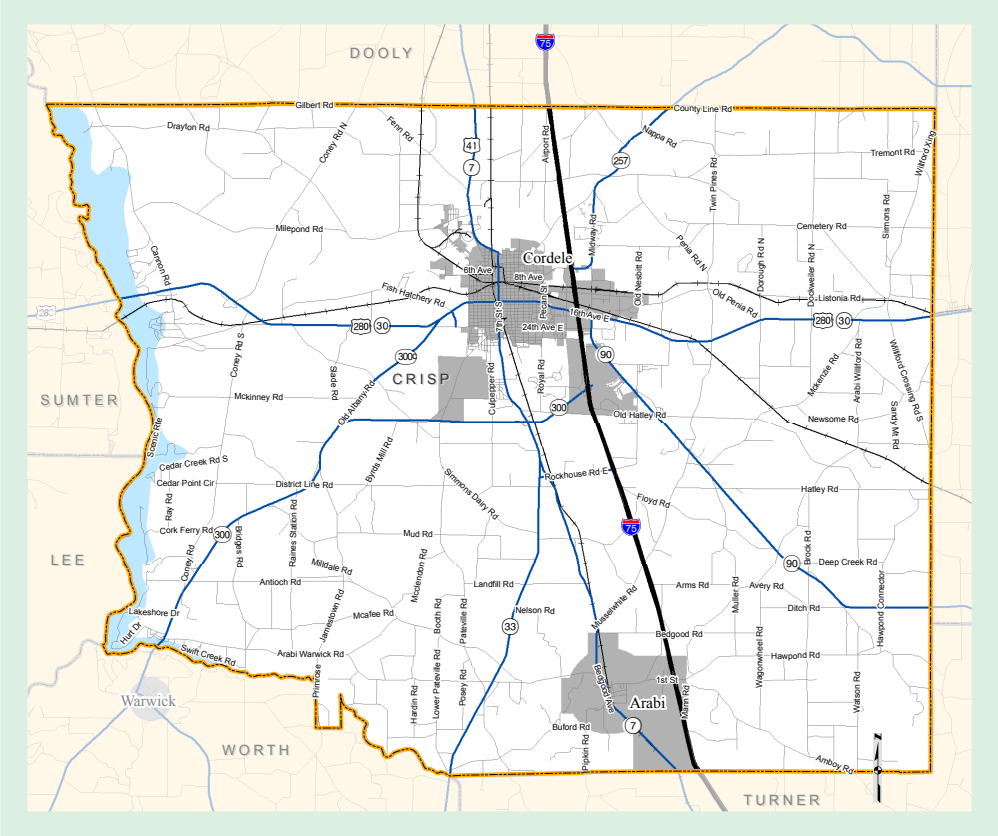
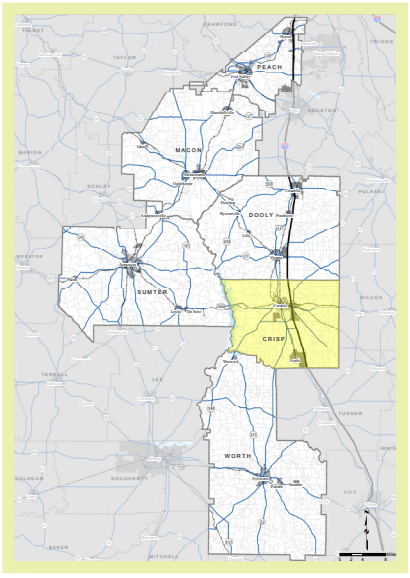
Crisp County Long Range Transportation Plan

Southwest Georgia Multi-County Transportation Study

October 2010





Georgia Department of Transportation
Office of Planning

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1. INTRODUCTION

The Georgia Department of Transportation (GDOT) Office of Planning initiated the Southwest Georgia Multi-County Transportation Study in cooperation with the counties of Crisp, Dooly, Macon, Peach, Sumter and Worth; the River Valley, Southwest Georgia, and Middle Georgia Regional Commissions (RCs), and other planning partners. The objective of the study was to identify and recommend transportation improvements necessary within each county to meet existing and future transportation needs through the year 2035. Results and recommendations of this study will be important in identifying transportation deficiencies. The study began in October 2008 and was completed in October 2010.

1.1 STUDY PURPOSE

The ability of the transportation system to meet existing and future travel needs is essential to the economic viability of these six counties. This study will recommend transportation improvements that complement state, regional, and local objectives regarding economic development, quality of life, and the interconnection of people, goods, and services. The final result of this study process will be a 2035 Long Range Transportation Plan (LRTP) for each of the six counties in the study area. The focus of this report is Crisp County. The Crisp County LRTP will provide a prioritized outline of improvements necessary to address its existing, short term, and long term transportation needs of the county.

1.2 GENERAL DESCRIPTION OF THE SIX-COUNTY STUDY AREA

The study area is located in southwest Georgia from south of Macon to south and east of Albany. The six-county study area includes Crisp, Dooly, Macon, Peach, Sumter and Worth Counties. The study area includes a small portion of the Warner-Robins Metropolitan Planning Organization area found in Peach County, which includes the city of Byron.

The six-county study area covers 2,300 square miles and a number of areas of interest that are significant to the state's natural, cultural, and social environments. A map of Crisp County can be found in **Figure 1.1** on page 2 and a map of the six-county study area can be found in **Figure 1.2** on page 3. Key local assets include:

- Georgia Veterans Memorial State Park in Crisp County, which features a museum; Lake Blackshear, a privately operated conference center and golf club; and the Savannah, Americus, and Montgomery (SAM) Shortline Excursion Train, which runs from Cordele to Plains, GA.
- Flint River Wildlife Management Area (WMA) in Dooly County, located ten miles south of Montezuma. Activities in the WMA include hunting, fishing, hiking, bird watching and horseback riding.
- Andersonville National Historic Site in Macon County, located just east of the City of Andersonville. This site includes Camp Sumter, which served as the largest Confederate prison during the Civil War; the Andersonville National Cemetery, and the National Prisoner of War Museum.
- Fort Valley State University in Peach County, a Historically Black Land Grant University located in the City of Fort Valley.

FIGURE 1.1: MAP OF CRISP COUNTY

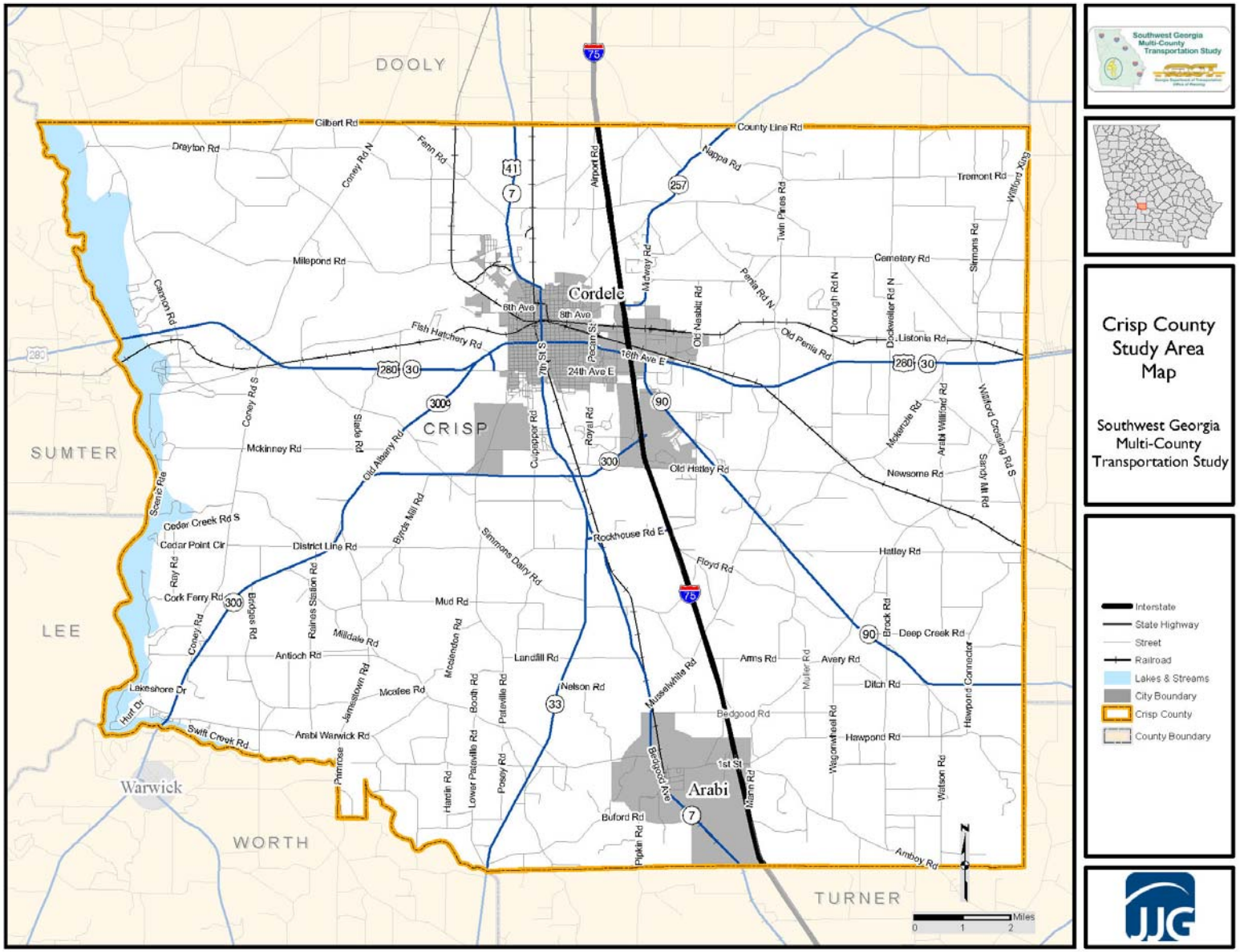
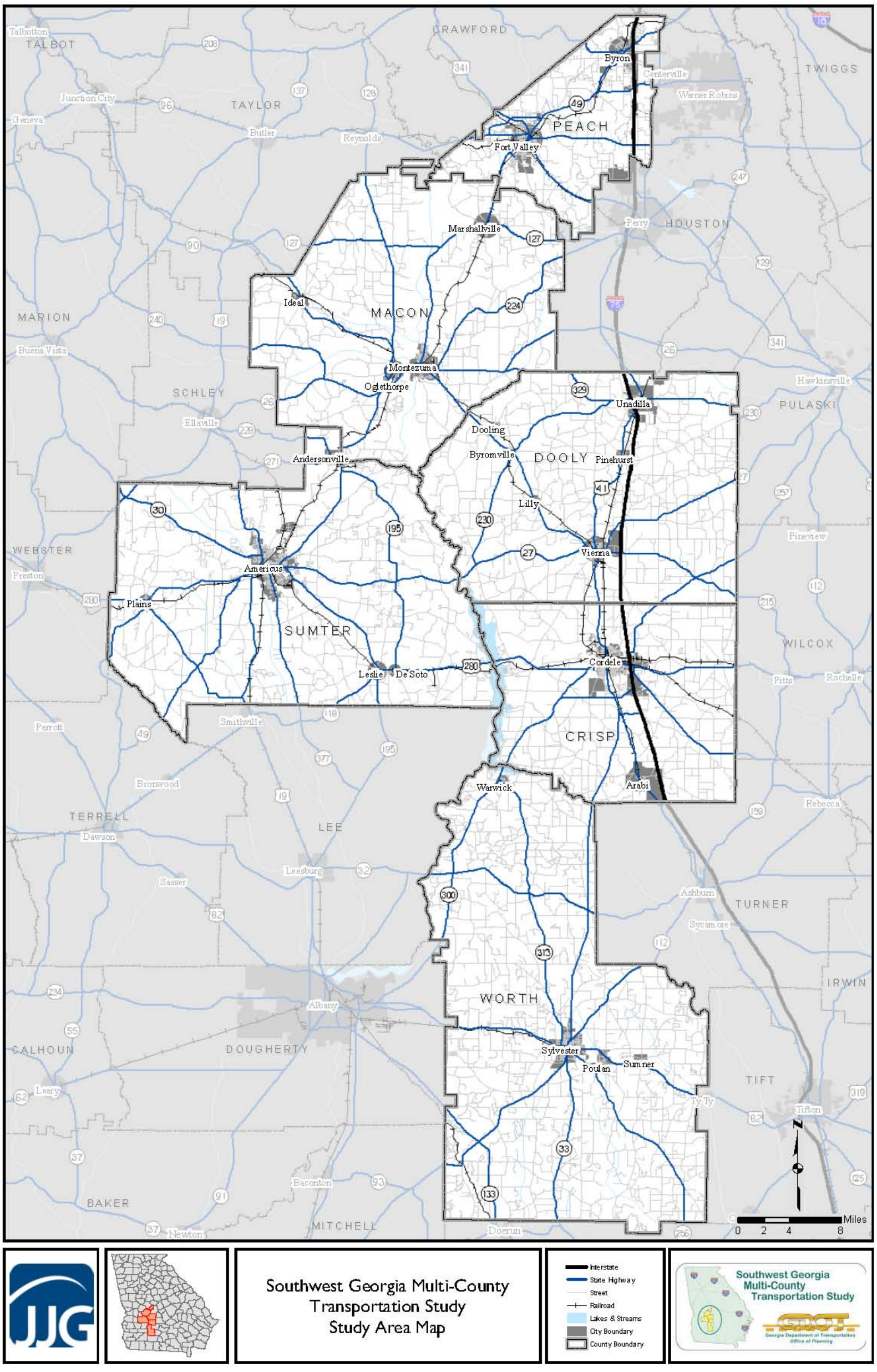


FIGURE 1.2: MAP OF THE SIX-COUNTY STUDY AREA



- Jimmy Carter National Historic Site in Sumter County. This historic area includes the thirty-ninth president's current residence, boyhood farm, school, and the town railroad depot, which served as his campaign headquarters during the 1976 Presidential Election.
- Worth County's annual Georgia Peanut Festival, held in Sylvester each October.

1.3 Overview of Data Sources

The data presented in the Southwest Georgia Multi-County Transportation Study include a variety of sources ranging from GDOT, counties within the six-county study area, Middle Georgia RC, River Valley RC, Southwest Georgia RC, U.S. Census Bureau, National Wetlands Inventory and key stakeholders in the region.

Demographic and socioeconomic data were collected primarily from the U.S. Census Bureau, local comprehensive plans and other various planning documents. In addition, this report includes other local studies and data sources from the Georgia Department of Labor (GDOL) and U.S Department of Commerce. See **Appendix A** for an inventory of all GIS data sources.

In order to analyze existing and future travel patterns and traffic conditions, a travel demand model was developed for the six-county study area. A travel demand model utilizes information such as roadway networks, population, and employment data to calculate the existing or future demand for transportation facilities.

1.4 Study Process

This study began with the collection of transportation data within the six-county study area, including a review of studies previously conducted in the region. Input from local agencies, stakeholders, and the general public regarding transportation issues and growth patterns was solicited and considered during the development of this study.

A travel demand model was prepared for the six county area based on much of the data presented in this report. This information includes demographic and land use data, existing transportation infrastructure and traffic conditions, as well as planned and programmed projects within each county.

Based on the information gathered, existing conditions and projected future conditions were evaluated. With the aid of stakeholders, the study goals and objectives were developed based on the counties' comprehensive plans. With these goals in mind, transportation recommendations were developed and prioritized for each county. This final transportation study is the result and documentation of these previous steps.

2. DEMOGRAPHICS

The demographic information discussed in this section includes general population, employment, and, for environmental justice purposes, minority and low-income groups. Demographics in this section are presented by Census Block Group, Census Tract, and Traffic Analysis Zone (TAZ). TAZs are relatively small units of geography used in travel demand modeling to relate different land-use patterns with trip purposes and trip end frequency.

2.1 EXISTING POPULATION

According to the Greater Crisp County Comprehensive Plan (2009), 70 percent of the County's population growth occurred between 1970 and 2000, with the most growth captured within the City of Cordele. More recently, as indicated in **Table 2.1** below, Crisp County experienced ten percent growth in its population between 1990 and 2000, adding almost 2,000 residents. During the same decade, the percentage of growth and annual rate of growth exhibited in the state of Georgia outpaced Crisp County.

By 2006, Crisp County's growth rate slowed down significantly, adding only 55 new residents since 2000, while the state of Georgia maintained its strong growth trend of 2.3 percent per year.

TABLE 2.1: HISTORIC POPULATION GROWTH FOR CRISP COUNTY

				1990 - 2000		2000 - 2006	
	1990	2000	2006	Percent Change	Annual Growth Rate	Percent Change	Annual Growth Rate
Crisp County	**20,011**	**21,996**	**22,051**	**9.9%**	**0.95%**	**0.3%**	**0.04%**
State of Georgia	6,478,216	8,186,453	9,363,941	26.4%	2.37%	14.4%	2.27%

Source: 2000 US Census

Figure 2.1 on page 6 shows the Crisp County 2006 population density. Due to the overall rural nature of the county, population density maps herein are expressed in persons per ten acres rather than persons per acre. Not surprisingly, the areas in and around Cordele city limits have the highest population densities. The areas along 16th Avenue (US 280) just west of 7th Street (US 41) make up the highest-density area in the county with at least forty persons per ten acres. However, aside from the areas nearest to Cordele, 86 percent of land in Crisp County is characterized by a very low-density population in which there is more than ten acres of land for every person.

2.2 FUTURE POPULATION

Table 2.2 below presents the population forecast Crisp County. Crisp County is projected to increase its population by 14.3 percent with 3,149 new residents over the next 30 years. This projection is in line with the River Valley RC's estimates in the county's comprehensive plan. It is also noted in Crisp County's comprehensive plan that the community has not previously experienced consecutive decades of significant growth.

TABLE 2.2: POPULATION FORECAST FOR CRISP COUNTY

			2006 - 2035	
	2006	2035	Percent Change	Annual Growth Rate
Crisp County	**22,051**	**25,200**	**14.3%**	**0.46%**

Source: Travel Demand Model

FIGURE 2.1: CRISP COUNTY EXISTING (2006) POPULATION DENSITY BY TAZ

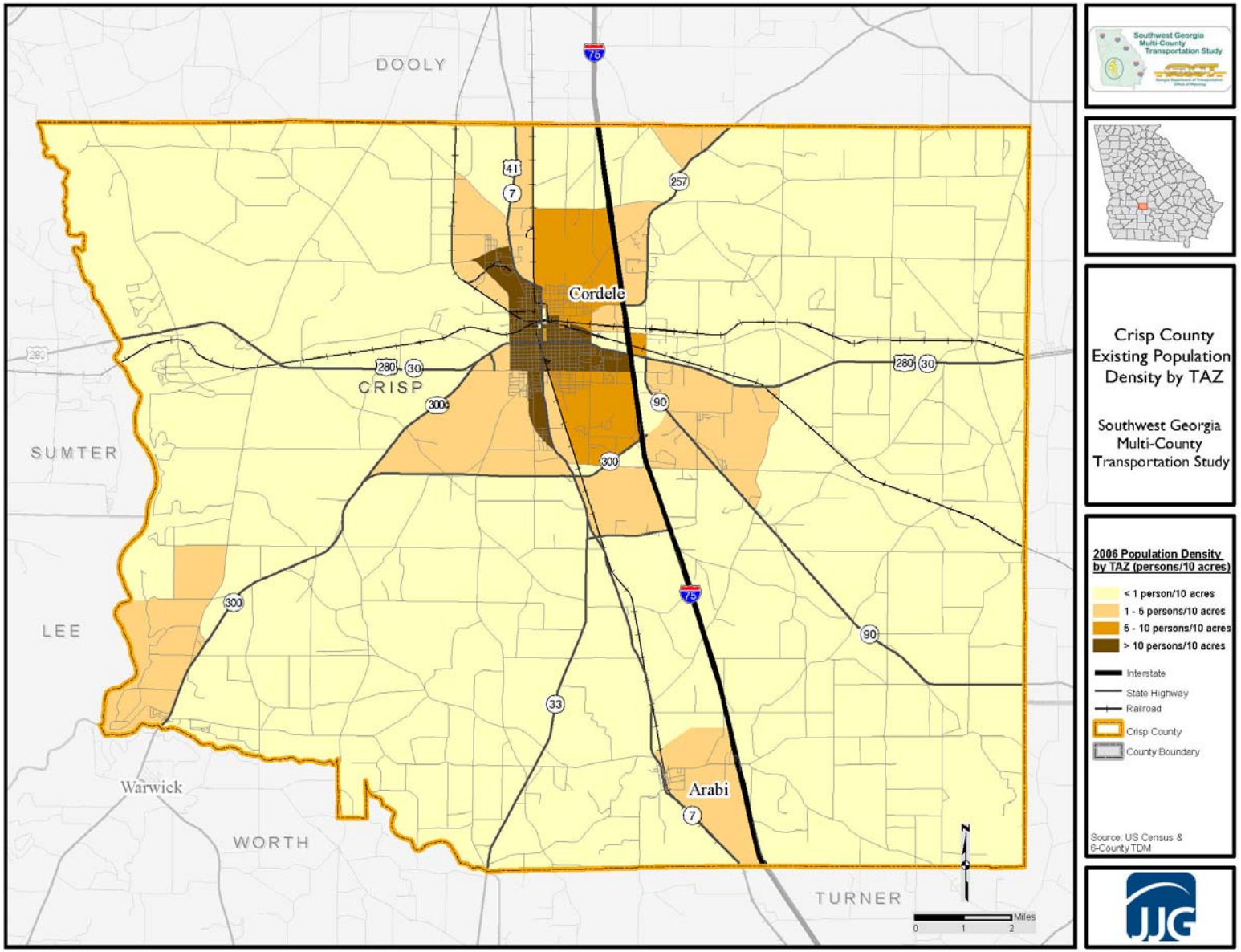


Figure 2.2 on page 8 illustrates the 2035 population density in Crisp County. Areas of high population density area expected to be found in those same locations as 2006.

Future population was determined by using growth rates based on continuation of past trends and growth assumptions outlined in the individual county comprehensive plans, 2004 to 2009. The population estimates shown in the county comprehensive plans are very similar to the projections used in this study. For much of the study area, a uniform growth rate was applied. For counties with high growth areas or expected land use changes, population projections were modified to account for these changes. In addition, high-growth areas were ascertained through interviews with representatives of Crisp County. A detailed methodology used to develop the future population data is included in the separate Travel Demand Model Development technical report.

2.3 EXISTING EMPLOYMENT

According to the employment data provided by the Georgia Department of Labor (GDOL), over 9,000 jobs were documented in Crisp County in 2006, as depicted in **Table 2.3** on below.

The Crisp County's Comprehensive Plan (2009) indicates that historically (1980-2000), the largest net change in employment occurred in educational, health and social services sectors with a nine percent increase. As such, the county currently has a strong service sector economy, in which service jobs such as health care and accommodation make up a quarter of the employment in Crisp County.

Crisp County's five largest employers include Cooperative Hardware, Crisp Regional Hospital, Harris Waste Management Group, Norbord Georgia, and Wal-Mart. Almost all the major employers are located in the Cordele area. As shown in **Figure 2.3** on page 9, the areas with the highest employment densities (ranging from 20 jobs to over 200 jobs per ten acres of land) are all located in Cordele along US 280 and US 41. US 280 in Cordele is generally characterized by a high concentration of strip commercial development and US 41 has a significant share of service sector jobs in the county. Due to the rural nature of Crisp County, employment density is presented in terms of jobs per ten acres.

TABLE 2.3: CRISP COUNTY CURRENT EMPLOYMENT

County	AMC	MFG	WTW	RET	SER	Total
Crisp County 2006	**684**	**1,240**	**691**	**1,614**	**4,866**	**9,095**
Share of County Employment	***8%***	***14%***	***8%***	***18%***	***54%***	***100%***

AMC – Agricultural, Mining and Construction employment
MFG – Manufacturing employment
WTW – Wholesale, Trucking and Warehouse employment
RET – Retail employment
SER-Service employment

Source: GDOL; U.S. Bureau of Labor Statistics.

2.4 FUTURE EMPLOYMENT

Crisp County is expected to add an additional 3,850 jobs by 2035, due to a 1.23 percent projected annual job growth (**Table 2.4** on page 10). This growth is mostly attributed to the huge influx of industrial employment provided by planned developments such as the proposed Cordele Inland Port and the joint Crisp/Dooly County Industrial Park.

