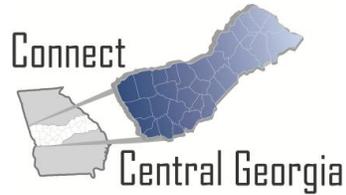


# CONNECT CENTRAL GEORGIA STUDY



# EXECUTIVE SUMMARY

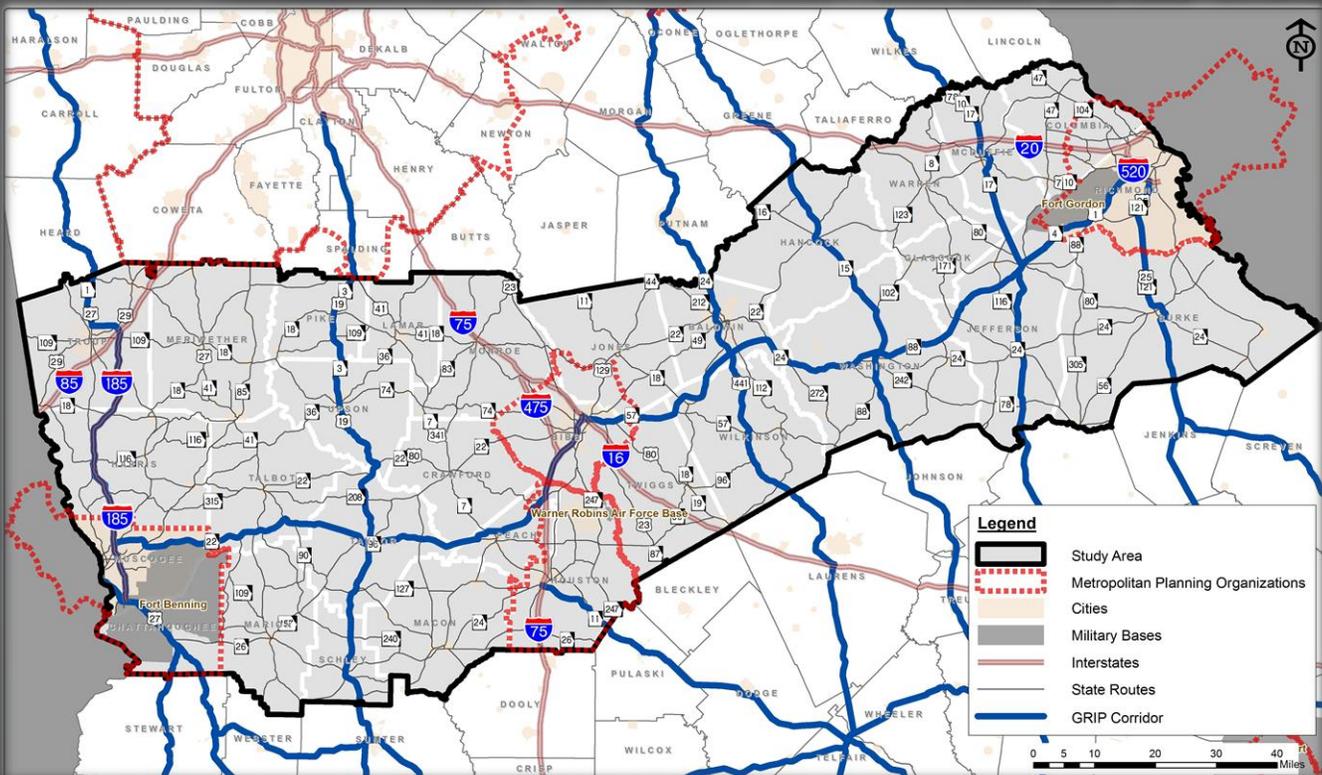
July 2013



# OVERVIEW

For many years, improved safety and connectivity across Central Georgia has been a priority for the state. Home to three of Georgia's largest cities, (Columbus, Macon, and Augusta) the study area has been a strategic target for economic development initiatives and is identified as a critical freight and mobility link between Georgia and the Southeastern U.S. Though this area has long been on the minds and agendas of many state, regional and local leaders, interest has recently been revived through the completion of the statewide transportation planning effort known as Investing in Tomorrow's Transportation Today (IT3). IT3 presented a "business case" for transportation in Georgia that identified a need to improve east west connectivity across Central Georgia and specifically identified completion of the Fall Line Freeway as part of a potential inter-regional solution to improve freight and people mobility in the state.

Facilitating efficient movement through central Georgia is critical for several reasons, including its role as home to three military bases and the abundance of key economic and natural resources, such as kaolin. Several past studies, including IT3, High Priority Corridor 6 study and the 14<sup>th</sup> Amendment Highway study, all focused on improved movement through this area. The Connect Central Georgia study builds upon these efforts, basing recommendations on specific demand-based and data-sourced travel needs in the study area through the year 2035.



**FIGURE 1: STUDY AREA**

# STUDY DEVELOPMENT PROCESS

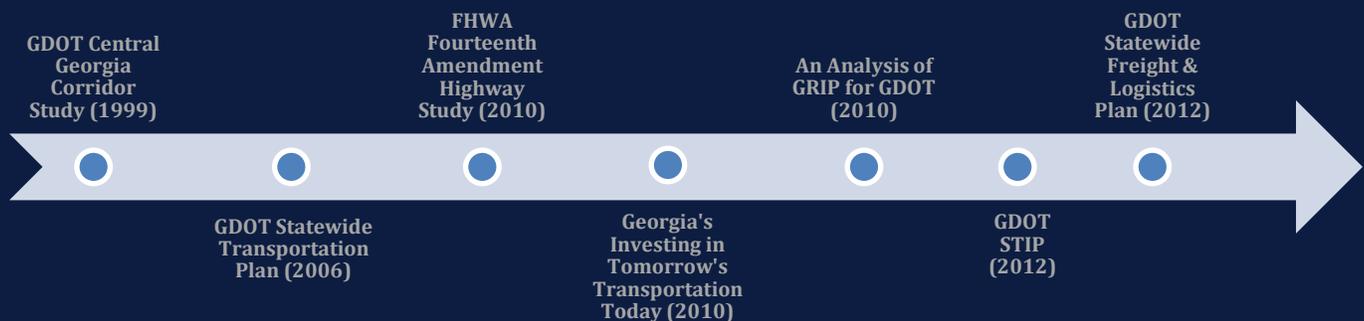
In order to identify needs and develop recommendations for the study area, the Project Team, led by the Georgia Department of Transportation Office of Planning, employed a process that combines both quantitative and qualitative analysis, guided by input from key stakeholders and the public. This included the development of goals and objectives, the review of previous studies and the technical analysis of existing population, employment, land use, crash statistics and various traffic data.

## STUDY PURPOSE

- **Assess capacity and operational needs** through the horizon year 2035 for travel through central Georgia
- Develop recommendations for safe and efficient regional connections that **meet future demand** while **maximizing and preserving existing assets**
- **Enhance connectivity** through central Georgia

## REVIEW OF PREVIOUS EFFORTS

The goal of this study is to build upon previous efforts to develop a comprehensive solution to improving mobility through central Georgia. It is critical to understand the issues, opportunities and recommendations that resulted from extensive efforts already conducted in the region. Therefore, a review of relevant previous efforts was conducted throughout the study area. The review was separated into corridor focused efforts, statewide efforts and regional/local efforts. The corridor focused and statewide efforts are illustrated on the timeline below.



