments

and a major contributor to its profits, and due to increases in power consumption, electric utilities are expected to use more coal. High natural gas prices will be a significant factor behind utilities rising demand for coal.

Impacts of HSR

High-Speed Rail is a formidable tool in responding to the needs identified by regional and inter-regional planning in addressing the nation's increasing population growth and economic and social development.

These benefits increase as HSR Trip Time becomes competitive with the alternate modes of transportation in particular, interstate highway and air travel.

- HSR provides a safe, secure, alternative to interstate highway systems and short to medium distance air trips, reducing congestion within these transport systems while moving millions of people per year
- HSR provides a trip suited to leisure and business activity. Trains can be configured with conference rooms, seats configured with ample leg room and desks with power for computer and recharging other electronic devices. Food Service is also available. Unlike automobile and air, high-speed rail trains run on time, regardless of weather conditions. They provide non-stop and local services, and seamless connectivity with other transportation systems.
- HSR Stations are catalysts for economic development and centers for intermodal connectivity. HSR connects economic centers within the Piedmont Atlantic Mega Region and adjacent Mega Regions. Similar to the development of the Interstate Highway System, HSR provides mobility in response to population growth, laying the groundwork for economic development, within the context of the global economy of today.
- HSR increases the nation's energy efficiency, contributes to energy independence, and improves the environment by moving passengers over distances of 200-600 miles through clean diesel technology or electrification. Passengers that might otherwise use less energy efficient automobile or air travel. High-Speed Rail also contributes in curbing carbon emissions.
- HSR benefits also generally increase as maximum speeds increase, due to higher speeds being grade-separated and within dedicated right of way. Emerging high-speed rail systems often share track with freight and other passenger rail services. Mixing High-Speed, Freight, and traditional passenger rail, each one operating at different speeds, affects system safety and Trip Time. Existing rail lines have established alignments and infrastructure that often are incompatible with trains operating even at emerging high-speed rail speeds between 90 mph and 110 mph. As speeds increase, safety requires grade separated dedicated right of way. Regional and Express HSR then begin to demonstrate the established safety record of high-speed rail.

Benefits of Southeast High-Speed Rail Corridor (SEHSR)

The SEHSR corridor project helps in the safety by providing an alternate mode of travel for the riders along the corridor. This project also reduces accident, injury, and fatality exposure of riders by preventing traffic accident deaths and fewer injuries per year compared to driving. It also improves safety at highway-railroad grade crossings as it potentially could eliminate all the crossings along the rail line. The SEHSR corridor project also helps support the local community development around the station sites with respect to transit oriented development, and town center redevelopment.

The SEHSR corridor project increases mobility to seniors and other non-driving population. It also avoids the demand for scarce road construction funds and creates time savings for remaining road and air users. The project helps reduce pollution and reach clean air goals for the metropolitan regions along the corridor. The implementation of the SEHSR project would result in the reduction of Vehicle-Miles Traveled (VMT) in the corridor.

Metro Atlanta Chamber of Commerce and the Southeastern Economic Alliance comprising of 13 chambers of commerce from six southeastern states, was formed to outline the business case and support development of high-speed rail in the southeast. North Carolina members include Charlotte, Raleigh and Winston-Salem.

V Infrastructure Program & Funding Options

A. Class I Railroads Capital Infrastructure Projects

Railroads spend about five times more to maintain their systems and equipment than the average U.S. manufacturer spends on plants and equipment.

Railroads are extremely capital intensive. In general, they spend about five times more to maintain their systems and equipment than the average U.S. manufacturer spends on plants and equipment. For example, Class 1 railroads spend 17.8 percent of revenues on capital improvements compared to 3.7 percent for all manufacturing industries in the nation. With such an expenditure required for capital improvements, investors have been prudent in putting monies into railroads. Consequently, the amount of funds for maintenance and expansion has not been as great as for many other industries. Nevertheless, railroads continue to fund the expansion of their systems.

NS and CSX staff based on their long term planning efforts as well as current operational problems prepared a list of potential capital projects that need to be funded to alleviate the freight bottlenecks and move the freight traffic better.

The introduction of passenger or commuter operations will undoubtedly create new bottlenecks and operational challenges – not only along the specific routes handling such operations, but will also impact NS and CSX rail networks. NS, CSXT, the State of Georgia, and its constituents will benefit from mitigating bottlenecks that result from passenger or commuter operations and ensuring the safe, efficient, and competitive ability of the Class I railroads to sustain and grow its freight rail operations.

Since identifying such bottlenecks requires the validation of study and modeling, the list of infrastructure does not reflect potential bottlenecks that result from increased, new, or high-speed rail/passenger and/or commuter operations. However, it is reasonable to assume that many of the routes identified below will require additional investments to facilitate the long-term growth of safe and efficient freight rail operations. In addition, the list is not prioritized and relies on a combination of current and projected volumes and operations.

The rail infrastructure projects were identified during previous internal NS and CSX studies. Additional projects could be identified at a later date and construction would depend on funding availability, freight traffic levels, and overall economic conditions, etc.

The costs indicated for the NS infrastructure projects are for planning purposes only and the costs are preliminary order of magnitude based on scaled-up previous estimates. All projects must be engineered to determine actual costs.