FIGURE 2.2: CRISP COUNTY FUTURE (2035) POPULATION DENSITY BY TAZ

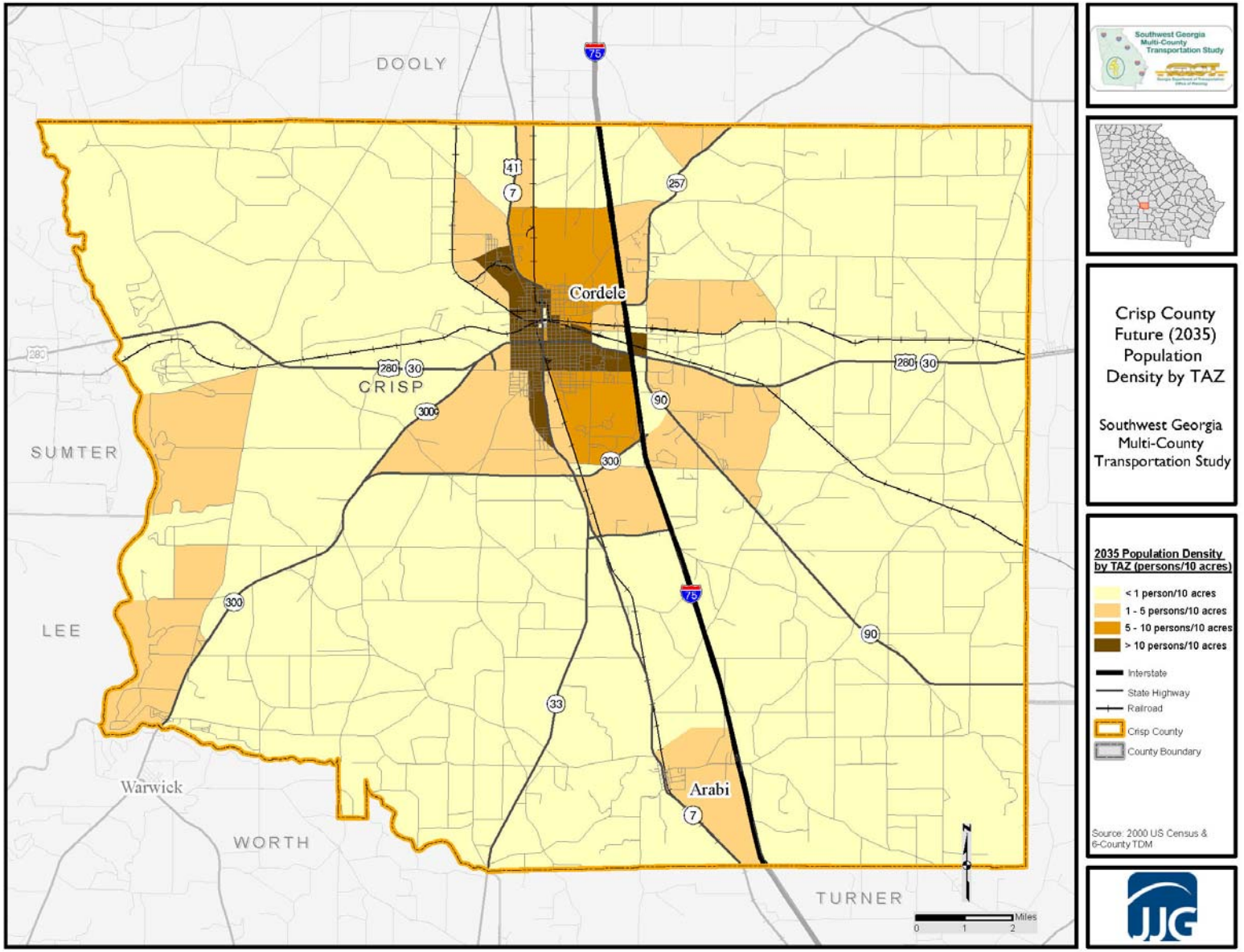


FIGURE 2.3: CRISP COUNTY EXISTING (2006) EMPLOYMENT DENSITY BY TAZ

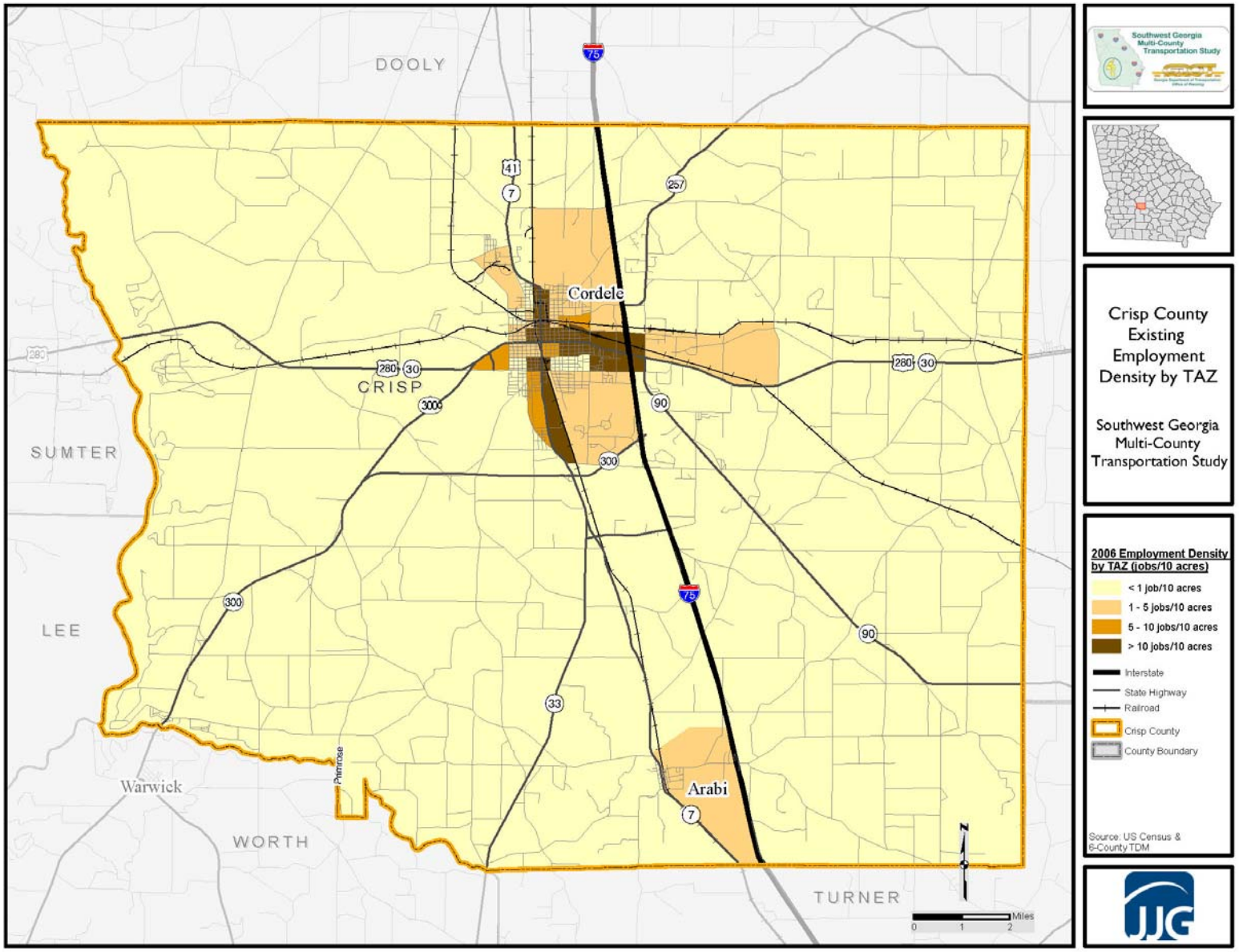


TABLE 2.4: CRISP COUNTY FUTURE EMPLOYMENT FORECAST

County	AMC	MFG	WTW	RET	SER	Total	Annual Growth Rate
Crisp County 2006	**684**	**1,240**	**691**	**1,614**	**4,866**	**9,095**	
Crisp County 2035	**826**	**3,464**	**833**	**1,948**	**5,870**	**12,951**	**1.23%**
Growth	**20.76%**	**179.35%**	**20.55%**	**20.69%**	**20.63%**	**42.40%**	

AMC – Agricultural, Mining and Construction employment
MFG – Manufacturing employment
WTW – Wholesale, Trucking and Warehouse employment
RET – Retail employment
SER-Service employment

Source: GDOL; U.S. Bureau of Labor Statistics.

As shown in **Table 2.5** below, in 2035, manufacturing is expected to account for 27 percent of Crisp County employment, up from 14 percent in 2006. Conversely, the service sector is expected to make up 45 percent of county employment, down from 54 percent in 2006. The smallest shares of Crisp County jobs in 2035 are expected to belong to the agricultural/mining/construction and wholesale/warehousing industries.

TABLE 2.5: CRISP COUNTY FUTURE EMPLOYMENT CONSTITUTION

County	AMC	MFG	WTW	RET	SER	Total
Crisp County 2035	**826**	**3,464**	**833**	**1,948**	**5,870**	**12,951**
Share of 2035 county employment	***6%***	***27%***	***6%***	***15%***	***45%***	***100%***

Note: AMC – Agricultural, Mining and Construction employment
MFG – Manufacturing employment
WTW – Wholesale, Trucking and Warehouse employment
RET – Retail employment
SER-Service employment
Source: GDOL; U.S. Bureau of Labor Statistics.

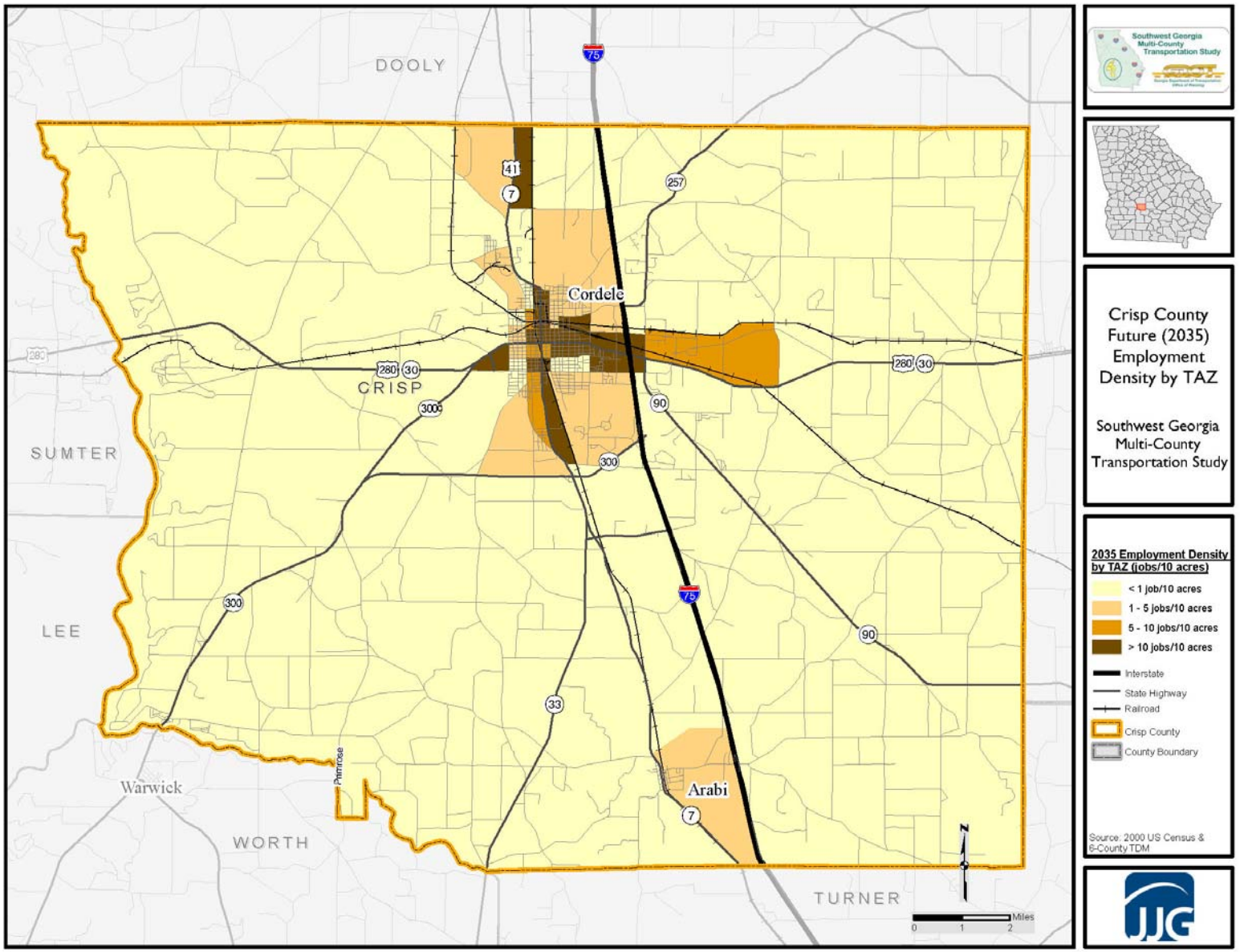
Figure 2.4 on page 11 illustrates Crisp County's future employment density in jobs per ten acres. The areas along US 280 and US 41 in Cordele will continue to be high employment areas. The high employment density area near the border of Dooly County along US 41 is the planned site for the joint Crisp/Dooly County Industrial Park.

In order to forecast employment for the six-county study area in the year 2035, linear growth estimates were developed at the county level based on GDOL 1990 to 2006 annual employment estimates by county. County level employment data for the 17-year period between 1990 and 2006 did not display a clear directional trend; individual county employment rose and fell during the time period. In addition to the linear growth rate, plans for future developments were also taken into account. Employment estimates are based on the assumption that all the currently planned developments will reach build out by 2035.

2.5 ENVIRONMENTAL JUSTICE

Title VI of the Civil Rights Act of 1964 and related statutes assure that individuals are not excluded from participation in, denied the benefit of, or subjected to discrimination under any program or activity receiving federal financial assistance on the basis of race, color, national origin, age, sex, and disability. Executive Order 12898 Federal Actions to Address Environmental Justice to Minority Populations and Low Income Populations, signed by President Clinton requires federal agencies to consider impacts to minority and low income populations as part of environmental analyses to ensure that these populations do not receive a disproportionately high number of adverse human health impacts as a result of a federally funded project.

FIGURE 2.4: CRISP COUNTY FUTURE (2035) EMPLOYMENT DENSITY BY TAZ



In 1998, FHWA issued a guidance document that established policies and procedures for complying with EO 12898 in relation to federally-funded transportation projects. This guidance defines a "disproportionately high and adverse effect" as one that is predominantly borne by, suffered by, or that is appreciably more severe or greater in magnitude than the adverse effect that would be suffered by the non-minority population and/or non-low-income population.

Minority persons are defined as those people belonging to the following groups: Black or African American, American Indian or Alaska Native, Asian, Native Hawaiian or Other Pacific Islander, and Hispanic or Latino Census 2000 defines the first five groups as races, and Hispanic or Latino as an ethnicity. As such, people of this minority group can belong to any racial group but are still considered minorities with respect to Environmental Justice. Low-income persons are defined as those whose median household income is at or below the U.S. Department of Health and Human Services poverty threshold.

Census 2000 data from the P4 (Hispanic or Latino and Not Hispanic or Latino by Race) and P92 (Poverty Status is 1999 of Households by Household Type by Age of Householder) sample datasets were utilized to provide a quantitative analysis of the counties in the study area with respect to minority and ethnic populations and low-income households. Census data are grouped together by geographic area, of which blocks are the smallest and most precise form. The sensitivity of some information requires the Census Bureau to release it in the more general form of block groups. The data for this study were gathered at the most accurate level for which they were available: for race and ethnicity, at the block level; for income, at the block-group level.

2.5.1 MINORITY POPULATION

Table 2.6 below and **Figure 2.5** on page 13 present the percentage of the total population of Crisp County that is made up of racial and ethnic minorities. The population of Crisp County is 46.5 percent minority, higher than the statewide average of 37.4 percent. Some census blocks in the county, most notably on the west side of Cordele, have populations that are 81 to 100 percent minority.

TABLE 2.6: CRISP COUNTY MINORITY POPULATION

	Crisp County	State of Georgia
Total Population	21,996	8,186,453
Minority Population	10,218	3,057,792
Percent Minority	46.5%	37.4%

Source: 2000 US Census

2.5.2 LOW INCOME POPULATION

Table 2.7 below, presents the percentage of households in Crisp County that have incomes under the poverty rate as determined by the US Department of Health and Human Services and reported by the US Census Bureau. Of Crisp County households, 28.3 percent have incomes under the poverty level, higher than the statewide average of 12.6 percent. As can be seen in **Figure 2.6** on page 14, the highest percentage of low income households is found in south and central Cordele.

TABLE 2.7: CRISP COUNTY LOW INCOME POPULATION

	Crisp County	State of Georgia
Total Households	8,346	3,006,369
Households with incomes below the poverty level, 1999	2,366	380,369
Percentage of low income households	28.3%	12.6%

Source: 2000 US Census

FIGURE 2.5: MINORITY POPULATION IN CRISP COUNTY (2000)

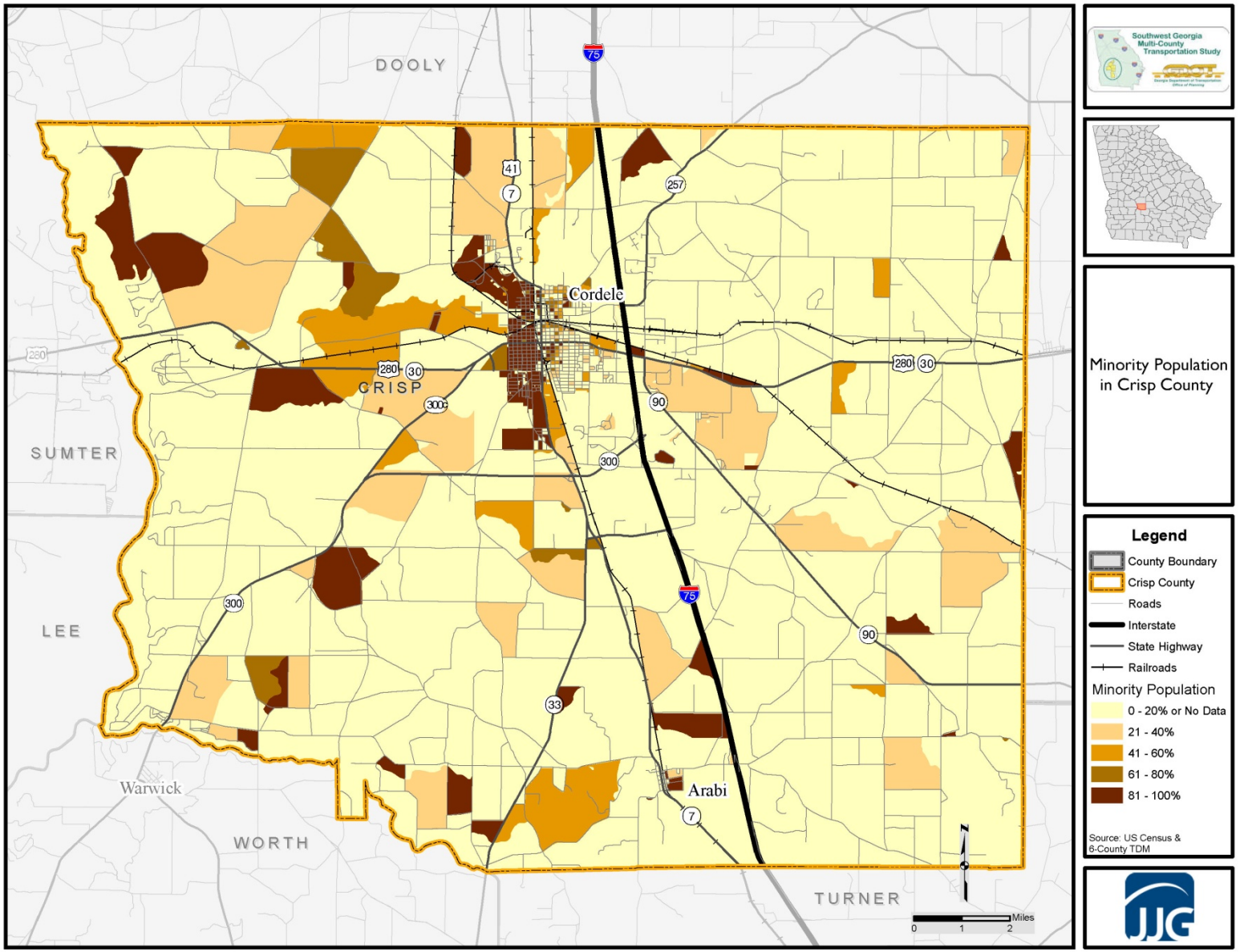
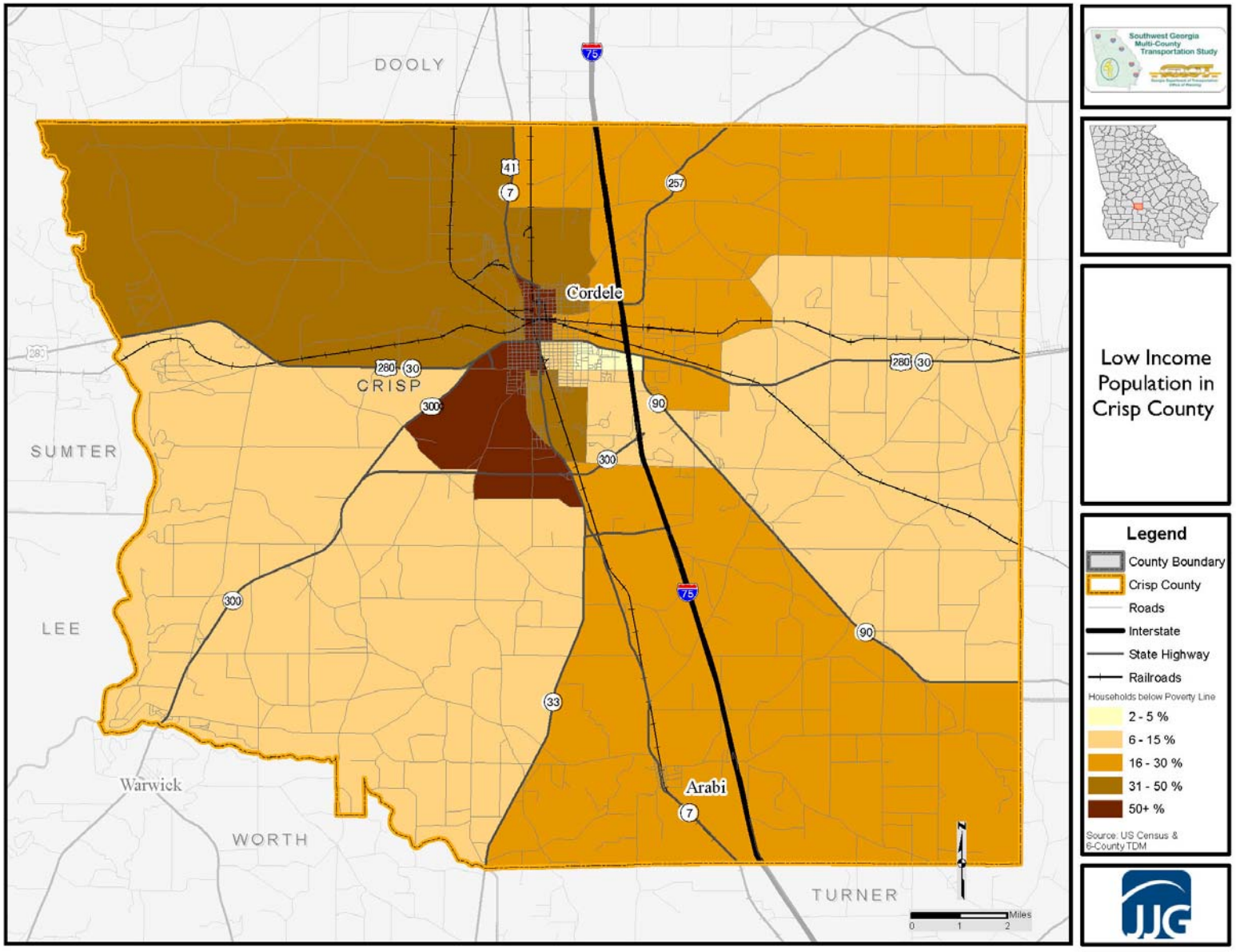


FIGURE 2.6: LOW INCOME HOUSEHOLDS IN CRISP COUNTY (2000)



3. LAND USE

This section presents current and future land use in Crisp County, including protected areas and anticipated development. Parks and wetlands are presented here, but further, detailed analysis of park and wetland resources will be necessary for any transportation project to proceed.

3.1 EXISTING LAND USE

Existing land use within unincorporated Crisp County is dominated by agricultural uses, with additional blocks of lands for parks and recreation, industrial purposes or for transportation, communications, or utilities. Agricultural uses also dominate within the Arabi city limits, with pockets of residential, commercial, public, and industrial uses also present. Agriculture has less of a presence within the larger city of Cordele, which, in addition to those land uses found in Arabi, also possesses parks and recreational land. A map of existing land use in Crisp County can be found in **Figure 3.1** on page 16.

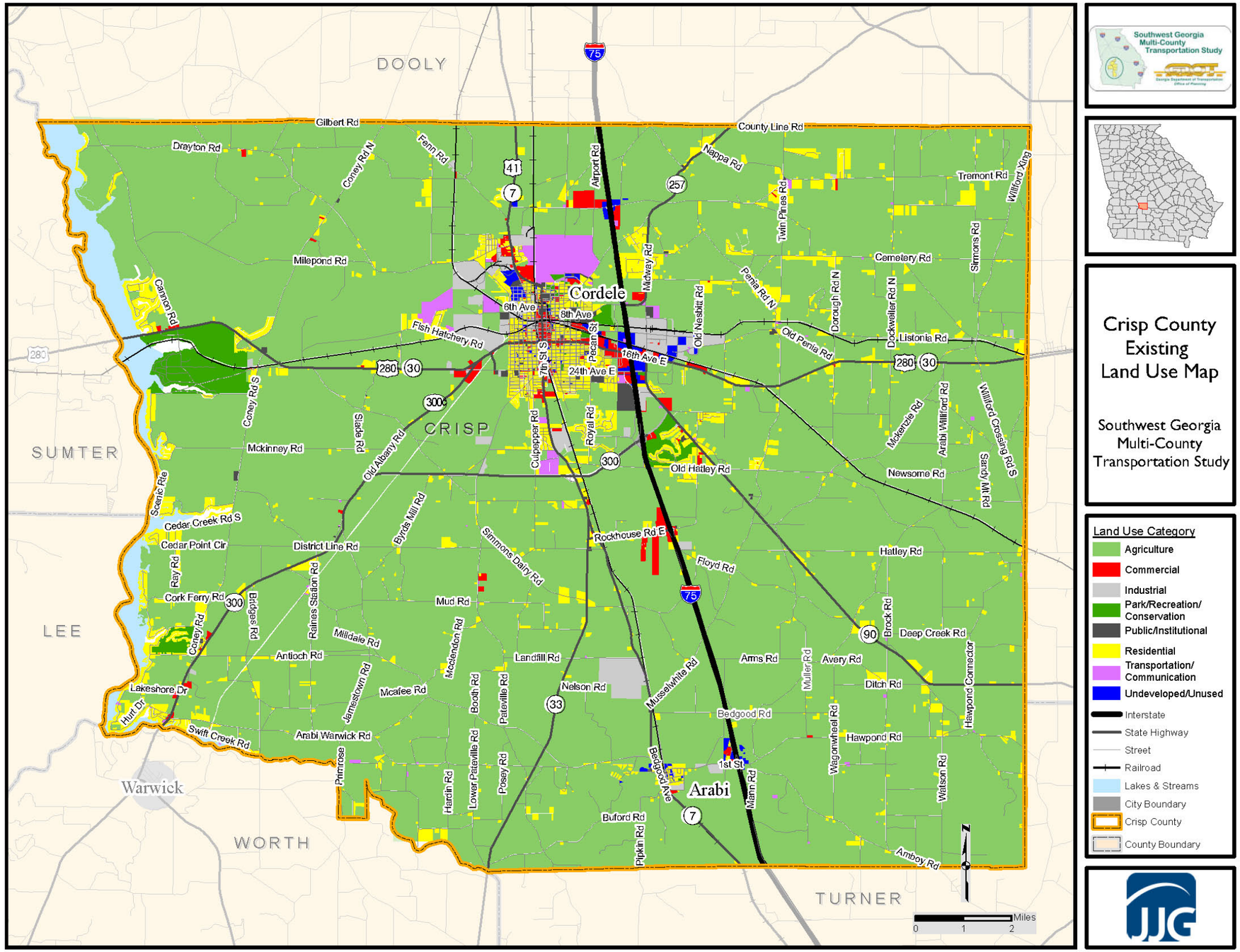
3.2 FUTURE LAND USE

According to the Crisp County Comprehensive Plan (2009), land use is expected to change most rapidly at the I-75/SR 300 interchange, in southern Cordele, and in the Smoak Bridge area near southern Lake Blackshear by 2029. The first area is expected to experience additional commercial development, due to its access to the Interstate and SR 300, a major four-lane state highway, while the second is expected to experience additional residential growth along with the secondary retail and commercial uses that would support it.

The Crisp County *Community Assessment* states that all entrances to Cordele, on US 41, US 280, and 24th Avenue are in need of redevelopment. The oldest residential section of the city and the historic downtown are also in need of redevelopment, as is the corridor along which the excursion train travels. In Arabi, the northern and southern gateways, along with the downtown area, need redevelopment. Significant infill opportunities are expected to be present to the east of Arabi, where the city's water service extends to I-75, but where the city is currently undeveloped. Cordele has extended utility service to relatively distant development and the areas between and around those developments also present opportunities.

East of Cordele & I-75, there is a proposed Inland Port being pursued that could, if developed, have a significant impact on transportation patterns in the area. If the Inland Port is constructed, its effects on transportation and land use in Crisp County should be studied. The Lake Blackshear area in Crisp and Sumter Counties is expected to continue to draw new residential development, primarily for those workers who commute to Albany via SR 300.Furthermore, Crisp County is working on its *Community Agenda*, the final section of its new comprehensive plan, at this time. The new plan is expected to reflect current trends and define growth for the county into the future. At the time of this writing, however, the future land use plan for Crisp County was not yet available.

FIGURE 3.1: CRISP COUNTY EXISTING (2009) LAND USE



3.3 PROTECTED AREAS

Protected areas are locations which receive protection because of their environmental, cultural or similar value. A large number of protected areas exist which vary by level of protection and by the enabling laws. Examples include parks, reserves, wetlands, wildlife management areas (WMAs), natural areas (NAs), and places and structures of a historic nature. The identification of environmental resources and parks is important in the preparation of a transportation study for two main reasons. First, the preservation of these resources is important to all local, state, and federal stakeholders. Second, the early identification of resources is important when developing transportation plans since their existence could serve to preclude potential transportation facilities or alignments. This discussion focuses on parks, wetlands, and historic locations.

3.3.1 PARKS/PROTECTED NATURAL AREAS

The Georgia Veterans State Park is located in Crisp County. **Figure 3.2** on page 18 presents the location of this Georgia State Park. There are no national parks or designated wildlife management areas or natural areas within Crisp County.