In addition to the statewide and corridor focused planning efforts, previously identified projects were also considered. These included the Transportation Investment Act of 2010 (TIA), the Statewide Transportation Improvement Program (STIP), and local Metropolitan Planning Organization (MPO) plans.

TIA was signed into law as a potential funding source which allowed Georgia's 12 regions (based on Regional Commission (RC) boundaries) to each develop proposed transportation project lists to be considered by voters for funding via a potential one percent regional sales tax. Of the four regions represented within the study area (Three Rivers RC, River Valley RC, Middle Georgia RC and Central Savannah River Area RC), River Valley RC and Central Savannah River Area RC passed the 1% sales tax.

GDOT is responsible for maintaining both a long range transportation plan and a short term (4-year) Statewide Transportation Improvement Program (STIP) for areas throughout the state that are not covered by MPOs. At the time of this study, the current STIP included projects utilizing federal transportation funds attributed to Georgia and programmed for Fiscal Years 2012-2015.

Projects included on the approved TIA lists, the GDOT STIP as well as within approved local Transportation Improvement Programs (TIPs) were considered in the planning context of this study.

## PUBLIC AND STAKEHOLDER INVOLVEMENT

In order to educate, inform and involve the public on the purpose and status of the project, and to collect meaningful input from stakeholders and the public, the Connect Central Georgia study included extensive and innovative public and stakeholder outreach. Techniques were developed to maximize convenient opportunities for participation for individuals throughout the study area. The public outreach techniques employed are described to the right.

**Stakeholder Interviews** - One-on-one interviews with key stakeholders, including MPO's, Regional Commissions, military bases and local jurisdictions, were held early in the study process to answer key questions regarding local perspectives, issues and opportunities and to guide the development of the study.

**Stakeholder Advisory Group Meetings** - A stakeholder advisory group, consisting of representatives from local jurisdictions, planning agencies, major employers and other key constituents, helped guide the study process. This group was briefed on the status of the study and provided insight throughout the study.

**Survey** - A survey was distributed via hard copy at public events (such as the Kaolin Festival), distributed via hard copy and linked to an online survey to school systems throughout the study area, as well as through the Chambers of Commerce. A link to the survey was available on the project website as well.

**Kiosks** - Two informational kiosks were manned by project staff at the Cherry Blossom Festival in Macon and the Kaolin Festival in Sandersville. Fact sheets and study status information were distributed.

**Information Distribution** - The Stakeholder Advisory Group members were asked to add links to the study website and to distribute informational materials via existing distribution lists.

**Website** - A website was maintained with fact sheet, schedule, survey, presentations and information on study progress. The study website was also included on surveys which were distributed by various means.

**Speakers Bureau** - The Study Team presented study findings to stakeholder groups upon request. Team members presented at each of the 4 RCs and 4 MPOs.

**Media** - The study team coordinated with newspapers, providing information as requested throughout the study and participated in a television interview to advertise the study.

Photos: Cherry Blossom and Kaolin Festivals

## GOALS AND OBJECTIVES

Stakeholder input, combined with input from the Governor's Strategic Goals for the state and the guidelines established for the current federal transportation legislation through MAP-21 (Moving Ahead for Progress in the 21st Century), helped frame five key goals for the study area:

1. Improve safety, accessibility, and mobility options available to people and for freight;
2. Enhance the inter-regional connectivity and reliability of the transportation system for people and freight and facilitate economic growth;
3. Emphasize the efficiency, operation, and preservation of the existing transportation system while promoting environmental sustainability;
4. Protect quality of life and promote consistency between transportation improvements and state and local planned growth and economic development patterns; and
5. Improve public health with accessible care and active lifestyles.

## CHARACTER AREAS

To develop recommendations that best meet the needs of the study area as a whole, stakeholder-identified character areas were defined based on these geographic regions with similar characteristics. These character areas are represented in Figure 2.

## ISSUES AND OPPORTUNITIES

To supplement the field assessment and technical analysis, stakeholders were asked to provide input on the issues and potential opportunities for improvement within the study area, the results of which are illustrated in Figure 2. Issues include perceived traffic congestion, lack of connectivity, and the consideration of bypasses. Opportunities noted include the potential for enhanced freight movement through the study area and increased economic vitality due to the Kia plant, Fort Benning expansion, and the inland port in Cordele.