Table 10. Norfolk Southern Infrastructure Projects

Corridor Location	Order of Magnitude Cost $M
Dalton Upgrade passing track and construct yard improvements	$5.0
Mableton Construct passing track	$10.0
Vienna Extend Georgia Pacific lead	$5.0
Valdosta Construct passing track	$10.0
Stockbridge Extend passing track	$5.0
Jenkinsburg Extend passing track	$5.0
Adel Yard expansion	$10.0
Macon - Valdosta Upgrade signal system	$25.0
Atlanta - Charlotte Gainesville Construct yard improvements	$5.0
Atlanta Construct yard improvements	$10.0
Atlanta Construct phases 2 and 3 of additional mainline to bypass Inman Yard	$100.0
Douglasville Construct rail bypass route	$50.0
Bremen Construct new connection to Cedartown District	$10.0
Tallapoosa Construct new passing track	$15.0
Villa Rica Connect Carroll Siding with Baggett Siding to create double track	$10.0
Echeconnee Construct new passing track	$10.0
Upatoi Construct new passing track	$5.0
Fort Valley Reconfigure Columbus Junction interlocking and upgrade turnouts	$5.0
Macon Construct new connection between Griffin and Albany Districts	$5.0
Macon Construct new connection from Savannah to Atlanta South Districts	$100.0
Macon Upgrade Armstrong Lead as a crew change and passing track	$5.0
McIntyre Construct new passing track	$5.0
Tennille Construct new passing track	$10.0
Preliminary Total NS projects	**$420.0**

Note: Costs indicated for the NS infrastructure projects above are for planning purposes only and the costs are preliminary order of magnitude based on scaled-up previous estimates. All projects must be engineered to determine actual costs.

Source: Norfolk Southern Railway

Table 11. List of CSXT Infrastructure Projects

CSXT – Georgia Statewide Rail Plan – Initial Project Listing

Location	Subdivision	Description	Freight Rail Benefits *
La Grange	Lineville and A&WP	▪ Connectivity and yard capacity	▪ Improves freight capacity ▪ Provides increased routing flexibility for operating freight trains to, through, and around Atlanta
Statewide Yard Improvements (e.g. Waycross, Savannah, Manchester, Augusta, Atlanta, etc.)	Various	▪ Track upgrades and expansion	▪ Increases freight yard capacity and capability
Atlanta to Waycross	Manchester and Fitzgerald	▪ Capacity expansion, including, but not limited to installing and extending existing sidings and increasing double track	▪ Improves freight capacity, velocity, reliability, and recoverability between Atlanta and Waycross
Sessoms	Fitzgerald	▪ Siding extension	▪ Improves freight capacity, velocity, and recoverability of operations between Atlanta and Waycross
Waycross to Jacksonville	Nahunta	▪ Capacity expansion	▪ Improves freight capacity, velocity, reliability, and recoverability between Atlanta and Waycross
Savannah	Savannah	▪ Highway 25 grade separation	▪ Improves freight safety, as well as freight velocity and reliability in serving the Port of Savannah
Savannah	Savannah	▪ Track and connectivity upgrades	▪ Improves freight velocity and reliability in serving the Port of Savannah and other freight customers

** Unless stated otherwise, project benefits reflect only those attributable to freight rail operations.*

Table 11. List of CSXT Infrastructure Projects (Cont'd.)

CSXT – Georgia Statewide Rail Plan – Initial Project Listing

Location	Subdivision	Description	Freight Rail Benefits *
Atlanta to Chattanooga, TN	Atlanta TM and W&A	▪ Capacity expansion, such as double track or siding extensions ▪ Bridge upgrades and connectivity	▪ Improves freight capacity, reliability, and recoverability accessing and operating into and through Atlanta
Junta, GA to Tennessee / Georgia State Line (at or near Fairy, GA)	Etowah	▪ Siding extension and double track	▪ Improves freight capacity, reliability, and recoverability in moving rail freight between Atlanta and Cincinnati (and beyond)
Augusta	Augusta	▪ Road improvements / traffic realignment to eliminate road crossing within Augusta Yard	▪ Improves freight safety, as well as freight yard capacity and operational fluidity
Bainbridge (as part of Bowline Corridor initiative)	Bainbridge	▪ Connectivity improvements to Bowline and capacity/clearance improvements	▪ Facilitates alternative freight routings to/from Florida
Bowline Corridor (Montgomery, AL to Waycross)	Various	▪ Infrastructure upgrades, including capacity improvements	▪ Facilitates alternative freight routings to/from Florida, including alternate Atlanta handlings ▪ Improves freight velocity and reliability of traffic moving to and through the Southeast
Sparta	Camak	▪ Siding extension and signaling upgrades	▪ Supports freight customer growth initiatives ▪ Improves freight corridor throughout between Atlanta and Savannah

** Unless stated otherwise, project benefits reflect only those attributable to freight rail operations.*

Table 11. List of CSXT Infrastructure Projects (Cont'd.)

CSXT – Georgia Statewide Rail Plan – Initial Project Listing

Location	Subdivision	Description	Freight Rail Benefits *
Camak, Thomson, and Dearing	Georgia	▪ Switch and signaling upgrades	▪ Facilitates freight customer growth ▪ Improves freight safety and velocity ▪ Supports freight growth of rail freight
Robbins	Augusta	▪ Communication and signal upgrades	▪ Improves freight safety, velocity, and capacity between Atlanta and Savannah
La Grange to Alabama Border (between West Point, GA and Lanett, AL)	A&WP	▪ Extend TCS west of West Point, GA – ultimately all the way to Montgomery, AL	▪ Improves freight route capability and capacity, including ability to enable KIA's West Point facility to reach eastern and western consumptive markets
Union City	Manchester and A&WP	▪ Connectivity and yard capacity	▪ Improves freight route capability ▪ Supports local freight growth
Manchester to the Georgia / Alabama Border (between Pyne, GA and Standing Rock, AL)	Lineville	▪ Double track or lengthen sidings – ultimately all the way to Birmingham, AL	▪ Improves freight capability and capacity of route to/from Birmingham, including Intermodal
I-95 Corridor / A-Line Improvements	Various	▪ Infrastructure upgrades, including new rail and surfacing	▪ Mitigates freight and passenger conflicts ▪ Improves velocity, reliability, and recoverability of freight operations between Savannah and Waycross (and beyond)

** Unless stated otherwise, project benefits reflect only those attributable to freight rail operations.*

Table 11. List of CSXT Infrastructure Projects (Cont'd.)