3.3.2 WETLANDS

Wetlands are defined as areas inundated or saturated by surface or groundwater at a frequency and duration sufficient to support, and that under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions. Wetlands generally include swamps, marshes and bogs. Federal law and the Georgia Planning Act require protection of wetlands and other natural resources from adverse impact. Because of this, the Georgia Department of Natural Resources maintains a database that defines, identifies, and maps the categories of freshwater wetlands and habitats. **Figure 3.2** depicts the location of wetlands, rivers, open waters, and locations of key protected areas in Crisp County.

3.3.3 NATIONAL REGISTER OF HISTORIC PLACES

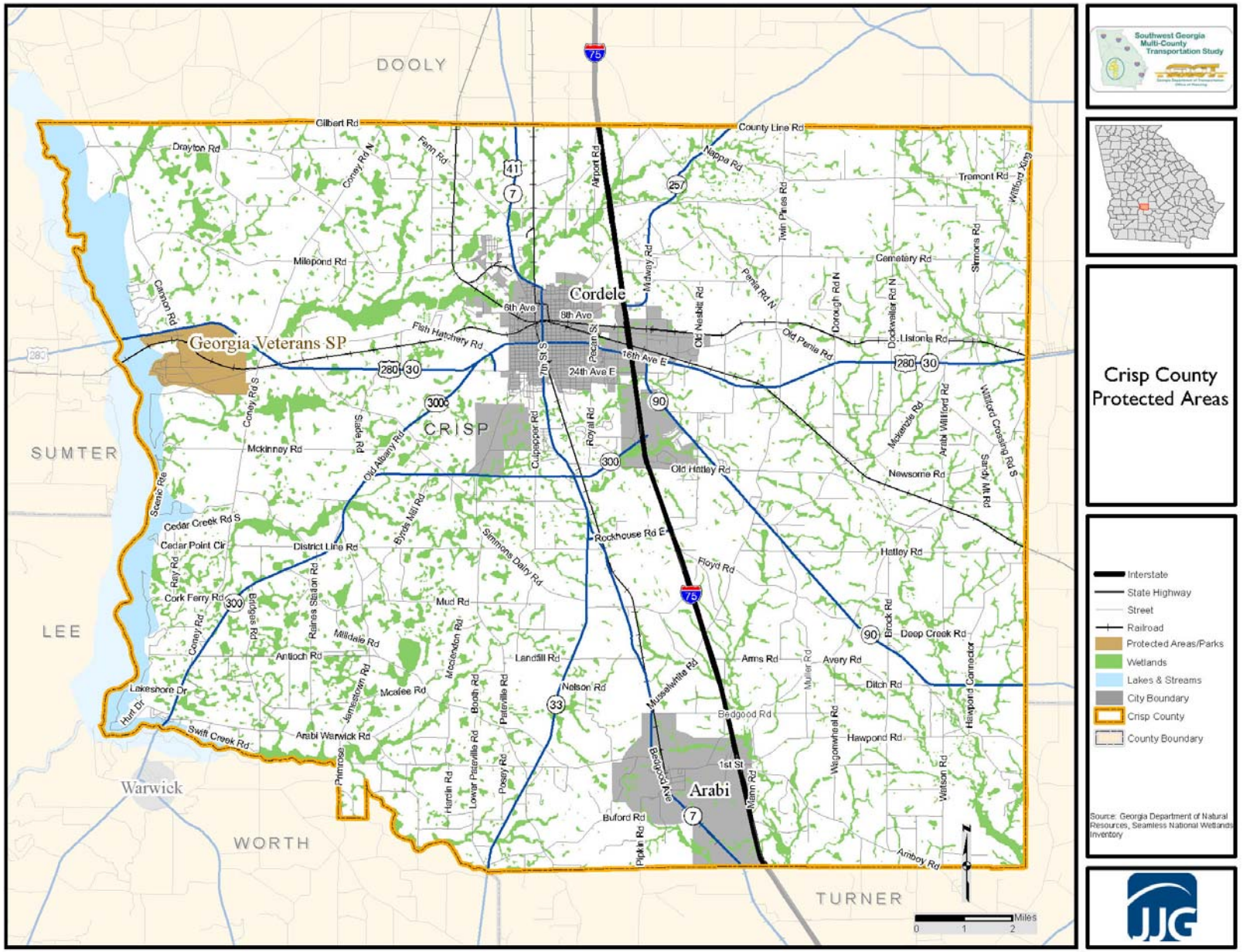
According to the National Register of Historic Places (NRHP), Crisp County contains five places deemed worthy of preservation. **Table 3.1** below, presents the five locations within Crisp County included in the National Register of Historic Places.

TABLE 3.1: CRISP COUNTY HISTORIC PLACES

City	Location	Address
Cordele	Cannon Site	Address Restricted
Cordele	Cordele Commercial Historic District	Roughly bounded by Sixth Ave., Sixth St., Ninth Ave., and Fourteenth St.
Cordele	Gillespie--Selden Historic District	Roughly bounded by Railroad, 10th, and 15th Sts., and 16th Ave.
Cordele	O'Neal School Neighborhood Historic District	Roughly bounded by the Seaboard Coastline Railroad, Owens St. 16ht Ave. and 6th St.
Cordele	US Post Office--Cordele	102-104 6th St.

Source: National Register of Historic Places

FIGURE 3.2: CRISP COUNTY WETLANDS, PROTECTED AREAS, AND PARKS (2009)



3.4 DEVELOPMENTS OF REGIONAL IMPACT

A review was performed for applications for Developments of Regional Impact (DRI) within Crisp County filed since 2001 that have been approved or are still pending. DRIs are large-scale projects that are likely to have regional impacts, beyond the boundaries of the local governments of their locations. DRIs are included in this study because, due to their size and/or nature, they can have transportation implications for the regional roadway network.

DRI applications are reviewed by the Regional Commissions, which issue a finding of whether or not the proposed project is in "the best interest of the Region and therefore the State." The local government uses this recommendation in deciding whether to allow the project to proceed. This process is overseen by the Georgia Department of Community Affairs. Analysis of the application list in **Table 3.2** below reveals that the proposed DRI land uses mirror the mix of residential and industrial development typically found in Crisp County. These DRI developments are not expected to place undue strain on the roadway network.

TABLE 3.2: DRI APPLICATIONS IN CRISP COUNTY SINCE 2001

DRI ID	Project	Type	Location	Initial Info Sub. Date	Current Status	RC Finding: In the best interest of the region?	Expected time frame: This phase/ Overall project	Total Estimated Traffic Volume
1484	Recycle USA, Inc./U.S. Ethanol, LLC	Industrial	Uninc. Crisp County	6/20/07	Initial Form Submitted	Pending	July 2007/NA	NA
920	Lake Blackshear Plantation	Mixed Use	Cordele, Crisp Co.	9/21/05	Complete	Yes	NA /2015-2017	360
894	Lake Blackshear Plantation	Housing	Cordele, Crisp Co.	8/19/05	Initial Form Submitted	Pending	NA / 2015-2017	NA

Source: Department of Community Affairs

4. TRANSPORTATION INVENTORY

This section presents an inventory of existing transportation facilities within Crisp County. This inventory includes roadway functional classifications, surfaces, and lane configurations, bridges, pedestrian and bicycle facilities, railroads, public transportation services, and safety of roadway segments and intersections.

4.1 ROADWAY INVENTORY

4.1.1 FUNCTIONAL CLASSIFICATION

Functional classification is the process by which street and highway facilities are grouped into classes, or systems, according to the character of traffic service that they are intended to provide. The functional classification designation of a given road also determines whether it is eligible for federal funds. Federal-aid roads are:

- Principal arterials,
- Minor arterials,
- Urban collectors, and
- Rural major collectors.

In addition, rural minor collectors can be eligible for federal funds. Urban or rural local roads are not eligible for federal-aid.

The hierarchy of roadway networks is defined by the role each type of road serves meeting access and mobility requirements within the system. The role of a local road is to provide access to land, with little emphasis on system mobility. Conversely, arterials emphasize a high level of mobility, serving long trips between activity centers with little concern for land access. Collectors offer a balance between mobility and land access, and provide connections between local roads and streets and arterials.

Urban and rural areas have fundamentally different characteristics as to density and types of land use, density of street and highway networks, nature of travel patterns, and the way in which all these elements are related in the definitions of highway function. The following section describes the differences in roads for rural and urban areas.

Functional Systems for Rural Areas

Rural principal arterials typically serve substantial statewide or interstate travel. These continuous facilities emphasize regional mobility and connect larger urban areas. These roads are designed for a relatively high rate of speed and often have limited access to adjacent land uses and street networks. Rural principal arterials are comprised of Interstate facilities as well as major rural highways. Rural minor arterials, in conjunction with rural principal arterials comprise a rural network that connects cities with towns. While generally not designed with limited or controlled access, these facilities allow for higher speeds and mobility than provided by collector roadways.

Rural major and minor collectors generally serve travel of primarily intra-county, rather than statewide or regional importance. These facilities provide a balance between mobility and land access. Trip length is therefore generally shorter than rural arterials and posted speeds generally more moderate than rural arterials.

Rural local roads typically provide access to adjacent land and provide service to travel over shorter distances than collector and higher order systems. Rural local roads represent the largest type of road network within Crisp County.

Functional Systems for Urban Areas

Urban principal arterials serve the major centers of activity in a metropolitan area, are corridors with the highest traffic volumes, and serve the longest urban trips. These facilities carry a high proportion of the total urban area travel. Urban principal arterials should carry the major portion of trips entering and leaving the urban area, as well as the majority of through movements desiring to bypass the city centers. Characteristics of these roads include partially and fully controlled access and high speeds.

The urban minor arterial street system should connect to and support urban principal arterials and provide slightly lower mobility than the principal arterials. These usually serve a smaller geographic area and provide some local access. Urban minor arterials are usually lower speed facilities and generally do not have limited or controlled access.

Urban collectors provide land access service and traffic circulation within residential neighborhoods, commercial and industrial areas. This classification of street is typically designed to distribute trips from the arterials to their ultimate destination. Speeds on these streets are relatively moderate.

Urban local streets comprise all facilities not on one of the higher systems. These streets serve primarily to provide direct access to abutting land and to the higher order systems. Speeds are typically low and through traffic movement is usually discouraged.

These classifications allow the safety of facilities across the state of Georgia to be evaluated relative to other facilities of similar design, traffic volumes and purpose. GDOT is responsible for collecting performance information from local and state reporting agencies for street and highway facilities. In most cases, GDOT also provides the functional classifications for state road facilities. Typical information collected includes Average Annual Daily Traffic (AADT); accident locations and equipment involved injuries and fatalities.

Functional Classification

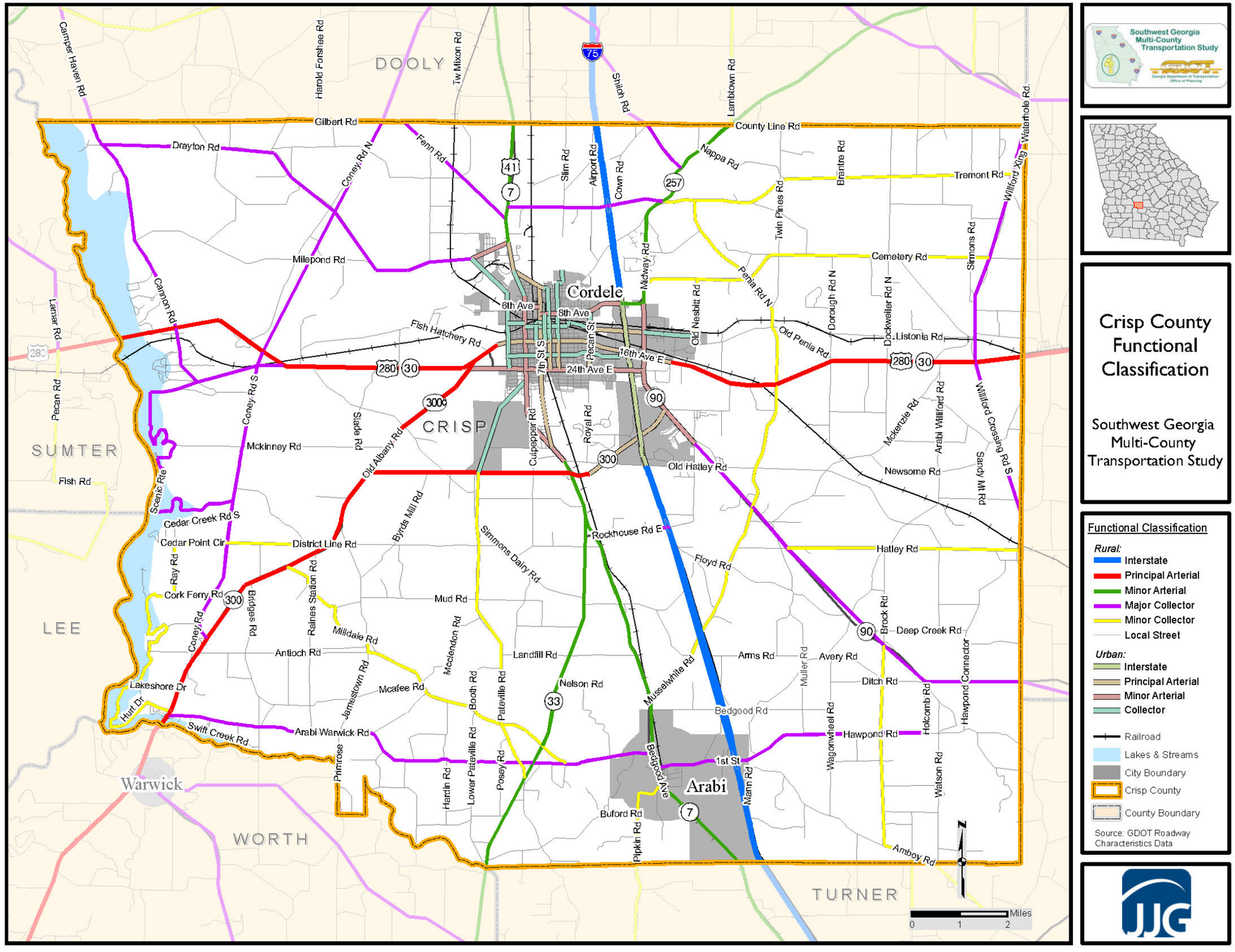
Figure 4.1 on page 22 presents the Crisp County roadways by functional classification. Although Interstate 75 represents less than three percent of the total roadway mileage in Crisp County, it carries almost 48 percent of the county VMT. **Table 4.1** below**,** presents the mileage and VMT for each functional classification in Crisp County.

TABLE 4.1: FUNCTIONAL CLASSIFICATIONS IN CRISP COUNTY

	Rural Roadways		Urban Roadways	
	Mileage	**VMT**	**Mileage**	**VMT**
Interstate	12.10	502,733	3.76	171,503
Arterial	54.34	254,031	22.40	131,375
Collector	146.86	93,066	21.21	41,722
Local	336.74	110,188	102.81	102,541
Road Total	550.04	960,017	150.18	447,142

Source: GDOT Office of Transportation Data Mileage by Road Type and Road System

FIGURE 4.1: CRISP COUNTY ROADWAY FUNCTIONAL CLASSIFICATIONS (2008)



4.1.2 ROAD SURFACE

The surface type of a road determines capacity of a facility, its maintenance requirements, and the uses of its surrounding land. Of all Crisp County roads, 22 percent are unpaved. Overall, Crisp County has a slightly higher percent than the state average for unpaved roads. The majority of these unpaved roads are operated and maintained by Crisp County. **Table 4.2** below, presents the road mileage for by surface type.

TABLE 4.2: CRISP COUNTY ROAD MILEAGE BY SURFACE TYPE

	Crisp County			State Totals		
Road Type	Total Mileage	Unpaved	Percent Unpaved	Total Mileage	Unpaved	Percent Unpaved
State Routes	95	0.0	0.0%	18,096	1	0.0%
County Roads	519	224	43.2%	84,558	27,986	33.1%
City Streets	86	1	1.2%	14,584	486	3.3%
Road Total	700	225	22.0%	117,238	28,473	24.3%

Source: GDOT Office of Transportation Data 2007

4.1.3 LANE CONFIGURATION

Another important attribute reviewed from GDOT's RC database is the number of lanes provided on each road in Crisp County. Roads in the county primarily serve traffic in both directions. Additionally, the majority of the roads in the county are two-lane facilities. **Figure 4.2** on page 24 illustrates the number of lanes on Crisp County roadways as well as signal locations.

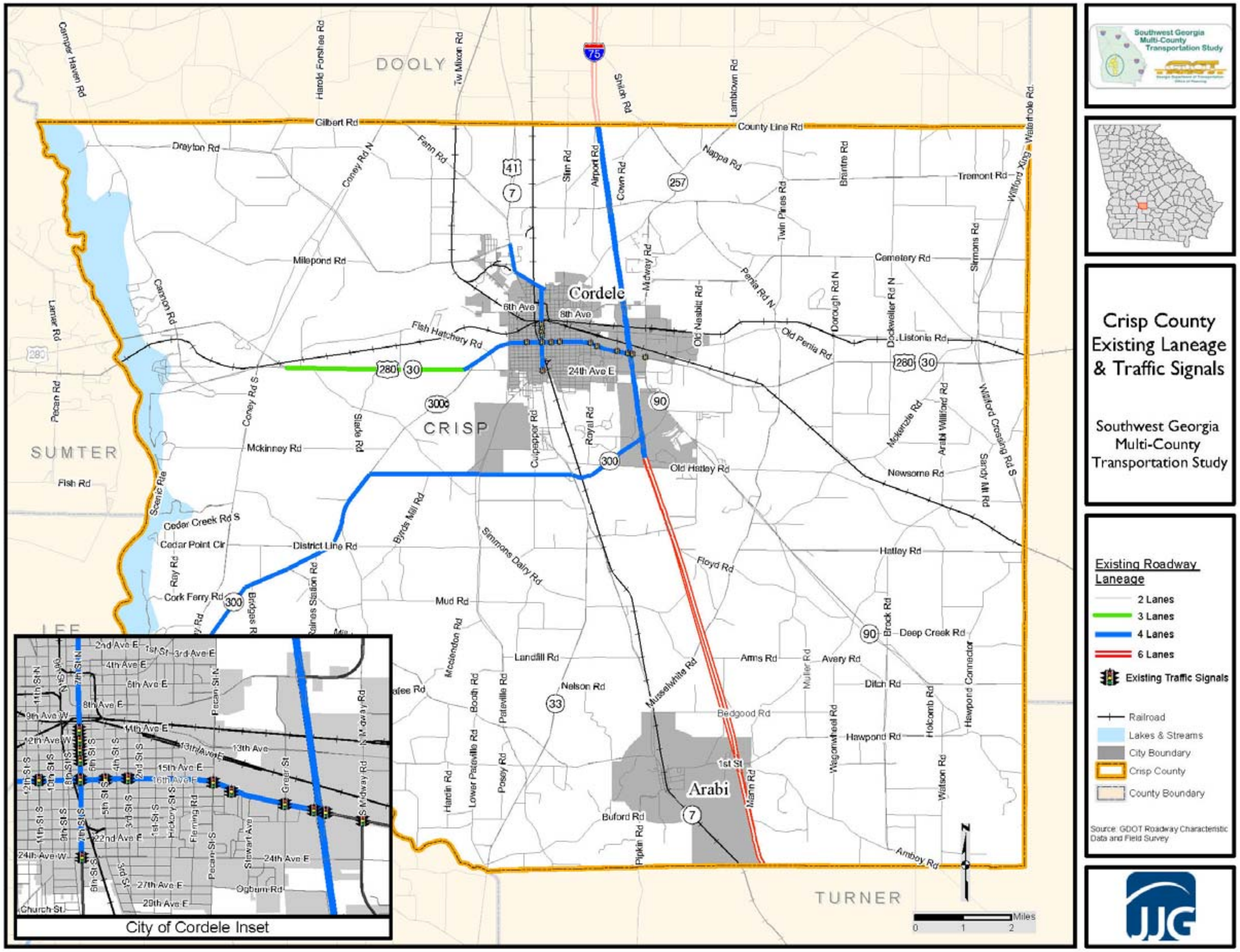
4.2 BRIDGE INVENTORY AND CONDITIONS ASSESSMENT

The following section will provide an analysis of current bridge conditions relative to sufficiency and importance to the overall roadway network in the study area. Maintaining bridges in good condition is important for safety and to avoid delays due to road closures and weight limits. The bridge sufficiency rating formula was created in part as a universally accepted method of collectively evaluating factors which indicate a bridge's condition and its ability to remain in service. The result of the standardized formula is a number between zero and 100, for which 100 represents an entirely sufficient bridge and zero represents an entirely insufficient or deficient bridge.

The collective factors which form a sufficiency rating are collected by GDOT and submitted to the Federal Highway Administration (FHWA) on an annual basis. Key factors which make up a sufficiency rating include the number of lanes relative to the roadway it carries, AADT, structural condition and deck condition.

It is important to note that sufficiency ratings do not necessarily indicate a bridge's ability to safely carry traffic loads. Measures used to determine a bridge's sufficiency also include metrics not related to the structural integrity. Factors that are used to calculate sufficiency that are not related to structural integrity include under-clearances, the bridge's location on the national highway system, conditions of the bridge approaches, and traffic safety features, like railing height, and the length of a detour should the bridge be closed. In total, there are 18 key factors used to calculate sufficiency ratings.

FIGURE 4.2: CRISP COUNTY EXISTING LANEAGE AND TRAFFIC SIGNALS (2008)



The Highway Bridge Program uses sufficiency ratings to help prioritize bridges in need of repair or replacement. The Highway Bridge Program is authorized and funded by the Safe, Accountable, Flexible, Efficient Transportation Equity Act: A Legacy for Users (SAFETEA-LU). To qualify for federal replacement funds, a bridge must have a rating of 50 or below. Bridges with a sufficiency of 50 to 80 meet the minimum qualifications for rehabilitation funding. Rehabilitation can include maintenance or repair of bridge decks, expansion joints, bridge railings, foundations, piers, etc. Bridge rehabilitation can be a cost efficient solution for bridges with sufficiency ratings below 50 if it can be demonstrated that the rehabilitation will improve the bridge to an acceptable sufficiency rating. It should be noted that bridges that qualify for federal funding by their sufficiency ratings are not guaranteed to receive such funds.

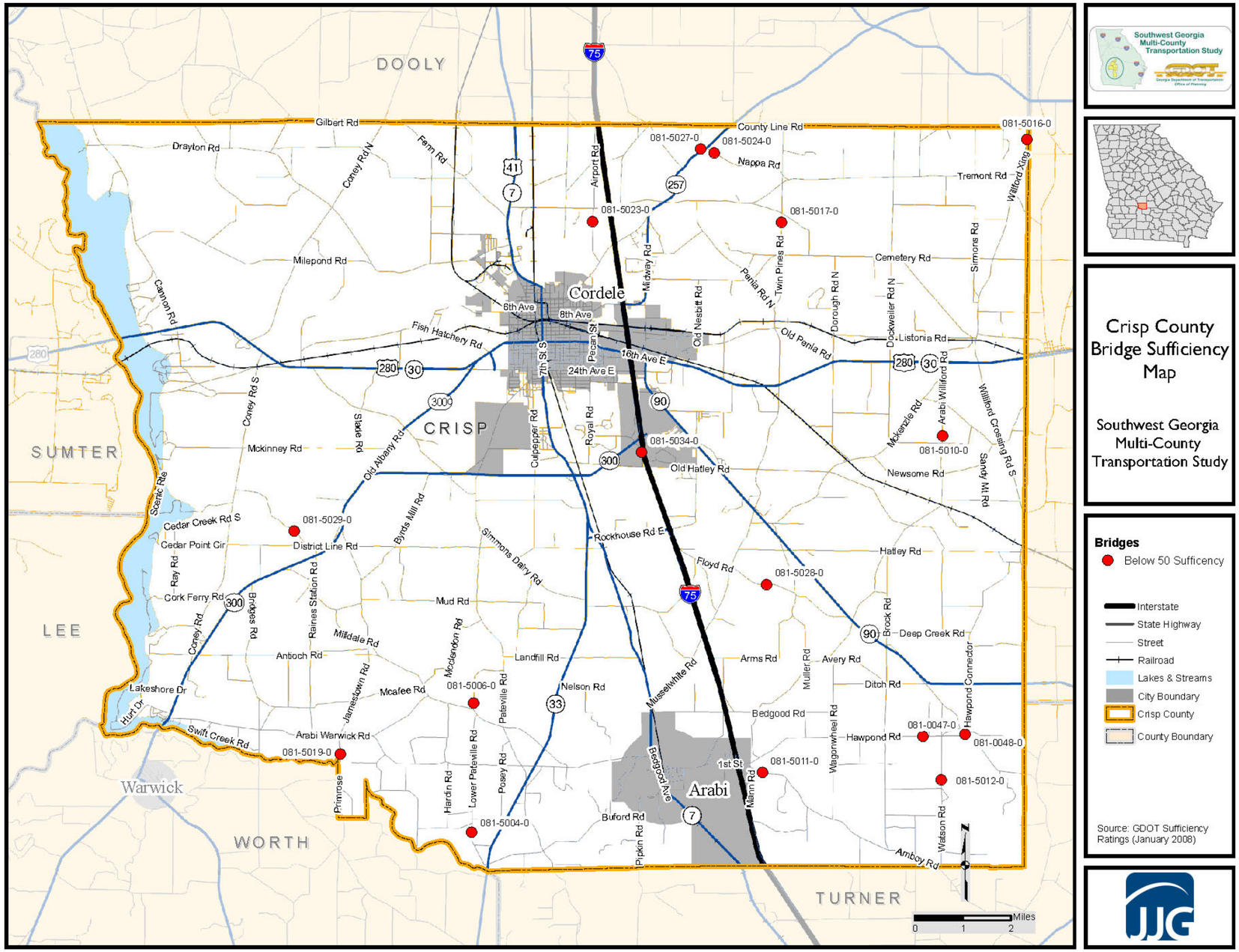
Crisp has 16 bridges, or approximately 24 percent of bridges in the county, with sufficiency ratings of less than 50, meeting the minimum requirements for FHWA replacement funding. None of these bridges are on the State Route system. See **Table 4.3** below and **Figure 4.3** on page 26**.** It should be noted that replacing the bridge on Amboy Road over Lime Creek is in GDOT's planned and programmed projects.

TABLE 4.3: CRISP COUNTY BRIDGES WITH SUFFICIENCY RATINGS BELOW 50

Bridge Serial Number	Facility Carried	Feature Intersected	Sufficiency	Year Built	On State Route System?	PI Number?
081-5012-0	Watson Road	Reedy Branch Tributary	20.32	1950	No	No
081-5006-0	Booth Road	North Branch Swift Creek	20.49	1949	No	No
081-0048-0	Hawpond Road	Deep Creek	22.72	1930	No	No
081-5011-0	Amboy Road	Lime Creek	26.23	1930	No	0002229
081-5034-0	Frontage Road	Cedar Creek Tributary	26.48	1932	No	No
081-5004-0	Lower Pateville Road	Swift Creek Tributary	27.84	1932	No	No
081-0047-0	Hawpond Road	Reedy Branch	28.87	1930	No	No
081-5010-0	Arabi Williford Road	Deep Creek Tributary	38.18	1936	No	No
081-5019-0	Primose Br Road	Swift Creek	39.36	1930	No	No
081-5029-0	Slade Bridge Road	Cedar Creek	39.99	1938	No	No
081-5023-0	Airport Road	Gum Creek	40.56	1945	No	No
081-5017-0	Twin Pines Road	Gum Creek Tributary	42.08	1936	No	No
081-5024-0	Nappa Road	Gum Creek	43.01	1936	No	No
081-5027-0	Justice Road	Gum Creek Tributary	43.04	1936	No	No
081-5016-0	Williford Crossing	Alapaha River	46.69	1932	No	No
081-5028-0	Floyd Road	Lime Creek	49.04	1936	No	No

Source: GDOT January 2008

FIGURE 4.3: CRISP COUNTY BRIDGES SUFFICIENCY (2008)



4.3 PEDESTRIAN AND BICYCLE FACILITIES

The information in this section regarding existing and planned bicycle and pedestrian facilities comes from the *Middle Flint Regional Bicycle and Pedestrian Plan* (2005), which was prepared by the River Valley RC and submitted to GDOT in 2005, and from GDOT planned and programmed projects. Planned near-term pedestrian and bicycle facility improvements are included in GDOT's State Transportation Improvement Program (GDOT STIP) 2008-2011 and Work Program. The nature of the GDOT STIP (2008-2011) and Work Program are covered in the GDOT Planned and Programmed Improvements Section presented later in this document.