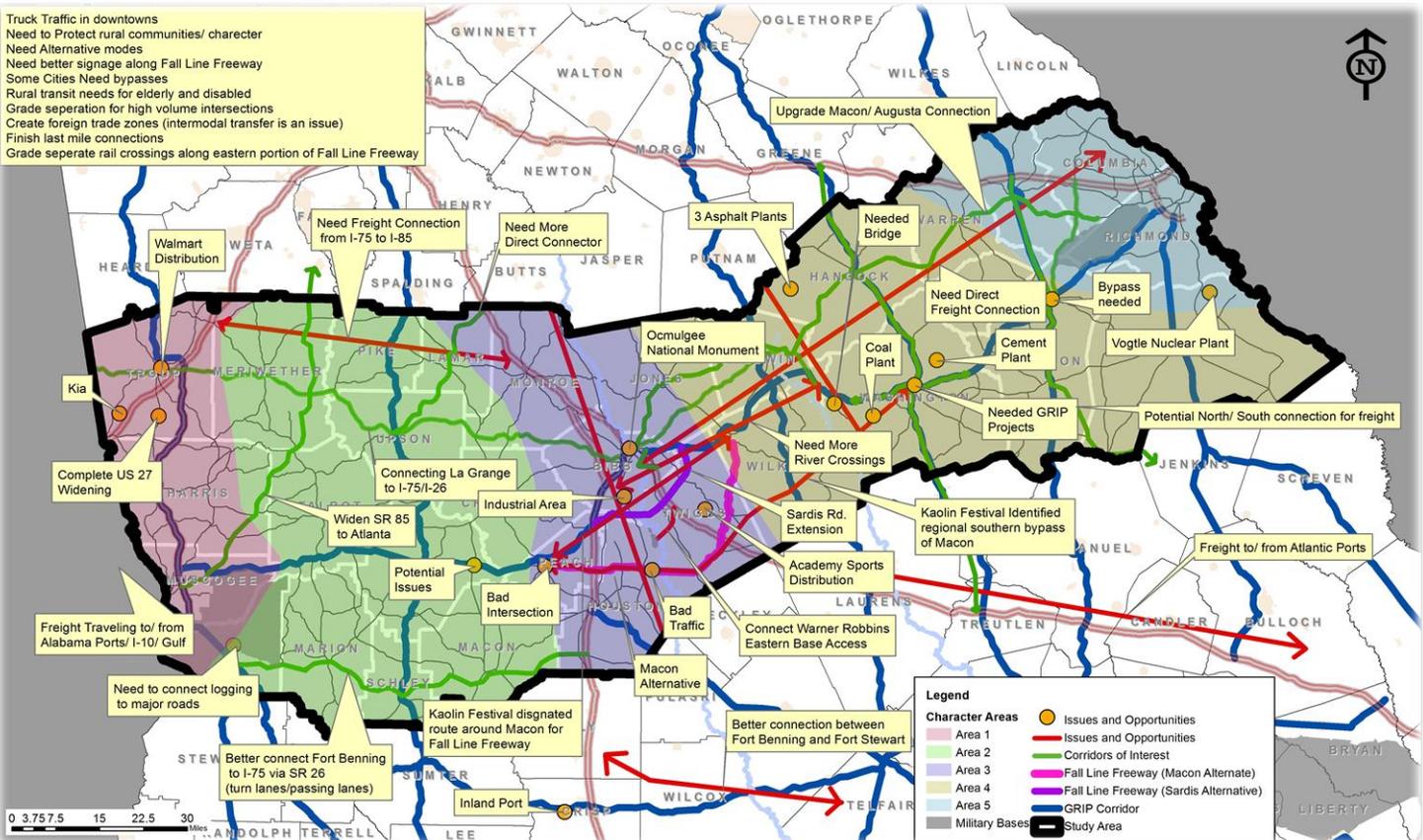


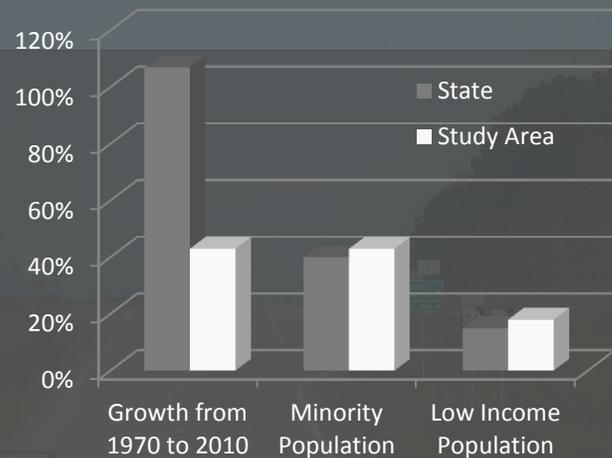
FIGURE 2: ISSUES AND OPPORTUNITIES

## EXISTING CONDITIONS

In order to determine future transportation needs in Central Georgia, it is necessary to understand the existing conditions of transportation facilities within the region as well as the current demographic and economic characteristics of the area. The following page provides highlights of the assessment of current conditions, based on field review of the study area, data collection, and the review of previous studies.

## POPULATION AND DEMOGRAPHICS

- The total existing (2010) population of the 31 counties is approximately 1.2 million or 12.4% of the state's population.
- Over the 40-year time period from 1970 to 2010, population increased by 43% in the study area compared to a 107% growth for the state of Georgia.
- Approximately 43% of the study area population is considered a minority, compared to 40% for the state.
- Approximately 18% of the study area population is considered low income, compared to 15% for the state.



## EMPLOYMENT

- The mining industry within the study area stimulates a \$1.8 billion industry and employs over 4,800 employees in the mines and plants alone.
- The military bases employ large numbers of civilian and military personnel. Fort Benning tops this list with over 40,000, Fort Gordon with 30,000, and Robins Air Force Base with 23,000 employees.

Photo: SR 24

## NATURAL RESOURCES

- Natural resources contribute to \$65 billion dollars in annual economic activity from onions, cotton, peanuts, peaches, lumber, and minerals.
- Significant presence of the forestry industry throughout the study area also contributes to Georgia's title as the leader in the lumber production east of the Mississippi River.
- The study area is also known as the world leader of the production and processing of kaolin and clay. Washington, Wilkinson, Bibb, Twiggs and Baldwin Counties are the top five counties in persons employed in the kaolin industry.

## ROADS AND BRIDGES

- There are approximately 267 miles of interstate routes (67% urban and 33% rural) represented by portions of I-20, I-75, I-16, I-185 and I-85; 2,461 miles of arterial facilities; and 1,101 miles of collectors and local streets.
- A total of 413 bridges (41.8%) are candidates for federal rehabilitation funds, while 56 bridges (5.7%) are candidates for federal bridge replacement funds.

## PEDESTRIAN, BICYCLE AND TRANSIT

- Several of GDOT's cross-state bicycle routes pass through the study area, including the Little White House, Chattahoochee Trace, TransGeorgia, Central, March to the Sea, Savannah River Run and Augusta Link trails.
- Public transit services in some form are provided in all study area counties with the exception of Chattahoochee, Harris, Marion, Monroe, Schley, and Washington Counties.

## OPERATIONS AND SAFETY

- For existing (2006) conditions, over 94% of the travel demand model network operates at a level of service C or better, indicating a minimal amount of congestion.
- The study area experienced a modest amount of crashes, including injury and fatal crashes, compared to the statewide averages for similar facilities during the three-year analysis period (2007-2009). I-185 south of Columbus, SR 49 west of I-75, and SR 15 south of Sandersville sustained crash rates of more than twice the statewide average between 2007-2009.
- None of the non-interstate portions of the study area have more than 3,000 trucks per day. SR 96, between Warner Robins and Columbus, was the only non-interstate corridor with over 1,000 trucks per day.

## FREIGHT

- Based on TRANSEARCH freight flow data, in 2007, more than 128 million tons of freight moved into, out of, and within the study area counties, which equals about 23% of freight moved in Georgia.
- Due to the abundance of kaolin, the study area has a higher rail flow portion (33%) than the State (20%).
- Over 90% of the freight tonnage in the study area have at least one trip end outside the study area. Therefore, understanding long-haul flows is critical to understanding the study area's freight movement.
- It is estimated that between 1,400 and 2,100 trucks have travel paths through the study area, but elect to take the longer interstate routes.
- Mining (especially kaolin) contributes to nearly half of the freight movement in the region. The processed materials are shipped by rail to the Midwest and northeast, while trucking is used to ship goods to the Port of Savannah for export.

## FUTURE CONDITIONS

The purpose of this study is to assess improvements necessary to facilitate enhanced mobility through Central Georgia into the future. Therefore, needs were established based on the existing conditions evaluation, as well as a review of future land use, demographic, infrastructure and economic conditions. The following page includes highlights from the future conditions analysis.

Photo: US 1, Near Downtown Wrens

## POPULATION

- GDOT’s travel demand model projections predict an annual average population growth rate through the year 2035 of 1.2% for the study area compared to 1.6% for the state of Georgia.
- Higher projected growth rates can be seen to the north and west of Macon, as well as north of Columbus and Augusta.
- The most significant land use change is the shift of much of the agricultural land to residential use in the western half of the study area. Though this shift to residential uses is anticipated, it is unlikely that this will occur within the timeframe of this study (i.e.2035).

## EMPLOYMENT

- Average employment growth in the study area (41.1% or 1.3% annually) is projected to lag behind the state (58.2% or 1.6% annually) through the year 2035.
- High employment growth is shown in the Middle Georgia RC as well as north of Augusta, while little growth (and even some job loss) is seen in the rural areas between the major cities of Columbus, Macon and Augusta.

## ROADWAY AND TRANSIT OPERATIONS

- For future year 2020 conditions, 92% of the travel demand model network operates at LOS D or better and for future year 2035 conditions, 89% of the network operates at LOS D or better.
- Three regions (Middle Georgia, River Valley and Three Rivers), all of which are located partially within the study area, were selected to implement mobility management pilot projects to enhance and support regional coordination efforts for rural transit.