CSXT – Georgia Statewide Rail Plan – Initial Project Listing

Location	Subdivision	Description	Freight Rail Benefits *
Atlanta (a result of the introduction of new, or increased frequency and requirements of passenger and/or commuter operations)	Various	▪ Capacity, primarily double tracking of key corridors ▪ Connectivity improvements and upgrades	▪ Mitigates freight and passenger conflicts ▪ Improves freight velocity, reliability, and recoverability of operations ▪ Improves freight safety and capacity along various routes that operate to/from Atlanta

** Unless stated otherwise, project benefits reflect only those attributable to freight rail operations.*

Type of Improvement	**Preliminary Cost**
State-wide Yard Improvements	$30.0 M
Track Capacity	$120.0 M
Signal Improvements	$40.0 M
New Rail connections & mainline bypasses	$260.0 M
Total	**$450.0 M**

Note: Costs indicated for the CSX infrastructure projects above are for planning purposes only and the costs are to be considered preliminary order of magnitude. All projects must be engineered to determine actual costs.

Source: GDOT Intermodal Programs Division

B. Shortline Capital Projects

Stable and long term funding is critical to the preservation, maintenance and expansion of Georgia's freight rail system.

Four rail projects were appropriated in the FY 2010 legislative budget and are as follows:

- Nunez to Vidalia (HOG Railroad) $3.5 M
- Lyerly to Coosa (CCKY Railroad) $2.0 M
- St. Augustine Road Rail Switching Yard Expansion (CSXT) $1.0 M
- Bridge restoration (HOG Railroad) $1.2 M

Non-State Owned Shortlines

Based on the statewide freight plan updates conducted in 2000 and 2002/2003, an *estimated total of $105.1 million (costs updated to 2008$) is needed for capital improvements, with short-term capital needs (0-5 years) totaling $56.3 million and long-term needs (5-10 years) totaling another $48.8 million for the non-state owned shortlines.*

A summary of the non-state owned shortline capital needs is provided in Table 12 below.

Table 12. Summary of Non-State Owned Shortline Railroad Capital Needs

Railroad	Short-Term (0-5) Years Capital Needs	Long-Term (5-10) Years Capital Needs	Total
The Athens Line LLC	$11,123,838	$10,076,173	
Chattahoochee Industrial	$396,800	$1,252,400	$1,649,200
Chattanooga & Chickamauga	$930,000	$930,000	$1,860,000
Georgia Central Railway	$17,744,960	$8,522,356	$26,267,316
Georgia & Florida Railnet	$10,161,800	$14,284,800	$24,446,600
Georgia Northeastern	$12,629,400	$15,066,000	$27,695,400
Georgia Southwestern	$9,000,000	$8,000,000	$17,000,000
Georgia Woodlands	$1,004,400	$2,728,000	$3,732,400
Golden Isle Terminal Railroad	$699,360	$885,360	$1,584,720
Great Walton	$8,914,500	$1,048,970	$9,963,470
Hartwell	$14,840,881	$7,998,490	$7,890,983
Valdosta Railway	$2,000,000	$3,000,000	$5,000,000
Total	**$89,444,979**	**$73,792,549**	**$163,237,528**

In addition to the shortline capital needs listed above, the following are infrastructure improvements that are necessary based on existing track condition assessment:

Georgia Midland Railroad

- 22 Mile Rail Line Rehabilitation, Perry, GA to Zenith, GA
- 32 Mile Rail Line Rehabilitation, Dover, GA to Metter, GA

State-owned Shortlines

A recent freight update was conducted in 2008 for the GDOT owned shortlines to estimate the capital investment required to maintain or improve the segments to Federal Railroad Administration (FRA) Class 2 track condition. Maximum freight train speed on Class 2 track, the common standard for shortline railroads in the southeastern U.S, is 25mph for freight and 30mph for passenger trains. Capital investment requirements herein are largely a function of the existing railroad infrastructure, and to a lesser degree the current condition of the infrastructure. The update also includes estimates of the capital cost of restoring the Nunez (Kirby)-Vidalia segment to service, and extending Dawson-Sasser segment 4.1 miles to serve a potential customer in Armena.

The three year fiscal year 2010-2012 near term program shown in Table 13 are rudimentary estimates of the capital investment required to maintain or improve track to Class 2 condition.

The seven year 2013-2019 long term program is the estimated capital investment required to maintain track in Class 2 condition over the course of an assumed eight year capital investment cycle. The eight year capital investment generally consists of timber (crossties) and surface (application and tamping of ballast) (T&S) of the entire main track portion of the segments, T&S of main track turnouts, T&S of 40% of total grade crossing length (i.e., T&S of crossings on a 20 year cycle) and bridge capital investment based bridge length. The seven year 2013-2019 medium term program related projects are shown in Table 14.

Based on the recent 2008 state-owned shortline freight plan update, an estimated total of $69.4 million (2008$) is needed for capital improvements, with short-term capital needs (0-3 years) totaling $37 million and long-term needs (3-10 years) totaling another $32.4 million for the state owned shortlines.

