

# *Southwest Georgia Interstate Study*

# **Final Report**

**Prepared For:**



**Prepared By:** SW  
Georgia



**In Association With:**

**AECOM**

**M.P.H.**  
Associates, inc.

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## Southwest Georgia Interstate Study

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# Introduction

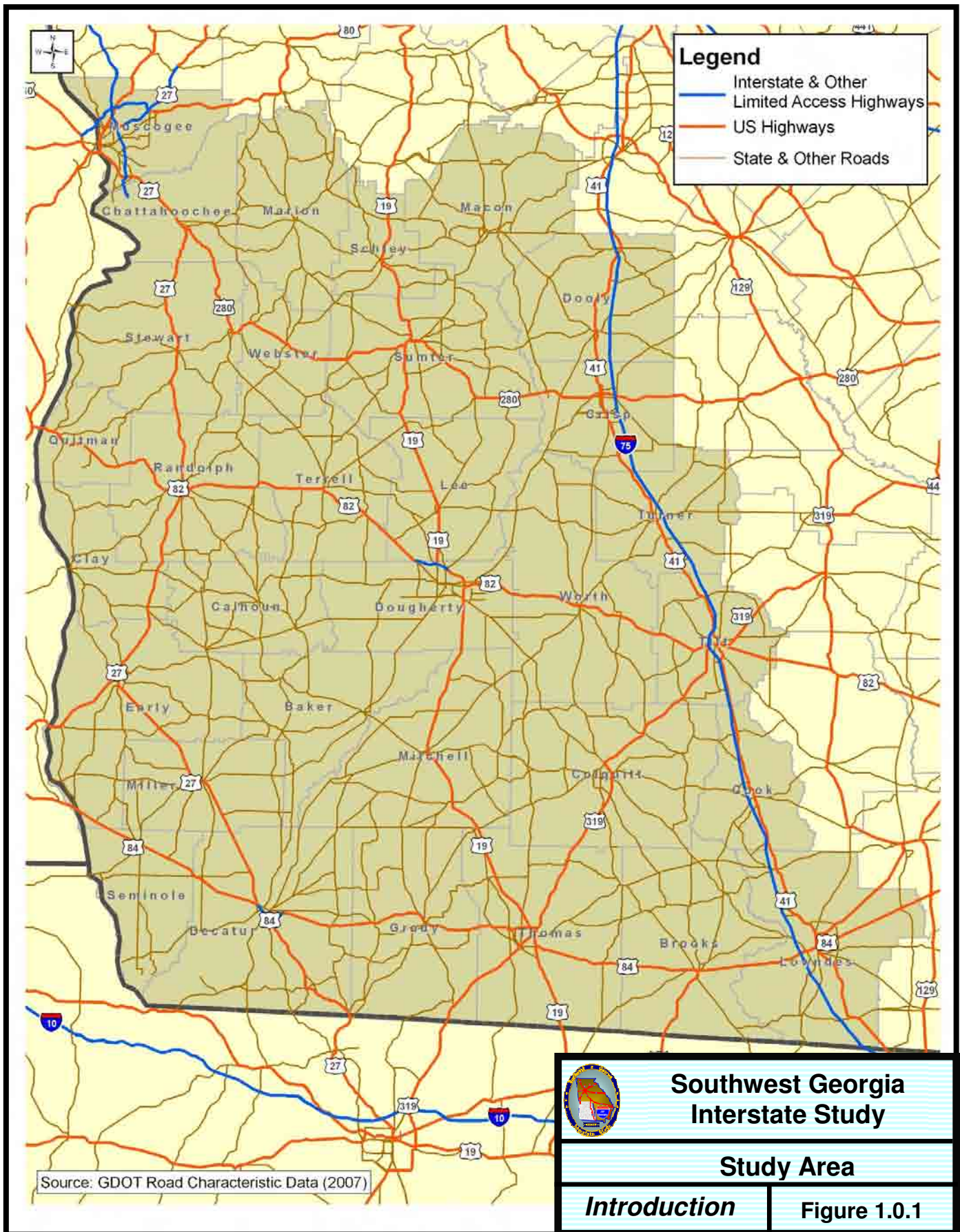
## 1.0 Introduction

The Georgia Department of Transportation identified the need to study the travel conditions within southwest Georgia to determine if a freeway connecting Albany to the Interstate system was warranted. The study identified transportation needs, examine potential alignments/corridors, and develop cost estimates for study-recommended improvements.

The study area includes 32 counties in southwest Georgia located west of I-75, from the City of Columbus south to the Florida state line and west to the Alabama state line. Counties included in the study area are: Baker, Brooks, Calhoun, Chattahoochee, Clay, Colquitt, Cook, Crisp, Decatur, Dooly, Dougherty, Early, Grady, Lee, Lowndes, Macon, Marion, Miller, Mitchell, Muscogee, Quitman, Randolph, Schley, Seminole, Stewart, Sumter, Terrell, Thomas, Tift, Turner, Webster, and Worth. The study investigated all of southwest Georgia and identified the various capacity and operational needs to improve the region's access to the existing interstate system (I-75, I-185, and I-10). Figure 1.0.1 identifies the study area.

The study consisted of a detailed set of activities which are summarized in this report. A detailed analysis of the existing and future conditions was performed for the Southwest Georgia Interstate Study area. These analyses included all facets of conditions in the study area from demographics, to land use to travel conditions. To support this study an extensive data collection effort was performed to collect information on existing and historic traffic data, transportation studies, comprehensive plans, land use data, environmental data, economic development data, and socio-economic data. This information was used to develop a regional travel demand model that forecasted future conditions and travel patterns in the study area. Based on this evaluation and analysis, hypothetical interstate scenarios were developed and evaluated. The interstate scenarios were evaluated not only for their potential impact on travel conditions, but were also assessed for their environmental, community and land use impacts. In addition, the potential project costs, and benefit/cost ratios were developed. Based on this evaluation of the interstate scenarios a list of recommend improvements were developed for the study area. The recommendations include capacity and operational improvements to existing routes, upgrading of standards on existing routes, intersection improvements, and new grade separations of existing intersections.

Throughout the study, an extensive stakeholder outreach and public involvement process was conducted. A stakeholder group including local and state elected officials, appropriate local, regional, state, and federal agencies, business and civic organizations, special interest groups, and traditionally underserved populations met at key milestones in the study process to offer guidance throughout the study process. Several series of public outreach meetings were held at various locations throughout the entire county study area to ensure that the general public had an opportunity to provide input to study process and resulting recommendations.







# **Introduction**

## **Existing Conditions**

### **2.0 Introduction**

A detailed analysis of the existing conditions was performed for the Southwest Georgia Interstate Study area. This analysis included all facets of conditions in the study area from demographics, to land use to travel conditions. Some of the information presented in this Technical Memorandum summarizes information from previous technical memorandums as well as the results from the analysis of travel conditions. In addition, previous studies were collected and reviewed to build upon prior work. A list of the previous studies collected and reviewed is listed in Appendix A.

### **2.1 Socio-Economic Data**

A comprehensive collection and review of socioeconomic and demographic data for the study area was performed. These data provided valuable insights to the unique characteristics of the residents and employees of the study area. In addition, this information was used to assist with the development and application of the travel demand model as well as the development of the Public Involvement Plan.

#### **2.1.1 Population**

Population and employment data are some of the key data inputs to the development and application of the travel demand model used for this study. The base year (2006) population and employment information was developed for the application of the travel demand model for the Southwest Georgia Interstate Study (SWGIS) area transportation system to evaluate existing conditions. Reliable data is needed to ensure that the transportation model accurately reflects current transportation system conditions. Population and employment data was collected and developed for the study area as well as the rest of the country. The travel demand model developed for this study encompasses the entire continental United States to improve the model's representation of inter- and intra-state trips as well as freight and goods movements. The detailed summary of the collection and preparation of the base year data is documented in the *Socio-Economic and Demographic Technical Memorandum*.

The county level population was collected for the years 1970, 1980, 1990 and 2000. The 2006 population data was prepared based on the Census data county estimates for 2000 and 2006. Census tract forecasts were disaggregated from 2006 county level population estimates based on their share of 2000 population. Traffic analysis zones (TAZ) were defined as subdivisions of census tracts within the study area. Population by county is listed in Table 2.1.1.1 and Figure 2.1.1.1 shows the 2006 population estimates by TAZ. The largest concentrations of population are located in the urban areas of Columbus, Albany and Valdosta.



## Southwest Georgia Interstate Study

### ***Socio-Economic Data Existing Conditions***

Figure 2.1.1.2 illustrates the change in population by county between 1990 and 2006. Population grew by 12.0 percent between 1990 and 2006 from 769,120 to 861,040. There has been a slow but steady growth in population in the study area. The largest rate of growth occurred in Lee County which doubled in population from 16,250 to 32,495. However, the largest increase in population occurred in Lowndes County which increased by 21,863 from 75,981 to 97,844.



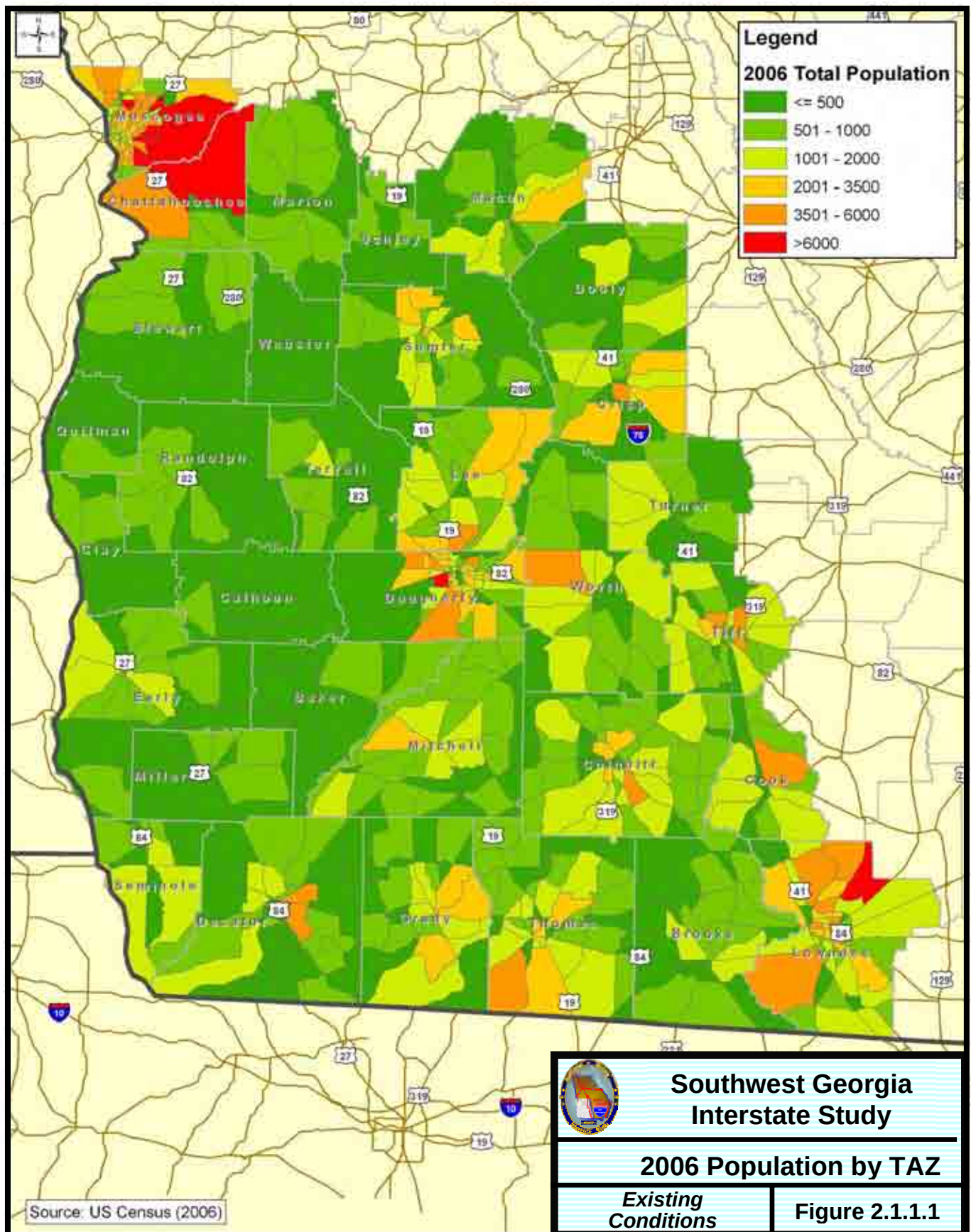


## Socio-Economic Data Existing Conditions

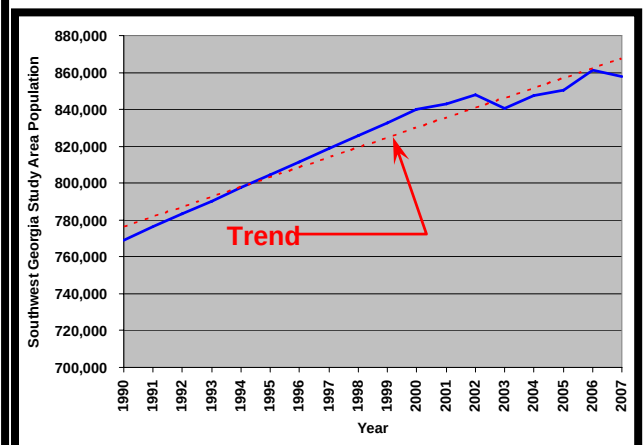
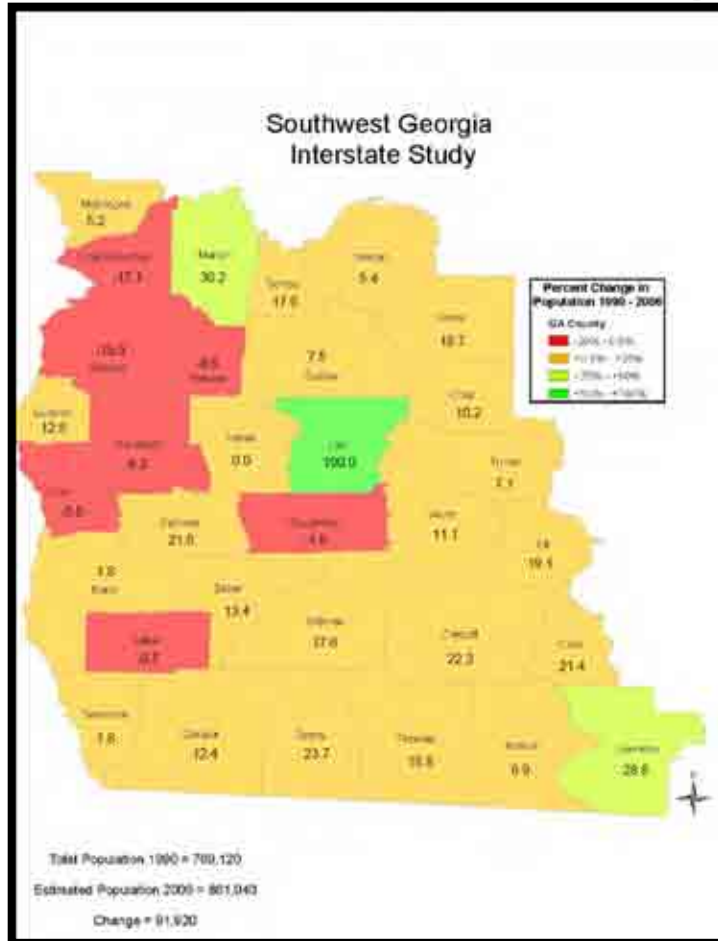
Table 2.1.1.1  
County Population 1970 – 2006

| County        | 1970    | 1980    | 1990    | 2000    | 2006    |
|---------------|---------|---------|---------|---------|---------|
| Baker         | 3,875   | 3,808   | 3,615   | 4,074   | 4,098   |
| Brooks        | 13,739  | 15,255  | 15,398  | 16,450  | 16,464  |
| Calhoun       | 6,606   | 5,717   | 5,013   | 6,320   | 6,094   |
| Chattahoochee | 25,813  | 21,732  | 16,934  | 14,882  | 14,041  |
| Clay          | 3,636   | 3,553   | 3,364   | 3,357   | 3,180   |
| Colquitt      | 32,200  | 35,376  | 36,645  | 42,053  | 44,821  |
| Cook          | 12,129  | 13,490  | 13,456  | 15,771  | 16,333  |
| Crisp         | 18,087  | 19,489  | 20,011  | 21,996  | 22,051  |
| Decatur       | 22,310  | 25,495  | 25,511  | 28,240  | 28,665  |
| Dooly         | 10,404  | 10,826  | 9,901   | 11,525  | 11,748  |
| Dougherty     | 89,639  | 100,718 | 96,311  | 96,065  | 94,773  |
| Early         | 12,682  | 13,158  | 11,854  | 12,354  | 12,065  |
| Grady         | 17,826  | 19,845  | 20,279  | 23,659  | 25,082  |
| Lee           | 7,044   | 11,684  | 16,250  | 24,757  | 32,495  |
| Lowndes       | 55,112  | 67,972  | 75,981  | 92,115  | 97,844  |
| Macon         | 15,276  | 14,003  | 13,114  | 14,074  | 13,817  |
| Marion        | 12,933  | 5,297   | 5,590   | 7,144   | 7,276   |
| Miller        | 6,397   | 7,038   | 6,280   | 6,383   | 6,239   |
| Mitchell      | 18,956  | 21,114  | 20,275  | 23,932  | 23,852  |
| Muscogee      | 167,377 | 170,108 | 179,278 | 186,291 | 188,660 |
| Quitman       | 2,180   | 2,357   | 2,209   | 2,598   | 2,486   |
| Randolph      | 8,734   | 9,599   | 8,023   | 7,791   | 7,357   |
| Schley        | 3,097   | 3,433   | 3,588   | 3,766   | 4,198   |
| Seminole      | 7,059   | 9,057   | 9,010   | 9,369   | 9,168   |
| Stewart       | 6,511   | 5,896   | 5,654   | 5,252   | 4,754   |
| Sumter        | 26,931  | 29,360  | 30,228  | 33,200  | 32,490  |
| Terrell       | 11,416  | 12,017  | 10,653  | 10,970  | 10,657  |
| Thomas        | 34,515  | 38,098  | 38,986  | 42,737  | 45,135  |
| Tift          | 27,288  | 32,862  | 34,998  | 38,407  | 41,685  |
| Turner        | 8,790   | 9,510   | 8,703   | 9,504   | 9,322   |
| Webster       | 2,362   | 2,341   | 2,263   | 2,390   | 2,252   |
| Worth         | 14,770  | 18,064  | 19,745  | 21,967  | 21,938  |
| TOTAL         | 705,694 | 758,272 | 769,120 | 839,393 | 861,040 |

Source: US Department of Commerce, Census Bureau



## 1990 - 2006 Population Change



Source: U.S. Census

**Southwest Georgia Interstate Study**

**Population Trend**

*Existing Conditions*

**Figure 2.1.1.2**



## Socio-Economic Data Existing Conditions

### 2.1.2 Households

The number of households by county for 2006 was not available from the census. The number of households for 2006 was estimated by factoring the 2006 census county population estimates by the ratio of population to households from the 2000 census and applying this to the TAZ level estimated 2006 population. Households by county are listed in Table 2.1.2.1 below and Figure 2.1.2.1 shows the 2006 household estimates by TAZ.