## FREIGHT

- A majority of the counties within the study area are projected to more than double in freight tonnage, with the study area experiencing 122% in growth (2007 to 2050) while statewide freight tonnage is anticipated to grow by 90%.
- In the future, outbound shipments from the study area are forecast to grow at more than twice the rate of inbound traffic. Shipments to/from the region as a whole will grow at about the same rate as the rest of Georgia. The only notable exceptions are coal shipments, which are expected to decline based on substitution with other energy producing methods.

## ECONOMIC CASE STUDIES

- Transportation is clearly essential to the industries that Central Georgia has targeted for growth. Gap analysis shows that the study area is underperforming in various market sectors. Initiatives to improve transportation access, connectivity, and reliability will resonate with its key industries by improving linkages to markets and suppliers.
- Case studies showed, through gap analysis, that there is potential economic activity that would fill the current lag in growth with the implementation of the following projects:
  - Macon to LaGrange Connection (West Case Study): Study showed that an improved connection between these cities could help the Western Region of the study area capitalize on some of almost 45,000 additional jobs which may result based on current plans to deepen and expand the Port of Savannah’s capacity.
  - Sardis Church Road Extension to I-16 (Central Case Study): Demonstrated that if full build-out of office parks served by the Sardis Church Road Extension was achieved, the region could gain over 8,000 jobs at an annual payroll of over \$300 million.
  - Wrens Bypass and Operational Improvements (East Case Study): This bypass and operational improvements would enhance freight mobility and safety and could complement the growing energy industry in the study area by making

# SCENARIO BUILDING

The Federal Highway Administration (FHWA) encourages enhanced planning through the development and analysis of potential future scenarios. Scenario planning allows for the consideration of land use, demographic, economic, policy and other inputs as variables, rather than constants. This technique helps illustrate how changes in these factors can impact the future needs of the study area and, thereby, guide appropriate recommendations for the study.

Table 1 describes the scenarios tested for the study area and the analysis techniques developed to test the impact of each of these scenarios on the future transportation network.

**TABLE 1: TESTED SCENARIOS**

Scenario	Testing Strategy
<b>Scenario 1 - Delayed Growth:</b> How would a decline in projected population and employment affect the study area?	Run travel demand model with decreased population and employment in the MPO areas.
<b>Scenario 2 - Increased Freight:</b> How would the increase in freight demand affect the study area?	Run the travel demand model with increased freight activity entering/exiting the study area and at key locations, such as the Macon Airport, Kia, major mines, and major industrial parks.
	Research potential/planned developments in the study area to determine if the model accurately represents potential growth in freight at these locations.
	Increase population and employment associated with the military bases.
<b>Scenario 3 - TIA:</b> How do the Transportation Investment Act projects affect the transportation needs for each Regional Commission in the study area?	Analyze impact of TIA projects (new capacity along State Roads) for all four RCs using the travel demand model.

The travel demand model was adjusted based on the strategies described and run for each scenario. To assess the impact of each of these potential scenarios, LOS were compared to the base case, also known as the 2035 Existing Plus Committed (E+C) model that includes all projects programmed for construction within the STIP. Roadway needs were assessed based on the results of this capacity analysis as well as from stakeholder input and needs identified in previous studies and planning efforts. Table 2 provides a list of potential needs, scored based on whether they meet the following criteria:

- **Previously Identified:** Indicates if a project has been identified through previous efforts, including GDOT’s Statewide Transportation Plan, the Transportation Investment Act’s project list, or another study.
- **Outreach:** Indicates if a need was identified through public outreach efforts or through stakeholder coordination.
- **Capacity Deficiency:** Indicates if the segment operates below an acceptable LOS (E or F) for the various years and scenarios.

Roadway needs were assigned one point for each of the criteria met. The cumulative scores, shown in Table 2, were used to determine which potential needs should be considered for improvements. Though this list does not represent the prioritization of projects for the Connect Central Georgia study, it was used to develop improvement strategies that were then prioritized based on a process described in later sections.