4.3.1 EXISTING BICYCLE AND PEDESTRIAN FACILITIES

Sidewalks are generally available in the cities and towns of Crisp County, particularly in their historic centers and older neighborhoods. For recreation, there are the one-mile long Yucca Trace and half-mile long Lake Shore pedestrian trails in the Georgia Veteran's Memorial State Park in eastern Crisp County. More walking and jogging paths are available in the City of Cordele at the Crisp County Hospital, the Williams Field Athletic Complex, Crisp County High School, Harmon Park, and Turner Park.

State Bicycle Route 15 runs along US 41 north-south through Dooly and Crisp Counties, and is the only bicycle route in these counties. Study area bicycle facilities are mainly limited to those roads which are designated state bicycle routes. The state bicycle route designation does not imply access to bicycle facilities, and shared bicycle and vehicular traffic should be expected along these routes. Furthermore, there are no signs that mark roadways as state bicycle routes. Existing bicycle routes in the six-county study area are mapped in **Figure 4.4** on page 28.

4.3.2 PROPOSED BICYCLE AND PEDESTRIAN FACILITIES

Bicycle and pedestrian recommendations within Crisp County are cataloged **in Table 4.4**, below. Proposed bicycle routes are mapped in **Figure 4.4**.

TABLE 4.4: BICYCLE AND PEDESTRIAN RECOMMENDATIONS IN CRISP COUNTY

Source	County	Facility Type	Recommendation
River Valley RC	Crisp	Bike	New bicycle route along SR 90 from Montezuma, in Macon County, to Vienna, in Dooly County, by way of Byromville and Lilly.
River Valley RC	Crisp and Sumter	Bike	New bicycle route along US 280 from Americus, in Sumter County, to Cordele, in Crisp County, by way of Leslie and DeSoto.
River Valley RC	Crisp and Dooly	Bike	New bicycle route from Byromville, in Dooly County, to US 280, in Crisp County.
River Valley RC	Crisp	Bike	New bicycle route from Cordele to eastern Crisp County Line.
GDOT	Crisp	Ped	Streetscapes in Cordele

Source: *Middle Flint Regional Bicycle and Pedestrian Plan (2005)*

4.4 RAILROADS

Historically, a number of thriving communities within the six-county study area were established along the railroad lines at key locations to serve commerce. Today, a number of these railroads continue serving the study area. Please see **Figure 4.5** on page 29 for a map of these railroads in the study area.

FIGURE 4.4: EXISTING AND PROPOSED BICYCLE ROUTES IN THE SIX-COUNTY STUDY AREA (2009)

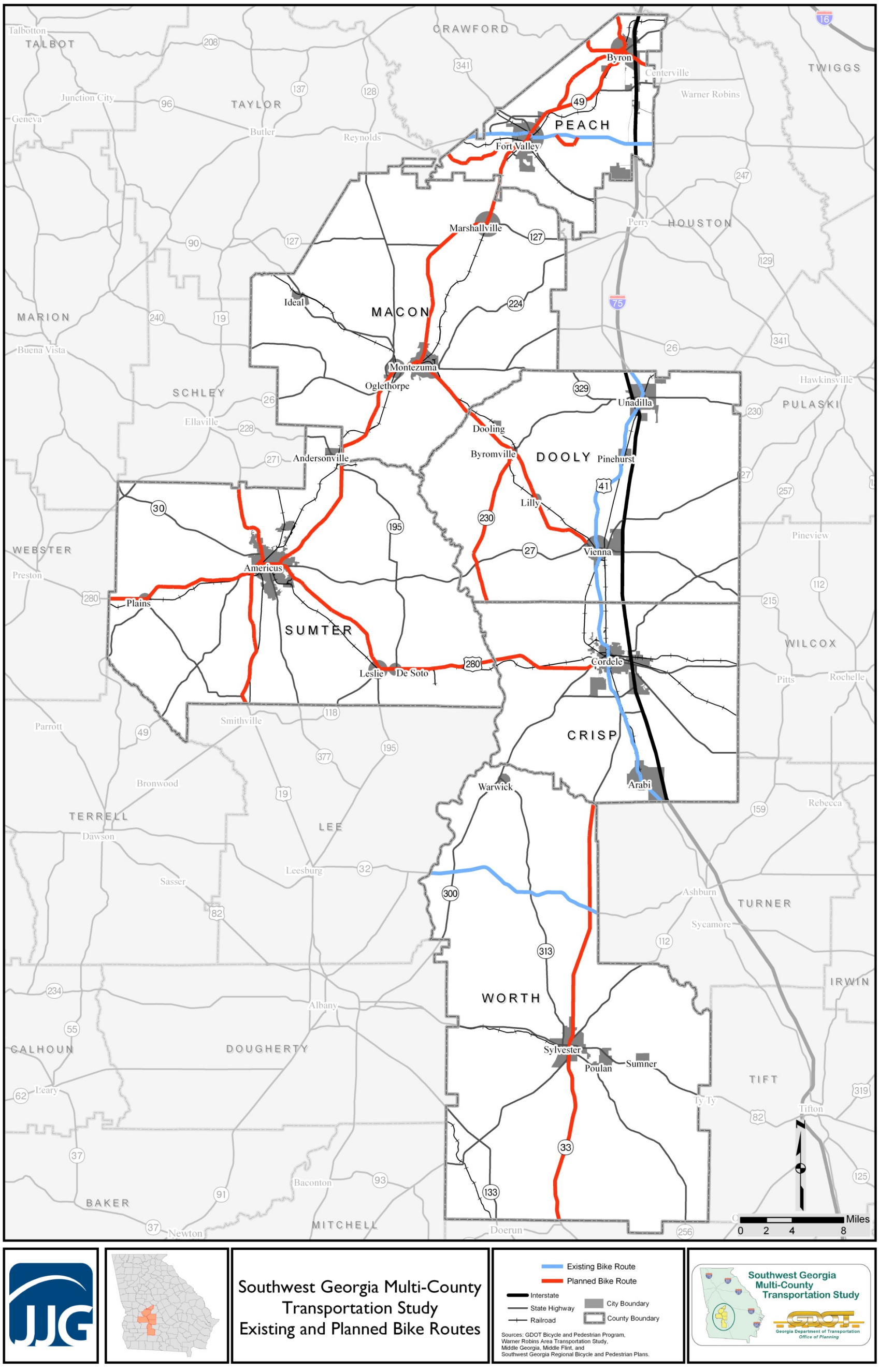
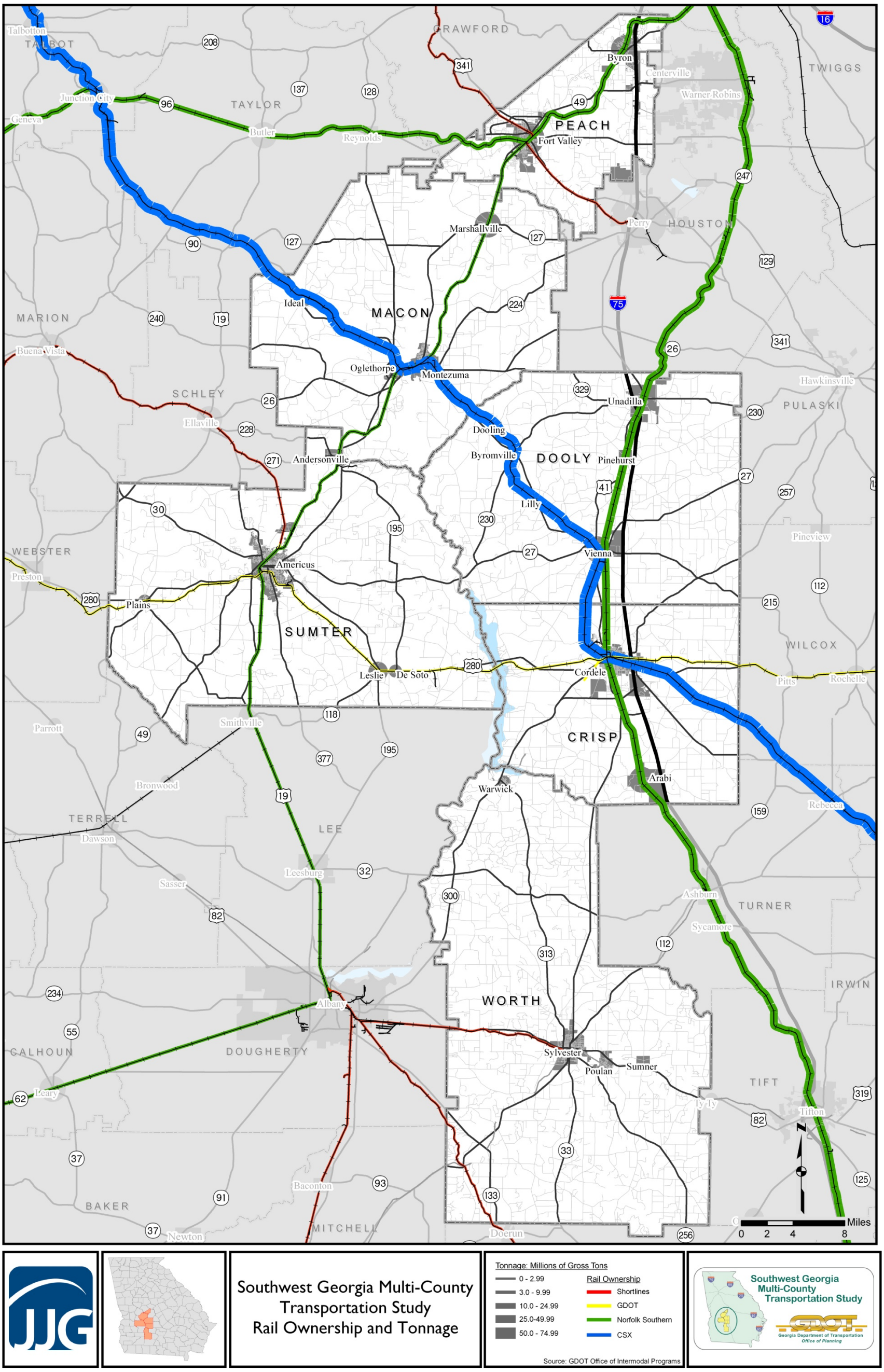


FIGURE 4.5: RAIL OWNERSHIP AND TONNAGE (2005)



Crisp County is served by three rail lines, all of which pass through Cordele. The first is the Norfolk Southern's Georgia Southern and Florida line which connects Jacksonville, Florida to Cincinnati, Ohio. This line also links to the Norfolk Southern yards in Valdosta, Macon and Atlanta. In Crisp County, this line passes from Ashburn, in Turner County to the south, through Arabi and Cordele, and then north to Vienna in Dooly County.

The second line is operated by CSX and connects the Waycross Yard in Southeast Georgia to the Atlanta region via Cordele, Vienna and Montezuma. This line represent's CSX main operation of moving freight north and west from the Ports of Savannah, Brunswick and Jacksonville. In Crisp County, this line passes from Rebecca, to the west in Turner County, through Cordele and then north to Vienna in Dooly County.

The third is the short line Heart of Georgia Railroad, which is owned by GDOT and operated by Atlantic Western Transportation. It operates between Mahrt, Alabama and Vidalia, Georgia via Cordele and Americus. The SAM Short line Excursion Train uses this same line and provides scenic, non-commuter service between Archery and Cordele.

4.5 PUBLIC TRANSPORTATION

Rural transit service can take the form of fixed-route, demand-responsive, or deviated fixed-route. A fixed-route system operates along a particular route according to a fixed schedule, such as a typical city bus service. A demand responsive system could include van services and shuttle bus systems that provide services only when or where they are required. Deviate fixed-route service combines aspect of both types of service by breaking from fixed-route service to make trips at other times or locations when requested.

Rural public transportation service is often infrequent and is designed to accommodate persons traveling for medical, shopping and other personal business needs rather than commuting. Service tends to be catered to the individual due to the clientele and number of requested trips. Service is usually open to the general public unless otherwise noted. Service hours tend to be limited to weekdays, with schedules designed to allow for same day return trips on days service is provided. Crisp County Transit provides transit service within Cordele and Dooly-Crisp Unified Transportation System (DCUTS) ((229) 268-7433) provides transit to the county.

4.6 SAFETY

Crashes occur most frequently at intersections, but can also occur along segments of a street or highway for many different reasons. Understanding where and why crashes occur is useful in measuring relative need and prioritizing projects. To pursue this end, crash data were analyzed using three distinct approaches.

First, a county analysis was conducted which compared crashes within each county to that of the state, per population, for the years 2000-2007. This analysis provides a generalized tool which compares each county relative to the likelihood of a crash occurring.

Second, an analysis was completed by road segment. Segment termini were established by using county lines, termini of a roadway facility, or location where a facility type changed. An example of a segment terminus would be the location where an urban arterial road facility type changed to a rural arterial, or from a local collector to an arterial, etc. Segments with crash rates higher than the state rate per 100

million vehicle miles (MVM) for their respective facility type were identified and noted. This analysis was conducted using the year 2007 data.

Facilities with high crash rates were compared to the statewide averages for their respective functional classifications. Functional classifications analyzed in this study were Urban Interstate, Rural Interstate, Urban Principal Arterial, Rural Principal Arterial, Rural Minor Arterial, Urban Collector, and Rural Major Collector.

Rates were normalized for each segment by comparing crashes per 100 million vehicles miles (MVM). Crash, injury and fatality rates were compared against the average of similar facilities across the State of Georgia, as is industry standard.

The third process used to analyze crash information identified intersections throughout the six-county study area with consistently high numbers of reported crashes annually. GDOT funds the use of Critical Analysis Reporting Environment (CARE) software for crash data analysis in Georgia. CARE software was used in this study to examine reported crashes and their respective locations for the years 2000-2007. Intersections which averaged higher than five crashes per year between 2000 and 2007 were considered to experience relatively high crash rates.

High crash rates at intersections are generally the result of high traffic volumes and congestion, not poor intersection geometry. In almost all instances, high crash rate intersections are on the most heavily travelled roadways within a county. When intersections with safety concerns are identified by local input or field investigation, these intersections are compared with the list of high crash intersections in order to identify whether operational or geometric improvements are necessary.

Crisp County averaged approximately two crashes per day between the years 2000 and 2007, or 35.7 crashes annually per 1,000 people, just below the state average of 37.8. In each year observed, Crisp consistently experienced a lower rate than the state on average. During the same time period, Crisp County experienced 786 crashes, 423 injuries and 8.8 fatalities annually.

Five segments of the Crisp County road network experienced the same or higher crash rates than statewide averages. Segments identified in the network include portions of Interstate 75, State Route 7/US 41 and County Route 231. **Table 4.5** below**,** details segments and associated statistics. I-75 is in the Interstate system, and US 41/SR 7 is on the National Highway System. County Route 231 is not on the State Route System, therefore any projects or safety improvements made to CR 231 may not be the responsibility of GDOT.

TABLE 4.5: 2007 CRISP COUNTY CRASH RATES BY ROADWAY SEGMENT

Roadway			**Crashes**	**Crash Rate (per 100 million vehicle-miles (MVM))**		**Injuries**
GDOT Route Number	Functional Classification	Beg MP - End MP	Number	Crisp County Road Segment	Statewide Avg.	
I-75	Rural Interstate	12.5 - 16	34	57	50	44
SR 7/US 41	Rural Minor Arterial	0.0 - 3.9	4	230	154	2
SR 7/US 41	Rural Minor Arterial	3.9 - 11.5	11	154	154	6
SR 7/US 41	Urban Minor Arterial	11.5 - 14.5	35	524	404	15
CR 237 (Pecan St.)	Urban Collector	1.9 - 3.5	15	580	381	2

Source: CARE Data 2000-2007

Five intersections in Crisp County were identified as having a more than five crashes per year between 2000 and 2007. All of these intersections in Crisp County are found within the city limits of Cordele and include at least one roadway on the State Route system. The majority of high crash intersections were located along 16th Avenue (State Route 30) at 3rd, 5th, Pecan and Greer Streets. The other location was 7th (State Route 7) at West 17th Avenue. These hotspot intersections are listed in **Table 4.6** below, and shown in **Figure 4.6** on page 33. Intersections are difficult to compare to one another over time and space, due to the differences in roadway types, intersection geometries, and factors such as signalization and sight-distance. GDOT maintains statewide crash rates for intersections by type; however, for the purposes of this study, intersection crash rates were compared within the county.

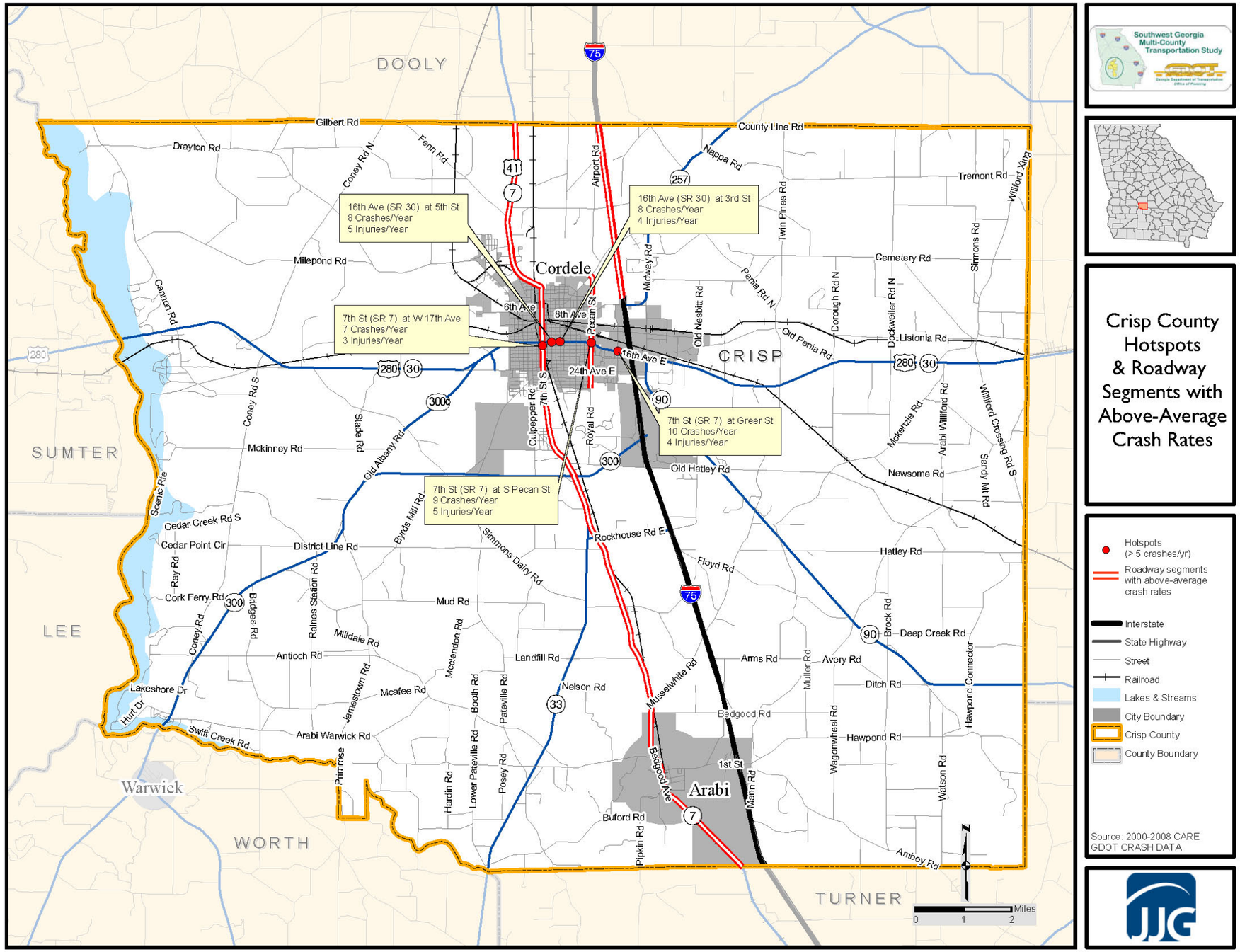
High crash rates at intersections are generally the result of high traffic volumes and congestion, not poor intersection geometry. In almost all instances, high crash rate intersections are on the most heavily travelled roadways within a county. High rates of accidents on segments or intersections many not be indicative of skewed geometry and may not be open to remediation based on geometric redesign.

TABLE 4.6: CRISP COUNTY HOTSPOTS

Intersection Location			Total (2000-2007)			Annual Average		
Location	**Milepost**	**City**	**Crash**	**Injury**	**Fatality**	**Crash**	**Injury**	**Fatality**
16th Ave (SR 30) at Greer St.	10.86	Cordele	78	30	0	10	4	0
16th Ave (SR 30) at S Pecan St.	10.27	Cordele	72	36	0	9	5	0
16th Ave (SR 30) at 3rd St.	9.62	Cordele	66	35	0	8	4	0
16th Ave (SR 30) at 5th St.	9.44	Cordele	62	38	0	8	5	0
7th Street(SR 7) at W 17th Ave	12.14	Cordele	56	25	0	7	3	0

Source: CARE Data 2000-2007

FIGURE 4.6: HOTSPOTS AND SEGMENTS WITH ABOVE-AVERAGE CRASH RATES IN CRISP COUNTY (2000-2007)



5. EXISTING AND FUTURE TRAFFIC CONDITIONS

In order to evaluate existing and future traffic conditions on roadways within each study county, a travel demand model was developed for the entire six-county study area. A travel demand model is a computer model used to estimate traffic volumes and travel patterns utilizing study area information such as roadway networks, land use information, and demographic data including population and employment. The travel demand model originally developed for the Southwest Georgia Interstate Study (2009) was modified and recalibrated for use in this study. The base, or existing, model year utilized was 2006 since this is the most recent year for accurate employment data from the Georgia Department of Labor. The future, or horizon, year utilized for this study was 2035.

The travel demand model was utilized to determine traffic conditions on all study area roadways for base (2006) and horizon year (2035). Traffic conditions on study roadways are evaluated based on a Level-of-Service (LOS) analysis. LOS is a qualitative measure describing operational conditions and driver perceptions within a traffic stream. According to the 2000 Highway Capacity Manual (2000 HCM), six LOS are defined for each type of facility. Letters designate each level, from A to F, with LOS A representing free-flow conditions with minimal delay and LOS F representing severe congestion with long vehicle delays. **Figure 5.1** on page 35 presents a graphical representation of the six levels of service.

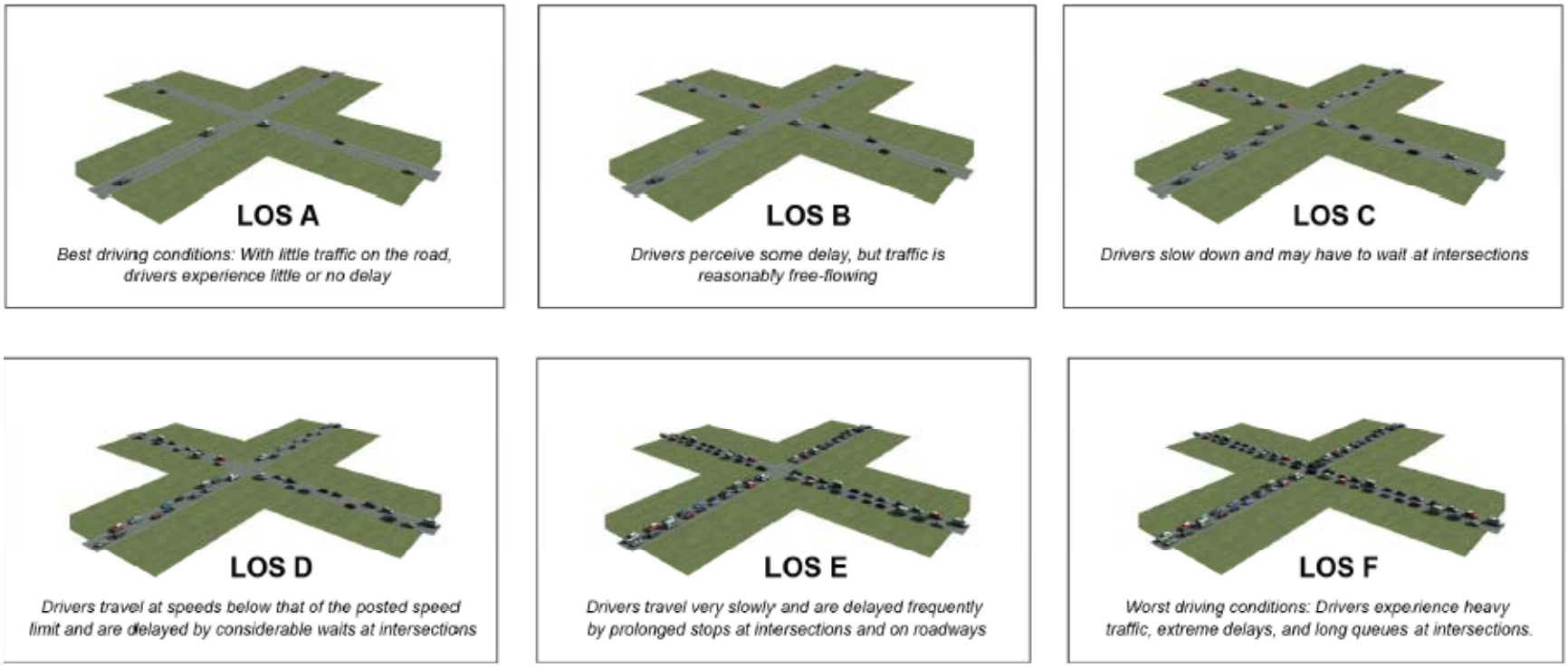
LOS for a roadway segment is based on the volume to capacity (V/C) ratio. V/C compares the traffic volumes on a roadway with the carrying capacity of that segment of road. V/C is the quantitative measure generated by the travel demand model that is utilized to determine the LOS of a roadway segment. The threshold for each LOS based on V/C is presented in **Table 5.1** below.

TABLE 5.1: LEVEL OF SERVICE THRESHOLDS

Level of Service (LOS)	Volume/Capacity Ratio
LOS A, B, C	V/C < 0.75
LOS D	0.75 <= V/C < 0.85
LOS E	0.85 <= V/C < 1.00
LOS F	V/C >= 1.00

The travel demand model was utilized to identify existing and future roadway segments with deficient LOS. For planning level analysis, GDOT considers LOS C or better to be acceptable and considers LOS D, E, or F to be deficient. When developing long range transportation plans in rural counties, GDOT strives to provide LOS C or better for all study roadways. This section presents the existing (2006) and future (2035) traffic conditions for Crisp County.

FIGURE 5.1: REPRESENTATION OF LEVEL OF SERVICE (LOS)



5.1 EXISTING (2006) TRAFFIC CONDITIONS

Under existing conditions, most roadways within Crisp County operate at an acceptable LOS (C or better). The only roadway segments that operate at an unacceptable LOS (D or worse) are presented in **Table 5.2** below. A map identifying these deficient segments is presented in **Figure 5.2** on page 37.

TABLE 5.2: EXISTING (2006) DEFICIENT ROADWAY SEGMENTS IN CRISP COUNTY

Roadway	From	To	LOS	Traffic Volume (AADT)
I-75	Farmers Market Road	Crisp/Dooly County Line	D	47,460
Pecan St	E. 13th Ave.	SR 257	D	9,490

Source: Travel Demand Model

As presented in **Table 5.2** and **Figure 5.2**, there are only two segments of roadway currently operating at an unacceptable LOS. With I-75 currently being widened from four to six lanes, this LOS D is expected to improve upon project completion.