Table 2.1.2.1  
County Households 1970 - 2006

| County        | 1970    | 1980    | 1990    | 2000    | 2006    |
|---------------|---------|---------|---------|---------|---------|
| Baker         | 1,057   | 1,208   | 1,300   | 1,514   | 1,520   |
| Brooks        | 3,992   | 4,990   | 5,392   | 6,155   | 6,303   |
| Calhoun       | 1,824   | 1,833   | 1,794   | 1,962   | 2,478   |
| Chattahoochee | 2,035   | 3,012   | 2,884   | 2,932   | 4,364   |
| Clay          | 1,073   | 1,193   | 1,210   | 1,347   | 1,370   |
| Colquitt      | 9,769   | 12,152  | 12,980  | 15,495  | 15,990  |
| Cook          | 3,564   | 4,476   | 4,825   | 5,882   | 5,974   |
| Crisp         | 5,465   | 6,559   | 7,287   | 8,337   | 8,526   |
| Decatur       | 6,430   | 8,315   | 8,962   | 10,380  | 10,657  |
| Dooly         | 3,030   | 3,529   | 3,557   | 3,909   | 4,399   |
| Dougherty     | 25,190  | 33,043  | 34,163  | 35,552  | 37,234  |
| Early         | 3,716   | 4,303   | 4,263   | 4,695   | 4,788   |
| Grady         | 5,394   | 6,620   | 7,354   | 8,797   | 8,894   |
| Lee           | 1,879   | 3,642   | 5,199   | 8,229   | 8,508   |
| Lowndes       | 15,945  | 22,609  | 26,311  | 32,654  | 35,293  |
| Macon         | 3,474   | 4,371   | 4,388   | 4,834   | 5,193   |
| Marion        | 1,410   | 1,687   | 1,962   | 2,668   | 2,696   |
| Miller        | 1,919   | 2,405   | 2,336   | 2,487   | 2,543   |
| Mitchell      | 5,343   | 6,486   | 6,798   | 8,063   | 8,799   |
| Muscogee      | 52,303  | 59,112  | 65,858  | 69,819  | 73,343  |
| Quitman       | 588     | 772     | 857     | 1,047   | 1,048   |
| Randolph      | 2,623   | 3,126   | 2,815   | 2,909   | 3,032   |
| Schley        | 908     | 1,125   | 1,315   | 1,435   | 1,437   |
| Seminole      | 2,117   | 3,051   | 3,137   | 3,573   | 3,689   |
| Stewart       | 1,782   | 1,891   | 1,982   | 2,007   | 2,118   |
| Sumter        | 7,613   | 9,465   | 10,484  | 12,025  | 12,576  |
| Terrell       | 3,256   | 3,839   | 3,738   | 4,002   | 4,078   |
| Thomas        | 10,112  | 12,789  | 14,323  | 16,309  | 16,760  |
| Tift          | 7,877   | 10,737  | 12,184  | 13,919  | 14,493  |
| Turner        | 2,611   | 3,078   | 3,043   | 3,435   | 3,494   |
| Webster       | 641     | 756     | 798     | 911     | 912     |
| Worth         | 4,224   | 5,811   | 6,895   | 8,106   | 8,197   |
| TOTAL         | 199,164 | 247,985 | 270,394 | 305,389 | 320,704 |

Source: Estimated from US Department of Commerce, Census Bureau data



## Southwest Georgia Interstate Study

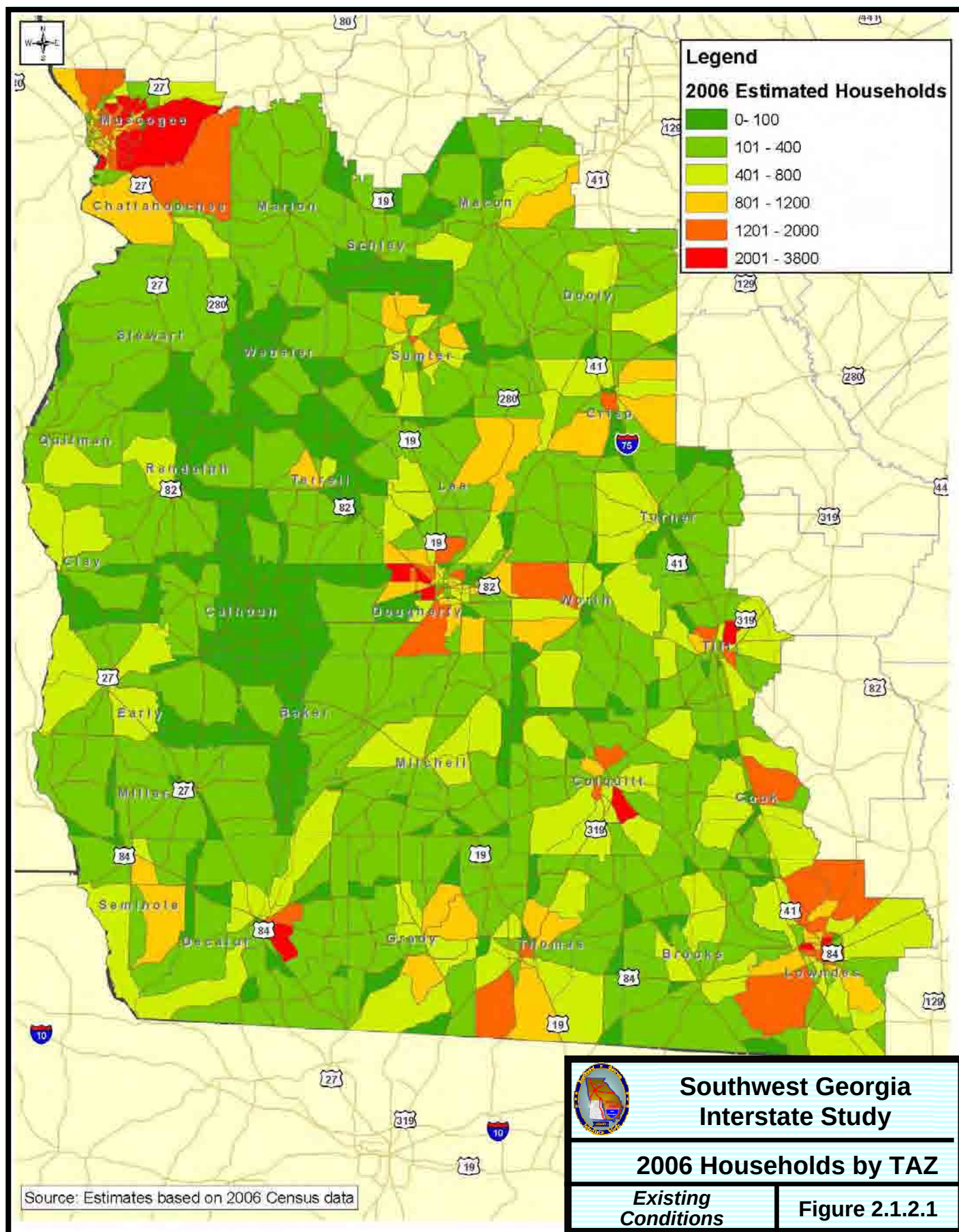
# **Socio-Economic Data Existing Conditions**

Again the largest concentrations of households occur in the urban areas of Albany, Columbus and Valdosta.

### **2.1.3 Employment**

Employment records from the Georgia Department of Labor (GDOL) were obtained by GDOT for specific use in the Southwest Georgia Interstate Study. The records were reviewed for reasonableness and accuracy. Addresses were reviewed and revised as necessary. A database was built containing the employment information. The summary of the review and analysis of this data set is contained in the *Socioeconomic and Demographic Data Technical Memorandum*. As a final check, the total employment estimate from this database was compared to the total employment from the GDOL County Profiles for the SWGIS study area. Employment was adjusted to 355,999 to reflect the total study area employment control total. Table 2.1.3.1 shows the estimated employment by type for each of the counties in the study area while Figure 2.1.3.1 shows the distribution of estimated 2006 employment by TAZ.









## Socio-Economic Data Existing Conditions

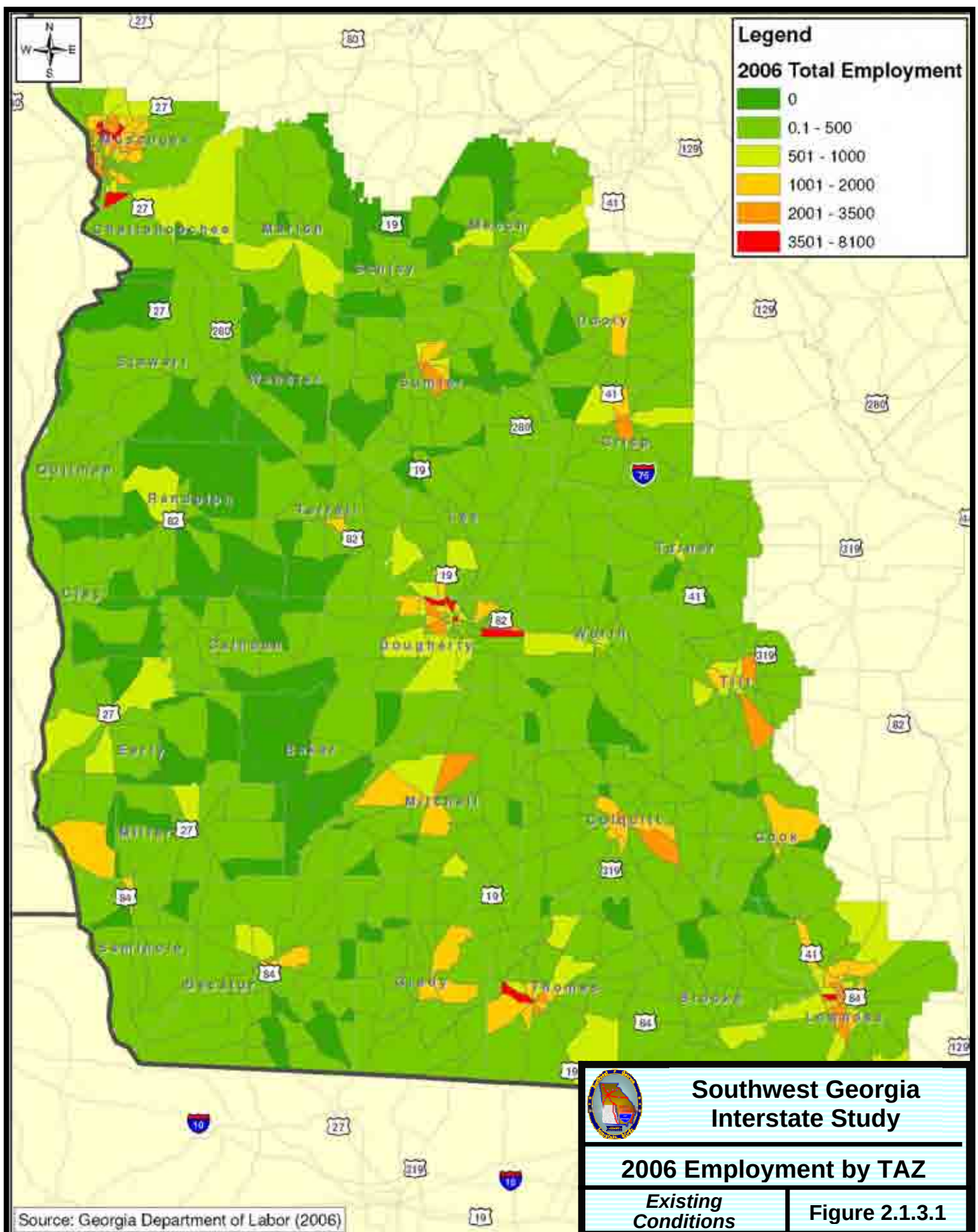
Table 2.1.3.1  
2006 County Employment

| COUNTY        | AMC    | MFG    | WFW    | RET    | SER     | TOTAL   |
|---------------|--------|--------|--------|--------|---------|---------|
| Baker         | 68     | 0      | 7      | 47     | 401     | 523     |
| Brooks        | 579    | 555    | 126    | 282    | 1,472   | 3,015   |
| Calhoun       | 185    | 254    | 72     | 145    | 936     | 1,592   |
| Chattahoochee | 55     | 0      | 55     | 87     | 1,186   | 1,382   |
| Clay          | 250    | 0      | 13     | 101    | 467     | 831     |
| Colquitt      | 2,328  | 3,961  | 715    | 1,885  | 7,333   | 16,221  |
| Cook          | 839    | 1,056  | 138    | 451    | 2,294   | 4,778   |
| Crisp         | 645    | 1,219  | 706    | 1,551  | 4,785   | 8,907   |
| Decatur       | 1,372  | 1,379  | 733    | 1,556  | 5,202   | 10,242  |
| Dooly         | 140    | 1,218  | 368    | 303    | 1,416   | 3,446   |
| Dougherty     | 2,253  | 5,907  | 3,874  | 6,555  | 33,053  | 51,641  |
| Early         | 524    | 1,014  | 476    | 366    | 2,315   | 4,696   |
| Grady         | 1,107  | 948    | 428    | 787    | 3,187   | 6,457   |
| Lee           | 1,099  | 228    | 358    | 541    | 2,644   | 4,870   |
| Lowndes       | 3,047  | 5,485  | 2,760  | 8,309  | 29,801  | 49,402  |
| Macon         | 344    | 982    | 89     | 425    | 1,798   | 3,637   |
| Marion        | 218    | 673    | 30     | 137    | 656     | 1,714   |
| Miller        | 142    | 34     | 193    | 234    | 1,094   | 1,697   |
| Mitchell      | 576    | 3,344  | 445    | 830    | 3,654   | 8,849   |
| Muscogee      | 4,675  | 9,895  | 2,880  | 11,440 | 69,046  | 97,936  |
| Quitman       | 52     | 79     | 45     | 43     | 203     | 422     |
| Randolph      | 405    | 194    | 116    | 169    | 1,318   | 2,202   |
| Schley        | 36     | 772    | 77     | 73     | 465     | 1,423   |
| Seminole      | 240    | 123    | 152    | 359    | 1,475   | 2,349   |
| Stewart       | 65     | 110    | 62     | 92     | 734     | 1,064   |
| Sumter        | 1,269  | 2,299  | 818    | 1,444  | 7,006   | 12,837  |
| Terrell       | 119    | 508    | 256    | 278    | 1,254   | 2,415   |
| Thomas        | 1,367  | 3,594  | 1,341  | 2,387  | 15,122  | 23,811  |
| Tift          | 1,723  | 2,913  | 2,702  | 2,686  | 10,991  | 21,016  |
| Turner        | 128    | 405    | 248    | 378    | 1,470   | 2,628   |
| Webster       | 30     | 292    | 23     | 27     | 178     | 550     |
| Worth         | 332    | 242    | 193    | 556    | 2,122   | 3,446   |
| TOTAL         | 26,211 | 49,685 | 20,500 | 44,523 | 215,080 | 355,999 |

Source: Georgia Department of Labor

KEY: AMC = Agricultural/Mining/Construction, MFG = Manufacturing,

WFW = Wholesale/Freight/Warehousing, RET = Retail, SER = Service



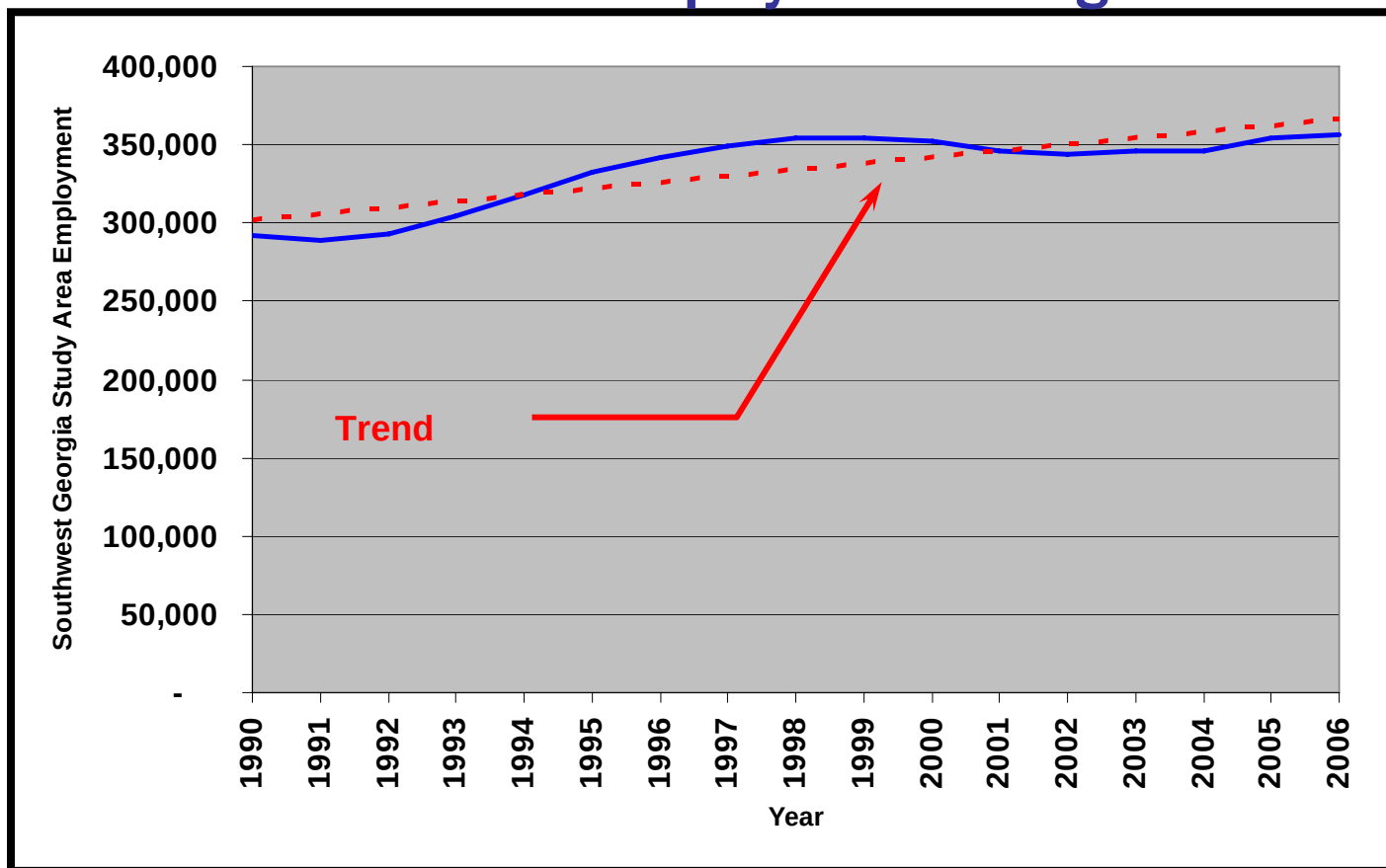


## Socio-Economic Data Existing Conditions

Figure 2.1.3.2 displays the actual employment and the employment trend in the study area. There was a small steady growth in employment in the study area between 1990 and 2001. There was a small decline in employment in 2001. Employment growth was flat for the next four years then it increased slightly in 2005.

Figure 2.1.3.2  
Employment Trend

### 1990 - 2006 Employment Change





## **Socio-Economic Data Existing Conditions**

### ***2.1.4 Supplemental Information for the Study Area***

The US Census 2000 contains a variety of demographic characteristics that provide a broad brush picture of the region. Identifying these characteristics and understanding their impact on travel patterns within a specific project area is crucial. In addition these data can be used to assist with the design and development of a public outreach and involvement program to solicit input from populations that usually do not participate in the planning process.