**TABLE 2: CUMULATIVE NEEDS MATRIX**

	Route	From	To	Identification of Need									Cumulative Score
				Previously Identified			Outreach	Capacity Deficiency (LOS)					
				LR Program	TIA Project	Other Study		2006 Existing	2035				
				2006 Existing	Baseline	Scenario 1	Scenario 2	Scenario 3					
Character Area 1	I-85	Northern Study Area	Western Study Area	✓		✓		✓	✓	✓	✓	7	
	I-185	SR 219	SR 116 (S of LaGrange)					✓	✓			1	
	US 27 / SR 1	View Pointe Dr	I-85	✓			✓	✓	✓	✓		5	
	SR 1/ Hamilton Rd	Lower Big Springs Rd	I-185	✓	✓		✓	✓	✓	✓	✓	6	
	US 27 / SR 1	I-185	Smokey Rd				✓	✓	✓	✓	✓	5	
	SR 14 / US 29/ Vernon Rd	SR 109/ Roanoke Rd	Upper Glass Bridge Rd	✓	✓			✓	✓			4	
	SR 14 / US 29/ Vernon Rd	Upper Glass Bridge Rd	Reeds Rd (West Point)	✓	✓					✓		3	
	US 29	Hogansville Highway	Hines Road							✓		1	
	Upper Big Springs Rd	SR 14 Spur/S Davis Rd	I-85					✓	✓	✓	✓	5	
	SR 18	I-85	Salem Rd					✓	✓	✓	✓	5	
	SR 18/ SR 354	Hopewell Church Rd	SR 190						✓		✓	3	
	SR 18/ SR 355	SR 190	Hines Gap Rd (Pine Mt)						✓	✓	✓	4	
	SR 85	Midland Rd	Ossahatchie Creek Rd					✓	✓	✓	✓	5	
	SR 109/Lafayette Pkwy/Greenville Rd	Ragland St	I-185	✓				✓	✓			2	
	SR 109/Lafayette Pkwy/Greenville Rd	I-185	Big Springs Mountville Rd	✓				✓	✓			3	
	SR 109/Lafayette Pkwy/Greenville Rd	Big Springs Mountville Rd	Hill Haven Rd					✓	✓	✓	✓	5	
	SR 109/Lafayette Pkwy/Greenville Rd	Hill Haven Rd	US 27					✓	✓	✓	✓	3	
	SR 219/ Moody Bridge Rd	N Greenwood St	Main St	✓	✓				✓	✓	✓	6	
	SR 219/ Moody Bridge Rd	Main St	I-85	✓					✓	✓	✓	4	
	SR 219/ Moody Bridge Rd	I-85	Bartley Rd (S of LaGrange)						✓	✓	✓	4	
	SR 315/ Mountain Hill Rd	Huling Rd	East of I-185					✓	✓	✓	✓	5	
	Flat Rock Rd	US 27	Macon Rd					✓	✓	✓	✓	4	
	Flat Rock Rd/ Schatulga Rd	Macon Rd	Buena Vista Rd						✓		✓	3	
	Luthersville Road	I-85	Forrest Road							✓	✓	1	
Character Area 2	SR 18	US 19	County Farm Rd (Zebulon)					✓	✓	✓	✓	4	
	SR 18/ Forsyth St/US 41	College Dr	Crawford Rd (Barnesville)						✓	✓	✓	4	
	US 41/ SR 7	Main St	Grove St (Barnesville)						✓	✓	✓	4	
	US 41/ 341 / SR 7	Thomaston St	SR 83 (Barnesville)					✓	✓	✓	✓	5	
	SR 42	East Crusselle St	Walton Rd (E of Roberta)						✓	✓	✓	4	
	SR 74/ Woodbury Rd	SR 85	Raven Dr						✓	✓	✓	4	
	SR 74/ Woodbury Rd/SR 109	Raven Dr	SR 109/ S Main St (Molena)					✓	✓	✓	✓	5	
	SR 74/ SR 109/ S Main St	Carrolls Martin Rd	Lawrence Mill Rd					✓	✓	✓	✓	5	
	SR 85	Cove Rd	Pebblebrook Rd (Woodbury)						✓	✓	✓	4	
	Old Hwy 41	Northern Study Area	Trice Rd						✓	✓	✓	4	
Character Area 3	SR 36	Trice Cemetary Rd	The Rock Rd							✓	✓	1	
	I-75	Northern Study Area	Highfalls Park Rd			✓	✓	✓	✓	✓	✓	7	
	I-75	Highfalls Park Rd	Johnstonville Rd	✓		✓	✓	✓		✓	✓	6	
	I-75	Johnstonville Rd	SR 42	✓		✓	✓	✓		✓	✓	5	
	I-75	SR 18	Rumble Rd	✓	✓	✓	✓	✓		✓	✓	6	
	I-16	Marion Rd/ SR 87	Sgoda Rd				✓		✓	✓	✓	5	
	I-75	Centerville Rd	Miami Valley Rd				✓		✓	✓	✓	5	
	I-16	I-75	SR 87						✓	✓	✓	5	
	I-16	Sgoda Rd	Southern Border of Study Area								✓	1	
	I-475	Colaparchee Rd	SR 74					✓	✓	✓	✓	5	
	US 23/ Emery St/ Spring St	Poplar St	Jeffersonville Rd					✓	✓	✓	✓	5	
	US 41/ SR 18	College Dr (Barnesville)	Crawford Rd	✓					✓	✓	✓	5	
	US 129	US 41	Middle Georgia Regional Airport	✓	✓			✓				3	
	US 129	Greenwood Rd	Downtown Gray (b/w Macon and Gray)	✓					✓	✓	✓	5	
	SR 11 / Houston Rd/ Houston Lake Rd	Sardis Church Rd	S of SR 96 (Macon to Warner Robins)	✓					✓	✓	✓	5	
	SR 49/ Old Garrison Rd	Joycliff Rd	Character Area 4	✓			✓		✓	✓	✓	4	
SR 83	I-75	Byars Rd (Near Forsyth)					✓	✓	✓	✓	5		
SR 96	Borders Rd	Royal Oak Ln	✓			✓	✓	✓	✓	✓	7		
SR 96	Ocmulgee River	Westlake Rd		✓		✓			✓	✓	3		
SR 96	SR 247	Thompson Mill Rd						✓	✓	✓	4		
SR 341 / SR 7/ Sam Nunn Blvd	Perry Pkwy	Hendricks Rd	✓	✓			✓	✓	✓	✓	7		
Watson Rd						✓					1		
Character Area 4	US 441	Northern Study Area	Corral Rd (N of Milledgeville)						✓	✓	✓	4	
	SR 15	I-16		✓			✓					2	
	I-20	SR 150 / Cobham Rd	SR 47 / US 221	✓					✓	✓	✓	5	
	SR 22	Stembridge Rd (N)	Stembridge Rd (S)	✓				✓	✓	✓	✓	6	
	SR 22 / Glynn St	Old Monticello Rd	Roberts Rd					✓	✓	✓	✓	5	
	SR 49	Allen Memorial Rd	Character Area 3	✓			✓		✓	✓	✓	6	
	Smith Rd	Kaolin Rd	SR 15					✓	✓	✓	✓	5	
SR 44	Northern Study Area	Etheridge Rd						✓	✓	✓	4		
SR 17			✓								1		
Character Area 5	I-20	Northern Study Area	County Rd 185 / Cadley Rd	✓	✓		✓		✓		✓	6	
	I-20	CR 185 / Cadley Rd	SR 80	✓			✓			✓		3	
	US 1			✓			✓					2	
	US 221 / SR 47	White Oak Rd	US 223/Wrightsboro Rd (W of Grovetown)					✓	✓	✓	✓	4	
	SR 88	SR 121	Brown Rd (S of Augusta)						✓	✓	✓	4	
	SR 104/ Washington Rd			✓			✓					2	
	SR 388/ Lewiston Rd	Columbia Rd	Old Wrightsboro Rd	✓			✓	✓	✓	✓	✓	6	
	Old Evans Rd	Tubman Rd	Old Washington Rd	✓			✓	✓	✓	✓	✓	6	
	Harlem Grovetown Rd	Grovetown	Old Louisville Rd (W of Grovetown)				✓	✓	✓	✓	✓	5	
	US 78/ US 278	SR 223	Downtown Harlem				✓	✓	✓	✓	✓	0	
	SR4 / US 1	Tobacco Rd	Willis Foreman Rd				✓	✓	✓	✓	✓	6	
	SR 104	US 221	I-20						✓	✓	✓	4	
Belair Rd	I-20	SR 28						✓	✓	✓	4		
SR 28	SR 232	Belair Rd					✓	✓	✓	✓	5		
Hereford Farm Rd	SR 104	Columbia Rd						✓	✓	✓	4		

Note:  
LR – Long Range  
TIA – Transportation Investment Act

# DEVELOPMENT OF STRATEGIES

The scenario testing was used to establish needs that occurred in any number of economic, land use and transportation investment situations. Understanding these needs, a number of steps were taken to determine what improvement strategies would most efficiently address these needs and meet the goals of the plan.

## STRATEGIC CONNECTIONS

Through a combination of technical analyses, qualitative assessment and stakeholder input, 18 Strategic Connections were identified, as illustrated in Figure 3. These Strategic Connections include corridors which were projected to need additional capacity in the future, as well as those that provide critical freight and person mobility and economic connectivity throughout the study area, the state, and the nation. These Strategic Connections served as the basis for recommendations for the Connect Central Georgia Study.