5.2 FUTURE (2035) TRAFFIC CONDITIONS

Under future conditions, most roadways within Crisp County operate at an acceptable LOS (C or better). The only roadway segments that operate at an unacceptable LOS (D or worse) are presented in **Table 5.3** below and in **Figure 5.3** on page 38.

TABLE 5.3: FUTURE (2035) DEFICIENT ROADWAY SEGMENTS IN CRISP COUNTY

Roadway	From	To	LOS	Traffic Volume (AADT)
Pecan St	E. 13th Ave.	SR 257	D	10,290
US 280/SR 30	S. Midway Road	I-75 NB Ramps	D	18,200
E. 13th Ave	Harris St	Midway Rd	D	11,900
US 41/SR 7	Drayton Ln.	Farmers Market Road	F	18,490
Farmers Market Road	I-75	Slim Road	E	11,280
Farmers Market Road	Penia Rd.	SR 257	D	9,600

Source: Travel Demand Model

As presented in **Table 5.3** and **Figure 5.3**, several roadway segments are expected to worsen to LOS D or worse by 2035. The I-75 widening will be completed prior to 2035, and thus its LOS improves. All deficient segments are located in the City of Cordele. These roadways provide access to I-75 or are important north-south corridors in Cordele.

FIGURE 5.2: EXISTING (2006) DEFICIENT ROADWAY SEGMENTS IN CRISP COUNTY

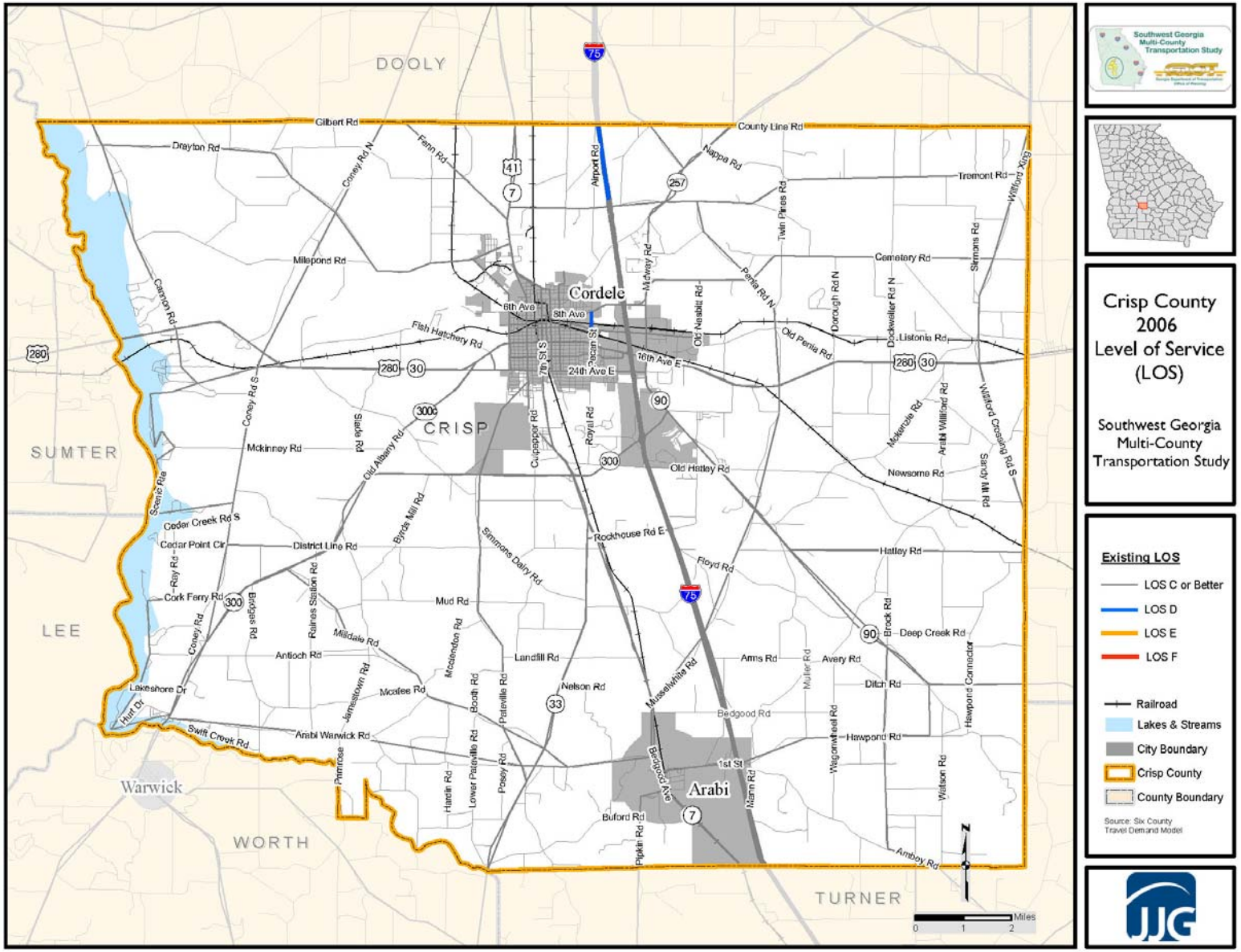
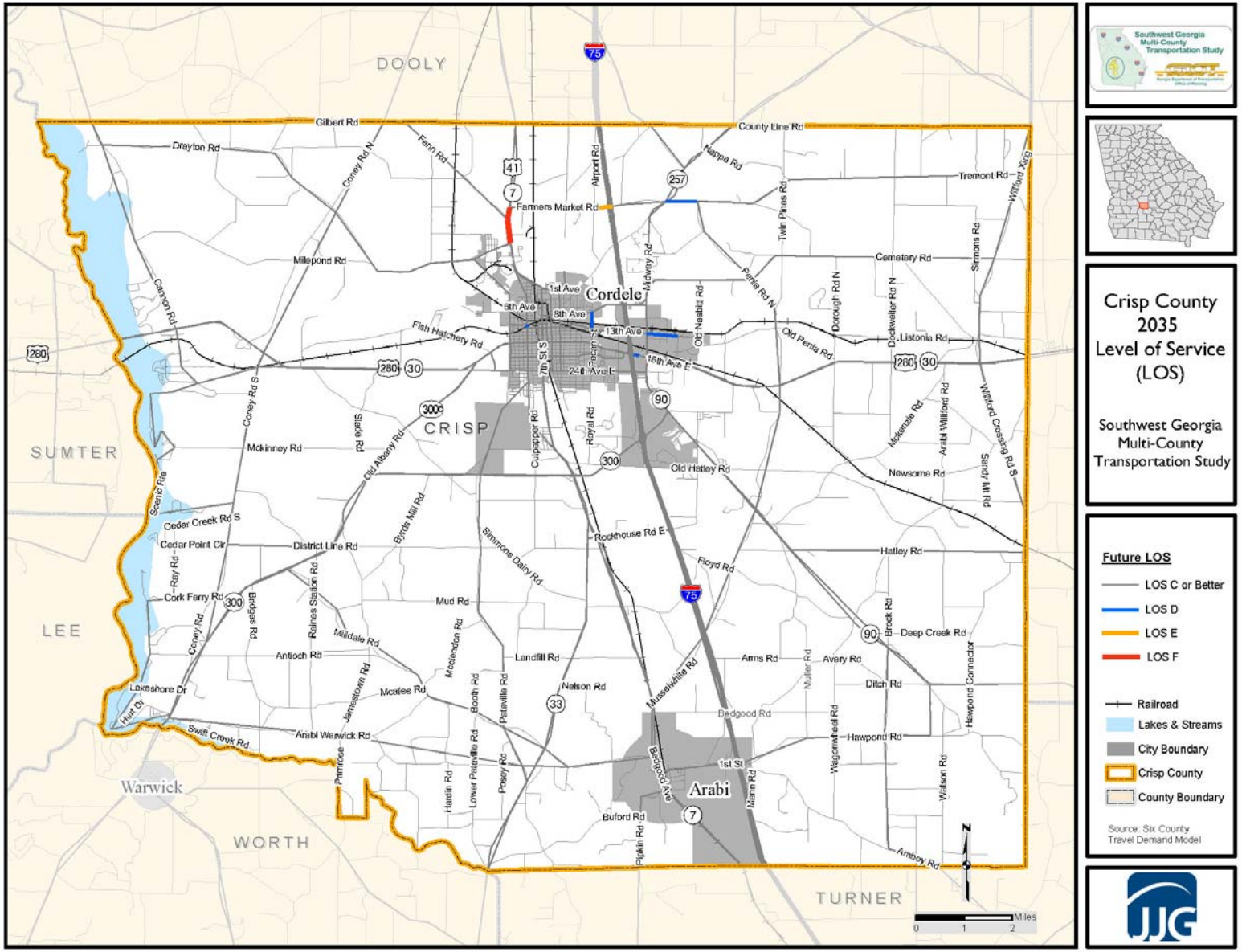


FIGURE 5.3: FUTURE (2035) DEFICIENT ROADWAY SEGMENTS IN CRISP COUNTY



6. GDOT PLANNED AND PROGRAMMED PROJECTS

This section presents the projects planned and programmed for Crisp County from the GDOT STIP (2008-2011) and Work Program.

6.1 GDOT STIP (2008-2011) AND WORK PROGRAM

GDOT maintains two lists of transportation improvement projects, the State Transportation Improvement Program (mandated by the federal government) and the Work Program. The following paragraphs explain the differences between the two programs.

- The GDOT STIP for the 2008-2011 period– includes a list of federally funded and state funded priority transportation project elements (Preliminary Engineering, Right-of-Way, or Construction) proposed to be carried out in the current and next three years (a four-year plan). It is financially constrained (dollar value of projects programmed is equal to the anticipated revenues per program year), and includes projects consistent with the Statewide Transportation Plan. The GDOT STIP is approved by the FHWA and Federal Transit Administration (FTA) and includes all TIP projects as adopted by the Metropolitan Planning Organizations (MPO) and approved by the Governor.
- The Work Program is a listing of identified transportation projects that are eligible for federal and state funding with all project phases scheduled beyond the current GDOT STIP outside the fiscal years of the GDOT STIP.

Improvements listed in the GDOT STIP (2008-2011) and Work Program include improvements to transit, pedestrian and bicycle facilities, airports, and roadways. Those improvements applicable to pedestrian and bicycle facilities are covered in that section of this document. Roadway improvements planned within the study are listed in this section.

6.2 GDOT PLANNED AND PROGRAMMED PROJECTS FOR CRISP COUNTY

Table 6.1 on page 40 and **Figure 6.1** on page 41 presents the projects and their descriptions as listed in the current GDOT STIP (2008-2011) and Work Program for Crisp County, including the type of work, funding source, and programmed date for each.

Projects that utilize lump sum funding originate with exclusive federal and state funding and are administrated by the Georgia Department of Transportation (GDOT). A portion of GDOT STIP funding is set aside for non-capacity projects in the following categories.

- Maintenance
- Safety
- Preliminary Engineering
- Roadway/Interchange Lightning
- Right of Way
- Transportation Enhancement
- Appalachia Local Access Road Program

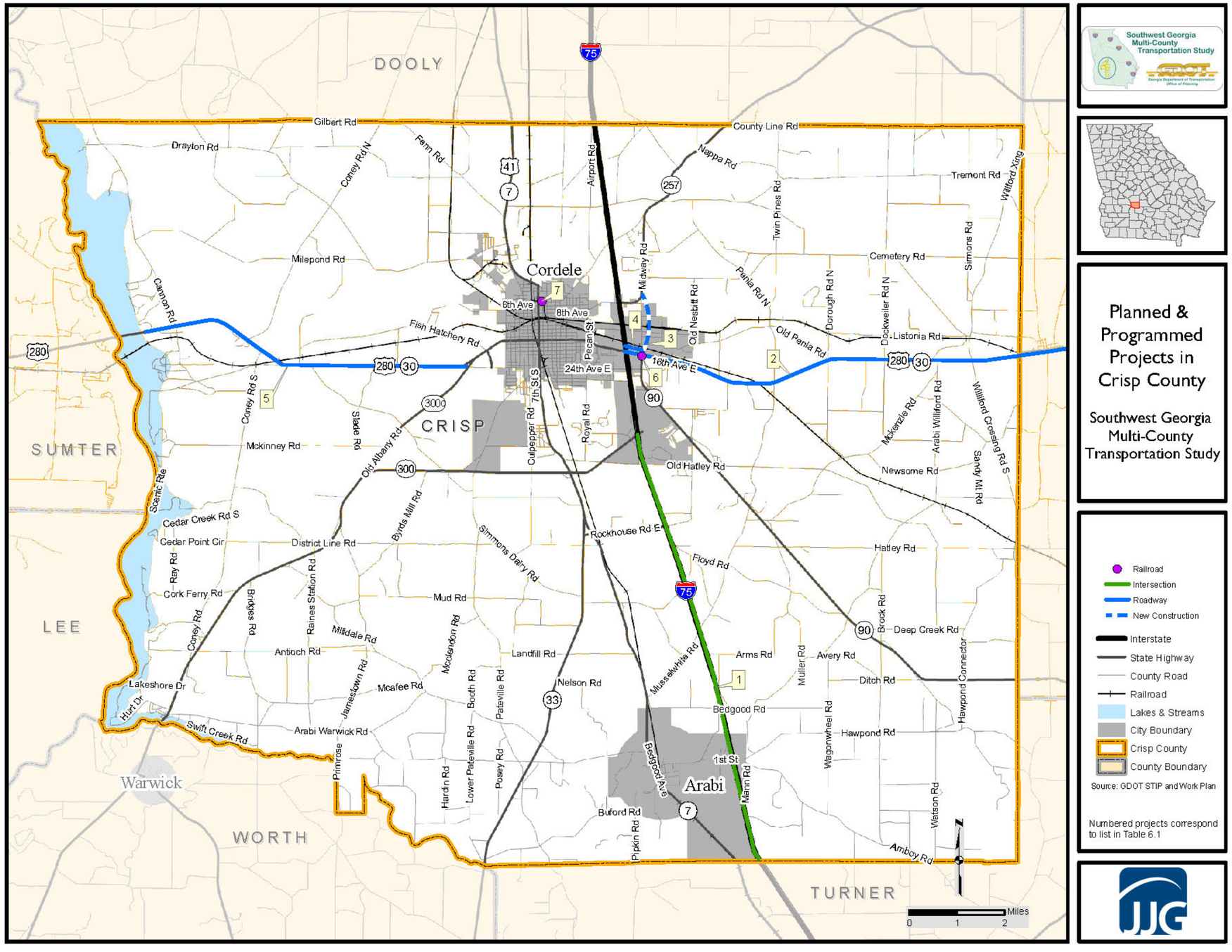
TABLE 6.1: GDOT PLANNED AND PROGRAMMED PROJECTS IN CRISP COUNTY

Note: The most current project schedule can be found on Transportation Explorer under the Quick links sections of the Department's homepage (www.dot.ga.gov).

Map No.	GDOT PI No.	Work Type	Description	Program-med Date	Primary Funding Source
1	0000805	Interstate	I-75 FM SR 159 near Ashburn to SR 300/Crisp County - Ph II, widen from 4 to 6 lanes	Beyond 2011	Federal
2	0004754	Widening	SR 30/US 280 From CS 667/Arc Way Ave/Crisp to SR 159/Wilcox	Beyond 2011	State
3	442660	New Construction	SR 90/CR 366 Relocation from south of CR 365 to SR 257	Beyond 2011	Federal
4	0000481	Widening	SR 30/SR 90/US 280 from 4 lane @ I-75 to Midway Road in Cordele, widen from 3 to 5 lanes	Beyond 2011	Federal
5	422470-	Widening	SR 30/US 280 FM Lake Blackshear to SR 300 Conn W of Cordele, widen from 2 to 4 lanes	Beyond 2011	State
6	0007145	RRX Warning Device	SR 30/US 280 @ HOG #723159S	LUMP	Federal
7	0008885	RRX Warning Device	CS 505/SIXTH STREET @ HGR #635290R	LUMP	Federal

Source: GDOT

FIGURE 6.1: GDOT PLANNED AND PROGRAMMED PROJECTS IN CRISP COUNTY FROM WORK PROGRAM AND STIP 2008-2011



7. LOCAL INPUT

This section presents the public involvement activities conducted for the Southwest Georgia Multi-County Transportation Study and the resulting input. A complete record of Public Involvement activities can be found in **Appendix C**.

7.1 AGENCY INPUT

On December 3, 2008, GDOT held Agency Kickoff Meetings for the Southwest Georgia Multi-County Transportation Study. Due to the size of the six-county study area, two meetings were held—one in the north of the study area, one in the south. The first meeting took place at 10 a.m. at the Fairfield Inn in Cordele, Georgia, and the second, at 2:30 pm at the Flint Area Housing Authority conference room in Montezuma, Georgia.

Including GDOT and study staff, those attending the meetings were:

Robert Hughes, GDOT
Radney Simpson, GDOT
Pat Smeeton, JJG
Jimmy Watson, Macon County Board of Commissioners
Audra Rojek, JJG
Inga Kennedy, PEQ
Jean Burnnett, City of Cordele
Bob Rychel, Middle Georgia RC
Deborah Bridges, City of Sylvester
Charles West, City of Unadilla
Jenny Lee, JJG
Perry Ivie, City of Unadilla
Shane Pridgen, GDOT 4th District
Gene Crapse, Crisp County Board of Commissioners
Bryan Barnett, Southwest Georgia RC
Carl Gamble, Crisp County Public Works
Stephen Sanders, Dooly County
Gerald Mixon, River Valley RC
Michael Sudduth, Sumter County Planning and Zoning

The meeting began with introductions. Pat Smeeton, a consultant on the study team, then made a presentation about the nature of the study and the purpose of the meeting, copies of which were given to attendees. Attendees broke into groups and provided information about the transportation needs of the counties and cities that they represent. The input for each county from meeting attendees was summarized and used to create maps of perceived needs areas within each county.

Agency members were then asked to fill out questionnaires and provide suggestions for membership on the study's Advisory Committee, potential stakeholder interviewees, and goals and objectives of the study. Lastly, in order to inform more people about the study and to collect public input, Fact Sheets were given to attendees for them to distribute in the areas they represent.

7.2 ADVISORY COMMITTEE

The Advisory Committee was assembled for this study from state and local agency staff from across the six-county study area. The committee provided guidance and strategic direction to the study, primarily through setting the project's goals and objectives. The committee met twice over the course of the study. Each meeting was held twice on the same day in separate locations to accommodate committee members from across the study area.

The first pair of Advisory Committee meetings were held on July 9, 2009, at 10:30 am at the Marriott Fairfield Inn and Suites in Cordele and at 1:30 pm at the Flint Area Consolidated Housing Authority in Montezuma. Including GDOT and study staff, those attending the meetings were:

Robert Hughes, GDOT
Radney Simpson, GDOT
Rickey Blaylock, Peach County Zoning
John G. Turner, Macon County Planning & Zoning
Marcia Johnson, Peach County Administrator
Billie Segars, Peach County Public Works
Ralph Nix, Middle Georgia RC
Michael McDonald, GDOT
Pat Smeeton, JJG
Erik Kruszewski, JJG
Jimmy Watson, Macon County Public Works
Raymond Bridges, Sumter County Public Works
Willie Young, Sumter County Public Works.
Bryan Barnett, Southwest Georgia RC
Shane Pridgen, GDOT

Robert Hughes opened the meeting and began introductions. Then Pat Smeeton gave a presentation on the purpose of the study and progress made to date. The committee reviewed and commented upon the draft study goals that Mr. Smeeton presented. These goals are presented in the following section. After the presentation, the floor was opened to the questions and comments of meeting attendees. Areas that locals felt needed improvements were noted and added to the locally-identified needs areas for analysis.

The second Advisory Committee meetings were held March 25, 2010, at the same times and locations as the first round of meetings. Those attending the meetings were:

Kelly Gwin, GDOT
Radney Simpson, GDOT
Cindy VanDyke, GDOT
Rickey Blaylock, Peach County Zoning
John G. Turner, Macon County Planning & Zoning
Brent Thomas, GDOT
Van Mason, GDOT
David Sparks, GDOT
Brink Stokes, GDOT
Pat Smeeton, JJG
Audra Rojek, JJG
Shane Pridgen, GDOT
Robert McDaniel, Southwest Georgia RC
Bob Rychel, Middle Georgia RC
Gerald Mixon, River Valley RC
Carl Gamble, Crisp County Public Works
Michael Sudduth, Sumter County Zoning Administration

Kelly Gwin opened the meeting by introducing herself as the new project manager and reviewing the purpose of the study. She then introduced Pat Smeeton, who gave a presentation on the means by which the study determined transportation needs in the study area, as well as the study findings. Maps of study recommendations were presented by county in posters for committee review and discussion. Committee feedback from this meeting called for the addition of study recommendations in Sumter County.

7.3 TRANSPORTATION GOALS AND OBJECTIVES

The goals and objectives of this study were prepared from a review of the goals and objectives of local studies and from guidance from stakeholders, primarily those on the Advisory Committee. The goals were determined to be as follows:

- Assure a safe and efficient street and highway network throughout the six-county study area.
- Develop transportation improvements to support desired development patterns for the community.
- Improve roadway network to accommodate vehicle circulation and provide pedestrian & bicycle connections to activity centers

7.4 STAKEHOLDER INTERVIEWS

Members of the study team met with stakeholders individually to obtain additional information about the needs of each county. Stakeholder input is summarized in **Appendix C**. Areas that were perceived by stakeholders to be in need of transportation improvements are included in the Locally-Identified Transportation Needs Areas map at the end of this section.

7.5 FACT SHEETS AND PUBLIC RESPONSE

Fact Sheets for the study were distributed at the Agency Kickoff Meeting, the Advisory Committee Meeting, and throughout the six-county study area at 45 locations where stakeholders and residents were likely to access them, such as libraries, colleges, chambers of commerce and city halls. A complete list of facilities at which newsletters were distributed is provided in **Appendix C.**

The Fact Sheet explained the purpose of the study and the process by which it would be undertaken, including the study schedule. It also reviewed the many ways the public would be involved in the study, including stakeholder interviews, the Advisory Committee, and the study webpage on the GDOT website.

In addition, inside each Fact Sheet was a stamped questionnaire that residents could fill out, seal, and return to the study team. The study collected ten questionnaires from stakeholders and residents. These responses were collected and added to the Locally Identified Transportation Needs Areas map found at the end of this section.

7.6 CRISP COUNTY LOCALLY IDENTIFIED TRANSPORTATION ISSUES AND NEEDS

Stakeholder input from the Agency Kickoff Meeting, Advisory Committee Meeting, stakeholder interviews, and responses to Fact Sheet questionnaires was mapped to create a visual representation of each county's transportation conditions. During the assessment phase, these maps assisted the study team in locating those areas where improvements should be recommended. The issues and needs reported below are numbered in correspondence with the Locally Identified Transportation Issues and Needs map for Crisp County in **Figure 7.1** on page 47 and for Cordele in **Figure 7.2** on page 48.

Roadway Issues and Needs

1. The northern section of Williford Crossing Road should be paved to provide a continuous north-south route between SR 90 and SR 215 in Dooly County.
2. Airport Road from Blackshear Road to Farmer Market Road needs to be paved.
3. Widen US 280 from US 41 to Sumter County 12A.

Safety/Pedestrian and Bicycle Issues and Needs

4. Bicycle routes and hiking trails are desired around Lake Blackshear.
5. Improve the intersection of SR 257 at Farmer Market Road
6. Improve the intersection of Rockhouse Road at US 41.
7. Improve or reconfigure the intersection of SR 33 and Arabi-Warwick Road.

Truck and Railroad Issues and Needs

8. Fenn Road from US 41 to a new chemical plant needs to be improved to accommodate trucks serving the plant.
9. Improve Cannon Road north of US 280 to accommodate high truck traffic.

10. Improve Coney Road through the county to accommodate high truck traffic.
11. Improve Arabi-Warwick Road to accommodate high truck traffic travelling between I-75 and SR 300.

Access/Connectivity Issues and Needs

12. Improve Floyd Road from SR 90 to I-75 to provide improved Interstate access for Turner County and SE Crisp County. An improved connection from Floyd Road to Rockhouse Road would also improve Interstate access.
13. A northwest bypass connecting Farmer Market Road and US 280 is needed to reduce traffic in downtown Cordele.
14. A northeast bypass could be created by improving Penia Road and Farmer Market Road. This would allow traffic to avoid going through Cordele. A northeast bypass would also provide access for trucks travelling between the Interstate and inland port.
15. Pave Crossroads Store Road to provide improved access to the industrial park.

Growth/Development Issues and Needs

16. A proposed 2,100 acre industrial site is planned for the area between I-75 and US 41 north of Farmers Market Road in Crisp and Dooly Counties. This area should be developed jointly with Dooly County.

7.7 Cordele County Locally Identified Transportation Issues and Needs

Roadway Issues and Needs

17. Widen SR 300 to four lanes from I-75 to SR 90.
18. Widen SR 90 (Midway Road) to four lanes from SR 300 to SR 257.
19. Widen 8th Ave. to four lanes between Pecan Street and I-75.

Safety/Pedestrian and Bicycle Issues and Needs

20. Improve the intersection of SR 257 at Midway Road.
21. Improve the intersection of SR 300 at the frontage road.
22. Operational improvements are needed along US 280 through downtown Cordele.
23. Improve or signalize the intersection of SR 300 at Old Hatley Road.
24. Traffic light needed at US 280 and 15th Street
25. The intersection of 16th Avenue at Broad Street can become congested and may experience a lot of accidents. There is a Wal-Mart shopping center at this intersection which can be difficult to access in traffic.
26. Many accidents seem to occur at the intersection of 24th Avenue at 7th Street.

Truck and Railroad Issues and Needs

27. Build a SR 90 grade separation over the Heart of Georgia RR.
28. Joe Wright Drive (11th Street) needs improvement to accommodate truck traffic.
29. Large grade difference between road and railroads in downtown Cordele. Crossings becoming difficult to cross.
30. There is a Norbord OSB plant with a main entrance on US 280 that generates 1,100 truck trips per week.

31. The railroad crossing on Pecan Street can become congested.
32. Midway Road has a lot of trucks on it, and it can experience delays because of trains.
33. The area surrounding the intersection of 16th Avenue at 7th Street can be difficult to access when the train has traffic backed up in town.
34. The railroad crossings on 3rd Street and 7th street may need safety upgrades.

Access/Connectivity Issues and Needs

35. Extend SR 300 from SR 90 to US 280 for improved connectivity. This extension will also be essential to accommodate the large number of trucks travelling to and from the Interstate.
36. Improve the frontage road south of SR 300 to Old Hatley Road and replace the 3-ton bridge on the frontage road south of SR 300 to allow school buses to utilize this route.
37. Improve the 3-lane frontage road north of SR 300. This roadway provides access to a high school, a 5-story hotel, and retail development.

Growth/Development Issues and Needs

38. A new school is planned on Old Hatley Road near the frontage road.
39. Cordele Inland Port. The port would be located to the east of Cordele to have direct rail access to the CSX line as well as the Heart of Georgia line. The Port would be a intermodal yard where containers would be transferred from rail to trucks. This would produce up to several hundred truck trips per day.
40. Growth is occurring in Cordele along 20th Avenue, Pecan Street and 8th Avenue.