U.S. Executive Order 12898 defines environmental justice as the fair treatment and meaningful involvement of all people—regardless of race, ethnicity, income or education level—in transportation decision making. Environmental justice programs promote the protection of human health and the environment, empowerment via public participation, and the dissemination of relevant information to inform and educate affected communities. The 2000 Census data was used to provide detailed information about the diverse populations within the study area. The purpose of this effort is to identify EJ populations within the study area. This will assist with the examination of potential improvements in Southwest Georgia to ensure that they do not have a disproportionate adverse impacts on minority and low-income populations within the study area

The low-income and minority populations of the 32 counties located in southwest Georgia have a 2000 population of 839,393 persons. The primary data source used to identify minority populations was the 2000 U.S. Census of Population and Housing (a.k.a. the 2000 Census), which reports data on race and ethnicity at the county level. In addition to census data, information from the U.S. Department of Education's National Center for Education Statistics (2005-2006 school year), the Georgia Department of Education (2006-2007 school year), and GreatSchools, Inc. (2005-2006 school year) were reviewed to identify whether they provided more recent or more locally specific information that was useful for identifying minority populations. Using these additional data sources provided more recent and locally specific information for identifying minority and low-income populations.

The 2000 Census defines “minority” as persons who are:

- Hispanic or Latino,
- American Indian or Alaskan Native alone (not Hispanic or Latino),
- Asian alone (not Hispanic or Latino)
- Native Hawaiian and Other Pacific Islander alone (not Hispanic or Latino),
- Black or African American alone (not Hispanic or Latino),
- Some other race alone, or
- Two or more races.

**Socio-Economic Data  
Existing Conditions**

The minority population concentrations identified for the study area are shown in Table 2.1.4.1. As this data shows, the study area has a substantially higher concentration of minority populations than the state of Georgia. The concentrations of Latinos for the study area is lower than for the state of Georgia while the study area has a higher concentration of African Americans than the state of Georgia.

**Table 2.1.4.1**  
**Race and Ethnicity Percentages for the State and Study Area**

| <b>Race/Ethnicity</b>                                       | <b>State of Georgia</b> | <b>Study Area Counties</b> |
|-------------------------------------------------------------|-------------------------|----------------------------|
| Non-Latino White alone                                      | 62.70%                  | 53.30%                     |
| Latino (of any race)                                        | 5.30%                   | 3.60%                      |
| Non-Latino Black or African American alone                  | 28.50%                  | 41.00%                     |
| Non-Latino American Indian or Alaskan Native alone          | 0.20%                   | 0.30%                      |
| Non-Latino Asian alone                                      | 2.10%                   | 0.80%                      |
| Non-Latino Native Hawaiian and Other Pacific Islander alone | 0.00%                   | 0.10%                      |
| Non-Latino and some other race alone                        | 0.10%                   | 0.10%                      |
| Non-Latino and of two or more races                         | 1.10%                   | 0.90%                      |
| <b>Minority</b>                                             | <b>37.4%</b>            | <b>46.7%</b>               |

Source: US Census 2000, SF1 P8/SF3 P7 Hispanic or Latino by Race

Table 2.1.4.2 lists and Figure 2.1.4.1 displays the minority populations for each county in the study area. The data shows that percentages of minority populations in individual counties range from 18.4 percent (Lee) to 63.3 percent (Stewart). Of the study area's 32 counties, 14 counties have populations that are greater than 50.0 percent (i.e., a minority population concentration). In addition, 24 counties have minority population percentages greater than the state of Georgia (37.4 percent), and 15 counties have minority population percentages greater than the study area counties combined (46.7 percent) (i.e., a minority population concentration).





# Southwest Georgia Interstate Study

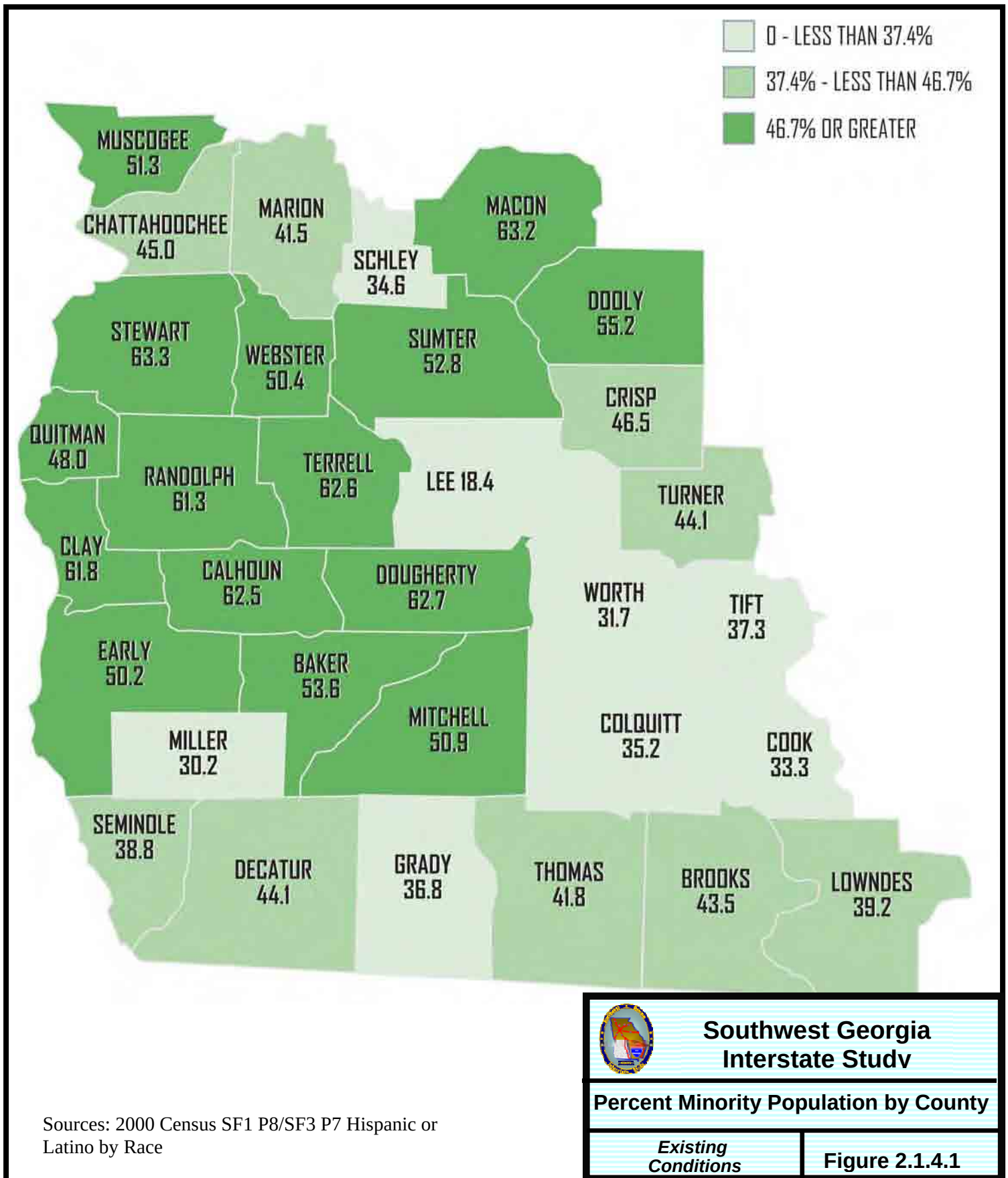
## Socio-Economic Data

### Existing Conditions

Table 2.1.4.2  
Minority Populations in Counties in Study Area  
Compared with the State of Georgia and Study Area

| Area          | Population | Minority Population | Percent Minority | Exceeds State Percent (37.4%) | Exceeds Study Area Percent (46.7%) |
|---------------|------------|---------------------|------------------|-------------------------------|------------------------------------|
| Baker         | 4,074      | 2,185               | 53.6%            | X                             | X                                  |
| Brooks        | 16,450     | 7,147               | 43.5%            | X                             |                                    |
| Calhoun       | 6,320      | 3,952               | 62.5%            | X                             | X                                  |
| Chattahoochee | 14,882     | 6,701               | 45.0%            | X                             |                                    |
| Clay          | 3,357      | 2,075               | 61.8%            | X                             | X                                  |
| Colquitt      | 42,053     | 14,801              | 35.2%            |                               |                                    |
| Cook          | 15,771     | 5,245               | 33.3%            |                               |                                    |
| Crisp         | 21,996     | 10,218              | 46.5%            | X                             |                                    |
| Decatur       | 28,240     | 12,440              | 44.1%            | X                             |                                    |
| Dooly         | 11,525     | 6,364               | 55.2%            | X                             | X                                  |
| Dougherty     | 96,065     | 60,271              | 62.7%            | X                             | X                                  |
| Early         | 12,354     | 6,195               | 50.1%            | X                             | X                                  |
| Grady         | 23,659     | 8,705               | 36.8%            |                               |                                    |
| Lee           | 24,757     | 4,554               | 18.4%            |                               |                                    |
| Lowndes       | 92,115     | 36,123              | 39.2%            | X                             |                                    |
| Macon         | 14,074     | 8,890               | 63.2%            | X                             | X                                  |
| Marion        | 7,144      | 2,962               | 41.5%            | X                             |                                    |
| Miller        | 6,383      | 1,927               | 30.2%            |                               |                                    |
| Mitchell      | 23,932     | 12,186              | 50.9%            | X                             | X                                  |
| Muscogee      | 186,291    | 95,623              | 51.3%            | X                             | X                                  |
| Quitman       | 2,598      | 1,247               | 48.0%            | X                             | X                                  |
| Randolph      | 7,791      | 4,775               | 61.3%            | X                             | X                                  |
| Schley        | 3,766      | 1,304               | 34.6%            |                               |                                    |
| Seminole      | 9,369      | 3,635               | 38.8%            | X                             |                                    |
| Stewart       | 5,252      | 3,326               | 63.3%            | X                             | X                                  |
| Sumter        | 33,200     | 17,528              | 52.8%            | X                             | X                                  |
| Terrell       | 10,970     | 6,869               | 62.6%            | X                             | X                                  |
| Thomas        | 42,737     | 17,862              | 41.8%            | X                             |                                    |
| Tift          | 38,407     | 14,315              | 37.3%            |                               |                                    |
| Turner        | 9,504      | 4,189               | 44.1%            | X                             |                                    |
| Webster       | 2,390      | 1,204               | 50.4%            | X                             | X                                  |
| Worth         | 21,967     | 6,968               | 31.7%            |                               |                                    |
| TOTAL         |            |                     |                  | 24                            | 15                                 |

Source: US Census 2000, SF3 P87 Poverty Status in 1999 by Age





## **Socio Economic Data Existing Conditions**

Table 2.1.4.3 shows the low-income population concentration for the state of Georgia and the study area. The data shows that the study area has a substantially higher concentration of low-income populations than the state of Georgia.

**Table 2.1.4.3**  
**Low-Income Percentages for the State and Study Area**

| <b>Low-income</b>               | <b>State of Georgia</b> | <b>Study Area Counties</b> |
|---------------------------------|-------------------------|----------------------------|
| Individuals Below Poverty Level | 13.00%                  | 20.10%                     |

Source: US Census 2000, SF3 P87 Poverty Status in 1999 by Age

In addition to the data noted above, the low-income populations of all 32 counties in the study area were reviewed. Table 2.1.4.4 lists the level of low-income populations in the counties relative to the state of Georgia and the project counties combined. Additionally, this data has been presented in spatial format, by county, in Figure 2.1.4.2. This figure represents the level of low-income populations in the counties in the study area. It is consistent with the EPA's use of a general population and a state for comparison analyses in other Georgia environmental documents.

This evaluation revealed that the percentage of low-income individuals in the study area ranged from 8.2 percent (Lee) to 31.3 percent (Clay). Of the study area's 32 counties, 30 counties have low-income population percentages that are greater than the state of Georgia (13.0 percent), and 22 counties have low-income population percentages greater than the Southwest Georgia Interstate study area counties combined (20.1 percent) (i.e., a low-income population concentration).

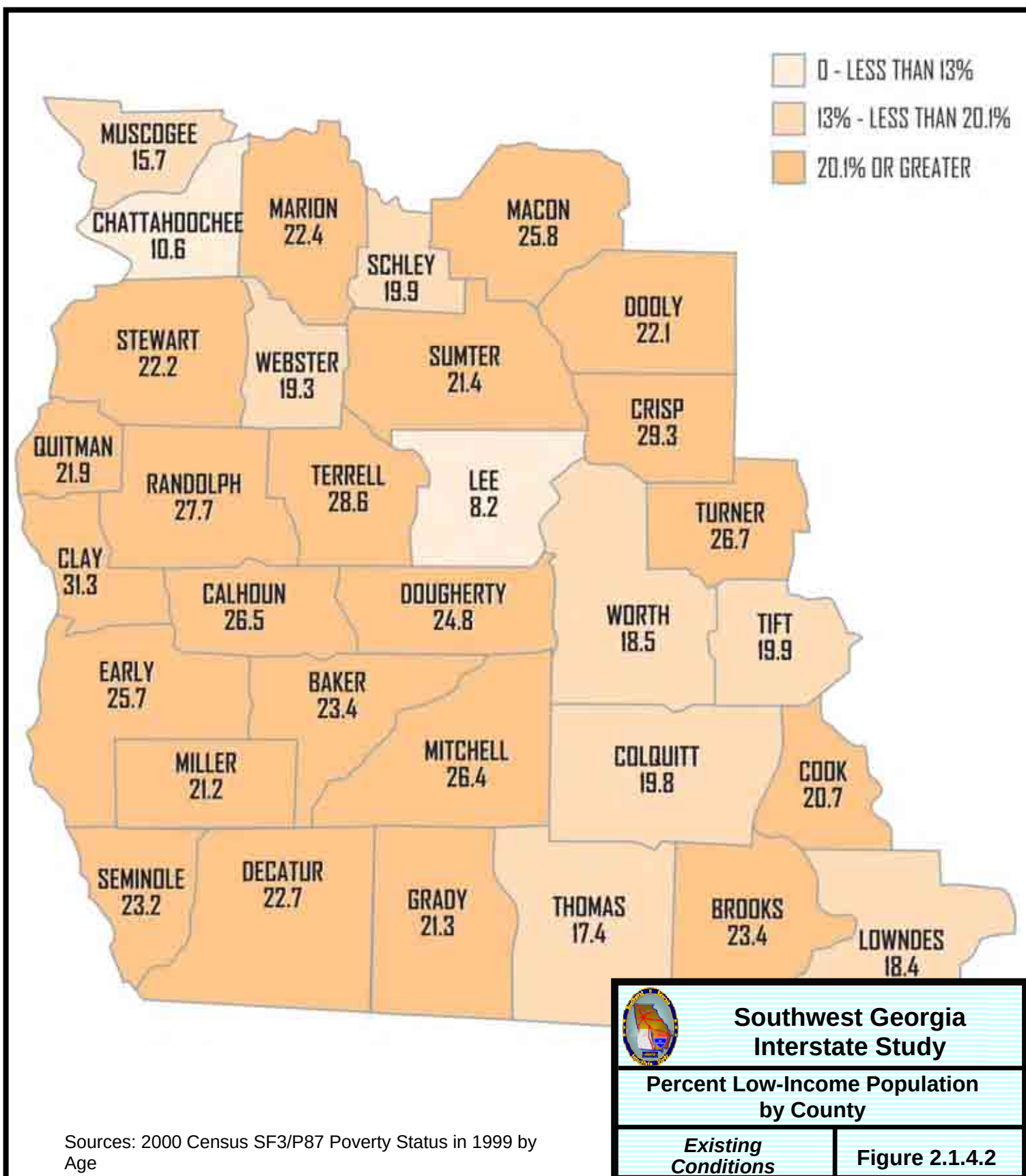


## Socio Economic Data Existing Conditions

Table 2.1.4.4  
Low-Income Population in Counties in Study Area  
Compared with State of Georgia and Study Area

| Area          | Population | Low-income Population | Percent Low-income | Exceeds State Percent (13.0%) | Exceeds Study Area Percent (18.5) |
|---------------|------------|-----------------------|--------------------|-------------------------------|-----------------------------------|
| Baker         | 4,071      | 951                   | 23.4%              | X                             | X                                 |
| Brooks        | 16,152     | 3,785                 | 23.4%              | X                             | X                                 |
| Calhoun       | 5,011      | 1,328                 | 26.5%              | X                             | X                                 |
| Chattahoochee | 9,961      | 1,051                 | 10.6%              |                               |                                   |
| Clay          | 3,293      | 1,030                 | 31.3%              | X                             | X                                 |
| Colquitt      | 41,396     | 8,205                 | 19.8%              | X                             | X                                 |
| Cook          | 15,555     | 3,221                 | 20.7%              | X                             | X                                 |
| Crisp         | 21,599     | 6,330                 | 29.3%              | X                             | X                                 |
| Decatur       | 27,548     | 6,240                 | 22.7%              | X                             | X                                 |
| Dooly         | 10,202     | 2,255                 | 22.1%              | X                             | X                                 |
| Dougherty     | 92,793     | 22,974                | 24.8%              | X                             | X                                 |
| Early         | 12,037     | 3,094                 | 25.7%              | X                             | X                                 |
| Grady         | 23,347     | 4,982                 | 21.3%              | X                             | X                                 |
| Lee           | 23,807     | 1,958                 | 8.2%               |                               |                                   |
| Lowndes       | 85,144     | 15,622                | 18.3%              | X                             |                                   |
| Macon         | 13,076     | 3,377                 | 25.8%              | X                             | X                                 |
| Marion        | 7,037      | 1,578                 | 22.4%              | X                             | X                                 |
| Miller        | 6,238      | 1,322                 | 21.2%              | X                             | X                                 |
| Mitchell      | 21,929     | 5,793                 | 26.4%              | X                             | X                                 |
| Muscogee      | 177,184    | 27,741                | 15.7%              | X                             |                                   |
| Quitman       | 2,594      | 568                   | 21.9%              | X                             | X                                 |
| Randolph      | 7,466      | 2,070                 | 27.7%              | X                             | X                                 |
| Schley        | 3,758      | 746                   | 19.9%              | X                             | X                                 |
| Seminole      | 9,242      | 2,141                 | 23.2%              | X                             | X                                 |
| Stewart       | 4,941      | 1,097                 | 22.2%              | X                             | X                                 |
| Sumter        | 31,702     | 6,796                 | 21.4%              | X                             | X                                 |
| Terrell       | 10,748     | 3,069                 | 28.6%              | X                             | X                                 |
| Thomas        | 41,578     | 7,231                 | 17.4%              | X                             |                                   |
| Tift          | 37,034     | 7,374                 | 19.9%              | X                             | X                                 |
| Turner        | 9,329      | 2,494                 | 26.7%              | X                             | X                                 |
| Webster       | 2,384      | 459                   | 19.3%              | X                             | X                                 |
| Worth         | 21,886     | 4,050                 | 18.5%              | X                             | X                                 |
| TOTAL         |            |                       |                    | 30                            | 27                                |

Source: US Census 2000, SF3 P87 Poverty Status in 1999 by Age







## **Socio-Economic Data Existing Conditions**

The combined data on minority populations and low-income populations in the study area were then reviewed. By comparing these results relative to the state of Georgia and then with the study area counties combined, counties were identified where minority and low-income population concentrations overlap. Table 2.1.4.5 shows the results of this analysis.

There were 24 counties that exceeded the minority population average for the state of Georgia (37.4 percent) and 30 counties that exceeded the low-income population average for the state of Georgia (13.0 percent). Only one county (Lee) had neither a minority population percentage nor a low-income percentage that exceeded the state of Georgia averages. Seven counties had low-income concentrations, but do not have minority concentrations, while one county had a minority concentration, but did not have a low-income concentration. Twenty-three of the 32 counties in the study area have both minority and low-income concentrations.

When comparing the minority and low-income populations of the counties in the study area to the study area counties combined, there are 15 counties that exceeded the minority population average for the combined counties (46.7 percent) and 22 counties that exceeded the low-income household average for the combined counties (20.1 percent). Only four counties had neither a minority population percentage nor a low-income percentage that exceeded the percentages of the study area counties combined. Two counties (Muscogee and Webster) had a minority concentration, but do not have low-income concentration, and nine counties do not have minority concentrations, but have low-income concentrations. Thirteen of the 32 counties in the study area have both minority and low-income concentrations.