Table 13. 2010-2012 Fiscal Year Near-Term Capital Investment Requirements

Railroad	Segment	Length (miles)	T&S (inc turnouts & xings)	Bridges	Total
ORC	Ardmore-Sylvania	22.4	$ 990,000	$ 0	$ 990,000
GNRR	White Path-McCaysville	22.3	$ 650,000	$ 0	$ 650,000
GFRR	Valdosta-Willacoochee [1]	43.1	$ 2,525,000	$ 440,000	$ 2,965,000
CCKY	Chattanooga, TN-Lyerly	43.1	$ 1,070,000	$ 1,000,000 [2]	$ 2,070,000
HOG	Midville-Kirby	23.3	$ 1,410,000	$ 310,000	$ 1,720,000
HOG	Vidalia-Rochelle	67.2	$ 1,300,000	$ 2,090,000	$ 3,390,000
HOG	Rochelle-Cordele-Dumas	68.2	$ 3,195,000	$ 415,000	$ 3,610,000
HOG	Preston-Mahrt, AL	42.2	$ 2,760,000	$ 700,000	$ 3,460,000
GSWR	Cuthbert-Bainbridge	68.3	$ 3,910,000	$ 40,000	$ 3,950,000
GSWR	Columbus-Cusseta	24.6	$ 1,515,000	$ 160,000	$ 1,675,000
GSWR	Dawson-Sasser	9.3	$ 505,000	$ 50,000	$ 555,000
	Subtotal	**434**	**$19,830,000**	**$ 5,205,000**	**$25,035,000**
HOG	Nunez-Vidalia track restoration	18.8	$ 6,500,000	$ 1,500,000	$ 8,000,000
GSWR	Sasser-Armena track restoration	4.0	$ 4,000,000	$ 0	$ 4,000,000
	Subtotal Restorations	**22.8**	**$10,500,000**	**$ 1,500,000**	**$12,000,000**

1 Prepared prior to devastating 2009 Spring flooding that damaged railroad.
2 Includes improvement of bridges along one segment to accommodate 286,000 pound maximum carloads.

Table 14. 2013-2019 Fiscal Year Long Term Capital Investment Requirements

RR	Segment	T&S (including turnouts and crossings)	Bridges	Total	Annualized Cost per Route Mile
ORC	Ardmore-Sylvania	$ 1,420,000	$ 0	$ 1,420,000	$ 7,900
GNRR	White Path-McCaysville	$ 1,520,000	$ 260,000	$ 1,780,000	$10,000
GFRR	Valdosta-Willacoochee	$ 2,960,000	$ 660,000	$ 3,620,000	$10,500
CCKY	Chattanooga, TN-Lyerly	$ 2,460,000	$ 250,000	$ 2,710,000	$ 7,000 [1,2]
HOG	Midville-Kirby	$ 1,600,000	$ 310,000	$ 1,910,000	$10,300
HOG	Vidalia-Rochelle	$ 4,250,000	$ 2,250,000	$ 6,500,000	$12,100
HOG	Rochelle-Cordele-Dumas	$ 3,380,000	$ 930,000	$ 4,310,000	$10,400
HOG	Preston-Mahrt, AL	$ 2,760,000	$ 700,000	$ 3,460,000	$10,200
GSWR	Cuthbert-Bainbridge	$ 4,590,000	$ 170,000	$ 4,760,000	$ 8,700
GSWR	Columbus-Cusseta	$ 1,235,000	$ 160,000	$ 1,395,000	$ 7,100 [1]
GSWR	Dawson-Sasser	$ 505,000	$ 50,000	$ 555,000	$ 7,500
	Total	**$26,680,000**	**$ 5,740,000**	**$32,420,000**	

1 Relatively low annualized cost per route mile reflects a lower track maintenance standards applied to track being maintained to promote economic development.

2 Relatively low annualized cost reflects 2009 and 2010 investment and relatively high near term program investment.

C. Passenger Rail Projects

GDOT is pursuing funding from the HSIPR program for the following HSR corridors:

- ✓ ***Atlanta to Macon Intercity Rail service*** – *Stimulus funding is being requested to focus on track and grade crossing improvements, signaling, stations, other support facilities that would be shared, making such of all segment implementations easier and less expensive*. In turn, the implementation of this intercity rail services could make the HSR services more cost effective through the sharing of common infrastructures. With the implementation of this first leg of intercity rail service, plans are to connect to services in the Southern HSR corridor, intercity services to Georgia cities including Albany, Augusta, Savannah, Columbus and Valdosta envisioned in the State of Georgia Rail plan.
- ✓ ***Southeast High Speed Rail Corridor*** connecting Charlotte, North Carolina through Atlanta and Macon in Georgia to Jacksonville, Florida. Stimulus funding is being requested to focus on activities related to establishing a NEPA document including, but not limited to, new ridership, revenue, and traveler intercept studies for the 650 mile segment of the corridor.
- ✓ The ***Atlanta-Birmingham High-Speed Rail Project*** will connect the City of Atlanta and the City of Birmingham along a 150 mile corridor. The Project is part of a designated Southern High-Speed rail corridor, and is the connector for two corridors. GDOT along with Alabama Department of Economic and Community Affairs are preparing to begin the feasiblity study and subsequent Tier 1 Environmental Impact Statement (EIS) to determine alignment, technology and potential station locations. Stimulus funding is being requested to focus on establishing a feasibility study for this project. Tier 1 NEPA activity funding will be sought in future funding opportunities.
- ✓ The ***Atlanta to Chattanooga High-Speed Rail Project*** will connect Hartsfield-Jackson Atlanta International Airport in the City of Atlanta to the City of Chattanooga, Tennessee. Stimulus funding is being requested to focus on augmenting the process currently underway in the Tier I EIS study and completing Tier 2 NEPA activities, presumably on an Initial Operating Segment (IOS).

Stimulus funding is being requested in the amount of $1.5M for feasability documentation for the SEHSR (Macon to Jacksonville), feasability documentation for SHSR corridor segment Atlanta- Birmingham and feasability documentation on a proposed segment from Louisville to Atlanta. In subsequent funding opportunities acoordinated business plan will be developed for the federally designated corridors with emphasis on sustain avg speed of 120 mph & barriers to true 200 mph, as well as, NEPA documentation for the afore mentioned segments with in each corridor.

D. Public & Private Benefits of Rail Investment

Partnerships in rail are appropriate, realistic, and increasingly valuable for both the public and private sector. Rail will not stop road congestion, but it can help alleviate it. Rail is not always a remedy for freight capacity, but in fitting conditions it is competitive and effective. Public investment is not the entire solution for railroad growth, but it is definitely a part of the solution in the current environment when needs and opportunities are abundant.