FIGURE 7.1: CRISP COUNTY LOCALLY-IDENTIFIED ISSUES AND NEEDS

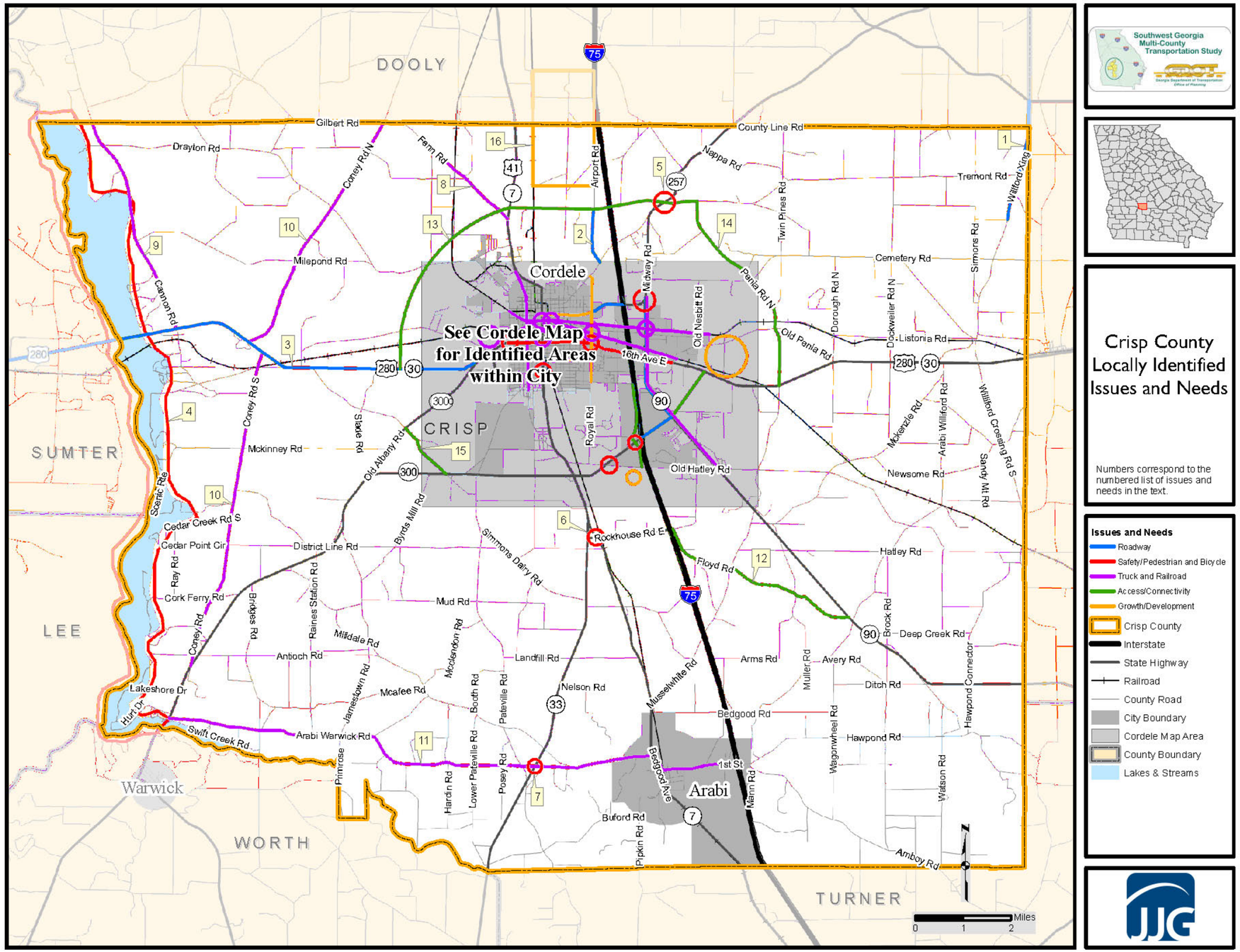
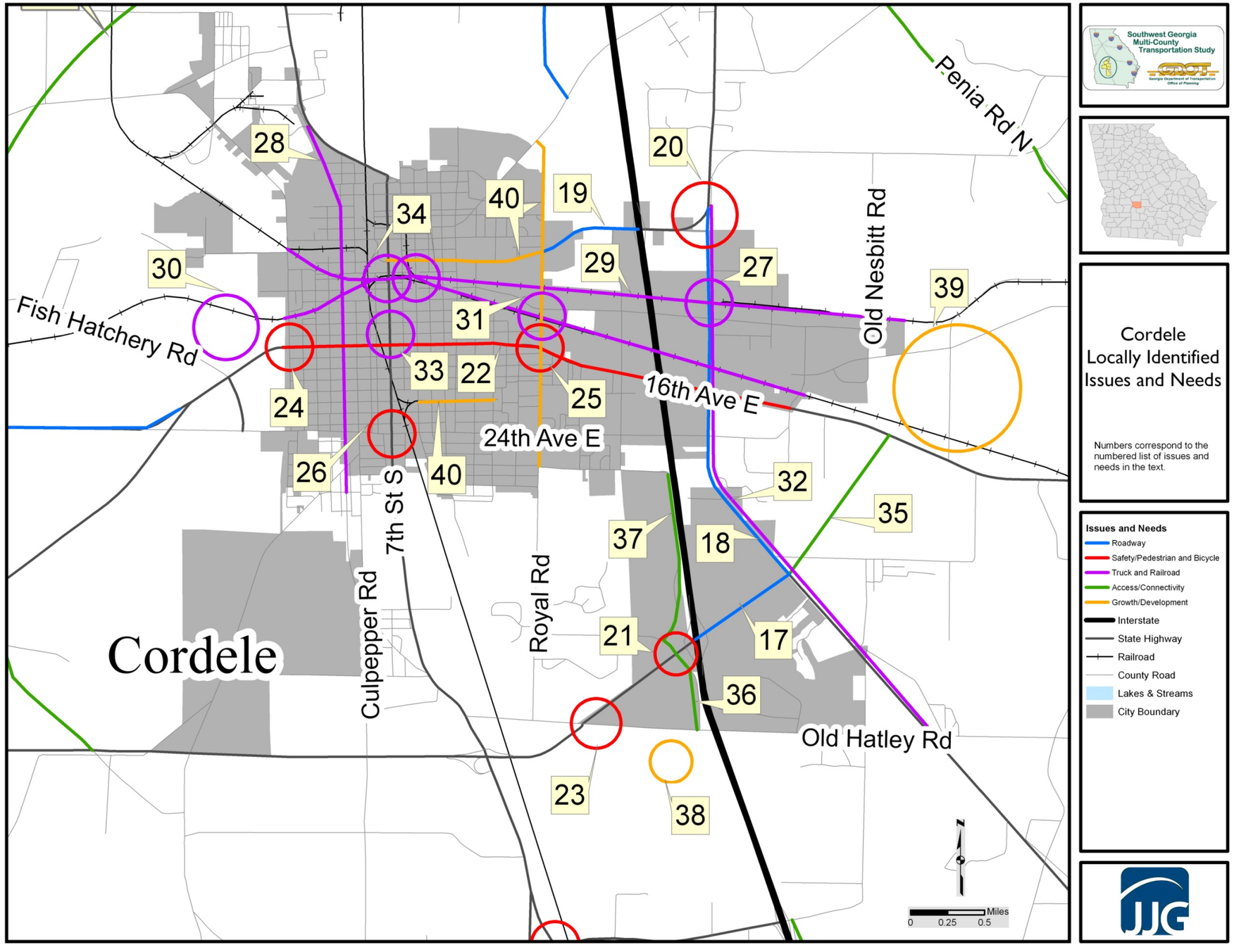


FIGURE 7.2: CORDELE LOCALLY-IDENTIFIED ISSUES AND NEEDS



8. RECOMMENDATIONS FOR CRISP COUNTY

This section presents the recommended transportation projects for Crisp County based on the analysis completed as part of this study. The type of projects considered included:

- Capacity Improvements (roadway widenings or new roadways)
- Operational Improvements (interchange or intersection improvements, traffic signal)
- Safety Improvements (roadway or intersection realignments)
- Bridge Replacement or Rehabilitation
- Pedestrian or Bicycle Improvements
- Maintenance

This section describes how these projects were identified, analyzed, and how their cost was estimated. The final list of projects identified within Crisp County is presented with project sheets providing additional information about each proposed improvement. An inventory of potential funding sources to support the list of proposed improvements is included at the end of this section.

8.1 METHODOLOGY

Findings from the existing and future conditions, travel demand model projections, field observations, and public and agency input were analyzed to determine the need for potential transportation projects. Due to the six-county size of the study area, bicycle and pedestrian needs identified over the course of this study have been forwarded to the appropriate Regional Commission for review and possible inclusion in their respective regional bicycle and pedestrian plan updates. Locations identified by local agencies and the public as potentially in need of traffic signals, maintenance, or safety measures have been forwarded to the appropriate GDOT District Engineers. Please note that this is a planning-level study, not an official engineering study, and comments or recommendations herein are not a verified reflection of any needed improvements.

The final project recommendations for Crisp County can be divided into two main type of transportation improvements; capacity improvements and operational improvements. Capacity improvements are generally roadway widening or new location roadway projects. The need for capacity projects was identified by local input, field observation, and with the travel demand model. As described in an earlier section, the travel demand model developed for this study was utilized to determine traffic conditions in 2035. The results of this modeling effort identified roadway segments that are not expected to be able to accommodate traffic demands in the future. Operational improvements are projects that seek to address congestion or safety concerns at intersections or interstate interchanges. These are not roadway segments that need widening, rather, they are bottlenecks in the roadway network that reduce mobility and cause congestion. These projects were identified through local input and field observation. Operational improvements range from the reconstruction of a congested interstate interchange to the addition of turn lanes at a busy intersection.

8.1.1 COST ESTIMATION

Costs were estimated using GDOT Right-of-Way and Utility Relocation Cost Estimate Tool (RUCEST) and Trns-port Cost Estimation System Tool (CES) Software. In addition, Preliminary Engineering costs

were set at eight percent of construction costs. Individual assumptions for each project can be found in **Appendix B: Cost Estimates**.

To determine right of way costs, a survey of the project area was conducted using aerial photography and field investigation for adjacent land use types, presence of utilities and potential impacts to homes, businesses and institutions. This information was entered into RUCEST, which determined costs for right of way acquisition based on land use type and county given the additional or new right of way requirements for the project. RUCEST estimated utility relocation costs by utility type and location, and relocation and improvement costs based on market history. Contingency costs were added to right of way estimates, to cover damages (30 percent), scheduling (55 percent), and administration and court costs (60 percent, all costs cumulative). The resulting right of way and utility cost estimates were included when developing total project costs.

Construction costs were based on width, length and roadway functional classification, to which costs for additional or replacement traffic signals, turn lanes and bridges were added as needed. Turn lanes were included in cost estimates for major intersections or where intersection improvements were deemed necessary. Likewise, traffic signals were included at intersections where widening or other improvements would require their replacement or where they were deemed necessary as an intersection improvement.

In CES, costs for turn lanes were estimated using the same price per ton for asphalt and base/aggregate as the main project; these prices were estimated by CES given size and location of the project. Cost estimates for bridges were determined by CES based on materials costs and historic data. CES construction estimates were utilized in the development of total project costs, which included right of way, utility relocation, and preliminary engineering costs.

8.2 Response to Locally-Identified Needs

During the public involvement process, study stakeholders and the general public were invited to identify transportation needs as they perceived them in the counties in which they live, play and work. These locally identified needs are presented and mapped in Section 8. Each of the perceived needs was then considered for transportation improvements by this study. **Table 8.1** below provides a response to each locally identified need, including projects proposed by this study.

TABLE 8.1: RESPONSES TO LOCALLY-IDENTIFIED NEEDS

Locally Identified Transportation Need	Recommended Activities
The northern section of Williford Crossing Road should be paved to provide a continuous north-south route between SR 90 and SR 215 in Dooly County.	Paving this segment of roadway would improve access and connectivity, and is recommended as a local project by this study.
Airport Road from Blackshear Road to Farmer Market Road needs to be paved.	Paving this segment of roadway would improve access and connectivity, and is recommended as a local project by this study.
Widen US 280 from US 41 to Sumter County 12A.	The segment of US 280 from SR 300C to Lake Blackshear has been selected for widening under the GRIP program (PI No. 422470.)
Bicycle routes and hiking trails are desired around Lake Blackshear.	Bicycle and pedestrian needs have been forwarded to the River Valley Regional Commission for study and possible inclusion in the Regional Bicycle and Pedestrian Plan.

Locally Identified Transportation Need	Recommended Activities
Improve the intersection of SR 257 at Farmer Market Road	SR 257 and Farmer Market Road intersect at a sharp skew. Realignment of the intersection and signalization are recommended by this study.
Improve the intersection of Rockhouse Road at US 41.	US 41 has an accident rate that is above average for its facility type. However, this intersection has adequate sight distance and low traffic volumes and is not one of the high-accident intersections in Crisp County. No improvements are recommended at this time, but a signalization study request has been sent to the GDOT District Area Engineer.
Improve or reconfigure the intersection of SR 33 and Arabi-Warwick Road.	As discussed in Section 4, this intersection is not one of the high-accident intersections in Crisp County. The intersection has adequate sight distance and low traffic volumes. No improvements are recommended at this time.
Fenn Road from US 41 to a new chemical plant and needs to be improved to accommodate trucks serving the plant.	Projected 2035 volumes are not in excess of 2,000 ADT. As these volumes correspond to LOS C or better for this roadway segment, widening is not justified and is not recommended.
Improve Cannon Road north of US 280 to accommodate high truck traffic.	Projected 2035 volumes are not in excess of 3,000 ADT. As these volumes correspond to LOS C or better for this roadway segment, widening is not justified and is not recommended.
Improve Coney Road through the county to accommodate high truck traffic.	Projected 2035 volumes are not in excess of 2,000 ADT. As these volumes correspond to LOS C or better for this roadway segment, widening is not justified and is not recommended.
Improve Arabi-Warwick Road to accommodate high truck traffic travelling between I-75 and SR 300.	Projected 2035 volumes are not in excess of 2,000 ADT. As these volumes correspond to LOS C or better for this roadway segment, widening is not justified and is not recommended. Concern has been forwarded to the GDOT District Area Engineer for further study.
Improve Floyd Road from SR 90 to I-75 to provide improved Interstate access for Turner County and SE Crisp County. An improved connection from Floyd Road to Rockhouse Road would also improve Interstate access.	With very low traffic volumes on SR 90, Rockhouse Road, and Hawpond Road, which provide access to I-75 south of Floyd Road, there appears to be adequate Interstate access without improvements to Floyd Road.
A northwest bypass connecting Farmer Market Road and US 280 is needed to reduce traffic in downtown Cordele.	Other recommended improvements from this study should be sufficient to allow US 280 to operate at an acceptable LOS through Cordele.
A northeast bypass could be created by improving Penia Road and Farmer Market Road. This would allow traffic to avoid going through Cordele. A northeast bypass would also provide access for trucks travelling between the Interstate and inland port.	A northeastern bypass should be studied in the event of Inland Port construction.
Pave Crossroads Store Road to provide improved access to the industrial park.	Paving Crossroads Store Road is recommended as a local project to improve access and connectivity by this study.

Locally Identified Transportation Need	Recommended Activities
Widen SR 300 to four lanes from I-75 to SR 90.	The model projects 2035 Volumes not in excess of 4,000. As these volumes correspond to LOS C or better for this roadway segment, widening is not justified and is not recommended. However, in the event that the Inland Port is constructed, widening of SR 300 is recommended to accommodate anticipated truck traffic.
Widen SR 90 (Midway Road) to four lanes from SR 300 to SR 257.	Projected 2035 volumes do not exceed 8,000 ADT. As these volumes correspond to LOS C or better for this roadway segment, widening is not justified and is not recommended.
Widen 8th Ave. to four lanes between Pecan Street and I-75.	Projected 2035 volumes do not exceed 9,000 ADT. As these volumes correspond to LOS C or better for this roadway segment, widening is not justified and is not recommended.
Improve the intersection of SR 257 at Midway Road.	The intersection of SR 257 at Midway Road does not have a high occurrence of accidents. Improvements are not recommended at this time.
Improve the intersection of SR 300 at the frontage road.	This study recommends realignment of this intersection and signalization.
Operational improvements are needed along US 280 through downtown Cordele.	Signal timing, operational improvements are recommended along US 280 through Cordele as a traffic management solution by this study.
Improve or signalize the intersection of SR 300 at Old Hatley Road.	The intersection of SR 300 at Old Hatley Road does not have a high occurrence of accidents. Improvements are not recommended at this time.
Traffic light needed at US 280 and 15th Street	This need should be addressed by the recommended signalization study at SR 280 and 15th Street.
The intersection of 16th Avenue at Broad Street can become congested and may experience a lot of accidents. There is a Wal-Mart shopping center at this intersection which can be difficult to access in traffic.	This intersection does not experience a high incidence of accidents and no improvements are recommended.
Many accidents seem to occur at the intersection of 24th Avenue at 7th Street.	This intersection does not experience a high incidence of accidents and no improvements are recommended.
Build a SR 90 grade separation over the Heart of Georgia RR.	Projected 2035 volumes do not exceed 3,000 ADT. As these volumes correspond to LOS C or better for this roadway segment, grade separation is not justified in this location.
Joe Wright Drive (11th Street) needs improvement to accommodate truck traffic.	This concern has been forwarded to the GDOT District Area Engineer for further study and appropriate maintenance.
Large grade difference between road and railroads in downtown Cordele. Crossings becoming difficult to cross.	This concern has been forwarded to the GDOT District Area Engineer for further study and appropriate maintenance.
The railroad crossing on Pecan Street can become congested.	Pecan Street has a higher than average accident rate and high traffic volumes. Operational and safety improvements are recommended at this location by this study.

Locally Identified Transportation Need	Recommended Activities
The railroad crossings on 3rd Street and 7th street may need safety upgrades.	This concern has been forwarded to GDOT District Area Engineer for study.
Extend SR 300 from SR 90 to US 280 for improved connectivity. This extension will also be essential to accommodate the large number of trucks travelling to and from the Interstate.	There is anticipated increase in truck traffic at this location in the event the Inland Port is constructed. In that event, this extension is recommended.
Improve the frontage road south of SR 300 to Old Hatley Road and replace the 3-ton bridge on the frontage road south of SR 300 to allow school buses to utilize this route.	The bridge at this location has a sufficiency rating of 26.48. Its replacement is recommended by this study.

8.3 PLANNED AND PROGRAMMED PROJECT RECOMMENDATIONS

One mission of the Southwest Georgia Multi-County Transportation Study was to assess currently identified projects, or those projects listed in GDOT's GDOT STIP (2008-2011) and Work Program, for their efficacy in remedying the transportation problems of their area. The assessment of currently identified projects in Crisp County is presented in **Table 8.2** below.

The Governor's Road Improvement Program (GRIP) consists of proposed economic developmental highways in Georgia. The Georgia General Assembly originally adopted GRIP (Section 32-4-22 of the Official Code of Georgia Annotated (updated 4/29/05)) in 1989, and added new routes in 2001 and 2005. The purpose of GRIP is to foster connectivity among Georgia cities, provide opportunities for growth, and provide safe and effective transportation throughout the state.

TABLE 8.2: RECOMMENDATIONS FOR PLANNED AND PROGRAMMED PROJECTS IN CRISP COUNTY

GDOT PI No.	Work Type	Description	Recommendation
0000805	Interstate	I-75 FM SR 159 near Ashburn to SR 300/Crisp County - Ph II, widen from 4 to 6 lanes	Project addresses capacity needs in this roadway segment; its continued inclusion in the Work Program/GDOT STIP is recommended.
0004754	Widening	SR 30/US 280 From CS 667/Arc Way Ave/Crisp to SR 159/Wilcox	Project's continued inclusion in GDOT STIP/Work Program is recommended contingent upon its continued inclusion in GRIP.
442660	New Construction	SR 90/CR 366 Relocation from south of CR 365 to SR 257	With project # 0000481, addresses LOS and access issues on roadway segment; its continued inclusion in GDOT STIP/Work Program is recommended.
0000481	Widening	SR30/SR90 from 4 lane @ I-75 to Midway Road in Cordele, widen from 3 to 5 lanes	Widening project addresses LOS issues on roadway segment; its continued inclusion in GDOT STIP/Work Program is recommended.
422470-	Widening	SR 30/US 280 FM LAKE BLACKSHEAR TO SR 300 CONN W OF CORDELE	Project's continued inclusion in GDOT STIP/Work Program is recommended contingent upon its continued inclusion in GRIP.

GDOT PI No.	Work Type	Description	Recommendation
0007145	RRX Warning Device	SR 30/US 280 @ HOG #723159S	Project addresses previously identified railroad safety issue; its continued inclusion in GDOT STIP/Work Program is recommended.
00008885	RRX Warning Device	CS 505/SIXTH STREET @ HGR #635290R	Project addresses previously identified railroad safety issue; its continued inclusion in GDOT STIP/Work Program is recommended.

8.4 INLAND PORT

It is unclear at this time whether or when the proposed Inland Port would be constructed in Crisp County. Certain capacity and operations improvements should be investigated if the Inland Port were to be constructed east of Cordele, as the port may generate enough traffic, particularly large truck traffic, to warrant them in the future. Should the Inland Port be constructed, the following improvements are recommended:

- A northeast bypass of Cordele, created by improving Penia Road and Farmer Market Road. This would allow through-traffic to bypass downtown Cordele. It would also provide a truck route around Cordele to and from the Interstate.
- Extension of SR 300 from SR 90 to US 280 to improve connectivity and widening SR 300 to four lanes from I-75 to SR 90. Together these projects would create a truck route to and from the Interstate to the South of Cordele.

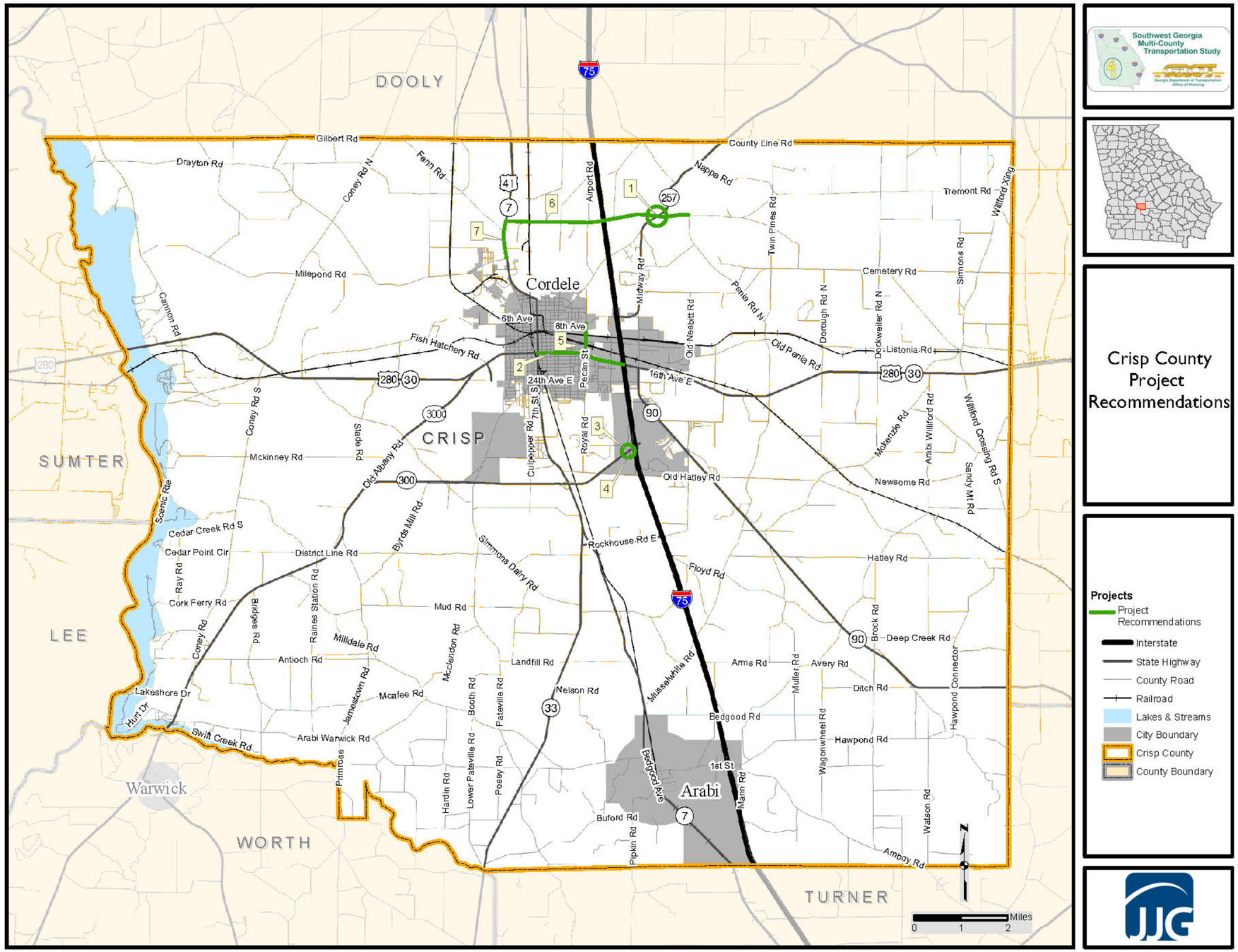
8.5 RECOMMENDED TRANSPORTATION IMPROVEMENTS

From the locally identified needs, field observations, as well as from the results of travel demand modeling projections, recommendations for transportation improvements were made. A list of transportation improvements recommended for Crisp County is presented in **Table 8.3** on page 55 and a map of recommended projects can be found in **Figure 8.1** on page 56. Project sheets for each recommendation with further details and location maps are presented on pages 57 through 63.

TABLE 8.3: RECOMMENDATIONS FOR CRISP COUNTY

Map ID	Project Name	Project Description	Cost Estimate
1	Intersection Improvements at SR 257 at Farmers Market Rd.	Realign intersection SR 257 at Farmer Market Rd.	$2,436,155.89
2	Access Management Improvements to US 280	Operational and Access Management Improvements to US 280 through downtown Cordele.	$18,356,406.31
3	Intersection Improvements at SR 300 and Frontage Rd.	Realign intersection at SR 300 at Frontage Rd.	$3,038,445.10
4	Frontage Rd. south of SR 300: Bridge Replacement	Replace the 3-ton bridge on Frontage Rd. south of SR 300.	$1,726,099.37
5	Safety Improvements on Pecan St.	Operational and safety improvements on Pecan St. from US 280 to 8th Ave.	$1,693,395.78
6	Farmers Market Rd. Widening	Widen Farmers Market Rd. from 2 lanes to 4 lanes from US 41 to Penia Rd.	$29,943,718.99
7	US 41 Widening	Widen US 41 from 2 lanes to 4 lanes from Drayton Lane to Farmers Market Rd.	$13,160,092.45

FIGURE 8.1: RECOMMENDATIONS FOR CRISP COUNTY



8.6 PROJECT SHEETS

Project Name: SR 257 at Farmers Market Road						
Description: Intersection Improvements at SR 257 at Farmers Market Road					County	Crisp
					GDOT District	4
					Congressional District:	2
Traffic Vol.:	2006:	7,600	2035:	9,600	RC/MPO:	River Valley RC
Truck %	2006:	21%	2035:	26%	Length (miles):	0.4
No. of Lanes	Existing:	2	Recommended:	2	Route #:	SR 257
Functional Classification:			Rural Minor Arterial		Beginning and Ending Points:	NA

Project Need and Purpose: This project would realign the intersection of SR 257 and Farmers Market Road to improve the angle between these two roadways, and thus improve safety for vehicles utilizing this intersection. The existing roadway alignment at the intersection of SR 257 and Farmers Market Road has a less than desirable skew angle between the two intersecting roadways. The ideal alignment for an intersection is a perpendicular or 90 degree angle between the intersecting roadways. Farmers Market Road intersects SR 257 at less than 45 degrees, making it difficult for motorists to clearly see oncoming vehicles on the cross road.

Logical Termini: This project would realign Farmers Market Road to provide a square intersection with SR 257. Thus, the eastern logical terminus would be located approximately 1500' east of SR 257 and the western logical terminus would be located approximately 1500' west of SR 257. Since this is an operational and safety improvement, the logical termini are the points where the improvements tie back into the existing roadway.