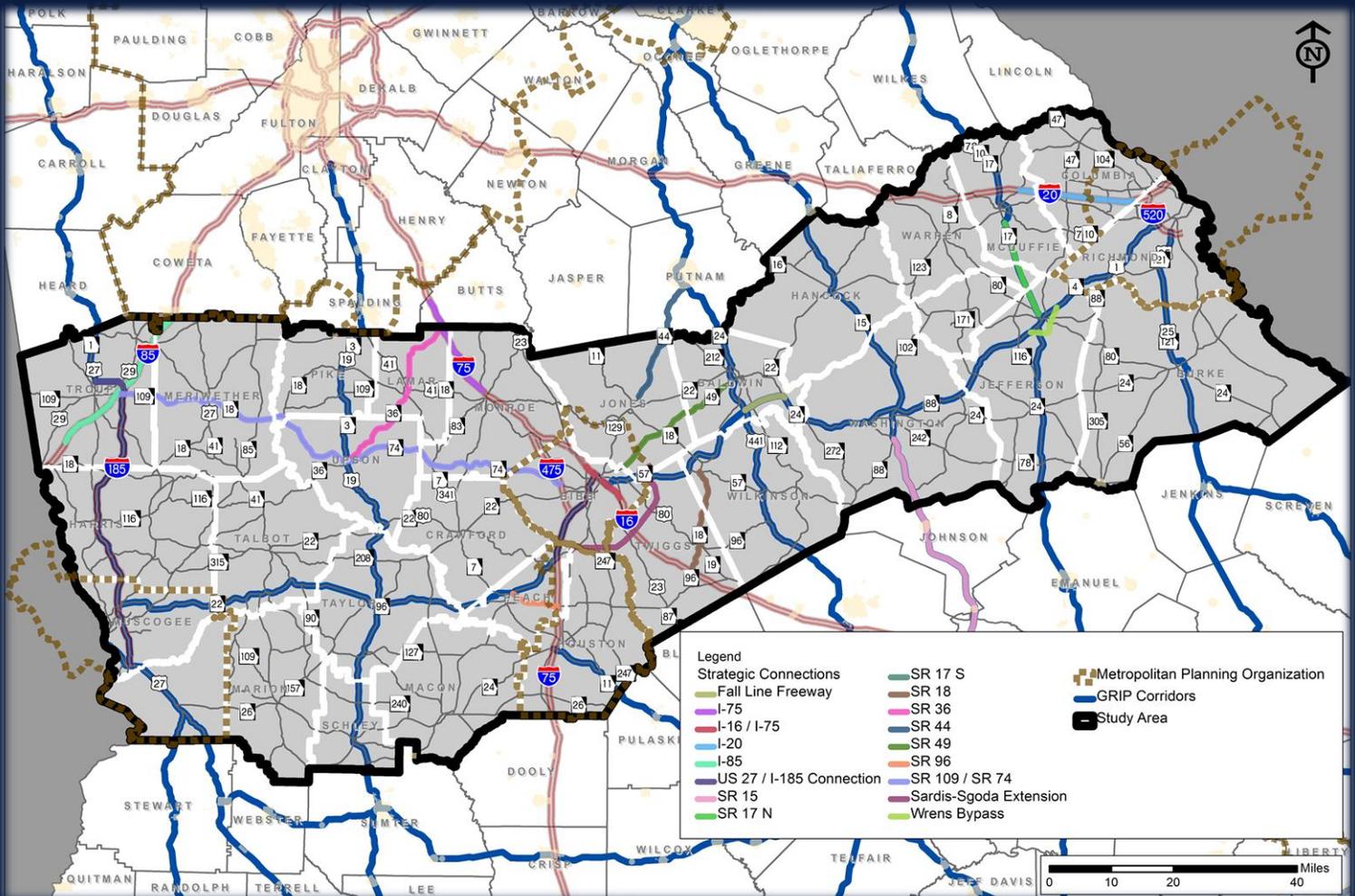


FIGURE 3: STRATEGIC CONNECTIONS

# DEVELOPMENT OF POTENTIAL SOLUTIONS

The Connect Central Georgia study used a systematic process to evaluate potential strategies for addressing deficiencies. Through federal legislation, supporting Congestion Management Process (CMP) regulations were developed, which guide the identification of potential strategies for deficient corridors. This process served as a framework for the identification of potential strategies, which include demand management, operational management and capital-intensive approaches. For the purposes of applying the CMP requirements to the study area, an attempt was made to separate potential strategies into a hierarchical order, as described to the right.

**TABLE 3: POTENTIAL IMPROVEMENTS**

Corridor	Description	Cost
<b>Widening</b>		
I-20	from SR 150 to SR 383	\$268,226,000
I-16 / I-75 (Seg 1)	from Pierce Ave to I-16	\$41,400,000
I-16 / I-75 (Seg 3)	from SR 211 to SR 87	\$59,700,000
I-75 (Seg 1)	from SR 42 to High Falls Rd	\$107,632,000
I-75 (Seg 2)	from High Falls Rd to SR 16	\$81,244,000
I-85 (Seg 1)	from SR 109 to CR 417 (Meriwether)	\$81,100,000
I-85 (Seg 2)	from Kia Vld to SR 109	\$211,139,000
US 27/I-185 Conn.	from US 27 to I-185	\$106,256,000
US 1 / SR 17 S (Seg 1)	from Wadley Byp to Louisville Byp	\$28,700,000
US 1 / SR 17 S (Seg 2)	from Louisville Byp to CR 138 / Mennonite Church Rd	\$24,800,000
US 1 / SR 17 S (Seg 3)	from CR 138 / Mennonite Church Rd to SR 88	\$51,800,000
SR 17 N (Seg 1)	from SR 296 to CR 59 / Quaker Rd	\$23,200,000
SR 17 N (Seg 2)	from CR 311 / Wire Rd to SR 296	\$48,800,000
SR 18 (Seg 1)	from I-16 to US 80	\$52,001,000
SR 18 (Seg 2)	from US 80 to SR 57	\$121,129,000
SR 44 (Seg 1)	from Gray Bypass to Mathis Rd	\$49,300,000
SR 44 (Seg 2)	from Mathis Rd to US 29 / US 441	\$41,300,000
SR 49 (Seg 1)	from Griswoldeville Rd to SR 18	\$105,021,000
SR 49 (Seg 2)	from SR 18 to Felton Rd	\$135,798,000
SR 96 (Seg 2)	from Firetower Rd to Housers Mill Rd	\$34,700,000
SR 109 / SR 74 (Seg 1)	from I-85 to SR 41	\$146,621,000
SR 109 / SR 74 (Seg 2)	from US 41 to SR 18	\$154,645,000
Fall Line Freeway	from US 441 to SR 24	\$75,300,000
<b>4-lane New Alignment</b>		
SR 96 (Seg 1)	from SR 49 to SR 96	\$30,965,000
Sardis-Sgoda Ext (Seg 1)	from SR 11 to I-16	\$212,844,000
Sardis-Sgoda Ext (Seg 2)	from I-16 to SR 57	\$131,632,000
Wrens Bypass	from SR 88 to US 1	\$84,859,000
<b>Passing Lane</b>		
SR 15 (Seg 1)	from SR 88 to south of SR 231	\$13,331,000
SR 15 (Seg 2)	from south of SR 231 to I-16	\$13,574,000
SR 36 (Seg 1)	from SR 74 to US 41	\$13,308,000
SR 36 (Seg 2)	from US 41 to I-75	\$13,674,000
SR 109 / SR 74 (Seg 3)	from SR 18 to US 19	\$13,236,000
SR 109 / SR 74 (Seg 4)	from US 19 to US 341 / SR 7	\$13,401,000
SR 109 / SR 74 (Seg 5)	from US 341 / SR 7 to I-75	\$13,882,000
<b>Interchange Improvement</b>		
I-16 / I-75 (Seg 2)		\$164,500,000

## HIERARCHY OF IMPROVEMENTS

**Level One:** Actions that decrease the need for trip making (i.e. growth management, activity centers, and congestion pricing)

**Level Two:** Actions that shift auto trips to transit or other non-auto modes (i.e. transit capital or operating improvements, parking management)

**Level Three:** Actions that shift as many trips as possible to HOVs

**Level Four:** Actions that optimize the highway system's operation (traffic signal modification, intelligent transportation systems, etc.)