Relatively small public investments in Georgia's freight railroads can be leveraged into relatively large benefits for the state's highway infrastructure, highway users, and freight shippers. When public funds moderate the capital intensity of railroading, new services become possible at a lower cost.

The following are some of the key benefits of rail investment:

- ✓ Ability to meet the tremendous growth in demand
- ✓ Greatest Return on Investment for Passengers and Freight
- ✓ Reducing Growth in Truck Demand and Impacts (e.g., congestions, roadway deterioration, safety, emissions, energy consumption)
- ✓ Support Economy – greater export opportunities; regional and State

Public-private partnerships can provide funds for projects which would not otherwise be undertaken by the railroads themselves, and which can serve public needs such as relief of congestion, upgrading environmental quality, and economic expansion.

Generally, in the past public-private partnerships associated with freight rail focused on basic local programs such as grade crossing improvements and branch line preservation. With a greater degree of public sector participation, and expanded funding sources and amounts, larger scale projects such as corridor and terminal improvements of regional and national significance should be investigated and be undertaken. Also, It will be the intent of the GDOT investigate and advocate for a full range of possible Public – Private Partnerships as a means of utilizing and extending funds for development and operational programs. If improvements are not made in the public and private rail system and in passenger rail development and deployment, the State's transportation system will weaken and shippers, highway users, and communities will pay the social, economic, and environmental costs. The rail industry requires continuing investment in order to handle the projected growth in freight traffic. Public investment can help to stimulate such growth by providing better returns for the railroads and interest in rail from capital markets.

E. Funding Options

Many states have also developed programs that have benefited and promoted freight rail. According to the AASHTO report 30 states have freight and passenger rail staff dedicated to rail programs, while 20 of them have staff dedicated specifically to freight rail. Twenty-two states have used state money to fund rail projects, and 10 have freight rail budgets exceeding one million dollars annually.

Often the projects resulting from these programs are carried out as public-private projects or public projects that are collaborative efforts between different levels of government. As well, many of the passenger rail projects improved the infrastructure and increased capacity on two major freight railroads in the state. In addition, state funding for grade crossing improvements is provided by the Section 130 grade crossing program and short line preservation program.

Overview of Other States' General Fund Programs

Washington

Recognizing the need for increased public investment in freight rail infrastructure, other states have implemented programs paid through general state revenues. For example, Washington State created "The Essential Rail Assistance Account" a dedicated rail account in the state treasury to be used for acquisition or rehabilitation of rail lines, equipment, mitigation of port or mainline congestion and corridor preservation. An additional statute spells out the benefits, roles, and responsibilities of public-private partnerships as a means of developing innovatively financed transportation infrastructure projects. An interesting innovation is the purchase and maintenance of specialized freight cars to ensure adequate equipment for agricultural uses. Recent monies used for freight rail projects have totaled $31.5 million between 1990 and 2005, with most of these funds allocated between 2003 and 2005.

Florida

Florida provides the Strategic Intermodal System (SIS) program, which offers a steady stream of funding. Currently the SIS provides about $9 million annually; when matched with private funds the total funding increases to about $16 million. It is estimated that about $81 million in combined public and private funds will be available between 2006 and 2010 to upgrade Florida's rail network, but that will fund only about 10% of the identified needs.

Virginia

Virginia uses the Rail Preservation and Development Program to assist short line railroads operating in Virginia. It has grown steadily from $500,000 in 1991 to nearly $3 million in 2004. This program focuses on rail line preservation. An additional program is the Rail Industrial Access Program that identifies opportunities for constructing or refurbishing track to allow new rail service into industrial locations. Funds are not

exclusive to rail but must compete with road and airport projects. It is estimated that nearly 20,000 new jobs have been generated with this program as well as four billion dollars in planned capital improvements.

Illinois

The Rail Freight Program (RFP) is an Illinois Department of Transportation sponsored program that provides capital assistance to communities, railroads and shippers to preserve and improve rail freight service in the state. The RFP's primary goal is to facilitate investments in rail service and infrastructure by serving as a link between interested parties and channeling government funds to projects that achieve statewide economic development. Capital funding is provided in the form of low interest loans and/or grants. In 2006 the RFP provided seven million dollars in state and federal funding for the construction of new infrastructure and rehabilitation of existing track.

Georgia

Currently, the Georgia Constitution identifies authorized uses of the state's motor fuel tax revenues. However, it restricts the State's ability to use State Highway Account funds for purposes other than highway and roadway use. Therefore, if the highest public investment need is a rail freight project, it is not fundable from the State Highway Account. A legislative solution to this restriction might be to create a separate Goods Movement Investment Fund, fiscally separate from the State Transportation Fund.

Currently, the Georgia Constitution restricts the State's ability to use State Highway Account funds for purposes other than highway and roadway use.

Through the recently completed IT3 study, Georgia's funding shortfalls related to transportation infrastructure improvements, specifically rail, were documented. Georgia should investigate "best practices" from other states as part of a comprehensive approach to developing its own model-funding template.

A Goods Movement Investment Fund could be created in the State Treasury. The sources for these funds could be from the following:

- Diesel fuel tax paid by the railroads
- Lease income from W&A
- Penny gas tax

The statutory language would specify the purpose of the fund as two-fold. First, it would be to receive non- restricted State revenues (such as those from the General Fund), and federal funds authorized for goods movement project purposes. Second, it would be for the purpose of allocation of such funds to key goods movement transportation projects, such as investments in public and private freight rail system improvements. Expenditure of available funds would be based on an annual discretionary program, prepared and recommended by GDOT, and approved by the Georgia legislature.

Bond Funding
GDOT has invested over $27 million in the acquisition and rehabilitation of rail line segments in Georgia. The State Rail Freight Assistance Program preserves scarce linear right-of-way for future rail uses. Approximately $1 million each year was appropriated until recently by the Georgia Legislature for freight rail assistance.