Project Phase	Preliminary Engineering	Right-of-Way	Utility Relocation	Construction	Total
Cost Estimate	$168,426.77	$46,894.55	$115,500	$2,105,334.57	$2,436,155.89

	Project Type (Local/GDOT):	GDOT

Location Map

Intersection Improvements at SR 257 and Farmers Market Road

Project Name: Access Management Improvements to US 280/SR 30						
Description: Operational and Access Management Improvements along US 280/SR 30 through Downtown Cordele from 7th Street/SR 7/SR90/US 41 to I-75.					County	Crisp
					GDOT District	4
					Congressional District:	2
Traffic Vol.:	2006:	19,000	2035:	22,960	RC/MPO:	River Valley RC
Truck %	2006:	19%	2035:	20%	Length (miles):	1.78
No. of Lanes	Existing:	5	Recommended:	5	Route #:	US 280/ SR 30
Functional Classification:			Urban Principal Arterial		Beginning and Ending Points:	7th St. & SR 90

Project Need and Purpose: The proposed project would implement operational and access management improvements along SR 30/US 280 through downtown Cordele in order to reduce congestion and improve traffic flow. The operational improvements include intersection improvements, implementation of Intelligent Transportation System (ITS) techniques such as fiber optic interconnection of traffic signals, and coordination of traffic signals. The access management improvements consist of the replacement of the flush center median with a raised median to channelize traffic flow and reduce the large number of left turning traffic into and out of driveways along this section of SR 30/US 280. Heavy traffic volumes and multiple intersections have increased traffic congestion and reduced mobility on this important multi-lane roadway. With widening unfeasible through downtown Cordele, operational and access management improvements along this section of US 280 represent a cost efficient method of addressing increasing congestion.

Logical Termini: The proposed operational improvement would begin at 7th Street/SR 7/SR90/US 41 on the west side of downtown Cordele and continue to I-75 on the eastern edge of the downtown area. The western and eastern project termini represent the limits of congestion along SR 30/US 280 and are thus logical termini points for these improvements.

Project Phase	Preliminary Engineering	Right-of-Way	Utility Relocation	Construction	Total
Cost Estimate	$1,032,851.04	$2,086,807.27	$2,326,110.00	$12,910,638.00	$18,356,406.31
			Project Type (Local/GDOT):		GDOT

Location Map

Access Management Improvements to US 280/SR 30/16th Avenue

Project Name: Intersection Realignment at SR 300 at Frontage Road

Description: Realignment of the Frontage Road intersection with SR 300 further west of I-75.					County	Crisp
					GDOT District	4
					Congressional District:	2
Traffic Vol.:	2006:	260	2035:	1,000 (est)	RC/MPO:	River Valley RC
Truck %	2006:	1%	2035:	1%	Length (miles):	0.4
No. of Lanes	Existing:	2	Recommended:	2	Route #:	CR 311
Functional Classification:			Urban Local		Beginning and Ending Points:	NA

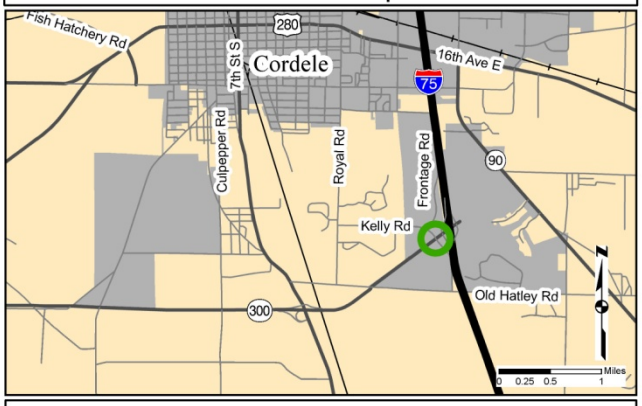
Project Need and Purpose: The proposed project would realign the Frontage Road intersection with SR 300 further west of its current location. With approximately 425' between this intersection and the I-75 SB off-ramp, this intersection is too close to the interchange to adequately accommodate traffic entering and exiting the Frontage Road. The relocation of this intersection further west will improve safety and reduce conflict between vehicles on GA 300 and those entering and exiting the commercial businesses along the Frontage Road.

Logical Termini: The realignment of the Frontage Road would begin approximately 1000' north of SR 300 and continue approximately 1000' south of SR 300. Since this is an operational and safety improvement, the logical termini are the points where the improvements tie back into the existing roadway.

Project Phase	Preliminary Engineering	Right-of-Way	Utility Relocation	Construction	Total
Cost Estimate	$213,040.78	$46,894.55	$115,500.00	$2,663,009.77	$3,038,445.10

	Project Type (Local/GDOT):	Local

Location Map



Intersection Improvements at SR 300 and Frontage Rd

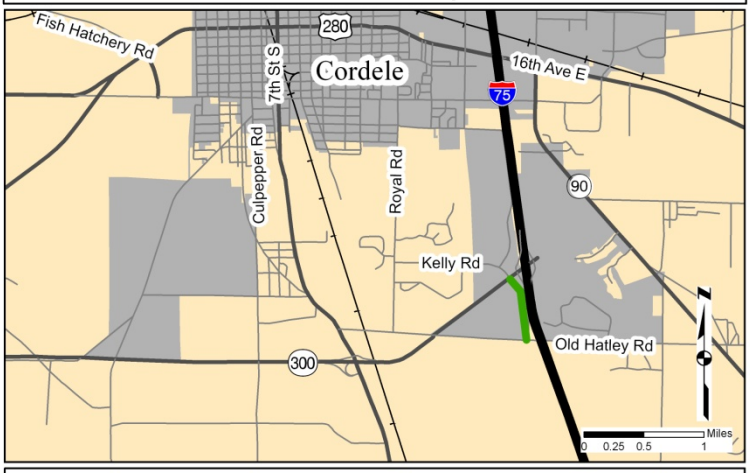
Project Name: Bridge Replacement						
Description: Replace bridge on Frontage Road over Cedar Creek Tributary south of US 300.					County	Crisp
					GDOT District	4
					Congressional District:	2
Traffic Vol.:	2006:	260	2035:	1,000 (est)	RC/MPO:	River Valley RC
Truck %	2006:	1%	2035:	1%	Length (miles):	.508
No. of Lanes	Existing:	2	Recommended:	2	Route #:	CR 311
Functional Classification:			Urban Local		Beginning and Ending Points:	NA

Project Need and Purpose: This project would replace the existing bridge on the Frontage Road over Cedar Creek Tributary to improve safety and allow school buses to utilize this roadway. The existing bridge has a sufficiency rating of 26.48. As this is below 50, this bridge is eligible for federal bridge replacement funds. Furthermore, school buses are not able to cross this bridge due to its weight rating. With a new Crisp County school planned on Old Hately Road immediately south of the bridge, the replacement of this bridge is further needed to accommodate bus activity to this future school.

Logical Termini: As this is a bridge replacement project, the logical termini would be the beginning and end of the bridge.

Project Phase	Preliminary Engineering	Right-of-Way	Utility Relocation	Construction	Total
Cost Estimate	$127,589.21	$0.00	$0.00	$1,598,240.16	$1,726,099.37
			Project Type (Local/GDOT):	GDOT	

Location Map



Frontage Rd South of US 300: Bridge Replacement

Project Name: Pecan Street Intersection Improvements						
Description: Intersection Improvements on Pecan Street in Cordele from US 280/SR 30 to 8th Avenue/SR 257.					County	Crisp
					GDOT District	4
					Congressional District:	2
Traffic Vol.:	2006:	9,600	2035:	10,290	RC/MPO:	River Valley RC
Truck %	2006:	19%	2035:	20%	Length (miles):	.45
No. of Lanes	Existing:	2	Recommended:	2	Route #:	ST 1309
Functional Classification:			Urban Collector		Beginning and Ending Points:	8th Ave. & US 280

Project Need and Purpose: Pecan Street is one of the main north south routes in Cordele, providing access to a major recreational facility, the Crisp County-Cordele Airport as well as residential area north of US 280/SR 30. This roadway also has two railroads crossing within ¼ mile of each other. By 2035, traffic demand on this roadway will cause it to operate at LOS D. For these reasons, turn lanes added at intersections will serve to accommodate increasing demand on this two-lane roadway. By separating left turning traffic from through traffic, these improvements will improve safety and reduce congestion.

Logical Termini: The northern logical terminus is located at 8th Avenue, which provides direct access to I-75. 8th Avenue/SR 257 is an arterial roadway that provides east west mobility through Cordele. The southern logical terminus is the five-lane US 280/SR 30. US 280/SR 30 is the primary east-west arterial through Crisp County and Cordele and thus provides a logical terminus point for the improvements on Pecan Street.

Project Phase	Preliminary Engineering	Right-of-Way	Utility Relocation	Construction	Total
Cost Estimate	$77,024.60	$527,563.64	$126,000.00	$962,807.54	$1,693,395.78
			Project Type (Local/GDOT):		GDOT

Location Map

Intersection Improvements on Pecan Street

Project Name: Farmers Market Road Widening						
Description: Widen Farmers Market Road from US 41/SR 7 to Penia Road.					County	Crisp
					GDOT District	4
					Congressional District:	2
Traffic Vol.:	2006:	6,400	2035:	11,280	RC/MPO:	River Valley RC
Truck %	2006:	21%	2035:	36%	Length (miles):	3.9
No. of Lanes	Existing:	2	Recommended:	4	Route #:	ST 1818
Functional Classification:			Rural Major Collector		Beginning and Ending Points:	US 41 & Penia Rd.

Project Need and Purpose: The proposed project would widen Farmers Market Road from a two-lane road to a four lane road between US 41/SR 7 and Penia Road in order to accommodate growing traffic volumes. With direct access to I-75 and US 41/ SR 7, Farmers Market Road is expected to serve as an important roadway for east-west travel to and from the interstate. Without widening, this segment of Farmers Market Road is expected to operate at LOS D and E by 2035. The potential for a large industrial development between I-75 and US 41/SR 7 north of Farmers Market Road will further increase the demand for travel on this roadway.

Logical Termini: The western logical terminus is located at US 41/SR 7 where Farmers Market Road currently terminates. The eastern logical terminus is Penia Road, beyond which widening is not needed in the future.

Project Phase	Preliminary Engineering	Right-of-Way	Utility Relocation	Construction	Total
Cost Estimate	$1,890,040.21	$3,271,676.12	$1,156,500.00	$23,625,502.66	$29,943,718.99
			Project Type (Local/GDOT):	GDOT	

Location Map

Farmers Market Road Widening

Project Name: US 41 Widening						
Description: Widen US 41/SR 7 from 2 lanes to 4 lanes from Drayton Lane to Farmers Market Road.					County	Crisp
					GDOT District	4
					Congressional District:	2
Traffic Vol.:	2006:	6,400	2035:	18,490	RC/MPO:	River Valley RC
Truck %	2006:	23%	2035:	26%	Length (miles):	.89
No. of Lanes	Existing:	2	Recommended:	4	Route #:	US 41
Functional Classification:			Rural Minor Arterial		Beginning and Ending Points:	Drayton Lane & Farmers Market Road

Project Need and Purpose: The two-lane section of US 41/SR 7 between Drayton Lane and Farmers Market Road is expected to deteriorate to LOS F by 2035 without widening. The widening of this segment of US 41/SR 7 will facilitate safe and efficient north-south mobility in northern Cordele. The potential for a large industrial development between I-75 and US 41/SR 7 north of Farmers Market Road will further increase the demand for travel on US 41/SR 7.

Logical Termini: The southern logical terminus is located at Drayton Lane where this widening would tie into the existing four-lane section of US 41/SR 7. The northern terminus would be located at Farmers Market Road which provides direct access to and from I-75. With no need to widen US 41/SR 7 north of Farmers Market Road, this location provides logical termini.

Project Phase	Preliminary Engineering	Right-of-Way	Utility Relocation	Construction	Total
Cost Estimate	$585,510.61	$5,014,199.27	$241,500.00	$7,318,882.57	$13,160,092.45
			Project Type (Local/GDOT):		GDOT

Location Map

US 41 Widening

8.7 CRISP COUNTY RECOMMENDATIONS

Table 8.4 on page 65 displays a complete list of projects recommended by this study for Crisp County, along with the project limits, configuration, source, type, implementation timeline and potential funding source of each. The source of the recommendation refers to whether the need for the project was first identified by a local representative or by data analysis. The implementation timeline for each project was determined by the general need for the project and the difficulty of financing its implementation. Therefore, projects with higher costs were generally determined to be longer-range in nature. For the purposes of the implementation timeline, short-term projects are expected to be implemented within one to five years; mid-term projects, within five to ten years; and long-range projects, more than ten years from the time of this study. The potential funding sources column notes those funding sources for which each project is eligible. No steps have been taken by this study towards securing such funding nor are any projects guaranteed access to funding.

TABLE 8.4: COMPLETE CRISP COUNTY RECOMMENDATIONS

Facility	Project Limits		Configuration		Source	Project Type	Implementation Timeline			Potential Funding Source		
	From	To	Existing	Proposed			Short-term	Mid-term	Long-term	Federal	State	Local
SR 257	Farmers Market Rd.		Skewed intersection	Realigned intersection	Locally Identified	Intersection Improvement		X		X	X	X
US 280	7th St.	Midway Rd.	4 lanes with continuous flush median	4 lanes with continuous raised median	Locally Identified	Access Management			X	X	X	X
SR 300	Frontage Rd.		Close proximity to I-75 interchange	Intersection realigned further from interchange	Locally Identified	Intersection Improvement		X				X
Frontage Rd.	Cedar Creek Tributary		2-lane bridge	2-lane bridge	Locally Identified	Bridge Replacement	X			X	X	X
Pecan St.	US 280	8th Ave.	2-lane roadway	2-lane roadway	Locally Identified; Analysis	Operational Improvements			X	X	X	X
Farmers Market Rd.	US 41.	Penia Rd.	2-lane roadway	4-lane roadway	Analysis	Widening			X	X	X	X
US 41	Drayton Ln.	Farmers Market Rd.	2-lane roadway	4-lane roadway	Analysis	Widening			X	X	X	X
Williford Crossing Rd./CR 16	High Rocks Rd.	Griffin Rd.	2-lane unpaved roadway	2-lane paved roadway	Locally Identified	Paving		X				X
Airport Road	Blackshear Rd.	Farmers Market Rd.	2-lane unpaved roadway	2-lane paved roadway	Locally Identified	Paving		X				X
Crossroads Store Road	Old Albany Hwy.	Pateville Rd.	2-lane unpaved roadway	2-lane paved roadway	Locally Identified	Paving		X				X

8.8 TRANSPORTATION FUNDING RESOURCES

Planning for and successfully implementing a transportation plan relies on the identification and effective utilization of available transportation funds. Generally, funding is provided at the federal, state and local levels. It is important to note that, while a wide array of funds may be available for transportation improvements, funds at each level are limited.

8.8.1 FEDERAL FUNDING SOURCES

The primary source for relatively costly roadway, transit, bicycle and pedestrian projects is federal funding authorization provided by Safe, Accountable, Flexible, and Efficient Transportation Equity Act: a Legacy for Users (SAFETEA-LU). Federal funding requires that project sponsors contribute a portion of the project's cost, typically 20 percent or more of the total cost. Project sponsors can be state or local, or both. Federal funding sources may be available to those rural roads classified as major collectors or above, or urban roads designated as collectors or above. Due to the large number of projects vying nationwide for federal funding, federal funds are limited and require stringent regulation.

8.8.2 STATE FUNDING SOURCES

State funds are also an important component of transportation funding, primarily for capital projects (those requiring construction or equipment costs). As with federal funds, rural roads classified as major collectors or above, or urban roads designated as collectors or above, are potentially eligible for state funding sources.

The State of Georgia collects two types of taxes on motor fuels to help fund transportation infrastructure projects. Along with the *Prepaid State Tax,* by which three percent of average retail price of fuel is dedicated to transportation, and a bond program, the state of Georgia has the *Fuel Excise Tax,* which places a 7.5 cents tax on each gallon of fuel purchased. Since this tax is based solely on the volume of gasoline sold, it is not indexed to inflation. Revenues increase only with an increase in roadway usage, and revenue increases from travel are offset due to improved engine technology and higher fuel efficiency of vehicles. Due to these factors, the funding ability generated by this tax has been in decline. At this time, State funding is limited, although efforts are underway to identify a potential new source of state funding to supplement the transportation gas tax.

8.8.3 LOCAL FUNDING SOURCES

HB 277 was signed by Governor Sonny Purdue June 2, 2010. The law allows each region to designate a list of selected transportation projects within its boundaries. These projects would be financed by a regional one percent sales tax over ten years, if approved by voters within the region. Project lists will undergo initial developments in the fall of 2010 and referendums will take place in 2012.

Projects along local roads and rural minor collectors are typically funded through local sources. Use of local funding provides local agencies with additional control and direction over the project, but requires expenditure of local resources. Localities within the State of Georgia are able to collect three types of taxes to generate funds for transportation infrastructure projects.

Local governments may, in some cases, also levy fees for this purpose. These may include a *Special Local Option Sales Tax (SPLOST)*, which can be levied by a county via voter referendum for the purpose of raising money to build and maintain transportation and other public facility improvements; *Tax Allocation Districts (TAD)* can fund infrastructure projects, including transportation projects, with bonds from a limited area targeted for accelerated growth; *Community Improvement Districts (CID)* can fund

infrastructure projects, including transportation projects, in a limited area at the discretion of existing commercial property owners; and *Impact Fees,* which are one-time fees charged in association with a new development and are designed to cover part of the cost of providing public facilities to support the development.

Appendix A: Data Sources

Southwest Georgia Multi-County
Transportation Study

October
2010

Georgia Department of Transportation
Office of Planning

APPENDIX A: GIS AND DATA MANAGEMENT FRAMEWORK

Maps for the Southwest Georgia Multi-County Transportation Study were developed using the projected coordinate system of NAD_1983_StatePlane_Georgia_East_FIPS_1001_Feet. GIS data analyzed in the Existing Conditions Report were collected from various sources such as the U.S. Census Bureau, GDOT Roadway Characteristics (RC) data and the Southwest Georgia Travel Demand Model (TDM). Upon completion of the study, all the GIS data will be provided to the client in a CD with a list of the data and their sources. See **Table A.1** for a sample inventory list.

TABLE A.1: GIS DATA INVENTORY

Type	Data	Geographic Type	Source
Socioeconomic & Demographic	Population	Transportation Analysis Zone (TAZ)	Southwest Georgia TDM
	Employment	TAZ	Southwest Georgia TDM
	Minority Population	Census Block	2000 U.S. Census
	Median Household Income	Census Block Group	2000 U.S. Census
Roadway Characteristics	Functional Classification	N/A	GDOT RC Data
	Laneage	N/A	GDOT RC data
	Annual Average Daily Traffic (AADT) Volume	N/A	Southwest Georgia TDM
	Traffic Signals	N/A	Digitized GDOT data
	Crashes (2000 - 2007)	N/A	CARE GDOT Crash Software
	Bridges	N/A	Jan. 2008 GDOT Bridge Inventory
Environmental	Water Features	N/A	National Wetlands Inventory

Crisp County LRTP
Appendix B:
Planning-Level Cost Estimates

Southwest Georgia Multi-County
Transportation Study

October
2010

Georgia Department of Transportation
Office of Planning

Crisp County Project Recommendation Cost Estimates:

Intersection Improvements to Farmers Market Road at SR 257

Operational Improvements to US 280

Intersection Improvements to SR 300 at Frontage Road

Bridge Replacement on Frontage Road

Operational Improvements to Pecan Street

Widening of Farmers Market Road from US 41 to Penia Rd

Widening of US 41 from Drayton Lane to Farmers Market Road

Print View Cost Snapshot

CES Project ID: **GDOT PI Number:** **MPO Plan ID:** **Accounting Number:**

Description:
Relaignment of Farmers Market Road at SR 257.

Primary Work Type: New Construction **Dot District Number:** 4 **Main County:** Crisp

Cost Snapshot Name: CRISP_FM/SR257 **Total Amount :** **$162,394.55**

Row Cost Items

Typical Sections
Terrain: Rolling

	Urbanization Level	Typical Section	Width
Existing	**Rural**	**No Roadway**	0 **ft**
Future	Rural	2 Lanes with 24 feet Pavement	60 **ft**

Land Costs(help)

County	Land Use Type	Width Needed (ft)	Length Miles	Area in Acres	Cost Per Acre($)	Revised Cost($)	Total Cost($)	Comments	Justification
Crisp	Agricultural	60.00	.4	2.91	5,000.00		14,545.45		-

Last Updated Dates: 3/28/2008

Total Length: 0.40 **mile(s)**

Land Cost SubTotal **$14,545.45**

Improvement Costs(help)

Improvement	#	Unit Cost($)	Revised Cost($)	Total Cost($)	Comments	Justification
	0	0.00				-

Last Updated Dates 01/01/0001

Improvement Cost SubTotal **$0.00**

Relocation Costs(help)

Relocation	#	Unit Cost ($)	Revised Cost($)	Total Cost($)	Comments	Justification
	0	0.00				-

Last Updated Dates: 01/01/0001

Relocation Cost SubTotal **$0.00**

SubTotal (Land + Improvement + Relocation) $14,545.45

Damages Cost Percentage : 30.00 %

Damages Cost $4,363.64

Sub Total $18,909.09

Contingencies Scheduling : 55.00 %

Contingency Cost $10,400.00

SubTotal $29,309.09

Administration And Court Cost : 60.00 %

Contingency Cost $17,585.45

ROW Sub Total **$46,894.55**

Utility Cost Items(help)

Contingency: 50.00 %

District	Utility Type	Cost Item	Unit Cost ($)	Revised Cost($)	Quantity	Unit	Total Cost($)	Comments	Justification
4	Electricity	Power Poles	7,000.00		11	each	77,000.00		-

Last Updated Dates: 4/4/2008

SubTotal $77,000.00

Contingency SubTotal $38,500.00

Utility Sub Total **$115,500.00**

Support Documents(help)

Name	Uploaded By	Uploaded Date	Url

Southwest Georgia Multi-County Transportation Study

TEXT FILE ATTACHMENT – for CES project CRISP_SR257/FM

PI # CRISP_SR257/FM TPRO Description: *INTERSECTION IMPROVEMENTS AT SR 257 AT FARMERS MARKET ROAD*
Date estimate done: 02/26/2010
Estimate done by: *Audra Rojek* Agency: *JJG*
Let With: PI # _____ (if applicable)
Length: 0.4 miles Width assumed: 37 feet
Concept: Two-lane roadway for intersection realignment

Total Cost of Project (including all bridges, signals, intersections, turn lanes, etc.) = 2,105,334.57

Area Type Assumptions:
Area type (Urban or Rural) Rural
Primary County for Costing: CRISP

Widening Width Assumptions:
Two 12' travel lanes plus shoulders
Total – 37'

Earthwork Percent Assumptions:
Earth work required for rolling Georgia region.

Intersection Improvements (Turn lanes)
All turn lanes are assumed to have the same unit costs per ton for Asphalt and Base/Aggregate as the main widening project to produce a more accurate planning level cost estimate. These units costs are:
Asphalt: $ 63.31938 per ton
Base/Aggregate: $37.61904

Intersection #1
Description: Intersection improvement at SR 257 at Farmers Market Road
Includes left and/or right turn lanes on all approaches
Intersection of State Route with: Non-SR Speed (Low/High): Low Median (Narrow/Wide): Narrow
Left turn lanes: 350' / 14' Quantity 4
Right turn lanes: 275' / 12' Quantity 4

Total number of turn lanes by Type:
Type A: 350' by 14' Quantity 4 Total length: 0.2652. miles Total CES Cost Estimate: $ 446,237.47
Type E: 275' by 12' Quantity 4 Total length: 0.2084 miles Total CES Cost Estimate: $ 300,568.49

Traffic Signals

Signal #1
Description: **Signal Replacement at US 280 at 7th Street**
CES Cost Estimate = $125,000

Print View Cost Snapshot

CES Project ID: **GDOT PI Number:** **MPO Plan ID:** **Accounting Number:**

Description:
US 280 - Replace 16' flush median with 20' raised median with turn cuts from west of I-75 interchange to 7th Street in Cordele

Primary Work Type: Widening **Dot District Number:** 4 **Main County:** Crisp

Cost Snapshot Name: CRISP_US280_OPS **Total Amount :** $4,412,917.27

Row Cost Items

Typical Sections
Terrain: Rolling

	Urbanization Level	Typical Section	Width
Existing	Urban	4 Lanes with 14 feet Flush Median (62 feet Pavement) with sidewalks	100 ft
Future	Urban	4 lanes with 20 feet Raised Median with sidewalks	150 ft

Land Costs(help)

County	Land Use Type	Width Needed (ft)	Length Miles	Area in Acres	Cost Per Acre($)	Revised Cost($)	Total Cost($)	Comments	Justification
Crisp	Commercial	20.00	1.78	4.32	150,000.00		647,272.73	minimal ROW required	-

Last Updated Dates: 3/28/2008

Total Length: 1.78 **mile(s)**

Land Cost SubTotal $647,272.73

Improvement Costs(help)

Improvement	#	Unit Cost($)	Revised Cost($)	Total Cost($)	Comments	Justification
	0	0.00				-

Last Updated Dates 01/01/0001

Improvement Cost SubTotal $0.00

Relocation Costs(help)

Relocation	#	Unit Cost ($)	Revised Cost($)	Total Cost($)	Comments	Justification
	0	0.00				-

Last Updated Dates: 01/01/0001

Relocation Cost SubTotal $0.00

SubTotal (Land + Improvement + Relocation) $647,272.73

Damages Cost Percentage : 30.00 %

Damages Cost $194,181.82

Sub Total $841,454.55

Contingencies Scheduling : 55.00 %

Contingency Cost $462,800.00

SubTotal $1,304,254.55

Administration And Court Cost : 60.00 %

Contingency Cost $782,552.73

ROW Sub Total $2,086,807.27

Utility Cost Items(help)

Contingency: 50.00 %

District	Utility Type	Cost Item	Unit Cost ($)	Revised Cost($)	Quantity	Unit	Total Cost($)	Comments	Justification
4	Electricity	Power Poles	7,000.00		47	each	329,000.00		-
4	Water	6 inch PVC water lines	30.00		9,398	lin ft	281,940.00		-
4	Gas	2 inch plastic gas main (local govt)	25.00		9,398	lin ft	234,950.00		-
4	Sewer	6 inch and 8 inch PVC sewer lines (gravity)	75.00		9,398	lin ft	704,850.00		-

Last Updated Dates: 4/4/2008,4/4/2008,4/4/2008,4/4/2008

SubTotal $1,550,740.00

Contingency SubTotal $775,370.00

Utility Sub Total $2,326,110.00

Support Documents(help)

Name	Uploaded By	Uploaded Date	Url

TEXT FILE ATTACHMENT – for CES project CRISP_US280_OPS

PI # CRISP_SR280_OPS TPRO Description: *OPERATIONAL IMPROVEMENTS ALONG US 280 FROM 7TH STREET TO WEST OF I-75 INTERCHANGE IN CORDELE*
Date estimate done: 02/10/2010
Estimate done by: *Audra Rojek* Agency: *JJG*
Let With: PI # _____ (if applicable)
Length: 1.78 miles Width assumed: 68 feet Concept: 20' raised median to replace 14' flush median

Total Cost of Project (including all bridges, signals, intersections, turn lanes, etc.) = 12,910,638.65

Area Type Assumptions:
Area type (Urban or Rural) Urban
Primary County for Costing: CRISP

Widening Width Assumptions:
Median and four lanes, inside and outside shoulders + curb & gutter and sidewalks
Total – 68'

Earthwork Percent Assumptions:
Earth work required for rolling Georgia region.