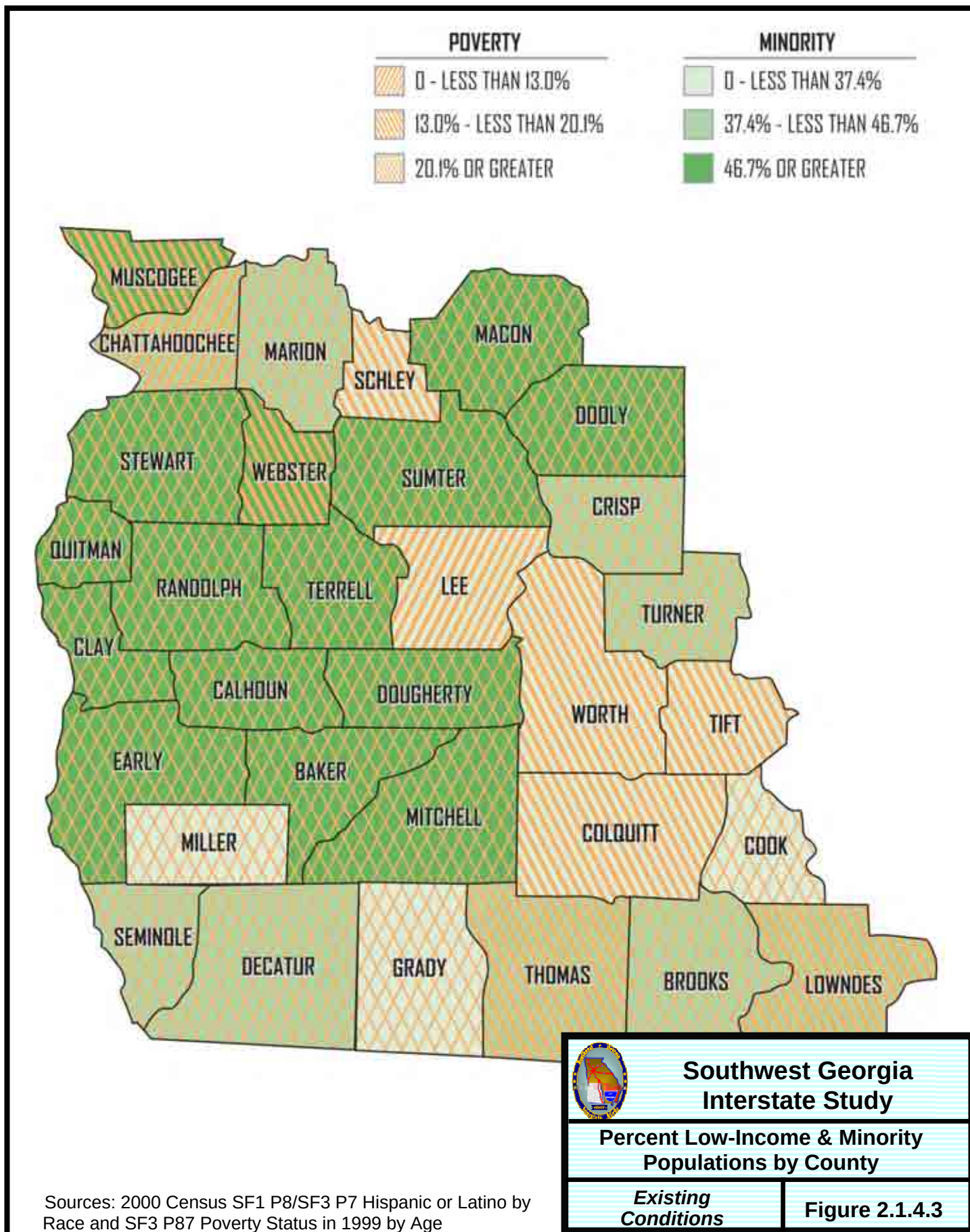


# Socio-Economic Data Existing Conditions

Table 2.1.4.5  
Combined Data Minority and Low-Income Populations  
By County for the Study Area

| Area          | Above Georgia<br>Minority<br>Percentage<br>(37.4%) | Above Georgia<br>Low-income<br>Percentage<br>(13.0%) | Above<br>Combined<br>Minority<br>Percentage<br>(46.7%) | Above<br>Combined<br>Low-Income<br>Percentage<br>(20.1%) |
|---------------|----------------------------------------------------|------------------------------------------------------|--------------------------------------------------------|----------------------------------------------------------|
| Baker         | X                                                  | X                                                    | X                                                      | X                                                        |
| Brooks        | X                                                  | X                                                    |                                                        | X                                                        |
| Calhoun       | X                                                  | X                                                    | X                                                      | X                                                        |
| Chattahoochee | X                                                  |                                                      |                                                        |                                                          |
| Clay          | X                                                  | X                                                    | X                                                      | X                                                        |
| Colquitt      |                                                    | X                                                    |                                                        |                                                          |
| Cook          |                                                    | X                                                    |                                                        | X                                                        |
| Crisp         | X                                                  | X                                                    |                                                        | X                                                        |
| Decatur       | X                                                  | X                                                    |                                                        | X                                                        |
| Dooly         | X                                                  | X                                                    | X                                                      | X                                                        |
| Dougherty     | X                                                  | X                                                    | X                                                      | X                                                        |
| Early         | X                                                  | X                                                    | X                                                      | X                                                        |
| Grady         |                                                    | X                                                    |                                                        | X                                                        |
| Lee           |                                                    |                                                      |                                                        |                                                          |
| Lowndes       | X                                                  | X                                                    |                                                        |                                                          |
| Macon         | X                                                  | X                                                    | X                                                      | X                                                        |
| Marion        | X                                                  | X                                                    |                                                        | X                                                        |
| Miller        |                                                    | X                                                    |                                                        | X                                                        |
| Mitchell      | X                                                  | X                                                    | X                                                      | X                                                        |
| Muscogee      | X                                                  | X                                                    | X                                                      |                                                          |
| Quitman       | X                                                  | X                                                    | X                                                      | X                                                        |
| Randolph      | X                                                  | X                                                    | X                                                      | X                                                        |
| Schley        |                                                    | X                                                    |                                                        |                                                          |
| Seminole      | X                                                  | X                                                    |                                                        | X                                                        |
| Stewart       | X                                                  | X                                                    | X                                                      | X                                                        |
| Sumter        | X                                                  | X                                                    | X                                                      | X                                                        |
| Terrell       | X                                                  | X                                                    | X                                                      | X                                                        |
| Thomas        | X                                                  | X                                                    |                                                        |                                                          |
| Tift          |                                                    | X                                                    |                                                        |                                                          |
| Turner        | X                                                  | X                                                    |                                                        | X                                                        |
| Webster       | X                                                  | X                                                    | X                                                      |                                                          |
| Worth         |                                                    | X                                                    |                                                        |                                                          |
| TOTAL         | 24                                                 | 30                                                   | 15                                                     | 22                                                       |

Source: US Census 2000, SF3 P87 Poverty Status in 1999 by Age





## Southwest Georgia Interstate Study

# ***Natural and Cultural Resources Existing Conditions***

### **2.2 Natural and Cultural Resources**

Information was collected on natural and cultural resources from a variety of sources such as the Georgia Department of Natural Resources, US Fish and Wildlife Service and the Georgia Conservancy. The GIS data base contains the following information

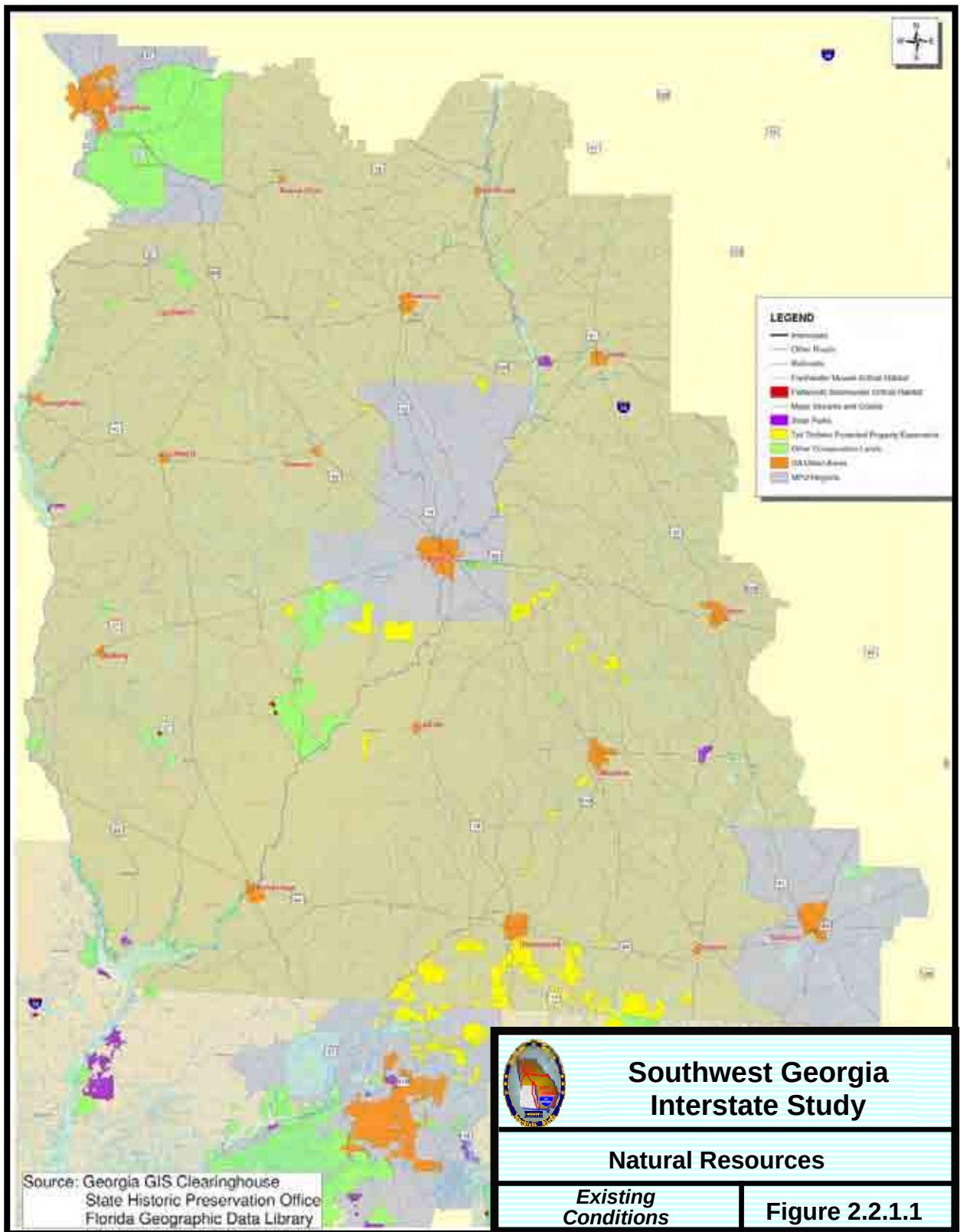
- Rivers, Streams, and Lakes
- Wetlands
- Color Infrared Aerials
- Topographic Maps
- Conservation Land Boundaries
- State Parks
- Tall Timbers Protected Property Easements
- Flatwoods Salamander Critical Habitat
- Roads
- Railroads
- Churches
- Cemeteries
- Schools
- Historic Sites
- Municipal Boundaries

The purpose of the collection of the natural and cultural resources is to identify sensitive areas and corridors that would be significantly impacted by the construction of a new highway or re-routing of an existing facility.

#### ***2.2.1 Natural Resources***

Figure 2.2.1.1 displays the natural resources in the study area. The 32 counties encompassing the project feasibility study area in southwest Georgia include a wide range of natural resources including streams, wetlands, open waters, protected species/habitat, and a variety of conservation lands owned by federal and state agencies as well as non-governmental organizations (NGOs) and foundations. The northern portion of Florida is shown in Figure 2.2.1.1 for informational purposes only. The summaries of information represent only the 32 counties in Georgia.









## Southwest Georgia Interstate Study

# ***Natural and Cultural Resources Existing Conditions***

There are portions of four major river basins within this area, the Chattahoochee (Middle & Lower), the Flint (Middle & Lower), the Upper Ochlockonee, and the western part of the Suwannee; all of these watersheds flow roughly southward across the Florida/Georgia state line. The United States Fish and Wildlife Service (USFWS) has listed critical habitat for 6 protected freshwater mollusks (purple bankclimber, shiny-rayed pocketbook, gulf moccasinshell, fat three-ridge, oval pigtoe, and Ochlockonee moccasinshell mussels) within the Flint, Ochlockonee, and Chattahoochee river basins under Section 4 of the Endangered Species Act of 1973. Approximately 635 miles of these three major streams and their tributaries within the study area have been designated as critical habitat necessary for the continued existence of the these species. One other protected species, the flatwoods salamander, has been designated by the USFWS as requiring critical habitat in southwest Georgia. This habitat is located in two areas, the state-owned Mayhaw Wildlife Management Area in Miller County and the Joseph Jones Ecological Research Center (privately-owned) in Baker County. A multitude of additional state and federally-protected species occur in each county, but no detailed location data is available to the public. If more precise information is required, the Georgia Department of Natural Resources (DNR) will only provide distances of known populations from given coordinates along the project corridor. The DNR county lists of protected species available online include a broad array of species (i.e. mammals, invertebrates, plants, fish, and reptiles/amphibians) and their habitats, ranging from riverine to dry uplands.

Over 22,000 miles of mapped perennial and intermittent stream are found within the study area including the Chattahoochee River bordering Alabama to the west. The Natural Resources Map shows a gap in stream coverage along the Flint River from Albany to Bainbridge. This lack of surface streams is the result of the overlaying Ocala Limestone geologic formation. This area, known as the Dougherty Plain, is a very permeable, fine-grained limestone marine layer formed during the late Eocene period. Because limestone rock is soluble in rainwater and groundwater, this area often shows features of karst topography, a type of landscape typified by numerous sinkholes, small lakes, and caverns. This allows the Lower Flint to cut into the Ocala Limestone formation to reach the water table of the Upper Floridan aquifer. There are numerous areas along the Lower Flint where natural springs make these connections to the aquifer evident. As many as 20 large springs and countless small seeps discharge groundwater into the Lower Flint.

These springs and seeps are included in the open waters assemblage of natural resources within the study area. Including ponds, lakes, canals, ditches, and reservoirs, they make up over 140,000 acres of open water. Wetlands (e.g. swamps and marshes) make up an additional 290,000+ acres within the 32-county portion of southwest Georgia.

The numerous conservation lands in the study area includes state parks (4,721 acres), State Historic Parks (1,293 acres), State Conservation Areas (911 acres), State Fish Hatcheries (221 acres), State Natural Areas (1,151 acres), State Public Fishing Areas (1,252 acres), State Wildlife Management



## Southwest Georgia Interstate Study

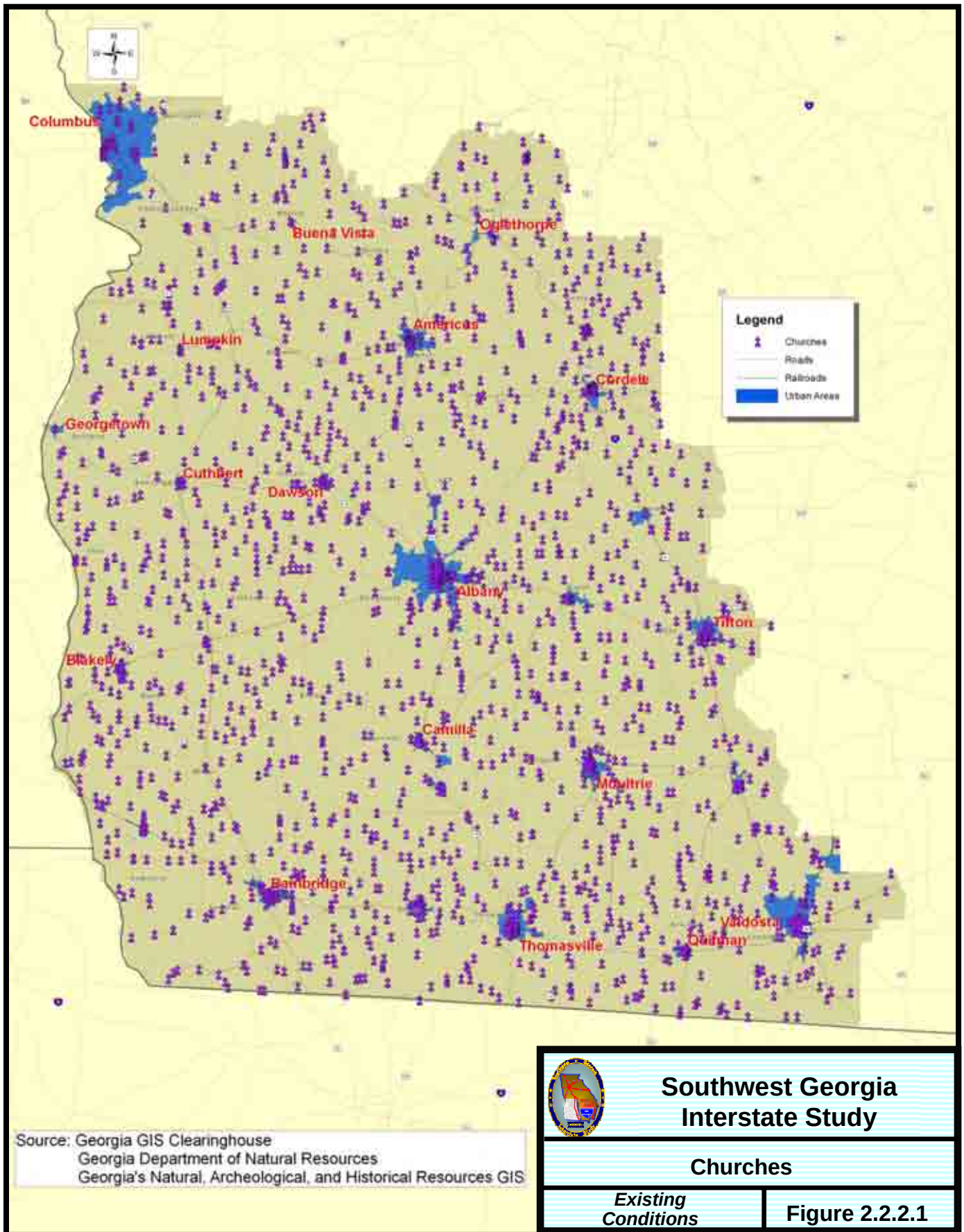
# ***Natural and Cultural Resources Existing Conditions***

Areas, (WMA) (57,342 acres), National Historic Sites (472 acres), National Wildlife Refuges (3,446 acres), Military Reservations (186,762 acres), Various Conservation Easements (17,589 acres), Nature Conservancy Preserves (1,064 acres), Private Conservation Land (29,133 acres), and Restrictive Covenants (557 acres). Additional lands include those protected by donated conservation easements to the Tall Timbers Land Conservancy. This land trust is located in northwest Florida and focuses its efforts in the Red Hills Region between Tallahassee, Florida and Thomasville, Georgia.