Public participation and interest in rail projects needs to explored, especially in the passenger sector. Bond funding is important to demonstrate the significance of freight rail to the overall goods movement system, and allows the freight rail industry to partner with the public sector in funding freight rail infrastructure.

Bond-Funded Freight Rail Projects Outside Georgia
The Sheffield Flyover/Kansas City, Missouri elevated a three-mile section of the east-west BNSF mainline and Kansas City Terminal Railroad (KCT) through downtown Kansas City. The flyover eliminated conflicts with the UP and Kansas City Southern (KCS) and benefited up to 250 train movements per day. The project cost $75 million and was funded by the BNSF, KCT, and the State of Missouri, which formed a Joint Transportation Corporation to issue Industrial Development Bonds. The 20-year bonds are to be repaid through railroad revenues. The Argentine Connection, also in Kansas City will elevate the east-west BNSF mainline at Santa Fe junction between the KCT mainline in Missouri and the BNSF Argentine Yard in Kansas. The project would eliminate a number of rail crossings and at-grade rail-highway crossings. The project, with an estimated cost of $60 million, will have a similar public-private partnership as the Sheffield Crossing project using Industrial Development Bonds.

Federal Programs
One of the most significant programs coming out of the Safe, Accountable, Flexible, Efficient Transportation Equity Act—A Legacy for Users (SAFETEALU) was the Projects of National and Regional Significance (PNRS) program. This program was designed to fund major freight-oriented transportation projects of national and regional importance.

Under the PNRS, four projects are notable in this discussion. A continuation of the Alameda Corridor project, the **Alameda Corridor East** (ACE) in California provides for 20 grade separations and other grade crossing improvements over the three main UP and BNSF rail lines radiating east of Los Angeles through the counties of Los Angeles, Orange, San Bernardino and Riverside. The project will facilitate the movement of international traffic from the Ports of Los Angeles and Long Beach as well as domestic traffic to and from Southern California. The approximate cost of the project for the grade separation portion alone is currently estimated at $4.6 billion. $125 million in PNRS funds were earmarked for the grade separations and including all the federal bill earmarks, a total of $210.5 million was earmarked in that legislation for ACE grade separation projects.

The Heartland Corridor Project focuses on the upgrade of the Norfolk Southern line between Norfolk, Virginia and Columbus, Ohio through West Virginia to provide double-stack clearance capability with tunnel improvements and other projects. The benefit would be the increase in intermodal freight rail traffic and the reduction of highway congestion on a multi-state highway corridor. The federal contribution will be slightly less than $100 million in total.

The State of Illinois and City of Chicago have joined with passenger and freight railroads serving the Chicago region to establish the **Chicago Region Environmental and Transportation Efficiency Program (CREATE).** The major goals are to improve efficiency of the railroads, improve safety, provide air quality benefits and reduce highway and rail traffic congestion. In total, the program is a $1.5 billion public-private partnership effort. Although not fully funded, $100 million in PRNS funding is earmarked for the project. To date the five Class I railroads involved have committed $100 million, while Chicago has committed $30 million and the State of Illinois $100 million.

Reno Trench is a multi-million dollar project that separates trains running through downtown Reno, Nevada, from motor vehicle traffic.

Other Rail Investment Programs

Rail funding through the federal government has also been provided under both SAFETEA-LU and its predecessor, the Transportation Equity Act for the 21st Century (TEA-21). Under Section 9003 of SAFETEA-LU, Rehabilitation and Improvement Funding, priority is given to projects that enhance service and capacity for shippers in the national rail system. Quite often these funds are complemented by funds from other levels of government. Among other programs, which have funding and could benefit freight rail, are:

- ✓ **Section 130 Rail-Highway Grade Crossing Program**. Under this program, the entire cost of construction of projects for the elimination of hazards of rail-highway crossings can be funded.
- ✓ **Congestion Management and Air Quality Improvement Program (CMAQ).** This program provides funding for projects to improve air quality in non-attainment areas as long as measurable emission reductions can be shown. The program has been used for many rail projects nationwide.
- ✓ **Freight Intermodal Distribution Pilot Grant Program**. This program has provided the Ports with capital funding to address infrastructure and freight distribution needs at inland ports and intermodal facilities.
- ✓ **Transportation Infrastructure Finance and Innovation (TIFIA)**. This program provides three types of credit financing for nationally or regionally significant projects. Eligible projects include public or private rail facilities that demonstrate public benefit.

- ✓ **Rail Line Relocation Grants**. This program provides states with funding to mitigate the adverse effects of rail traffic on safety, vehicle traffic flow, quality of life or economic development by relocating rail lines away from downtown areas. Fifty percent of the funds are dedicated to projects of $20 million or less; states or non-Federal entities must pay at least ten percent of project costs.
- ✓ **Rehabilitation and Improvement Financing**. This program provides direct loans and loan guarantees to various public and private entities including railroads for the purpose of constructing a rail connection between a plant or facility and a second rail carrier.
- ✓ **Study of Rail Rehabilitation and Regulation**. This is a program to evaluate the status of the national rail system since the passage of the Staggers Act in 1980.

Surface Transportation Authorization Act of 2009

The anticipated Surface Transportation Authorization Act will advance President Obama's vision for high-speed rail in America by proposed increased funding – outside of the Highway Trust Fund – for planning and development of high-speed rail in corridors designated by the Secretary. The Act will also propose high-speed rail development projects eligible for financing through the Bank, and will propose a research, development, and demonstration program for high-speed rail technologies.

This Act proposes $50 billion over six years to develop 11 authorized high-speed rail corridors linking major metropolitan regions in the United States. The high-speed rail initiative proposes greater consideration for projects that: encourage intermodal connectivity; produce energy, environmental, and other public benefits; create new jobs; and leverage contributions from state and private sources.