**Level Five:** Actions that increase the capacity of the highway system for SOVs by adding general purpose lanes.

Based on the five levels defined by the CMP process, the categorical recommendations for the types of improvements appropriate for each character area, and the needs described previously, improvement recommendations were made for each segment of the Strategic Connections. The Level 4 and 5 recommendations are listed by segment in Table 3 along with associated cost estimates that include preliminary engineering, right-of-way, and construction costs.

It should be noted that not all potentially beneficial improvements are explicitly mentioned in Table 3. For example, land use policy improvements are applicable throughout the region, but are not indicated in this table. Focus on these types of solutions is just as important as the roadway projects which are defined. Issues such as land use and other Level One solutions, are commonly the purview of local governments as the implementing agency.

## PROJECT PRIORITIZATION & RECOMMENDATIONS

The potential improvement projects were then prioritized based on criteria consistent with the study goals. Both qualitative and quantitative evaluation factors were used to evaluate the potential improvement projects. The project prioritization criteria were categorized into five different goals which correspond to those developed through the study process, which carefully considered local, statewide and federal goals, including the Governor's Strategic Goals and the MAP-21 federal objectives for planning efforts. The five different goals, hereafter referred to as themes, were:

1. Transportation safety and mobility;
2. Connectivity, economic growth and system reliability;
3. System preservation and environmental sustainability;
4. Stakeholder support and project readiness; and
5. Accessible care and active lifestyles.



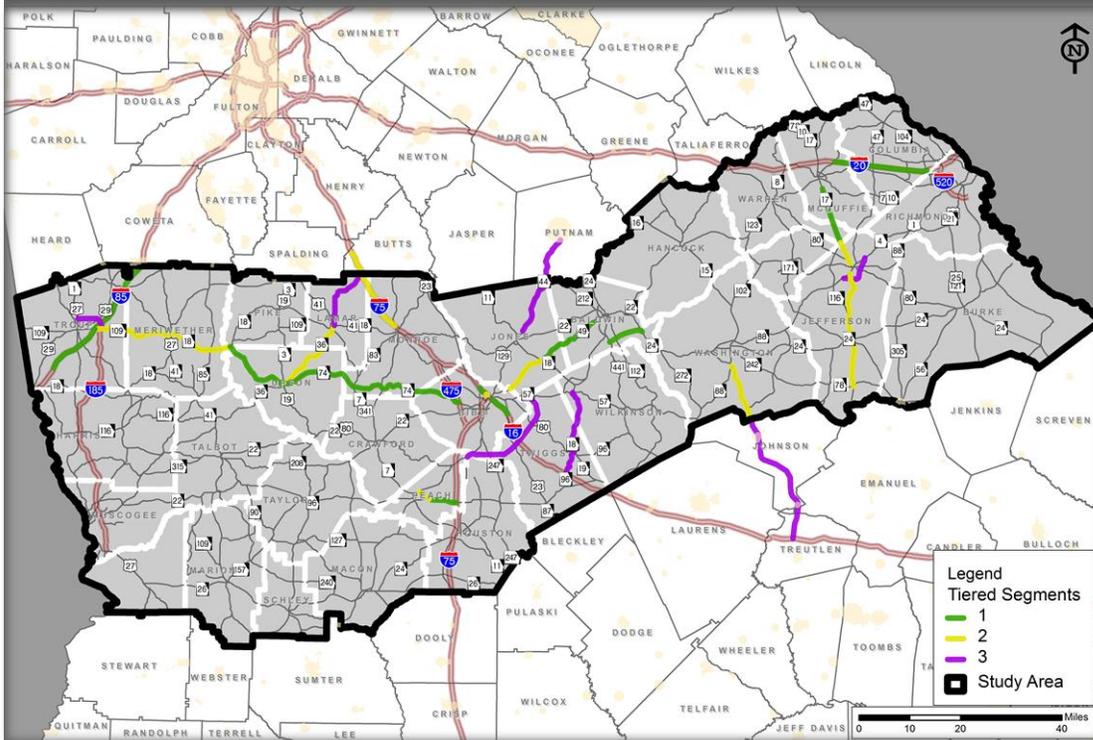
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**TABLE 4: WEIGHTING SCHEMES**

Schemes Tested	Theme				
	1	2	3	4	5
Balanced	20	20	20	20	20
Mobility and Safety Focused	50	20	10	10	10
Connectivity and Economic Development Focused	20	50	10	10	10
System Preservation/Environmental Sustainability Focused	15	15	50	10	10
Project Support and Readiness Focused	15	15	10	50	10
Accessible Care and Multimodal Focused	15	15	10	10	50

After each project was evaluated and scored based on the project prioritization criteria, the study team initiated priority schemes based on the goals of the study to understand the impact of each goal and how the project rankings changed based on different weights and schemes. The purpose of testing six unique schemes is to identify potential improvements that continue to migrate to the top of the ranking, regardless of where focuses were placed. The six schemes, which assigned different weights to the previously mentioned themes, are listed in Table 4, along with their associated weighting.

Priority rankings were based on the qualitative and quantitative criteria discussed previously. Upon review of the results of the project prioritization, the projects (whose improvement type and costs are detailed on page 12) were categorized into three tiers. The tiers listed to the right and illustrated in Figure 4 reflect the prioritization ranking of each project improvement within the study area.



**FIGURE 4: TIERED STRATEGIC CONNECTIONS SEGMENTS**

- Tier 1**
- I-16 / I-75 (Seg. 1, 3)
  - I-20
  - I-85 (Seg. 1, 2)
  - US 1 / SR 17 S (Seg. 1)
  - SR 17 N (Seg. 2)
  - SR 49 (Seg. 2)
  - SR 96 (Seg. 2)
  - SR 109 / SR 74 (Seg. 3, 4, 5)
  - Fall Line Freeway

- Tier 2**
- I-16 / I-75 (Seg. 2)
  - I-75 (Seg. 1, 2)
  - US 1 / SR 17 S (Seg. 2, 3)
  - SR 15 (Seg. 1)
  - SR 17 N (Seg. 1)
  - SR 36 (Seg. 1)
  - SR 49 (Seg. 1)
  - SR 96 (Seg. 1)
  - SR 109 / SR 74 (Seg. 1, 2)

- Tier 3**
- US 27 / I-185 Connection
  - SR 15 (Seg. 2)
  - SR 18 (Seg. 1, 2)
  - SR 36 (Seg. 2)
  - SR 44 (Seg. 1, 2)
  - Sardis-Sgoda Ext. (Seg. 1, 2)
  - Wrens Bypass

## FUNDING RESOURCES

Funding for most transportation projects statewide, and especially in rural areas, comes in part through GDOT. Sources include:

Federal	State	Local
Federal gasoline tax	State tax on motor fuels	Special Purpose Local Option Sales Taxes (SPLOST)
Federal transportation authorizations (MAP-21)	State license tag fees	Local Option Sales Taxes (LOST)
	State title registrations	Community Improvement Districts (CIDs)
	State motor carrier fuels tax	
	State sales tax on gasoline	
	State personal property tax	

## ROLES AND RESPONSIBILITIES

The transportation planning process for Connect Central Georgia does not end with the documentation. The implementation of recommendations from this study will require coordination from various agencies throughout the study area and the state. The following provides a brief overview of future activities related to intergovernmental planning, coordination and program monitoring.