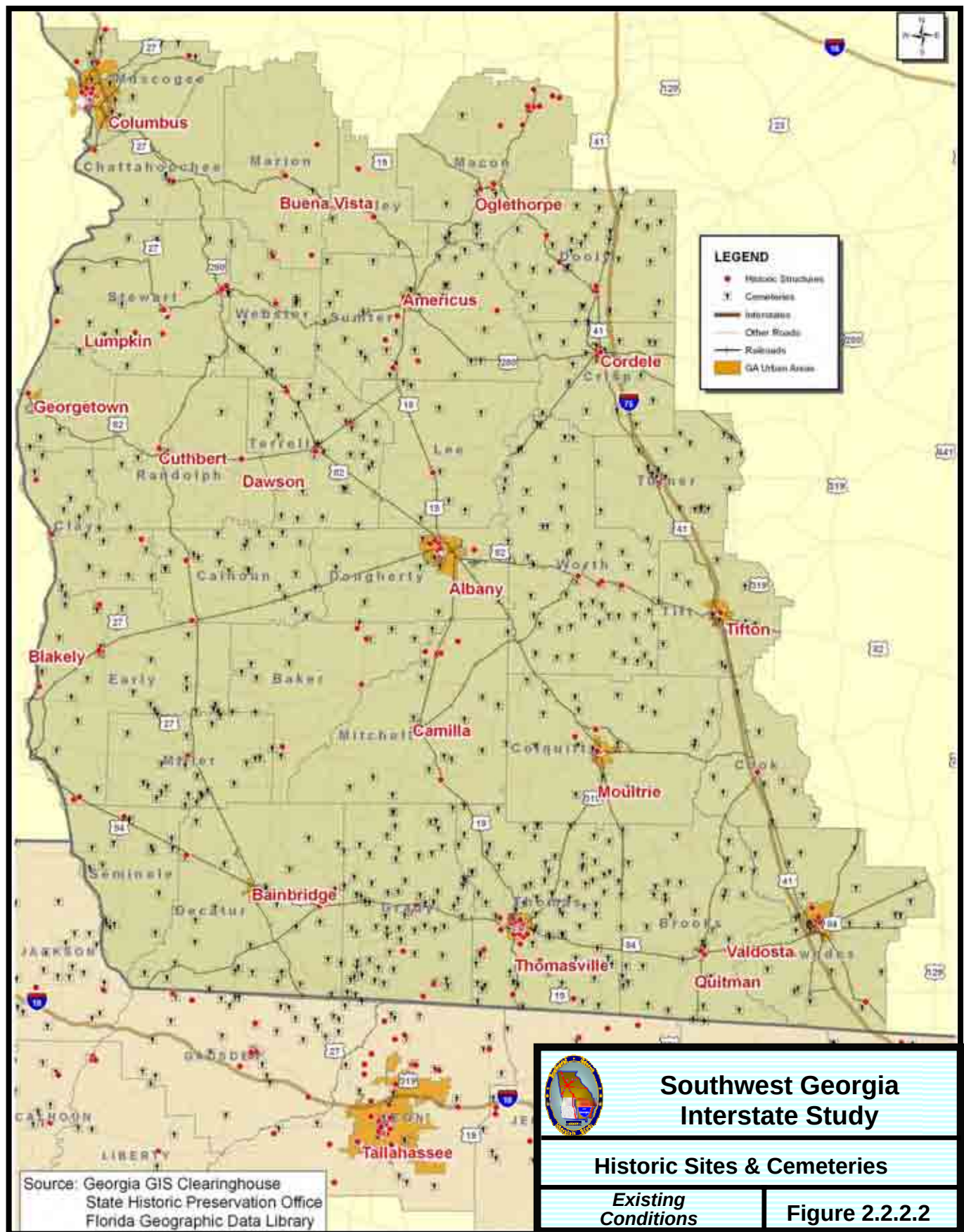
### ***2.2.2 Cultural Resources***

Section 106 properties are those that are afforded protection under the National Historic Preservation Act of 1966 (NHPA) including districts, sites, buildings, structures, and objects significant in American history, architecture, archaeology, engineering, and culture. GIS data was available for churches, cemeteries and known historic sites within the study area. Additional investigation and concurrence with the State Historic Preservation Office (SHPO) would be required to determine the level of protection each site warrants. Below are the totals for which the NHPA may apply. No GIS data is available on archeological sites for their protection. Figures 2.2.2.1 and 2.2.2.2 display the number of churches, historic sites and cemeteries in the study area. The following information is for Georgia only.

- Churches = 1,956
- Cemeteries = 743
- Historic Sites = 354
- Schools = no GIS data available unless listed under historic sites









## Southwest Georgia Interstate Study

# ***Natural and Cultural Resources Existing Conditions***

### ***2.2.3 Hazardous Waste Sites***

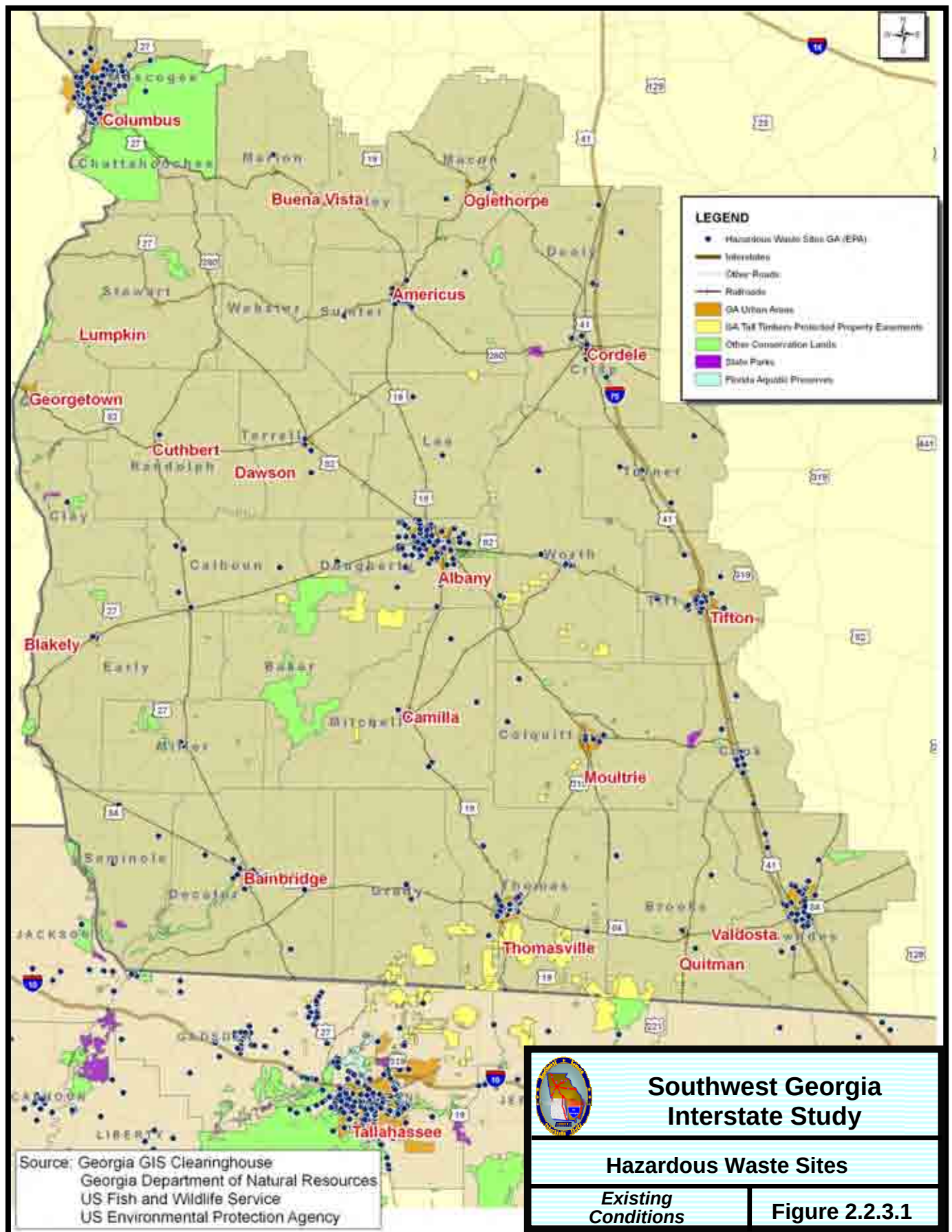
Hazardous waste sites are those locations that have been identified based on the hazardous waste information contained in the Resource Conservation and Recovery Act Information (RCRAInfo). The RCRAInfo is a national program management and inventory system about hazardous waste handlers that are regulated under the Resource Conservation and Recovery Act (RCRA). Hazardous waste is defined as liquid, solid, contained gas, or sludge wastes that contain properties that are dangerous or potentially harmful to human health or the environment. Hazardous wastes can be liquids, solids, gases, or sludges. They can be discarded commercial products, like cleaning fluids or pesticides, or the by-products of manufacturing processes. The following list represents some of the materials that have been deemed potentially hazardous.

- Petroleum refining by-products
- Explosives
- Pesticides
- Acids
- Coolants and additives (polychlorinated biphenyls - PCBs)
- Inks & dyes

Figure 2.2.3.1 shows the hazardous waste sites in the study area. The largest concentrations of these sites occur in the urban areas of Albany, Columbus and Valdosta. The rest of the sites are scattered throughout the study area. These sites may contain the following list of activities.

- Chemical manufacturers
- Dry cleaners
- Medical facilities
- Automotive Repair/Maintenance/Sales
- Paint/Printing Facilities
- Septic Tank Service/Waste Management
- Colleges/Universities/Correctional Institutions







## Southwest Georgia Interstate Study

# ***Land Use/Comprehensive Plans Existing Conditions***

### **2.3 Land Use/Comprehensive Plans**

Each county's Comprehensive Plan has been reviewed<sup>1</sup> to ascertain long range growth priorities, development projects, particular land use sensitivities (such as historic preservation and environmental concerns), and economic development initiatives. Approximately half of the counties' Comprehensive Plans are out-of-date (i.e. written in the early 1990s) or are incomplete, however, and many contain only the minimum level of information required for such plans. The analysis presented must therefore be viewed in this context and used with caution as each county is not equally represented due to the varying quality of their Comprehensive Plans.

#### ***2.3.1 Purpose***

This analysis of local growth issues such as those mentioned above helps identify high-level opportunities or barriers to the feasibility of a new interstate in southwest Georgia. It is meant to form part of a larger technical study and worked up in further detail as the process of siting an interstate progresses to more fully understand local issues and complexities of counties which may be directly affected by the new roadway.

##### **2.3.1.1 Overview of Growth Patterns**

The southwest Georgia study area is largely rural in character; however, there are regional and sub-regional cities such as Albany, Columbus, Valdosta, Thomasville and Americus which are growing at considerable rates and which have aspirations to strengthen their roles as economic hubs. (Only Baker County, in fact, reported a population which is expected to shrink in the future.) A number of smaller cities seek progress as well, and have smaller-scale development plans to help support their growth.

Perhaps due to these centers' growth, there are several more small cities and towns which desire to preserve their agricultural nature and see their local downtowns thrive again, bucking the trend of strip development which may have affected many small businesses. Some of these counties wish to remain small and rural despite development pressures and so have measures in place to safeguard their heritage and character. Others anticipate growth but not at a significant rate and are content to maintain the status quo by remaining small and rural, while a few counties are simply restricted to grow due to physical constraints or large, long-term private landholdings which are unlikely to be developed.

Table 2.3.1.1.1 provides an overview of the growth patterns and aspirations for each county in the study area. The symbols in the table represent the following general growth trends recognized:

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<sup>1</sup> All counties' Comprehensive Plans have been reviewed except for Quitman County's plan, which has not been made available to the consultants (as of June 20, 2008).



## Southwest Georgia Interstate Study

# Land Use/Comprehensive Plans

### Existing Conditions

- “ + ” represents a county which is anticipating significant growth and / or has aspirations for significant growth;
- “ ? ” represents a county where *growth is expected* although the county desires to remain rural and protect its heritage (i.e. the county generally does not want growth yet it expects it);
- “ x ” represents a county where *no significant growth is expected* and it desires to remain rural and protect its heritage, or growth is restricted due to physical or landownership constraints (i.e. the county generally does not want growth and it's not expecting it); and
- “ – ” represents a county which expects to lose population / decline.

Table 2.3.1.1.1  
General Overview of Growth Patterns for Study Area Counties<sup>2</sup>

| Desires Growth | Does Not Desire Major Growth |                  | Declining |
|----------------|------------------------------|------------------|-----------|
| +              | ?                            | x                | –         |
| Colquitt Co    | Cook Co                      | Brooks Co        | Baker Co  |
| Decatur Co     | Crisp Co                     | Calhoun Co       |           |
| Dooly Co       | Grady Co                     | Chattahoochee Co |           |
| Dougherty Co   | Lee Co                       | Clay Co          |           |
| Lowndes Co     | Macon Co                     | Early Co         |           |
| Muscogee Co    | Marion Co                    | Miller Co        |           |
| Sumter Co      | Mitchell Co                  | Randolph Co      |           |
|                | Seminole Co                  | Schley Co        |           |
|                | Terrell Co                   | Stewart Co       |           |
|                | Thomas Co                    | Tift Co          |           |
|                | Worth Co                     | Turner Co        |           |
|                |                              | Webster Co       |           |

Source: County Comprehensive Plans as interpreted by EDAW

### 2.3.1.2 Significant Growth Trends

A review of the Comprehensive Plans for counties within the study area reveals several growth trends which may help measure their relative desire for an interstate. Trends were formed based on counties' long range growth priorities; eagerness to undertake significant roadway improvements; economic development aspirations; and preservation and heritage concerns. The trends were recognized as follows:

<sup>2</sup> Quitman County's Comprehensive Plan has not been made available to the consultants (as of June 20, 2008).



## Southwest Georgia Interstate Study

# ***Land Use/Comprehensive Plans Existing Conditions***

1. Commercial growth around / along highway nodes
2. Especially supportive of major roadway improvements to stimulate growth or economic development, such as GRIP.
3. Desire to strengthen regional economic roles of cities
4. Residential growth in urban areas / clusters
5. Need to diversify economic base
6. Protection of natural resources as priority
7. Desire to maintain rural character

Each trend is described in further detail below, followed by a list of counties which appear to particularly conform to the trend.

### *1. Commercial growth around / along highway nodes*

Several counties credit much commercial growth in past years to the presence of local highways or interstates in their areas. Major intersections, interchanges, and corridors are more visible and easily accessible, thus making them natural sites for commercial growth. Although some counties are resisting such strip or nodal development along highways due to the resulting decline of their traditional downtowns (such as Mitchell County and Schley County), the following jurisdictions envision continued commercial development along major roadways:

- Baker County, which encourages crossroads commercial development, such as at Highways 37 and 91;
- Colquitt County, which expects commercial growth to continue in clusters at major county intersections;
- Crisp County, which expects all four corners of the GA 300 / I-75 interchange to be developed for mixed use;
- Grady County, which highlights a primary commercial area along Highway 84 which needs strengthening;
- Lee County, where commercial development is encouraged adjacent to intersections of major transportation corridors (although stresses that traditional downtown areas should be maintained as focal points of the community);
- Lowndes County, which expects commercial growth in Hahira to continue to cluster around the I-75 interchange;
- Seminole County, which expects commercial growth in its cities but also north of Donalsonville along major roadways;
- Sumter County, which expects Americus to grow most substantially in the county and requiring 229 additional commercial acres along Highway 280 East and Highway 30;



## Southwest Georgia Interstate Study

# ***Land Use/Comprehensive Plans Existing Conditions***

- Terrell County, whose major urban areas grew up around crossroads and anticipates that development will continue in this way;
- Tift County, which recognizes that commercial growth is found primarily adjacent to I-75 interchanges and in strip development along US highways near Tifton; and
- Turner County, which has commercial uses largely clustered at exits adjacent to I-75.

### *2. Especially supportive of major roadway improvements to stimulate growth or economic development*

Many counties recognize the substantial economic benefits roadway improvements can generate through providing greater access to local amenities, employment and shopping opportunities, tourist attractions and therefore support their development. All of the counties listed below have noted that they encourage the development or improvement of highways.

- Baker County pointedly states that they encourage developmental highways in the southwest Georgia region;
- Dougherty County anticipates major transport corridors which lead into Albany and other residential areas to be developed;
- Marion County recognizes the development of proposed I-14 along current route GA 26 (following the Fall Line Freeway) as an opportunity<sup>3</sup> and highlights the future need for a state route through Buena Vista;
- Muscogee County encourages the review of a potential need for an east-west corridor between downtown Columbus and I-185 and long-range highway uses at Williams Road interchange; and
- Sumter County sees the county's economic future as dependent on several major roadways being improved, including the widening of US 19 and US 280. Additionally, the County Administrator has categorically stated that they are in favor of a southwest Georgia interstate being located in Sumter.

The following counties also support major highway improvements in their areas:

- Clay County;
- Decatur County;
- Dooly County;

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<sup>3</sup> I-14 is a proposed interstate set to run from Natchez, Mississippi or Alexandria, Louisiana to Augusta, Georgia or North Augusta, South Carolina. The proposed interstate was included as part of the 2005 Safe, Accountable, Flexible, Efficient, Transportation Equity Act: A Legacy for Users (SAFETEA-LU) signed into law by President Bush; however, the legislation did not allocate funding for the interstate. Although the actual route of I-14 is unknown, the SAFETEA-LU legislation specifies that the interstate would follow the Fall Line Freeway (currently under construction) in Georgia, connecting Augusta to Columbus via Macon and Milledgeville.





## Southwest Georgia Interstate Study

# ***Land Use/Comprehensive Plans Existing Conditions***

- Lee County;
- Lowndes County;
- Webster County; and
- Worth County.

### *3. Desire to strengthen regional economic roles of cities*

The largest cities in southwest Georgia – Albany, Valdosta and Columbus – are expected to grow in the next several years and are making plans to capitalize on the expected growth. Major economic development initiatives, requiring millions of dollars of investment, are planned or underway which the counties hope will help raise their profile in the region. Thomasville, considered a mid-sized city in the southwest, also expects to widen its draw as retail and services hub. The following briefly describes some of the initiatives and local aspirations:

- Dougherty County and the City of Albany expect to increase their role as a major growth / trade center in the region over the next 20 years. Two projects which will help realize this vision are the mixed use Albany Downtown Masterplan and Phoebe Putney Memorial Hospital expansion. In addition, a recent freight study conducted by the Dougherty Area Regional Transportation Study (DARTS) focuses on the United Parcel Service (UPS) presence at the Southwest Georgia Regional Airport.
- Lowndes County and the City of Valdosta aspire to be home to a regional headquarters office park with easy access to major transportation corridors.
- Muscogee County and the City of Columbus expect growth from Ft. Benning and plan to invest in riverfront activities and the construction of a regional recreation center.
- Thomas County and the City of Thomasville propose that its good connections and proximity to Leon County / Tallahassee (Florida) may encourage the establishment of a small regional shopping hub.

Likewise, many smaller-tiered cities have identified economic development projects which might help them transition into a higher-performing hub on a sub-regional level. These are represented by the counties which follow:

- Cook County, which is planning a governmental / medical service corridor along US 41 in Adel; and
- Decatur County, which wants to explore how Bainbridge's small port facility which supports barge transportation can realize its potential.



## Southwest Georgia Interstate Study

# ***Land Use/Comprehensive Plans Existing Conditions***

### *4. Residential growth in urban areas / clusters*

Smart growth is encouraged when new development is sited in proximity to existing infrastructure. This often equates to growth being planned for areas adjacent to existing built-up areas. Clustering growth also helps preserve the countryside by preventing sprawl which can blight natural resources and diminish character. For these reasons, several counties have specifically stated that they will seek to consolidate residential growth in the future. It is important to note that recommending clustering does not necessarily mean the counties wish to become 'more urban'; rather, in cases such as Schley County, it is expected that development be planned in clusters to preserve the rural character of the county's non-residential areas. Below is the list of counties which are specifically seeking the consolidation of residential areas (for whichever reason):

- Baker County;
- Cook County;
- Decatur County;
- Dougherty County;
- Grady County;
- Lee County;
- Lowndes County;
- Miller County;
- Schley County;
- Sumter County;
- Thomas County;
- Tift County; and
- Worth County.