High-Speed Rail Initiative

This initiative advances the Committee's and President Barack Obama's vision for high-speed rail, and provides funding to develop the 11 authorized high-speed rail corridors linking major metropolitan regions throughout the nation. To support the High-Speed Rail Initiative, DOT, acting in part through the National Infrastructure Bank, may provide grants, loans, loan guarantees, lines of credit, private-activity bonds, tax-credit bonds, and other financial tools to States to invest in construction of these high-speed rail corridors. This funding will not be provided from the motor vehicle fuel users fees of the Highway Trust Fund.

Section 130 (Highway-Rail Grade Crossing Program)

The Highway Safety Act of 1973 established the Rail-Highway Crossing Program that became known as the Section 130 Program (from its designation in Title 23 of the United States Code). The goal of this program is to provide federal support in efforts to reduce the incidence of accidents, injuries and fatalities at public railroad crossings. States may utilize the Section 130 Program, which is administered by the Federal Highway Administration (FHWA), to improve railroad crossings using a variety of

methods, including installation of warning devices, elimination of at-grade crossings by grade separation, or by consolidation and closing of crossings.

The Georgia Department of Transportation's Office of Utilities administers the Federally Funded Railroad Grade Crossing Safety Program by identifying and funding safety enhancement projects at the public highway-rail grade crossings in Georgia. Requirements for this program are documented in 23 CFR 924 and FHWA's Federal Aid Policy Guide dated December 9, 1991. The majority of projects initiated by this office involve the installation of train activated warning devices in the form of bells, lights and gates. Per federal regulations the Department develops a priority list based on information including, but not limited to, traffic volumes, train volumes, level of warning, accident history and school bus traffic.

This office is also involved in corridor projects that focus on specific railroad segments to address issues of safety through a combination of the crossing closures, crossing consolidations and/or crossing signalizations. Other special railroad related projects developed by this office include railroad circuitry enhancements, lens upgrades, and signing and/or pavement marking installations and upgrades.

The Office of Utilities' Railroad Crossing Safety Program is responsible for identifying, prioritizing and developing projects related to safety enhancements at public highway-rail grade crossings. This is primarily accomplished through the initiation and development of stand-alone safety and/or corridor projects. The Railroad Crossing Safety Program is also responsible for coordinating preconstruction activities involving the installation of train activated warning devices as part of larger DOT construction projects.

While the Department is responsible for all design efforts related to the approaching road facilities, the railroad is responsible for all efforts related to the design of the corresponding warning devices and its components. Upon completing pre-construction activities, the Department prepares and executes an agreement with the railroad for the funding and installation of the warning devices. In most cases the Department funds the project and the railroad installs the devices and is subsequently responsible for the day to day operation and maintenance of the equipment as well.

High-Speed Rail Crossing Improvement Program

The FRA administers the High-Speed Rail Crossing Improvement Program, funded at $50 million over the 5-year period (FY 2005-FY 2009) of the SAFETEA-LU. The program's aim is to reduce or eliminate hazards at highway-rail grade crossings in designated high-speed rail corridors. *Georgia has two such corridors: the Norfolk Southern route between Charlotte, North Carolina to Jacksonville, Florida going through Atlanta & Macon. The other route is the Gulf Coast High-Speed Rail Corridor that runs between Atlanta and Houston, Texas.*

High-Speed Rail Corridor Development
SAFETEA-LU reauthorized the Swift Act and expanded eligible expenses from "planning" to "development" of high-speed rail corridors. $70 million is authorized annually for corridor development and $30 million for high-speed rail technology improvements.

Credit Assistance Programs
SAFETEA-LU authorized two credit assistance (direct loans, loan guarantee) programs in the Rail Rehabilitation and Improvement Financing (RRIF) and the Transportation Infrastructure Finance and Innovation Act (TIFIA).

Rail Rehabilitation and Improvement Financing (RRIF)
The RRIF program provides direct loans and loan guarantees to state and local governments, government-sponsored authorities and corporations, railroads, and joint ventures that include at least one railroad. Eligible projects include (1) acquisition, improvements or rehabilitation of intermodal or rail equipment or facilities (including tracks, components of tracks, bridges, yards, buildings, and shops, (2) refinancing outstanding debt incurred for these purposes, or (3) development or establishment of new intermodal or railroad facilities. The current program is also authorized to provide loans to rail shippers with access to only one rail carrier in order to construct rail access to a second carrier, without requiring the project to be part of a railroad joint venture application.

The Surface Transportation Authorization Act reauthorizes several programs, which provide funding for freight rail infrastructure improvements. The Rail Line Relocation program, authorized at $350 million annually through fiscal year 2009, provides financial assistance to States for local rail line relocation and improvement projects for the purpose of mitigating the adverse effects of rail traffic on safety, motor vehicle traffic flow, community quality of life, and economic development. In addition, the capital grants program for Class II and Class III railroads, authorized at $50 million annually, provides financing for rehabilitating, preserving, or improving railroad track (including roadbed, bridges, and related track structures) used primarily for freight transportation.

With respect to the Railroad Rehabilitation and Improvement Financing (RRIF) loan program, SAFETEA-LU made a number of changes intended to expand usage of the RRIF program. SAFETEA-LU increased the total authorization level from $3.5 billion to $35 billion; allowed rail shippers and commuter railroads, for the first time, to receive RRIF loans and loan guarantees; prohibited the Secretary from requiring an applicant for a direct loan or loan guarantee to provide collateral; prohibited the Secretary from requiring that an applicant seek financial assistance from another source before applying for a RRIF loan allowed the Secretary to defer payments on a loan for up to six years; and prohibited the Secretary from establishing any limit on the amount that could be used for one direct loan or loan guarantee.

On April 22, 2009, the U.S. House of Representatives Committee on Transportation and Infrastructure held a hearing on implementation of the RRIF program. A number of witnesses testified that the program was critical to helping States, local governments, and railroads invest in rail infrastructure improvements and rolling stock and suggested ways of improving the program and increasing its usage. Many of the suggestions offered by the witnesses are included in the Surface Transportation Authorization Act.