### GDOT

- Work with planning partners on their commitments
- Work for inclusion of the study recommendations in the STIP, TIP, and RTPs
- Follow the road typologies, access management strategies and Plan recommendations as guidelines for the study area

### MPOs

- Support the Connect Central Georgia study through inclusion of recommendations in the updated TIPs and RTPs
- Coordinate with GDOT and local jurisdictions to advance projects in future updates
- Ensure projects are implemented in a logical sequence to maximize benefits and utilize scarce resources efficiently

### LOCAL AGENCIES

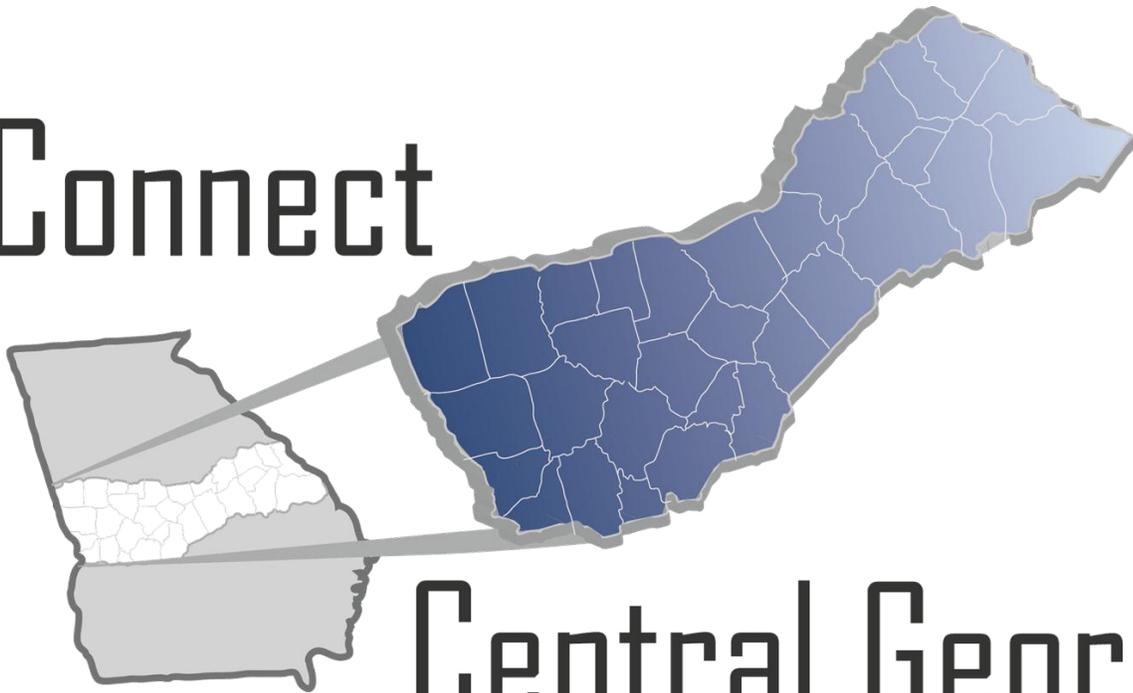
- Maintain land use plans that are the basis for this study, or make changes that would not have an adverse effect on the study area
- Coordinate with abutting jurisdictions on area plans
- Require consideration of access management as part of the land use and zoning approval process
- Require, through the land use and zoning approval process, that improvements be funded as part of the developments

## NEXT STEPS

In order to capitalize on the momentum of the Connect Central Georgia Study and implement the transportation recommendations, there are key steps that need to be taken. Many of these next steps will occur through GDOT with coordination with MPOs, RCs and the local municipalities. Next steps include:

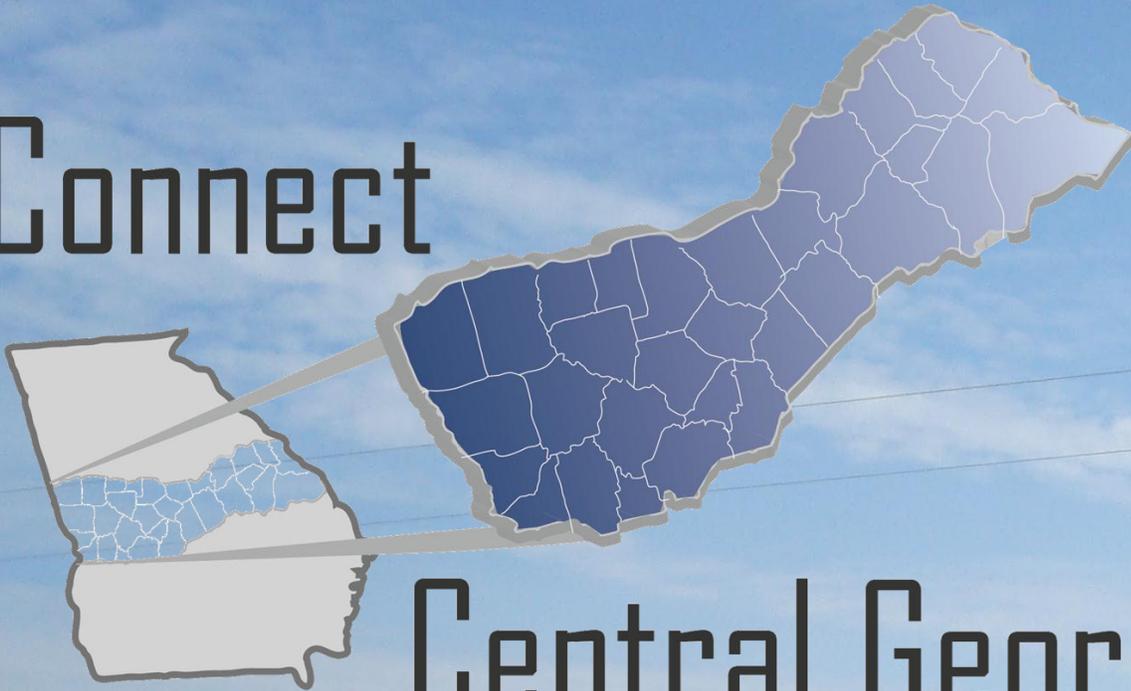
- Continue discussions on land use opportunities, access management and transportation implementation throughout the study area. The Regional Commissions could be a natural fit for leading these efforts due to their regional nature and existing relationships. Some initial topics to consider are:
  - Specifying near and long term zoning and comprehensive plan changes needed to support the study;
  - Identifying any specific land use and zoning conflicts with study recommendations within each jurisdiction; and
  - Incorporating transit-supportive development into activity center development.
- Conduct ongoing outreach to communities, business owners, and other users within the study area to build consensus for recommended programs and policies; and
- Prepare for funding requests in future TIP/RTP updates.

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