### *5. Need to diversify economic base*

Many counties in southwest Georgia are overly dependent on agricultural yields for their welfare or lack employment opportunities. The following counties, therefore, may be more willing to explore ways to attract new business in their areas to help bolster their economic outlook – perhaps by opening up their areas through highway improvements:

- Calhoun County;
- Clay County;
- Early County;
- Grady County;
- Lee County;



## Southwest Georgia Interstate Study

# ***Land Use/Comprehensive Plans Existing Conditions***

- Mitchell County;
- Seminole County;
- Terrell County; and
- Webster County.

It is interesting to note that most of these rural counties also list tourism as a potential economic development tool which could bring business and new activity to their areas.

### *6. Protection of natural resources as priority*

The presence of prime farmland, large private plantations, groundwater recharge areas, wildlife protection areas, significant wetlands and other sensitive environmental land uses are prevalent in many counties in southwest Georgia.

Grady County appears to contain the most environmentally sensitive land in the southwest region. This is primarily due to the fact it is covered by the Red Hills Region, which includes the plantation lands between Thomasville and Tallahassee and west into Grady County. As the largest concentration of undeveloped plantation lands in the country, the Red Hills Region has been identified for special conservation efforts. The Nature Conservancy has designated Red Hills as one of America's "Last Great Places." Grady County also has prime farmland and forested land, which accounts for 40% of land cover, which it seeks to protect. Part of this forest contains a significant portion of the native longleaf pine forests remaining in the U.S.

While mapping these and other designations will help clarify which areas of southwest Georgia are most collectively sensitive, it is helpful to understand which other counties contain major barriers to growth and are thus most likely to prove problematic or prohibitive to large-scale developments in the future. These include:

- Baker County, which contains prime farmland, a large number of private plantations, significant wetlands, and a large wildlife management area; development is also restricted due to floodplain designations and large landholders unwilling to subdivide parcels;
- Chattahoochee County, which contains prime farmland (which it wants to protect) and a groundwater recharge area susceptible to pollution which should be protected; a Natural Resource Conservation Area is also put forward as a future land use;
- Cook County, which has prime farmland which it seeks to protect;
- Dooly County, which has prime farmland, wetlands which cover 30% of the county, and two natural areas designated as significant;
- Lowndes County, which has groundwater recharge areas that cover 23.9% of the entire county, and upon which development should be avoided;



## Southwest Georgia Interstate Study

# ***Land Use/Comprehensive Plans Existing Conditions***

- Marion County, which contains wetland protection areas, groundwater protection areas, and potentially significant numbers of protected / endangered species of plants and animals in the northern third of the county; and
- Schley County, which has groundwater recharge areas – considered to be among the state’s most significant – covering 75% of the county, as well as significant wetlands covering 5.4% of the total land area.

### *7. Desire to maintain rural character*

Finally, many counties have expressed a desire to retain their agricultural roots and resist major development; they cherish their rural character and abundant natural resources. Many of the counties listed above who place particular emphasis on protecting environmentally sensitive areas therefore appear in this list again. Although Table 1.1 (“General Overview of Growth Patterns for Study Area Counties”) lists counties which appear reluctant to embrace substantial change in their areas, having reviewed their Comprehensive Plans, it is estimated that the following counties in particular would not actively seek the development of an interstate due to rural / agricultural protection measures outlined in their plans:

- Baker County;
- Calhoun County;
- Chattahoochee County;
- Clay County;
- Cook County;
- Crisp County;
- Early County;
- Grady County;
- Lee County;
- Marion County;
- Schley County;
- Turner County; and
- Worth County.

### ***2.3.2 Summary***

Although southwest Georgia is primarily a rural region, there are several counties which will experience modest growth in the future. These counties contain the largest cities in the area, namely Albany (Dougherty County), Valdosta (Lowndes County), and Columbus (Muscogee County); however, there are also counties which have high aspirations seeking opportunities for growth. Of special significance in this category is Sumter County, which has expressed its desire to generate economic development through major highway improvements. However, there are numerous



## Southwest Georgia Interstate Study

# ***Land Use/Comprehensive Plans Existing Conditions***

counties which cherish their rural / agricultural heritage and have swathes of protected / environmentally sensitive land on which they do not welcome major development. Those counties which contain particularly sensitive landscapes, such as Grady County; or with restricted development areas, such as Chattahoochee County; or those which simply want to remain rural, such as Schley County dot the region. Due to the age of many of the Comprehensive Plans and the iterative nature of this study, however, more detailed analyses must be carried out and individual counties consulted to gain a more complete understanding of where the appropriate location for a southwest Georgia interstate may be.





## Southwest Georgia Interstate Study

# ***Economic Development Existing Conditions***

## **2.4 Economic Development**

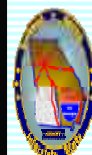
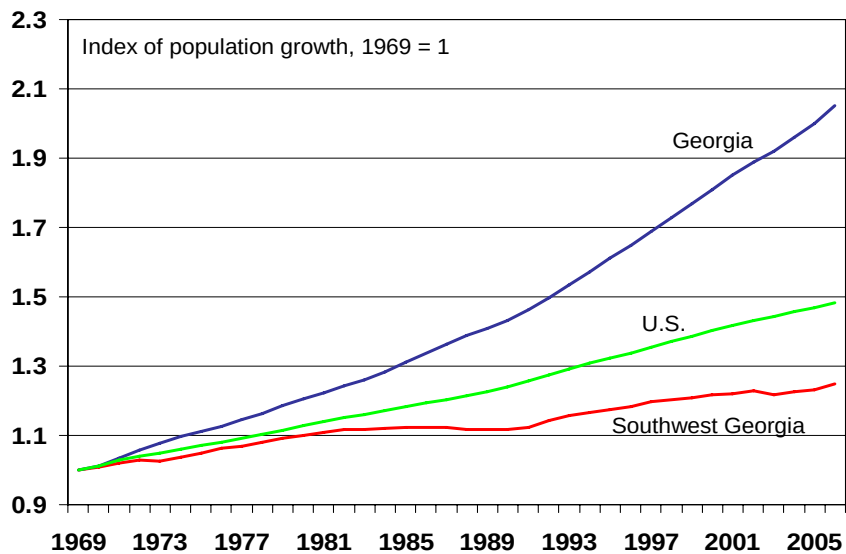
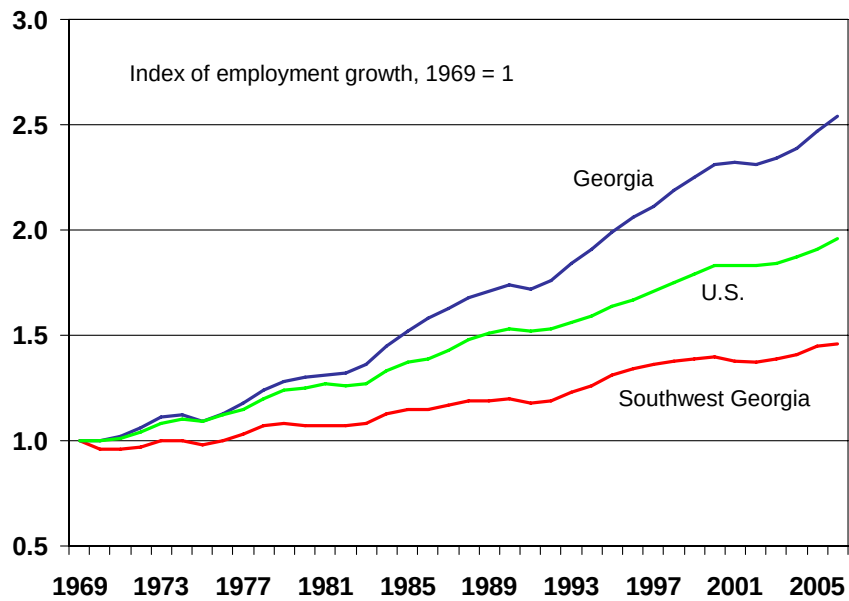
The Southwest Georgia Interstate Study was undertaken to assess the feasibility and expected outcomes of investments to improve the accessibility of southwest Georgia. Among the outcomes desired from such investments is the promotion of economic growth and development in this primarily rural and agricultural region of the State. As detailed below, the economy of this part of the State has not prospered to the same degree as other parts of Georgia or the nation as a whole. This section of the Technical Memorandum will describe current economic conditions and trends, and how they support or temper the economic return on highway investment in this region.

### ***2.4.1 Purpose***

The remainder of this Section is divided into three parts that describe (1) current economic conditions, (2) development initiatives and (3) freight trends to establish a baseline for the local economy. Where possible, upside and downside risks to the highway-led development strategy are identified in the context of the region's economic structure. In addition, because economic development can have different meanings to different communities—one community's sprawl is another's success story—the discussion considers whether the industries likely to benefit from transportation improvements are consistent with the goals and objectives of the individual communities in the region.

### ***2.4.2 Economic Profile of the Southwest Georgia Study Area***

The southwest Georgia study area is an economic laggard relative to the strongly performing Georgia State economy and the broader US national economy. The study area faces significant hurdles in realizing its economic potential. Population growth is largely stagnant; per capita income is low, and, commercial development has bypassed this corner of the state for other locales. As the charts in Figure 2.4.2.1 illustrate, the region's underperformance is a long-term trend, not an artifact of a short-term cyclical fluctuation. The region has consistently lagged the State and nation in both population and employment growth since 1970.



## Southwest Georgia Interstate Study

Comparison of Southwest Georgia's Employment and  
Population Growth with Georgia and the Nation

*Existing  
Conditions*

**Figure 2.4.2.1**



## ***Economic Development Existing Conditions***

Other barometers of the region's economic health are consistent with its economic disadvantage. The per capita income in the region is equivalent to just 72 percent of the US average in 2006. The Economic Research Service of the US Department of Agriculture, has identified 21 of the 32 counties included in the Study areas as a Persistent Poverty counties. The definition of such a county is one where persons with a poverty-level income in the preceding year were 20 percent or more of the total population in each of 4 years: 1970, 1980, 1990, 2000. The U.S. had 386 persistent poverty counties/parishes (out of 3,141 counties total) the last time this tabulation was done (2004).

Consistent with the high incidence of poverty and the comparatively low economic opportunity, 23 of the region's 32 counties were identified as Low-education counties. The definition of such a county is one where 25 percent or more of working aged adult residents (ages 25-64) had neither a high school diploma or GED in 2000. The US had a total of 622 low education counties/parishes (out of 3,141 counties total).

The low level of educational attainment is an important factor for the region's outlook as it reduces the likelihood that investments in other types of capital, such as infrastructure, will enjoy a positive rate of return. The low rate of educational attainment present in the region tempers the outlook for the return on the economic development highway investment that is being considered as employers considering relocation to the region may question the skills and training of the workforce even if the highway investment makes the region competitive. Although a downside risk, there are ways to address this issue such as offering employers incentives to provide training to support their industrial needs, perhaps local community college programs can be tailored to support employers relocation to the region. Such initiatives have been successful in other regions seeking to build the skills of their workforce.

### ***2.4.3 Regional Business Costs***

Not all economic indicators for southwest Georgia are as discouraging, however. While employment and population growth are weak, the region stands out in terms of its cost structure. Using the Albany and Columbus metropolitan areas as barometers of the region's cost structure—the rural areas are unlikely to have higher costs than the region's metro economies—southwest Georgia has among the lowest costs of doing business in the nation. Moody's Economy.com estimates that the cost of doing business in Albany (a weighted average of energy costs, taxes, office rents, and labor costs adjusted for productivity) is 89 percent that of the US average cost. Improving the outlook, however is the region's cost advantage with the neighboring Atlanta regional economy where business costs are 98 percent those of the nation. A business could locate in southwest Georgia and have good physical proximity to the Atlanta market (and other major metro markets in the fast growing Southeast region) and enjoy a 9 percent savings in business costs. The success of such a



## Southwest Georgia Interstate Study

# ***Economic Development Existing Conditions***

strategy is supported by an efficient and reliable road network by which to access these major markets.

### **2.4.3.1 Industrial Composition**

The industrial structure of the 32-county southwest Georgia region is more highly concentrated in resource-related industry and manufacturing compared to the State's economy. The farming, forestry, and mining industries combined account for about 4 percent of the southwest Georgia regional economy, compared with just under 2 percent for the state overall. The reliance on resource industries, particularly farming, is higher than the data imply as a significant amount of the region's manufacturing activity is related to agriculture and forestry production such as poultry processing and paper products manufacturing. The region also has a disproportionate share of government employment compared to the broader Georgia economy, attributable to the presence of three military installations in the region: Fort Benning, Moody AFB and the Marine Corp Logistics Base. One in five jobs in the region is at a military or government employer as illustrated in Table 2.4.3.1.1 below.

By contrast, professional and technical services, finance and information services are under-represented in the region relative to the State—consistent with the lower educational attainment of the resident work force. Of particular note, wholesale trade, transportation and warehousing are all underrepresented in the region relative to the State overall. Unlike professional and technical services, jobs in these industries generally require less educational attainment and are a closer match to the skills of the region's labor pool. This suggests that there could be room for growth in these industry sectors if the competitive structure of the region changed due to interstate investment or a significant highway upgrade that made the region more attractive to employers.

Table 2.4.3.1.2 below provides additional information on the region's industrial mix, identifying the major employers to highlight the type of commodities and goods transported. Firms are shown by location, employment size, and type of activity. The table highlights the manufacturing sector's close connection to the region's resource activities. It also identifies the major shippers—processors of agricultural goods who have located in the region to be close to their suppliers. Of note, these are not shippers likely to be using the State's port facilities with the exception of the military facilities. Excluding the military, shippers will primarily be shipping to major domestic metropolitan markets for consumption as in the case of Miller Brewing or Tysons Foods.



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# **Economic Development Existing Conditions**

Table 2.4.3.1.1  
Industrial Structure of Southwest Georgia Study Area and the State

| <u>Industry Sector</u>                       | <u>Employment Share in<br/>Region, %</u> | <u>Employment Share<br/>in Georgia, %</u> |
|----------------------------------------------|------------------------------------------|-------------------------------------------|
| Farming                                      | 2.06%                                    | 1.22%                                     |
| Forestry, fishing, related activities        | 1.42%                                    | 0.53%                                     |
| Mining                                       | 0.68%                                    | 0.17%                                     |
| Utilities                                    | 1.13%                                    | 0.39%                                     |
| Construction                                 | 5.18%                                    | 6.74%                                     |
| Manufacturing                                | 10.45%                                   | 8.64%                                     |
| Wholesale trade                              | 2.95%                                    | 4.37%                                     |
| Retail trade                                 | 11.49%                                   | 10.72%                                    |
| Transportation and warehousing               | 2.51%                                    | 3.84%                                     |
| Information                                  | 2.14%                                    | 2.50%                                     |
| Finance and insurance                        | 3.62%                                    | 4.16%                                     |
| Real estate and rental and leasing           | 3.02%                                    | 4.50%                                     |
| Professional and technical services          | 3.23%                                    | 6.10%                                     |
| Management of companies and enterprises      | 1.24%                                    | 1.02%                                     |
| Administrative and waste services            | 5.45%                                    | 7.09%                                     |
| Educational services                         | 1.15%                                    | 1.69%                                     |
| Health care and social assistance            | 7.86%                                    | 8.02%                                     |
| Arts, entertainment, and recreation          | 1.25%                                    | 1.53%                                     |
| Accommodation and food services              | 6.50%                                    | 6.84%                                     |
| Other services, except public administration | 5.57%                                    | 5.64%                                     |
| Government and government enterprises        | 21.12%                                   | 14.31%                                    |

Source: BEA data and AECOM Consult calculations

Note: Some BEA data are suppressed at the county level to prevent disclosure of individual firm data; in these instances AECOM Consult developed estimates to infill the missing data in order to permit an estimation of the overall regional industrial structure.

Table 2.4.3.1.2 below provides additional information on the region's industrial mix, identifying the major employers to highlight the type of commodities and goods transported. Firms are shown by location, employment size, and type of activity. The table highlights the manufacturing sector's close connection to the region's resource activities. It also identifies the major shippers—processors of agricultural goods who have located in the region to be close to their suppliers. Of note, these are not shippers likely to be using the State's port facilities with the exception of the military facilities. Excluding the military, shippers will primarily be shipping to major domestic metropolitan markets for consumption as in the case of Miller Brewing or Tysons Foods.

The growth prospects of the region's major employers are small; these are shippers in mature consumer industries, largely serving a regional market. As such, they are unlikely to generate





## Southwest Georgia Interstate Study

# ***Economic Development Existing Conditions***

significant additional freight traffic over the forecast horizon. Additional freight growth in the region is thus likely to be driven by relocations or the introduction of new industries to the region, or by through freight traffic.

**Table 2.4.3.1.2**  
**Major Employers in Southwest Georgia**

| <u><b>Company Name</b></u>           | <u><b>City</b></u> | <u><b>Employment</b></u> | <u><b>Business Description</b></u>    |
|--------------------------------------|--------------------|--------------------------|---------------------------------------|
| AFLAC Inc.                           | Columbus           | 1,000-4,999              | Insurance                             |
| Albany Electric                      | Albany             | 500-999                  | Electric Contractors                  |
| Albany State University              | Albany             | 500-999                  | Schools--Universities and Colleges    |
| Bill Heard Chevrolet                 | Columbus           | 500-999                  | Automobile Dealers-New Cars           |
| Blue Cross & Blue Shield             | Columbus           | 1,000-4,999              | Insurance                             |
| Bob's Candies Inc Warehouse          | Albany             | 500-999                  | Candy & Confectioners                 |
| Brown Trucking Co.                   | Columbus           | 500-999                  | Trucking-Motor Freight                |
| Burlen Corp.                         | Tifton             | 500-999                  | Apparel (mfg)                         |
| Cessna Aircraft Co.                  | Columbus           | 500-999                  | Aircraft Engines & Engine Parts (mfg) |
| Coats & Clark                        | Albany             | 500-999                  | Yarn-Spinning Mills (mfg)             |
| Colquitt Regional Medical Center     | Moultrie           | 500-999                  | Hospital                              |
| Columbus Regional Healthcare         | Columbus           | 1,000-4,999              | Hospital                              |
| City of Columbus                     | Columbus           | 1,000-4,999              | Government Offices--City and Village  |
| Columbus State University            | Columbus           | 1,000-4,999              | Schools--Universities and Colleges    |
| Cooper Lighting                      | Americus           | 500-999                  | Lighting Fixtures (mfg)               |
| Cooper Tire & Rubber Co.             | Albany             | 1,000-4,999              | Tire-Dealers Retail                   |
| Corrections Dept.                    | Pelham             | 500-999                  | State Govt-Correctional Institution   |
| Crisp Regional Hospital              | Cordele            | 500-999                  | Hospital                              |
| Darton College                       | Albany             | 500-999                  | Schools--Universities and Colleges    |
| Doctors Hospital                     | Columbus           | 500-999                  | Hospital                              |
| Elberta Crate & Box Co.              | Bainbridge         | 500-999                  | Boxes--Wire Bound (mfg)               |
| Columbus Foundry                     | Columbus           | 500-999                  | Foundries - Steel                     |
| Equity Group Georgia Div.            | Camilla            | 1,000-4,999              | Poultry Processing Plants (mfg)       |
| Fort Benning                         | Fort Benning       | 10,000+                  | Military                              |
| Georgia-Pacific Corp.                | Cedar Springs      | 500-999                  | Paper (mfg)                           |
| Grill Lover's Catalog                | Midland            | 500-999                  | Marketing Services                    |
| HCA Columbia Doctors Hospital        | Columbus           | 500-999                  | Hospital                              |
| Jay Pontiac Buick GMC Inc.           | Columbus           | 500-999                  | Automobile Dealers-New Cars           |
| Jimmy Autry Correctional Institution | Pelham             | 500-999                  | State Govt-Correctional Institution   |
| John D Archibald Memorial Hospital   | Thomasville        | 1,000-4,999              | Hospital                              |
| Kelly Services                       | Ashburn            | 500-999                  | Employment Leasing                    |
| Kysor/Warren                         | Columbus           | 500-999                  | Refrigerating Equip (whsl)            |