Intersection Improvements (Turn lanes)
All turn lanes are assumed to have the same unit costs per ton for Asphalt and Base/Aggregate as the main widening project to produce a more accurate planning level cost estimate. These units costs are:
Asphalt: $ 52.75989 per ton
Base/Aggregate: $20.27920

Intersection #1
Description: Intersection improvement at US 280 and Shopping Center
Replaces existing 450' right turn lane on westbound US 280 approach
Intersection of Non State Route with: Non-SR Speed (Low/High): Low Median (Narrow/Wide): Narrow
Right turn lanes: 450' / 12' Quantity 1

Total number of turn lanes by Type:
Type F: 450' by 12' Quantity 1 Total length: 0.852 miles Total CES Cost Estimate: $87,752.74

Traffic Signals

Signal #1
Description: **Signal Replacement at US 280 at 7th Street**
CES Cost Estimate = $125,000

Signal #2
Description: **Signal Replacement at US 280 at 5th Street**
CES Cost Estimate = $125,000

Signal #3
Description: **Signal Replacement at US 280 at 3rd Street**
CES Cost Estimate = $125,000

Southwest Georgia Multi-County Transportation Study
Signal #4 Description: **Signal Replacement at US 280 at Pecan Street** CES Cost Estimate = $125,000 Signal #5 Description: **Signal Replacement at US 280 at Shopping Center Entry** CES Cost Estimate = $125,000 Signal #6 Description: **Signal Replacement at US 280 at Greer Street** CES Cost Estimate = $125,000

Print View Cost Snapshot

CES Project ID: **GDOT PI Number:** **MPO Plan ID:** **Accounting Number:**

Description:
Realignment of Frontage Road at SR 300

Primary Work Type: New Construction **Dot District Number:** 4 **Main County:** Crisp

Cost Snapshot Name: CRISP_SR300/FM **Total Amount :** $162,394.55

Row Cost Items

Typical Sections
Terrain: Rolling

	Urbanization Level	Typical Section	Width
Existing	Rural	No Roadway	0 ft
Future	Rural	2 Lanes with 24 feet Pavement	60 ft

Land Costs(help)

County	Land Use Type	Width Needed (ft)	Length Miles	Area in Acres	Cost Per Acre($)	Revised Cost($)	Total Cost($)	Comments	Justification
Crisp	Agricultural	60.00	.4	2.91	5,000.00		14,545.45		-

Last Updated Dates: 3/28/2008

Total Length: 0.40 **mile(s)**

Land Cost SubTotal $14,545.45

Improvement Costs(help)

Improvement	#	Unit Cost($)	Revised Cost($)	Total Cost($)	Comments	Justification
	0	0.00				-

Last Updated Dates 01/01/0001

Improvement Cost SubTotal $0.00

Relocation Costs(help)

Relocation	#	Unit Cost ($)	Revised Cost($)	Total Cost($)	Comments	Justification
	0	0.00				-

Last Updated Dates: 01/01/0001

Relocation Cost SubTotal $0.00

SubTotal (Land + Improvement + Relocation) $14,545.45

Damages Cost Percentage : 30.00 %

Damages Cost $4,363.64

Sub Total $18,909.09

Contingencies Scheduling : 55.00 %

Contingency Cost $10,400.00

SubTotal $29,309.09

Administration And Court Cost : 60.00 %

Contingency Cost $17,585.45

ROW Sub Total $46,894.55

Utility Cost Items(help)

Contingency: 50.00 %

District	Utility Type	Cost Item	Unit Cost ($)	Revised Cost($)	Quantity	Unit	Total Cost($)	Comments	Justification
4	Electricity	Power Poles	7,000.00		11	each	77,000.00		-

Last Updated Dates: 4/4/2008

SubTotal $77,000.00

Contingency SubTotal $38,500.00

Utility Sub Total $115,500.00

Support Documents(help)

Name	Uploaded By	Uploaded Date	Url

Southwest Georgia Multi-County Transportation Study

TEXT FILE ATTACHMENT – for CES project CRISP_SR300/FR

PI # CRISP_SR300/FM TPRO Description: *INTERSECTION REALIGNMENT AT SR 300 AT FRONTAGE ROAD*
Date estimate done: 02/10/2010
Estimate done by: *Audra Rojek* Agency: *JJG*
Let With: PI # _____ (if applicable)
Length: .4 miles Width assumed: 37 feet Concept: Realign intersection

Total Cost of Project (including all bridges, signals, intersections, turn lanes, etc.) = 2,663,009.77

Area Type Assumptions:
Area type (Urban or Rural) Rural
Primary County for Costing: CRISP

Widening Width Assumptions:
New Travel Lanes includes inside and outside shoulders
Total – 37'

Earthwork Percent Assumptions:
Earth work required for rolling Georgia region.

Intersection Improvements (Turn lanes)
All turn lanes are assumed to have the same unit costs per ton for Asphalt and Base/Aggregate as the main widening project to produce a more accurate planning level cost estimate. These units costs are:
Asphalt: $63.31938 per ton
Base/Aggregate: $37.61904

Intersection #1
Description: Intersection improvement at I-75 Frontage Road and SR 300
Includes left and right turn lanes on all approaches
Intersection of State Route with: Non-SR Speed (Low/High): High Median (Narrow/Wide): Wide
Left turn lanes: 350' / 14' Quantity 2
Left turn lanes: 510' / 14' Quantity 2
Right turn lanes: 275' / 12' Quantity 2
Right turn lanes: 450' / 12' Quantity 2

Total number of turn lanes by Type:
Type A: 350' by 14' Quantity 4 Total length: 0.1326 miles Total CES Cost Estimate: $ 223,118.77
Type D: 510' by 30' Quantity 4 Total length: 0. 1932 miles Total CES Cost Estimate: $ 696,615.08
Type E: 275' by 12' Quantity 4 Total length: 0.1042 miles Total CES Cost Estimate: $ 150,284.23
Type F: 450' by 14' Quantity 4 Total length: 0.1704 miles Total CES Cost Estimate: $ 286,722.84

Southwest Georgia Multi-County Transportation Study

TEXT FILE ATTACHMENT – for CES project CRISP_BRG_ALL

PI # CRISP_ BRG TPRO Description: ***BRIDGE REPLACEMENT ON FRONTAGE ROAD OVER CEDAR CREEK TRIBUTARUY SOUTH OF US 30.***
Date estimate done: 02/10/2010
Estimate done by: *Audra Rojek* Agency: *JJG*
Let With: PI # _____ (if applicable)
Length: .5 miles plus bridge Width assumed: 37 feet Concept: Bridge replacement with improved approaches

Total Cost of Project (including all bridges, signals, intersections, turn lanes, etc.) = 1,598,240.16

Area Type Assumptions:
Area type (Urban or Rural) Rural
Primary County for Costing: CRISP

Widening Width Assumptions:
12 foot travel lanes plus shoulders
Total – 37 feet

Earthwork Percent Assumptions:
Earth work required for rolling Georgia region.

Bridge #1
PI # CRISP_FR_BRG Description: Bridge over water
Bridge Length: .008 miles Bridge Width assumed: 40 feet Concept: Bridge Replacement
Bridge crosses over (Roadway, Rail or Water): Water
CES Cost Estimate = $ 237,219.84

Bridge Width Assumptions:
- 24’ Travel Lanes
- 16' Outside shoulders, inside shoulders and parapet

Total – 40’

Print View Cost Snapshot

CES Project ID: **GDOT PI Number:** **MPO Plan ID:** **Accounting Number:**

Description:
Pecan Street in Cordele - Add turn lanes

Primary Work Type: Widening **Dot District Number:** 4 **Main County:** Crisp

Cost Snapshot Name: CRISP_PCN_OPS **Total Amount :** $653,563.64

Row Cost Items

Typical Sections
Terrain: Rolling

	Urbanization Level	Typical Section	Width
Existing	Rural	2 Lanes with 24 feet Pavement	60 ft
Future	Rural	2 Lanes with 24 feet Pavement	60 ft

Land Costs(help)

County	Land Use Type	Width Needed (ft)	Length Miles	Area in Acres	Cost Per Acre($)	Revised Cost($)	Total Cost($)	Comments	Justification
Crisp	Commercial	20.00	.45	1.09	150,000.00		163,636.36		-

Last Updated Dates: 3/28/2008

Total Length: 0.45 **mile(s)**

Land Cost SubTotal $163,636.36

Improvement Costs(help)

Improvement	#	Unit Cost($)	Revised Cost($)	Total Cost($)	Comments	Justification
	0	0.00				-

Last Updated Dates 01/01/0001

Improvement Cost SubTotal $0.00

Relocation Costs(help)

Relocation	#	Unit Cost ($)	Revised Cost($)	Total Cost($)	Comments	Justification
	0	0.00				-

Last Updated Dates: 01/01/0001

Relocation Cost SubTotal $0.00

SubTotal (Land + Improvement + Relocation) $163,636.36

Damages Cost Percentage : 30.00 % **Damages Cost** $49,090.91

Sub Total $212,727.27

Contingencies Scheduling : 55.00 % **Contingency Cost** $117,000.00

SubTotal $329,727.27

Administration And Court Cost : 60.00 % **Contingency Cost** $197,836.36

ROW Sub Total $527,563.64

Utility Cost Items(help)

Contingency: 50.00 %

District	Utility Type	Cost Item	Unit Cost ($)	Revised Cost($)	Quantity	Unit	Total Cost($)	Comments	Justification
4	Electricity	Power Poles	7,000.00		12	each	84,000.00		-
4	Water	6 inch PVC water lines	30.00		0	lin ft	0.00		-
4	Sewer	6 inch and 8 inch PVC sewer lines (gravity)	75.00		0	lin ft	0.00		-
4	Gas	2 inch plastic gas main (local govt)	25.00		0	lin ft	0.00		-

Last Updated Dates: 4/4/2008,4/4/2008,4/4/2008,4/4/2008

SubTotal $84,000.00

Contingency SubTotal $42,000.00

Utility Sub Total $126,000.00

Support Documents(help)

Name	Uploaded By	Uploaded Date	Url

TEXT FILE ATTACHMENT – for CES project CRISP_PECAN

PI # CRISP_PECAN TPRO Description: *INTERSECTION IMPROVEMENTS ON PECAN STREET*

Date estimate done: 02/10/2010
Estimate done by: *Audra Rojek* Agency: *JJG*
Let With: PI # _____ (if applicable)
Length: .45 miles Width assumed: 14 feet Concept: Adding turn lanes as part of safety and operational improvements on Pecan Street from US 280 to 8th Street

Total Cost of Project (including all bridges, signals, intersections, turn lanes, etc.) = 962,807.54

Area Type Assumptions:
Area type (Urban or Rural) Urban
Primary County for Costing: CRISP

Earthwork Percent Assumptions:
Earth work required for rolling Georgia region.

Intersection Improvements (Turn lanes)
All turn lanes are assumed to have the same unit costs per ton for Asphalt and Base/Aggregate as the main widening project to produce a more accurate planning level cost estimate. These units costs are:
Asphalt: $ 54.59206 per ton
Base/Aggregate: $ 24.38428

Intersection #1
Description: Intersection improvement at Pecan Street and 8th Street
Includes left turn lane on Pecan Street approaches
Intersection of Non State Route with: Non-SR Speed (Low/High): Low Median (Narrow/Wide): Narrow
Left turn lanes: 350' / 14' Quantity 2

Intersection #2
Description: Intersection improvement at Pecan Street and Recreation Center Entrance
Includes left turn lanes on Pecan Street approaches
Intersection of Non State Route with: Non-SR Speed (Low/High): Low Median (Narrow/Wide): Narrow
Left turn lanes: 350' / 14' Quantity 1
Right turn lane: 275' / 12'Quantity 1

Intersection #3
Description: Intersection improvement at Pecan Street at 13th Street/11th Street
Includes left turn lanes on Pecan Street approaches
Intersection of Non State Route with: Non-SR Speed (Low/High): Low Median (Narrow/Wide): Narrow
Left turn lanes: 350' / 14' Quantity 2

Intersection #4
Description: Intersection improvement at Pecan Street at US 280
Includes left turn lane on Pecan Street SB approach
Intersection of Non State Route with: Non-SR Speed (Low/High): Low Median (Narrow/Wide): Narrow
Left turn lanes: 350' / 14' Quantity 1

Total number of turn lanes by Type:
Type A: 350' by 14' Quantity 6 Total length: 0.3978 miles
Type E: 275' by 12' Quantity 1 Total length: 0.0521 miles

Southwest Georgia Multi-County Transportation Study
Traffic Signals Signal #1 Description: **New Signal / Signal Replacement at Pecan Street at 8th Street** CES Cost Estimate = $125,000 Signal #2 Description: **New Signal / Signal Replacement at Pecan Street at US 280** CES Cost Estimate = $125,000

Print View Cost Snapshot

CES Project ID: **GDOT PI Number:** **MPO Plan ID:** **Accounting Number:**

Description:
Farmers Market Road - Widen from two lanes to four lanes, divided, with grassy depressed median

Primary Work Type: Widening **Dot District Number:** 4 **Main County:** Crisp

Cost Snapshot Name: CRISP_FM_WD **Total Amount :** $4,428,176.12

Row Cost Items

Typical Sections
Terrain: Rolling

	Urbanization Level	Typical Section	Width
Existing	Rural	2 Lanes with 24 feet Pavement	60 ft
Future	Rural	4 lanes with 44 feet grassed median	200 ft

Land Costs(help)

County	Land Use Type	Width Needed (ft)	Length Miles	Area in Acres	Cost Per Acre($)	Revised Cost($)	Total Cost($)	Comments	Justification
Crisp	Agricultural	140.00	2.84	48.19	5,000.00		240,969.70		-
Crisp	Commercial	140.00	.22	3.73	150,000.00		560,000.00		-
Crisp	Residential	140.00	.84	14.25	15,000.00		213,818.18		-

Last Updated Dates: 3/28/2008,3/28/2008,3/28/2008

Total Length: 3.90 **mile(s)**

Land Cost SubTotal $1,014,787.88

Improvement Costs(help)

Improvement	#	Unit Cost($)	Revised Cost($)	Total Cost($)	Comments	Justification
	0	0.00				-

Last Updated Dates 01/01/0001

Improvement Cost SubTotal $0.00

Relocation Costs(help)

Relocation	#	Unit Cost ($)	Revised Cost($)	Total Cost($)	Comments	Justification
	0	0.00				-

Last Updated Dates: 01/01/0001

Relocation Cost SubTotal $0.00

SubTotal (Land + Improvement + Relocation) $1,014,787.88

Damages Cost Percentage : 30.00 %

Damages Cost $304,436.36

Sub Total $1,319,224.24

Contingencies Scheduling : 55.00 %

Contingency Cost $725,573.33

SubTotal $2,044,797.58

Administration And Court Cost : 60.00 %

Contingency Cost $1,226,878.55

ROW Sub Total $3,271,676.12

Utility Cost Items(help)

Contingency: 50.00 %

District	Utility Type	Cost Item	Unit Cost ($)	Revised Cost($)	Quantity	Unit	Total Cost($)	Comments	Justification
4	Electricity	Power Poles	7,000.00		103	each	721,000.00		-
4	Electricity	Relocation of small transmission structures	50,000.00		1	each	50,000.00		-

Last Updated Dates: 4/4/2008,4/4/2008

SubTotal $771,000.00

Contingency SubTotal $385,500.00

Utility Sub Total $1,156,500.00

Support Documents(help)

Name	Uploaded By	Uploaded Date	Url

TEXT FILE ATTACHMENT – for CES project CRISP_FM_WD

PI # CRISP_FM_WD TPRO Description: *WIDENING OF FARMERS MARKET ROAD FROM US 41 TO PENIA ROAD*

Date estimate done: 02/10/2010
Estimate done by: *Audra Rojek* Agency: *JJG*
Let With: PI # _____ (if applicable)
Length: 3.9 miles Width assumed: 65 feet Concept: Widen Farmers Market Road from two lanes to four lanes, divided, with a depressed grassed median.

Total Cost of Capacity Project (including all bridges, signals, intersections, turn lanes, etc.) = 23,519,252.66

Area Type Assumptions:
Area type (Urban or Rural) Rural
Primary County for Costing: CRISP

Widening Width Assumptions:
New Travel Lanes includes inside and outside shoulders, depressed grassed median, no curb and gutter
Total – 65'

Earthwork Percent Assumptions:
Earth work required for generally rolling Georgia region.

Intersection Improvements (Turn lanes)
All turn lanes are assumed to have the same unit costs per ton for Asphalt and Base/Aggregate as the main widening project to produce a more accurate planning level cost estimate. These units costs are:
Asphalt: $50.19147 per ton
Base/Aggregate: $15.48852

Intersection #1
Description: Intersection improvement at US 41 at Farmers Market Road
Includes left turn lane from US 41 SB approach and right turn lane on US 41 NB approach
Intersection of State Route with: Non-SR Speed (Low/High): Low Median (Narrow/Wide): Narrow
Left turn lanes: 350' / 14' Quantity 1
Right turn lanes: 275' / 12' Quantity 1

Intersection #2
Description: Intersection improvement at Farmers Market Road at SR 257
Includes left and/or right turn lanes on all approaches
Intersection of State Route with: Non-SR Speed (Low/High): Low Median (Narrow/Wide): Narrow
Left turn lanes: 350' / 14' Quantity 4
Right turn lanes: 275' / 12' Quantity 2

Total number of turn lanes by Type:
Type A: 350' by 14' Quantity 5 Total length: .3315 miles Total CES Cost Estimate: $356,111.95
Type E: 450' by 12' Quantity 3 Total length: .1563 miles Total CES Cost Estimate: $143,918.01

Traffic Signals
Signal #1
Description: **New Signal / Signal Replacement at US 41 at Farmers Market Road**
CES Cost Estimate = $125,000

Southwest Georgia Multi-County Transportation Study
Signal #2 Description: **New Signal / Signal Replacement at Farmers Market Road at I-75 Interchange** CES Cost Estimate = $250,000 Signal #3 Description: **New Signal / Signal Replacement at Farmers Market Road at SR 257** CES Cost Estimate = $125,000

Print View Cost Snapshot

CES Project ID: **GDOT PI Number:** **MPO Plan ID:** **Accounting Number:**

Description: SR 41 - Widen from two lanes to four lanes, divided, with grassy depressed median

Primary Work Type: Widening **Dot District Number:** 4 **Main County:** Crisp

Cost Snapshot Name: CRISP_SR41_WD **Total Amount :** $5,255,699.27

Row Cost Items

Typical Sections

Terrain: Rolling

	Urbanization Level	Typical Section	Width
Existing	Rural	2 Lanes with 24 feet Pavement	60 ft
Future	Rural	4 lanes with 44 feet grassed median	200 ft

Land Costs(help)

County	Land Use Type	Width Needed (ft)	Length Miles	Area in Acres	Cost Per Acre($)	Revised Cost($)	Total Cost($)	Comments	Justification
Crisp	Commercial	140.00	.58	9.84	150,000.00		1,476,363.64		-
Crisp	Residential	140.00	.31	5.26	15,000.00		78,909.09		-
Last Updated Dates:	3/28/2008,3/28/2008								

Total Length: 0.89 **mile(s)**

Land Cost SubTotal $1,555,272.73

Improvement Costs(help)

Improvement	#	Unit Cost($)	Revised Cost($)	Total Cost($)	Comments	Justification
	0	0.00				-
Last Updated Dates 01/01/0001						

Improvement Cost SubTotal $0.00

Relocation Costs(help)

Relocation	#	Unit Cost ($)	Revised Cost($)	Total Cost($)	Comments	Justification
	0	0.00				-
Last Updated Dates: 01/01/0001						

Relocation Cost SubTotal $0.00

SubTotal (Land + Improvement + Relocation) $1,555,272.73

Damages Cost Percentage : 30.00 % **Damages Cost** $466,581.82

Sub Total $2,021,854.55

Contingencies Scheduling : 55.00 % **Contingency Cost** $1,112,020.00

SubTotal $3,133,874.55

Administration And Court Cost : 60.00 % **Contingency Cost** $1,880,324.73

ROW Sub Total $5,014,199.27

Utility Cost Items(help)

Contingency: 50.00 %

District	Utility Type	Cost Item	Unit Cost ($)	Revised Cost($)	Quantity	Unit	Total Cost($)	Comments	Justification
4	Electricity	Power Poles	7,000.00		23	each	161,000.00		-
Last Updated Dates:	4/4/2008								

SubTotal $161,000.00

Contingency SubTotal $80,500.00

Utility Sub Total $241,500.00

Support Documents(help)

Name	Uploaded By	Uploaded Date	Url

TEXT FILE ATTACHMENT – for CES project CRISP_US41_WD

PI # CRISP_US41_WD TPRO Description: *WIDING OF US 41 FROM 2 TO 4 LANES FROM DRAYTON LANE TO FARMERS MARKET ROAD*
Date estimate done: 02/10/2010
Estimate done by: *Audra Rojek* Agency: *JJG*
Let With: PI # _____ (if applicable)
Length: .89 miles Width assumed: 65 feet Concept: Widen US 41 from two to four lanes, divided, with depressed median, from current four-lane section near Drayton Lane to Farmers Market Road

Total Cost of Capacity Project (including all bridges, signals, intersections, turn lanes, etc.) = 7,318,882.57

Area Type Assumptions:
Area type (Urban or Rural) Rural
Primary County for Costing: CRISP

Widening Width Assumptions:
New Travel Lanes includes inside and outside shoulders + no curb and gutter
Total – 65'

Earthwork Percent Assumptions:
Earthwork required for rolling Georgia region.

Intersection Improvements (Turn lanes)
All turn lanes are assumed to have the same unit costs per ton for Asphalt and Base/Aggregate as the main widening project to produce a more accurate planning level cost estimate. These units costs are:
Asphalt: $55.45610 per ton
Base/Aggregate: $26.54223

Intersection #1
Description: Intersection improvement at US 41 at Farmers Market Road
Includes left turn lane NB and right turn lane SB on US 41
Intersection of State Route with: Non-SR Speed (Low/High): Low Median (Narrow/Wide): Narrow
Left turn lanes: 350' / 14' Quantity 1
Right turn lanes: 275' / 12' Quantity 1

Intersection #2
Description: Intersection improvement at US 41 at Fenn Road
Includes left and/or right turn lanes on all approaches
Intersection of State Route with: Non-SR Speed (Low/High): Low Median (Narrow/Wide): Narrow
Left turn lanes: 350' / 14' Quantity 2
Right turn lanes: 275' / 12' Quantity 1

Intersection #3
Description: Intersection improvement at US 41 at Drayton Road
Includes left and/or right turn lanes on all approaches
Intersection of State Route with: State Route Speed (Low/High): Low Median (Narrow/Wide): Narrow
Left turn lanes: 350' / 14' Quantity 2
Right turn lanes: 275' / 12' Quantity 1

Total number of turn lanes by Type:
Type A: 350' by 14' Quantity 5 Total length: 0.3315 miles Total CES Cost Estimate: $450,073.40

Type E: 275’ by 12’ Quantity 3 Total length: 0.1563 miles Total CES Cost Estimate: $179,013.28

Traffic Signals
Signal #1
Description: **New Signal / Signal Replacement at US 41 at Farmers Market Road**
CES Cost Estimate = $125,000

Print View Cost Snapshot

CES Project ID: **GDOT PI Number:** **MPO Plan ID:** **Accounting Number:**

Description:
US 280: Widen to four lane with a raised 20' median from east of I-75 to S. Midway Rd.

Primary Work Type: Widening **Dot District Number:** 4 **Main County:** Crisp

Cost Snapshot Name: CRISP_US280_W **Total Amount :** $1,755,786.09

Row Cost Items

Typical Sections
Terrain: Rolling

	Urbanization Level	Typical Section	Width
Existing	Urban	2 Lanes with 14 feet Flush Median (38 feet Pavement) with sidewalks	72 ft
Future	Urban	4 lanes with 20 feet Raised Median with sidewalks	150 ft

Land Costs(help)

County	Land Use Type	Width Needed (ft)	Length Miles	Area in Acres	Cost Per Acre($)	Revised Cost($)	Total Cost($)	Comments	Justification
Crisp	Commercial	78.00	.28	2.65	150,000.00		397,090.91		-

Last Updated Dates: 3/28/2008

Total Length: 0.28 **mile(s)**

Land Cost SubTotal $397,090.91

Improvement Costs(help)

Improvement	#	Unit Cost($)	Revised Cost($)	Total Cost($)	Comments	Justification
Misc. Improvements Small	1	25,000.00		25,000.00		-

Last Updated Dates 3/28/2008

Improvement Cost SubTotal $25,000.00

Relocation Costs(help)

Relocation	#	Unit Cost ($)	Revised Cost($)	Total Cost($)	Comments	Justification
	0	0.00				-

Last Updated Dates: 01/01/0001

Relocation Cost SubTotal $0.00

SubTotal (Land + Improvement + Relocation) $422,090.91

Damages Cost Percentage : 30.00 %

Damages Cost $126,627.27

Sub Total $548,718.18

Contingencies Scheduling : 55.00 %

Contingency Cost $301,795.00

SubTotal $850,513.18

Administration And Court Cost : 60.00 %

Contingency Cost $510,307.91

ROW Sub Total $1,360,821.09

Utility Cost Items(help)

Contingency: 50.00 %

District	Utility Type	Cost Item	Unit Cost ($)	Revised Cost($)	Quantity	Unit	Total Cost($)	Comments	Justification
4	Electricity	Power Poles	7,000.00		7	each	49,000.00		-
4	Water	6 inch PVC water lines	30.00		1,478	lin ft	44,340.00		-
4	Gas	2 inch plastic gas main (local govt)	25.00		1,478	lin ft	36,950.00		-
4	Sewer	6 inch and 8 inch PVC sewer lines (gravity)	75.00		1,478	lin ft	133,020.00		-

Last Updated Dates: 4/4/2008,4/4/2008,4/4/2008,4/4/2008

SubTotal $263,310.00

Contingency SubTotal $131,655.00

Utility Sub Total $394,965.00

Support Documents(help)

Name	Uploaded By	Uploaded Date	Url

TEXT FILE ATTACHMENT – for CES project CRISP_US280_WD

PI # CRISP_US280_WD TPRO Description: *WIDING OF US 280 FROM 2 TO 4 LANES FROM I-75 TO MIDWAY RD*
Date estimate done: 02/10/2010
Estimate done by: *Audra Rojek* Agency: *JJG*
Let With: PI # _____ (if applicable)
Length: .28 miles Width assumed: 65 feet Concept: Widen US 280 from three lanes to four lanes with a median, from current four-lane section east of I-75 to Midway Road

Total Cost of Capacity Project (including all bridges, signals, intersections, turn lanes, etc.) = 3,308,148.17

Area Type Assumptions:
Area type (Urban or Rural) Urban
Primary County for Costing: CRISP

Widening Width Assumptions:
New Travel Lanes include inside and outside shoulders, assumes curb and gutter and raised median
Total – 65'

Earthwork Percent Assumptions:
Earthwork required for rolling Georgia region.

Intersection Improvements (Turn lanes)
All turn lanes are assumed to have the same unit costs per ton for Asphalt and Base/Aggregate as the main widening project to produce a more accurate planning level cost estimate. These units costs are:
Asphalt: $60.28395 per ton
Base/Aggregate: $41.65841

Intersection #1
Description: Intersection improvement at US 280 at Midway Road
Includes left and right turn lanes on both US 280 approaches
Intersection of State Route with: Non-SR Speed (Low/High): Low Median (Narrow/Wide): Narrow
Left turn lanes: 350' / 14' Quantity 2
Right turn lanes: 275' / 12' Quantity 2

Intersection #2
Description: Right turn lane at US 280 at curb cut
Includes right turn lanes
Intersection of State Route with: Non-SR Speed (Low/High): Low Median (Narrow/Wide): Narrow
Right turn lanes: 275' / 12' Quantity 1

Intersection #3
Description: Right turn lane at US 280 at curb cut
Includes right turn lanes
Intersection of State Route with: Non-SR Speed (Low/High): Low Median (Narrow/Wide): Narrow
Right turn lanes: 275' / 12' Quantity 1

Total number of turn lanes by Type:
Type A: 350' by 14' Quantity 2 Total length: 0.1326 miles Total CES Cost Estimate: $ 226,453.85
Type E: 275' by 12' Quantity 4 Total length: 0.2084 miles Total CES Cost Estimate: $ 305,061.26

Southwest Georgia Multi-County Transportation Study
Traffic Signals Signal #1 Description: **New Signal / Signal Replacement at US 280 at S Midway Rd** CES Cost Estimate = $125,000