Transportation Infrastructure Finance and Innovation Act ("TIFIA")

Enacted as part of TEA-21, TIFIA established a federal credit program for eligible transportation projects of national or regional significance. The program's goal is to leverage federal funds by attracting substantial private and other non-federal co-investment in critical improvements to the nation's surface transportation system. Through TIFIA, the U.S. Department of Transportation (DOT) provides federal credit assistance to highway, transit, rail, and intermodal freight projects, including seaports. The amount of TIFIA assistance may not exceed 33 percent of total project costs. The program targets only large projects, generally those costing more than $50 million. The TIFIA program offers three types of financial assistance: secured loans, loan guarantees, and standby lines of credit. Secured loans are direct federal loans to project sponsors. Loan guarantees provide full-faith-and-credit guarantees by the federal government to institutional investors that make loans for projects. Standby lines of credit represent secondary sources of funding in the form of contingent federal loans that, if needed, supplement project revenues during the first ten years of project operations. Both public and private project sponsors may apply for TIFIA assistance, but all prospective borrowers must demonstrate that the proposed project is consistent with State and Local transportation plans.

The Rail Safety Improvement Act of 2008 (P.L. 110-432, Division A) increased the repayment period from 25 years to 35 years, consistent with Transportation Infrastructure Finance and Innovation Act.

While the above programs have provided funding that has benefited passenger and freight rail programs in the U.S., approaches have been promulgated by other sectors of the transportation industry. One such action is concerned with investment tax credits for railroads.

Tax Credits

In comparison with other modes of transportation, including trucks, airlines, and barges, freight railroads have received scant financial assistance from the federal government. The Congressional Budget Office in a January 2006 "Freight Rail Transportation: Long Term Issues" report pointed out that large trucks pay only 50 to 80 percent of costs attributed to them while barge operators pay taxes that cover only about 20 percent of the amount the Corps of Engineers spends on navigation projects.

As already noted, railroads normally finance infrastructure improvements and equipment purchases through their own resources and private investment.

From 1980 through 2006 for example, Class 1 railroads themselves invested more than $370 billion to maintain and improve their infrastructure and equipment. In 2006 the rail industry spent approximately $8.5 billion on capital investments, including expansion in an effort to keep up with growth. In order to encourage the railroads to spend more money, they believe investment tax credits that support capital spending make sense.

Two bills, S. 1125 and H.R. 2116, that were proposed but never became law in 2007 called for a 25 percent tax credit for investments in new track, intermodal facilities, yards, locomotives and other infrastructure projects to expand rail capacity. All businesses, including railroads, ports, shippers, and trucking companies would have been eligible for the credit. Among the points rail proponents of the bills made were fuel efficiency over the trucking industry, less highway congestion, reduced pollution with increased freight rail transport, and safety issues – fatality rates associated with intercity trucking are four times greater than those for freight rail.

Shifting millions of truck moves per year to rail is good public policy. It reduces highway congestion and air pollution, and increases safety. Federal tax credits such as the 25% investment tax credit for Class Is, and the 50% investment tax credit for short line railroads would help railroads expand capacity faster than they would otherwise.

Recently introduced Short Line Rehabilitation Tax Credit bill (H.R. 1132/S. 461) had 101 co-sponsors in the House and 22 co-sponsors in the Senate. In addition, more than 1,000 shippers support the legislation, according to the American Shortline and Regional Railroad Association (ASLRRA). The bill, if it becomes law, would extend the Section 45G railroad track maintenance credit, which is set to expire on Dec. 31, for three years, allowing eligibility for new short lines and increase the credit limitation from $3,500 per mile of owned or leased track to $4,500.

Tax-expenditure financing programs, including accelerated depreciation, tax-exempt bond financing, and tax-credit bond financing need to be explored. These programs can be used to provide targeted, income tax benefits for investments made to improve the efficiency or increase the capacity of the freight-rail system.

VI Policy Statements/Recommendations

A. Policy Statements

POLICY STATEMENT # 1: Maintain the freight rail system in a state of good repair to move freight traffic efficiently.
Considering the contributions the freight rail system makes to the state of Georgia and the nation, it is in the strategic interest of the State to maintain, preserve, and improve Georgia's freight rail system

POLICY STATEMENT # 2: Explore additional funding mechanisms to bring the existing freight lines to a state of good repair.

POLICY STATEMENT # 3: Implement intercity passenger rail service in Georgia, beginning with a line between Atlanta and Macon.
The trips in the corridor between Atlanta and Macon are projected to grow at a phenomenal rate of 103% to carry more than 10 million annual round trips by 2020. This intercity passenger rail service with Macon being the hub for intercity passenger rail service would serve as a launching pad for 9 other subsequent state-wide intercity passenger rail corridors connecting all the major cities in the state of Georgia, including but not limited to, Albany, Athens, Augusta, Brunswick, Columbus, Savannah, Valdosta, and Waycross. The goal for the state of Georgia is to achieve 90-100 mph running speeds on the intercity passenger rail lines.

POLICY STATEMENT # 4: Take an active leadership role in the incremental development and implementation of High Speed Passenger rail service with efforts to realize 200 mph service in the future. Work with our sister states and create a high-speed rail network connecting major southeastern cities with Atlanta and Macon as multimodal hubs in the State of Georgia.

POLICY STATEMENT # 5: Work with partnering entities, including the Georgia Center of Innovation for Logistics to identify and develop a comprehensive plan for capacity improvements to ensure proper movement of goods and maintain the State of Georgia as a leader in logistics and to enable maximum advancement of passenger rail service.

POLICY STATEMENT # 6: Enhance state's economic development potential by providing state-wide rail connectivity and subsequently providing high quality job opportunities

POLICY STATEMENT # 7: Provide a key operational role for any and all potential passenger rail operators in the implementation of state's passenger rail service.