# Southwest Georgia Interstate Study

## Economic Development

### Existing Conditions

Table 2.4.3.1.2 (continued)  
Major Employers in Southwest Georgia

| <u>Company Name</u>                    | <u>City</u>  | <u>Employment</u> | <u>Business Description</u>           |
|----------------------------------------|--------------|-------------------|---------------------------------------|
| Langdale Forest Products               | Valdosta     | 1,000-4,999       | Lumber and Wood Products              |
| Lewis Taylor Farms Inc.                | Tifton       | 500-999           | Farms                                 |
| Lowe's Distribution Center             | Valdosta     | 500-999           | Distribution Centers (whsl)           |
| Martin Army Community Hospital         | Fort Benning | 1,000-4,999       | Hospital                              |
| Masterfoods USA                        | Albany       | 500-999           | Food Preparations (NEC)               |
| Medical Center Hospital                | Columbus     | 1,000-4,999       | Hospital                              |
| Memorial Hospital                      | Bainbridge   | 500-999           | Hospital                              |
| Mid Georgia Ambulance                  | Columbus     | 500-999           | Ambulance Service                     |
| Miller Brewing Co.                     | Albany       | 500-999           | Brewers (mfg)                         |
| Monrovia Growers                       | Cairo        | 500-999           | Nurserymen                            |
| Phoebe Putney Memorial Hospital        | Albany       | 1,000-4,999       | Hospital                              |
| Pratt & Whitney                        | Midland      | 1,000-4,999       | Aircraft Engines & Engine Parts (mfg) |
| Procter & Gamble Paper Products        | Albany       | 1,000-4,999       | Consumer Products                     |
| Riverside Manufacturing Co.            | Moultrie     | 1,000-4,999       | Uniforms (mfg)                        |
| Roadway Express Inc.                   | Lake Park    | 500-999           | Trucking-Motor Freight                |
| Rose Haven                             | Thomasville  | 500-999           | Hospital                              |
| Sanderson Farms Inc.                   | Moultrie     | 1,000-4,999       | Poultry Processing Plants (mfg)       |
| South Georgia Medical Ctr.             | Valdosta     | 1,000-4,999       | Hospital                              |
| Southern Landscape & Sod Inc.          | Thomasville  | 1,000-4,999       | Sprinklers - Garden Retail            |
| Southern Valley Neo Organic            | Norman Park  | 500-999           | Fruits & Vegetables Shippers          |
| Southwestern State Hospital            | Thomasville  | 500-999           | Hospital                              |
| St. Francis Hospital                   | Columbus     | 1,000-4,999       | Hospital                              |
| Sumter Regional Hospital               | Americus     | 500-999           | Hospital                              |
| Target                                 | Tifton       | 500-999           | Retail                                |
| Tift Regional Medical Center           | Tifton       | 500-999           | Hospital                              |
| Timken Company                         | Cairo        | 500-999           | Ball & Roller Bearing (mfg)           |
| Top Pharmacy & Home Medical            | Columbus     | 500-999           | Home Health Care Services             |
| Total System Services Inc.             | Columbus     | 1,000-4,999       | Credit Card - Merchant Services       |
| Tyson Foods Inc.                       | Vienna       | 500-999           | Poultry Processing Plants (mfg)       |
| Valdosta State University              | Valdosta     | 1,000-4,999       | Schools--Universities and Colleges    |
| W K Shaw Industries Plant              | Tifton       | 500-999           | Yarn-Spinning Mills (mfg)             |
| Wal-Mart Supercenter                   | Valdosta     | 500-999           | Retail                                |
| West Central Georgia Regional Hospital | Columbus     | 500-999           | Hospital                              |
| Wight Nurseries                        | Cairo        | 500-999           | Nurserymen                            |
| Workstaff Personnel Services           | Thomasville  | 500-999           | Personnel Consultants                 |

Source: Georgia Department of Labor

Note: Employment figures include full and part-time workers.



## Southwest Georgia Interstate Study

# ***Economic Development Existing Conditions***

### ***2.4.4 Issues Affecting Economic Development in Southwest Georgia***

As a comparatively disadvantaged region of the State of Georgia, the communities of southwest Georgia are the beneficiaries of economic development initiatives administered by several levels of government and quasi-governmental agencies. These include those initiated by local communities within the region and those initiated by the state. Of note, interviews with local economic development representatives confirm that highway access plays a role in their ability to attract business to the region and that investments to improve highway access would be consistent with the the development goals and objectives of the region's communities. A representative of the Albany-Dougherty Economic Development Commission cited three separate instances where communities in the vicinity of Albany had received leads from the State economic development and partner development organizations. In each case, the region had been under consideration for a large plant relocation, and had ultimately been ruled out because of insufficient highway access. The representative indicated that SR 300 is considered a very good road even though it is not interstate quality. Other roads in the region, however, are not valued as highly because of the number of intersections with stop lights. Truck freight shippers are highly sensitive to the number of times they must stop or slow and then regain speed as it increases both time and fuel costs. This sensitivity has only intensified as fuel prices have risen<sup>4</sup>.

The experience of the Albany-Dougherty developers is echoed by the Valley Partnership, the economic development arm of the Greater Columbus Chamber of Commerce. A representative confirmed that transportation was a limiting factor in the Partnership's ability to attract business. The representative cited recent experience in attracting Tier II and Tier III auto suppliers to the southwest Georgia region. Although the region fell within the typical distance of major auto assembly plants in West Point, GA and in Alabama for these types of suppliers, the southwest Georgia did not enjoy the same success in attracting suppliers that other competing regions had enjoyed. The representative indicated that road quality was a factor in this outcome<sup>5</sup>.

As the commercial center for region, the City of Albany plays a central role in local initiatives aimed at developing the economic base of this part of the state. There are a number of concurrent efforts underway or in the planning stages. These are noted briefly below to highlight that interstate investment or significant highway improvements would be consistent with the development objectives of the region.

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<sup>4</sup> Telephone interview with Andrea Schruijer, June 2008 by Toni Horst, AECOM. Because of the competitive nature of economic development initiatives, Ms. Schruijer was required to keep the names of the firms that had preferred other locations to southwest Georgia confidential.

<sup>5</sup> Telephone interview with Dayton Preston of the Valley Partnership, June 2008 by Toni Horst, AECOM. Preston stated that, "transportation is one of the most important keys to development success in southwest Georgia."



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# ***Economic Development Existing Conditions***

- **Logistics Industry Targeted in Business Analysis.** The Albany-Dougherty Economic Commission has identified Logistics as a Target Industry in their December 2007 Business Analysis report. The report cites the opportunity for multimodal freight movements due to two competing freight rail services (CSX and Norfolk Southern) and a regional airport. The Commission's business report indicates that both UPS and DHL have sorting facilities at Southwest Georgia Regional Airport that make it the second largest cargo airport in the State, after Hartsfield-Jackson in Atlanta. The report identifies the absence of direct interstate access as a challenge to this initiative's success but highlights SR-300 and US 82 as important four-lane highway alternatives.
- **The Municipal Electric Authority of Georgia (MEAG Power).** MEAG is a statewide organization but has many communities in southwest Georgia including Crisp County and Albany. Its presence provides electricity competition in these communities and favorable energy rates for firms considering relocating to the region. Such an option improves the region's attractiveness for energy-intensive industries such as manufacturers who are freight generators.
- **Georgia Freeport Exemption.** Every county in the southwest Georgia study area had a Freeport Exemption except Baker and Calhoun. The exemption removes business taxes on certain classes of property favoring the processing, warehousing and transportation industries.
- **Governor's Road Improvement Program (GRIP).** GRIP is an ongoing initiative to use transportation investment to leverage other community assets to spark economic development across the state to help distribute the State's prosperity beyond the dominant Atlanta region. The importance of the program for this study is twofold. It provides for an interim road improvement in the region as interstate options are being considered. It also reinforces that using road investment to support economic development objectives is consistent with local and state policies. US 27, US 84, and the South Georgia Parkway are several examples of GRIP roads in the southwest Georgia region that are either open or under development.

### ***2.4.5 Freight Trends in the Southwest Georgia Study Area***

Trucking is the dominant mode for moving freight in and through Georgia, accounting for about 72 percent in terms of tonnage and about 82 percent in terms of value. This particularly high mode share, reflects the composition of the state's domestic trading partners and the in-state presence of a major port and proximity of competing Gulf and Atlantic coast ports. Both in-bound and out-bound freight typically travels no more than 500 miles beyond the state's border. As rail's competitive advantage with trucks is primarily for distances greater than 500 miles, trucking dominates the state's freight sector. Moreover, trucking's mode share is expected to rise over time, increasing to 79 percent of tonnage and 86 percent by value by 2035. This makes the health of the highway system particularly important for the state's future economic performance. A finding of the state's latest



## Southwest Georgia Interstate Study

# ***Economic Development Existing Conditions***

freight plan is that although existing interstate highways carry the highest volumes of freight by both tonnage and value, a number of non-interstate highways are projected to carry significant freight volumes by 2035, including arterials and the Governor's Road Improvement Program (GRIP) roads<sup>6</sup>.

Georgia's freight flows are concentrated in the state's urban areas; reflecting its rural nature, comparatively few of the counties included in the southwest Georgia study area are among the top counties for freight movement. Measured in terms of tonnage, only Muscogee County (Columbus urban area) ranks among the top 15 counties. When freight is measured in terms of value, Muscogee, Dougherty (Albany), and Lowndes (Valdosta) each rank among the top 15 counties for freight traffic<sup>7</sup>.

Within the study area, two highway routes are projected to have significant increases in truck freight. SR 300, connecting Albany to I-75 is projected to see its current freight tonnage rise from its current volume at or below 10 million tons per year to over 50 million tons by 2035, an over five-fold increase. US 280/US 82 (part of the GRIP system) is projected to see its freight tonnage increase from its current volume at or below 10 million tons per year to somewhere between 20 to 50 million tons per year<sup>8</sup>.

The regional importance of SR 300 and US 280/US 82 is underscored by stakeholder interviews conducted for the Dougherty Area Regional Transportation Study MPO (Albany), which identified SR 300 and US 82 as the region's major freight access routes, followed by GA 520, US 280 and I-75. Both SR 300 and US 82 are designated as truck routes. Much of SR 300 follows the route of cancelled I-175, which would have connected Albany to the interstate system via I-75.

Additional perspective is provided by the Statewide Truck Lanes Needs Identification Study. This is an exhaustive effort utilizing freight data, traffic counts, and origin-destination surveys of truck activity to obtain a comprehensive view of truck activity in the state. The findings of this study corroborate the overall conclusion that aside from the routes noted above, truck activity is currently and is expected to be sparse in the Study Area over the foreseeable future. The only route with even modest truck activity is US 27, with truck flows originating in the LaGrange area and traveling to Florida via US 27<sup>9</sup>.

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<sup>6</sup> Georgia Department of Transportation, "2005-2035 Georgia Statewide Freight Plan," October 2006, pages 3, 9, 21 and 23.

<sup>7</sup> Georgia Department of Transportation, "2005-2035 Georgia Statewide Freight Plan," October 2006, pages 26 and 28.

<sup>8</sup> Georgia Department of Transportation, "2005-2035 Georgia Statewide Freight Plan," October 2006, page 33.

<sup>9</sup> Georgia Department of Transportation, "Statewide Truck Lanes Needs Identification Study: Technical Memorandum 1—Data Collection," July 2007, p. 36.





## Southwest Georgia Interstate Study

### ***Economic Development Existing Conditions***

#### ***2.4.6 Summary***

A lagging economy, relative to the Georgia economy, southwest Georgia is not currently a significant freight hub. Moreover, neither the current industrial composition, nor the growth prospects of the region's major employers, nor the state's freight projections of future demand suggest sharp increases in freight flows that would require significant new highway capacity.

That said, the competitive advantages of regions are not static; if strategic investments are made, they can turn weak economic performers into stronger economies. The economy of southwest Georgia has a favorable cost structure, proximity to major urban markets in the fast growing Southeast, and is making efforts to attract business. Were highway investments made to improve roads to the quality of SR 300 or a good quality divided highway with limited access, such investments might offer the desired development outcomes at a lower cost than an interstate solution. Such an investment in southwest Georgia might be marketed to the economic development community in a manner similar to the Port of Savannah's Commercial Corridors concept, designated freight routes with support for firms seeking information on locations within the corridor. The appendix provides a brief bibliography of the literature evaluating the economic benefits of good quality divided highways.

While the focus of this study is and remains the feasibility and likely economic development impacts of an interstate route in southwest Georgia, such a route can require significant planning and time to develop the concept and approvals. In the meantime, non-interstate investments (if consistent with the State's program) could support the region's economy in the intervening time.



## Southwest Georgia Interstate Study

# **Travel Conditions and Patterns**

### **Existing Conditions**

## **2.5 Travel Conditions and Patterns**

A variety of information was collected to assist with the analysis of travel patterns and conditions within the study area. This information was also used to develop a travel demand model which was also used to evaluate existing travel conditions within the study area. The detailed summary on the development of the inputs to the travel demand model and the model itself is contained in the following technical memorandums.

- Highway Network Development
- Traffic Analysis Zone Development
- Model Development

The results from the application of the travel demand model are shown in this section for the existing conditions of 2006. Although the travel demand model was developed that encompassed the entire 32-county study area, the level of detail for the urban areas of Albany, Columbus and Valdosta was not as fine as would be expected for a detailed urban model. GDOT has prepared separate travel demand models for each of these areas which are more detailed in order to develop the MPO transportation plans and programs. Since the MPO's are responsible for the analysis and evaluation of transportation operations and plan within their boundaries, the results from the MPO areas of Albany, Columbus and Valdosta are not included in the results shown in this section.

### **2.5.1 Existing Facilities**

The study area consists of 32 counties encompassing 7.6 million acres. Figure 2.5.1.1 displays the roadway facilities in the study area by functional classification. Federal Guidance states that functional classification is the process by which streets and highways are grouped into classes, or systems, according to the character of service they are intended to provide. Basic to this process is the recognition that individual roads and streets do not serve travel independently in any major way. Rather, most travel involves movement through a network of roads. It becomes necessary then to determine how this travel can be channelized within the network in a logical and efficient manner. Functional classification defines the nature of this channelization process by defining the part that any particular road or street should play in serving the flow of trips through a highway network. There is a hierarchy to the classification system. The higher classified facilities are designed to carry more traffic at higher speeds. There are almost 8,300 center-line miles in the study area. Center-line miles includes both directions of a roadway facility. More than three-fourths of the facilities within the the study area are two-lanes facilities with one lane in each direction. The majority of the multi-lane facilities are principal arterials.

There are almost 200 center-line miles of interstates. Principal arterials such as US 27, US 19, US 82, US 84 and US 280 account for approximately 2,300 or one-fourth of the center-lane



## Southwest Georgia Interstate Study

# **Travel Conditions and Patterns**

### **Existing Conditions**

miles. Minor arterials such as GA 26, GA 49, GA 30, GA 27, GA 62, GA 37 and GA 91 also account for one-fourth of the center-lane miles. Collectors account for less than half of the center-lane miles.

**Table 2.5.1.1**  
**Number of Center-Line Miles by Functional Classification**

| Area        | Functional Class         | 2-Lane | Multi-Lane | Total |
|-------------|--------------------------|--------|------------|-------|
| Rural       | Rural Interstate         | 0      | 159        | 159   |
|             | Rural Principal Arterial | 377    | 728        | 1,105 |
|             | Rural Minor Arterial     | 1,997  | 2          | 1,999 |
|             | Rural Major Collector    | 4,022  | 16         | 4,038 |
|             | Rural Minor Collector    | 346    | 0          | 346   |
|             | Rural Local              | 72     | 0          | 72    |
|             | Total                    | 6,814  | 905        | 7,719 |
| Urban       | Urban Interstate         | 0      | 27         | 27    |
|             | Urban Freeway            | 0      | 10         | 10    |
|             | Urban Principal Arterial | 105    | 201        | 306   |
|             | Urban Minor Arterial     | 186    | 5          | 191   |
|             | Urban Collector          | 3      | 0          | 3     |
|             | Total                    | 294    | 243        | 537   |
| Grand Total | Interstate               | 0      | 186        | 186   |
|             | Principal Arterial       | 482    | 939        | 1,421 |
|             | Minor Arterial           | 2,183  | 7          | 2,190 |
|             | Collector                | 4,371  | 16         | 4,387 |
|             | Local Road               | 72     | 0          | 72    |
|             | Grand Total              | 7,108  | 1,148      | 8,256 |

Source: Southwest Georgia Interstate Study Travel Demand Model







## Southwest Georgia Interstate Study

# Travel Conditions and Patterns

### Existing Conditions

Figure 2.5.1.2 displays the facilities in the study area by the number of lanes. Sections of I-185 and US 280 in Columbus and more than half of I-75 are the primary 6 lane facilities. Sections of I-75 are currently under construction to be widened to 6 lanes. Almost 80% of the principal arterials have four lanes. Sections of US 27 and US 19 are also currently under construction to be widened to 4 lanes.

#### 2.5.2 Travel Conditions and Level-of-Service

Table 2.5.2.1 lists the daily vehicle miles traveled (VMT) for 2006 by functional class. More than 80% of the daily VMT takes place on the rural facilities. The largest amount of daily travel occurs on the rural interstates, rural principal arterials and urban principal arterials.

Table 2.5.2.1  
Total Daily Vehicle Miles Traveled for 2006

| Area  | Functional Class         | 2006              | % of Total VMT |
|-------|--------------------------|-------------------|----------------|
| Rural | Rural Interstate         | 3,226,983         | 22.8%          |
|       | Rural Principal Arterial | 3,512,861         | 24.9%          |
|       | Rural Minor Arterial     | 2,651,689         | 18.8%          |
|       | Rural Major Collector    | 2,130,690         | 15.1%          |
|       | Rural Minor Collector    | 100,132           | 0.7%           |
|       | Rural Local              | 19,444            | 0.1%           |
|       | <b>Total</b>             | <b>11,641,799</b> | <b>82.4%</b>   |
| Urban | Urban Interstate         | 563,019           | 4.0%           |
|       | Urban Freeway/Expressway | 58,953            | 0.4%           |
|       | Urban Principal Arterial | 1,487,728         | 10.5%          |
|       | Urban Minor Arterial     | 376,465           | 2.7%           |
|       | Urban Collector          | 2,957             | 0.0%           |
|       | <b>Total</b>             | <b>2,489,122</b>  | <b>17.6%</b>   |
|       | <b>Grand Total</b>       | <b>14,130,921</b> | <b>100%</b>    |

Source: Southwest Georgia Interstate Study Travel Demand Model







## Southwest Georgia Interstate Study

# ***Travel Conditions and Patterns***

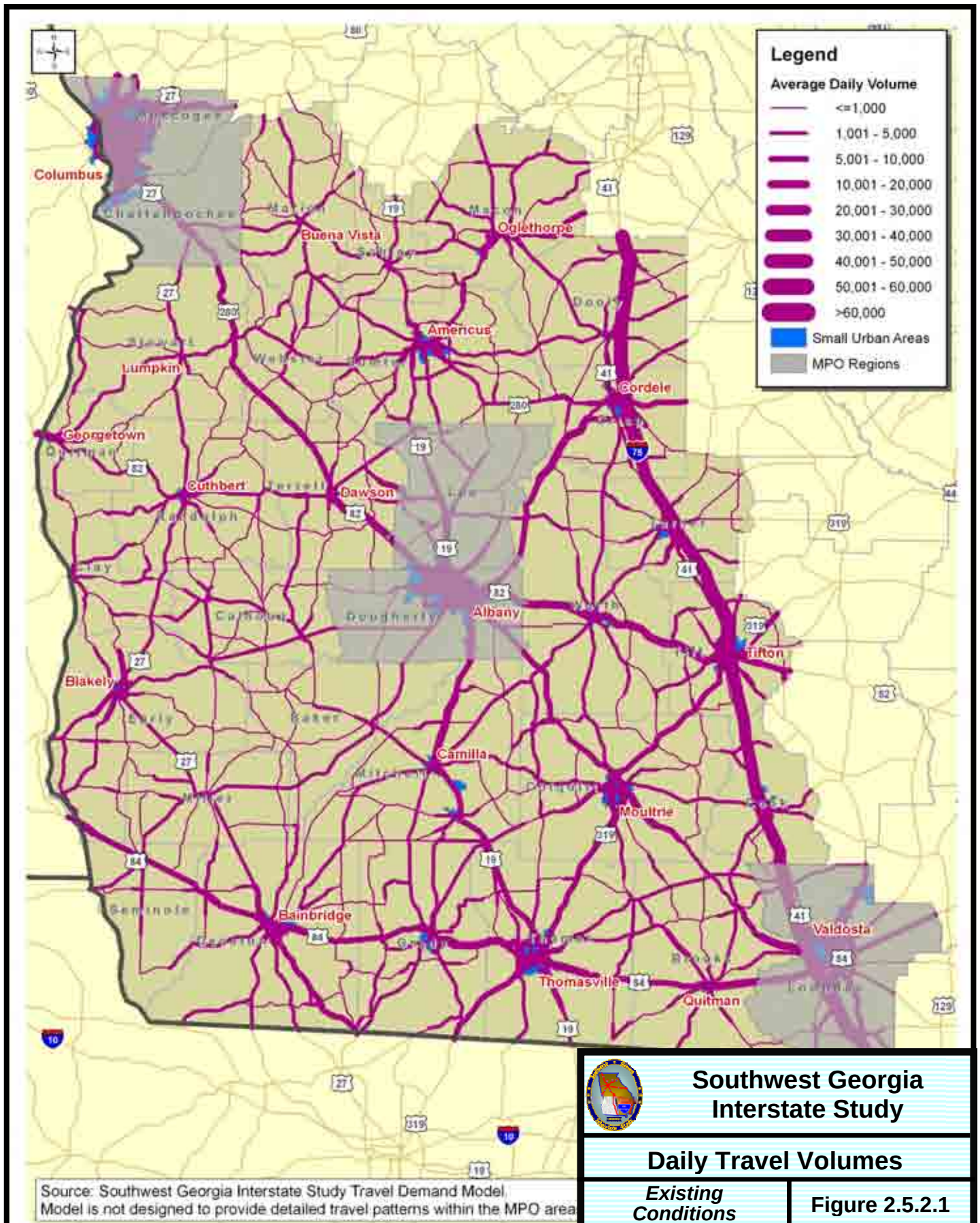
### ***Existing Conditions***

Figure 2.5.2.1 displays the daily travel volumes by volume range. The I-75 corridor which provides for north-south travel within the study area and through the study area has the highest daily travel volumes. Daily travel volumes on I-75 range between 50,000 to 60,000 and over 60,000 vehicles a day. US 280, US 82, US 19 and GA 300 carry the largest non-interstate north-south travel. The largest east-west travel movements occur on US 84 and parts of US 82. The major travel corridors are listed below

- I-75 from the northern end of the study area to the southern end
- US 280 to US 82 from Columbus to Albany to Tifton
- US 19 from Americus to Albany to Thomasville to Tallahassee
- GA 300 from Cordele to Albany
- US 319 from Tifton to Moultrie to Thomasville
- US 84 from Valdosta to Thomasville to Bainbridge to Georgia-Alabama line

Table 2.5.2.2 lists the total daily truck VMT for 2006 by functional class. Trucks account for one-fourth of the daily VMT travelled within the study area. Approximately 60% of daily truck VMT occurs on interstates, freeways and principal arterials. The percent of truck VMT by functional class ranges between 23-32 percent for all of the facilities with the exception of urban collectors. The high percentage on urban collectors is probably due to the exclusion of the MPO areas and the small amount of urban collectors included in this analysis.







## Southwest Georgia Interstate Study

# Travel Conditions and Patterns

### Existing Conditions

Table 2.5.2.2  
Total Daily Truck Vehicle Miles Traveled for 2006

| Area  | Functional Class         | Truck            | Total             | % Trucks     |
|-------|--------------------------|------------------|-------------------|--------------|
| Rural | Rural Interstate         | 791,703          | 3,226,983         | 24.5%        |
|       | Rural Principal Arterial | 781,001          | 3,512,861         | 22.2%        |
|       | Rural Minor Arterial     | 698,579          | 2,651,689         | 26.3%        |
|       | Rural Major Collector    | 660,773          | 2,130,690         | 31.0%        |
|       | Rural Minor Collector    | 31,867           | 100,132           | 31.8%        |
|       | Rural Local              | 4,376            | 19,444            | 22.5%        |
|       | <b>Total</b>             | <b>2,968,299</b> | <b>11,641,799</b> | <b>25.5%</b> |
| Urban | Urban Interstate         | 140,327          | 563,019           | 24.9%        |
|       | Urban Freeway/Expressway | 15,847           | 58,953            | 26.9%        |
|       | Urban Principal Arterial | 405,998          | 1,487,728         | 27.3%        |
|       | Urban Minor Arterial     | 113,719          | 376,465           | 30.2%        |
|       | Urban Collector          | 1,785            | 2,957             | 60.4%        |
|       | <b>Total</b>             | <b>677,676</b>   | <b>2,489,122</b>  | <b>27.2%</b> |
|       | <b>Grand Total</b>       | <b>3,645,975</b> | <b>14,130,921</b> | <b>25.8%</b> |

Source: Southwest Georgia Interstate Study Travel Demand Model

Figure 2.5.2.2 displays the daily truck volumes within the study area. As can be expected, the largest truck travel volumes occur on I-75. Large truck volumes occur on the same non-interstate facilities as the total daily volumes shown in the Figure 2.5.2.1. The truck volumes are higher the closer to the urban areas.

Figure 2.5.2.3 displays the Level-of-Service (LOS) within the study area. LOS represents the level of service for operations on a roadway facility and is represented by grades denoted by the letters A, B, C, D, E and F. Their meanings are similar to grades that teachers give children on their report cards with an "A" representing little or no congestion/delay and "F" representing extreme congestion or long delays. This measure is derived by dividing the theoretical facility capacity by the traffic volume. Qualitative descriptions of traffic flow associated with each LOS are provided below. These descriptions are based on definitions established in the Highway Capacity Manual (HCM) 2000.



## Southwest Georgia Interstate Study

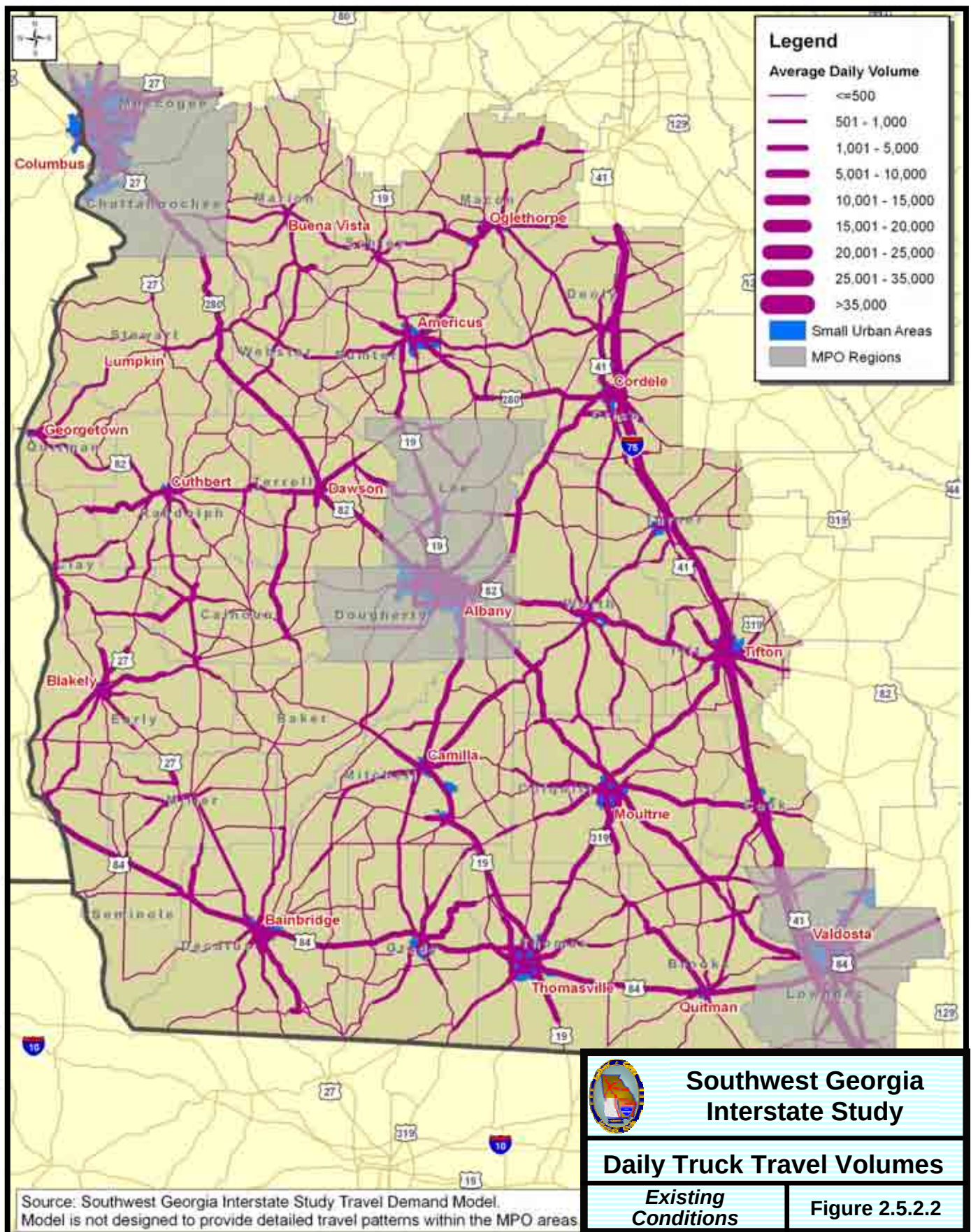
# ***Travel Conditions and Patterns***

### ***Existing Conditions***

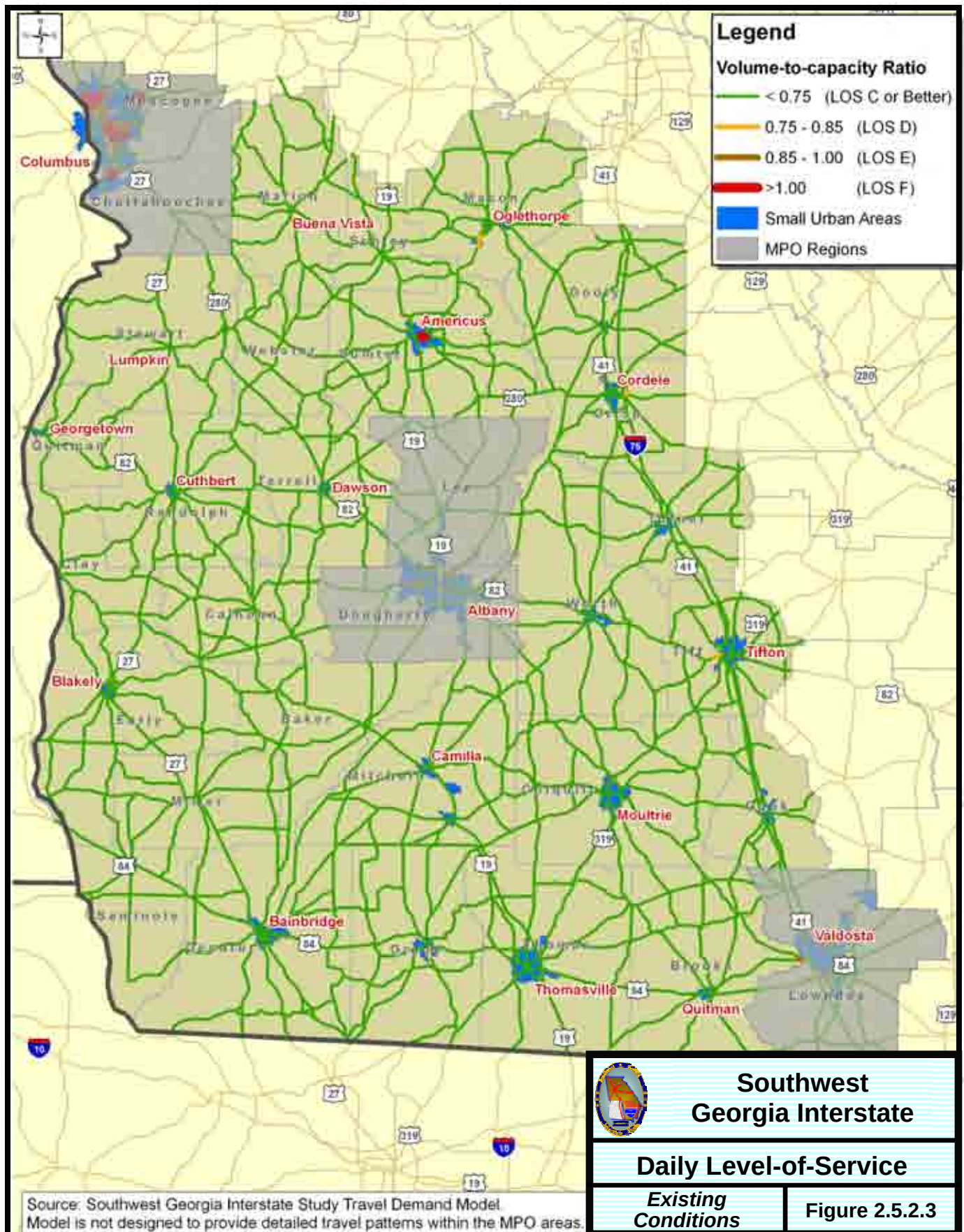
- LOS A: Represents free flow conditions. Individual users are virtually unaffected by the presence of others in the traffic stream. Freedom to select desired speeds and to maneuver within the traffic stream is extremely high.
- LOS B: In the range of stable flow, but the presence of other users in the traffic stream begins to be noticeable. Freedom to select desired speeds is relatively unaffected, but there is a slight decline in the freedom to maneuver within the traffic stream from LOS A.
- LOS C: In the range of stable flow, but it marks the beginning of the range of flow in which the operations of individual users become significantly affected by interactions with others in the traffic stream.
- LOS D: Represents high density but stable flow. Speed and freedom to maneuver are severely restricted, and the driver experiences a generally poor level of comfort and convenience.
- LOS E: Represents operating conditions at or near capacity level. Freedom to maneuver within the traffic stream is extremely difficult. Comfort and convenience levels are extremely poor, and driver frustration is generally high.
- LOS F: Describes forced or break-down flow. This condition exists when the amount of traffic approaching a point exceeds that which can traverse the point.

Outside of the MPO and urban areas, there are currently no facilities with LOS below C. This demonstrates that traffic volumes flow smoothly throughout the study area on a corridor level. There may be some select intersections which have operating problems within the urban areas, however regional travel demand models are not designed to estimate and evaluate traffic operations at intersections.











## Southwest Georgia Interstate Study

# Travel Conditions and Patterns

### Existing Conditions

Figure 2.5.2.4 summarizes the percent of the rural roadway mileage that is currently operating at LOS C or better. There is no roadway mileage is currently experiencing congestion. Again this demonstrates there is no serious and constant congestion in the study area.

Figure 2.5.2.4  
Percent of Rural Mileage  
Operating at LOS C or Better

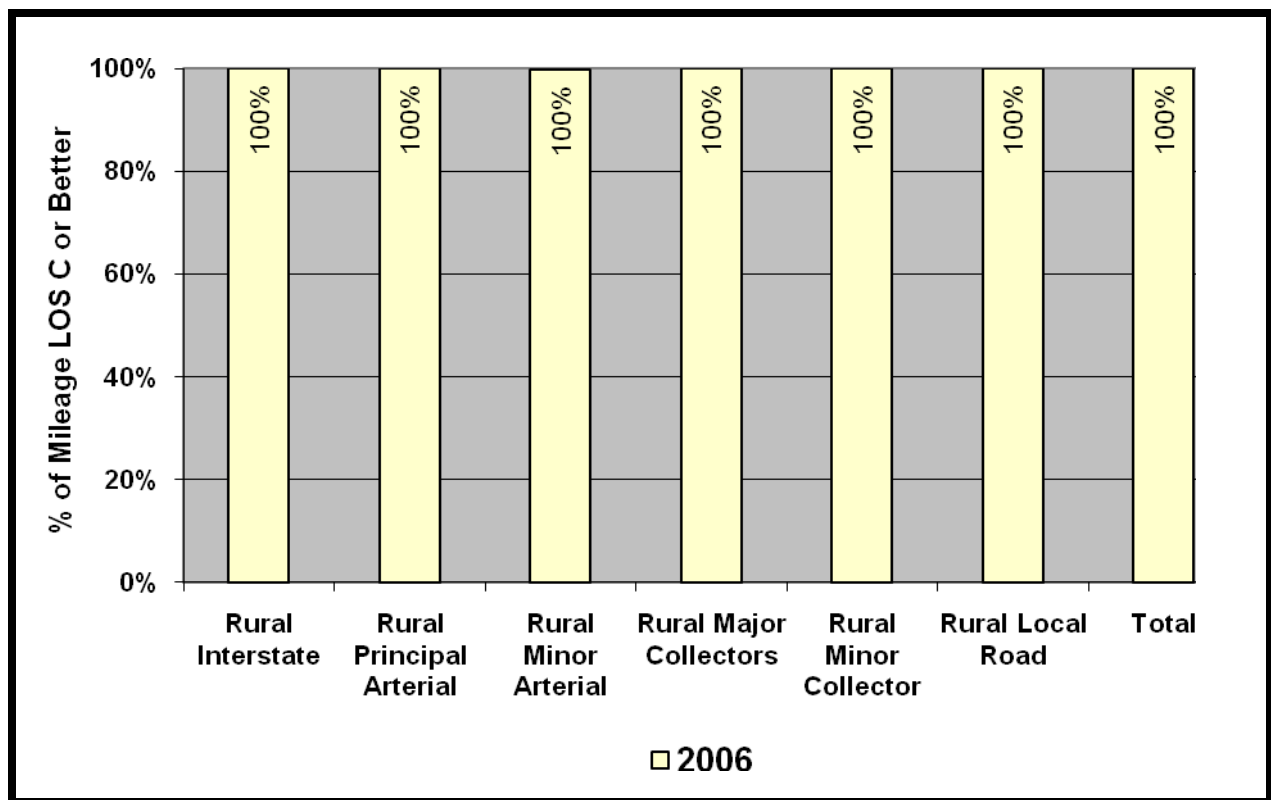


Figure 2.5.2.5 summarizes the percent of the urban roadway mileage that is currently operating at LOS C or better. Only two percent of the urban principal arterial roadway mileage is currently experiencing congestion. Again this demonstrates there is no serious and constant congestion in the study area.



## Southwest Georgia Interstate Study

### Travel Conditions and Patterns

#### Existing Conditions

Figure 2.5.2.5  
Percent of Urban Mileage  
Operating at LOS C or Better

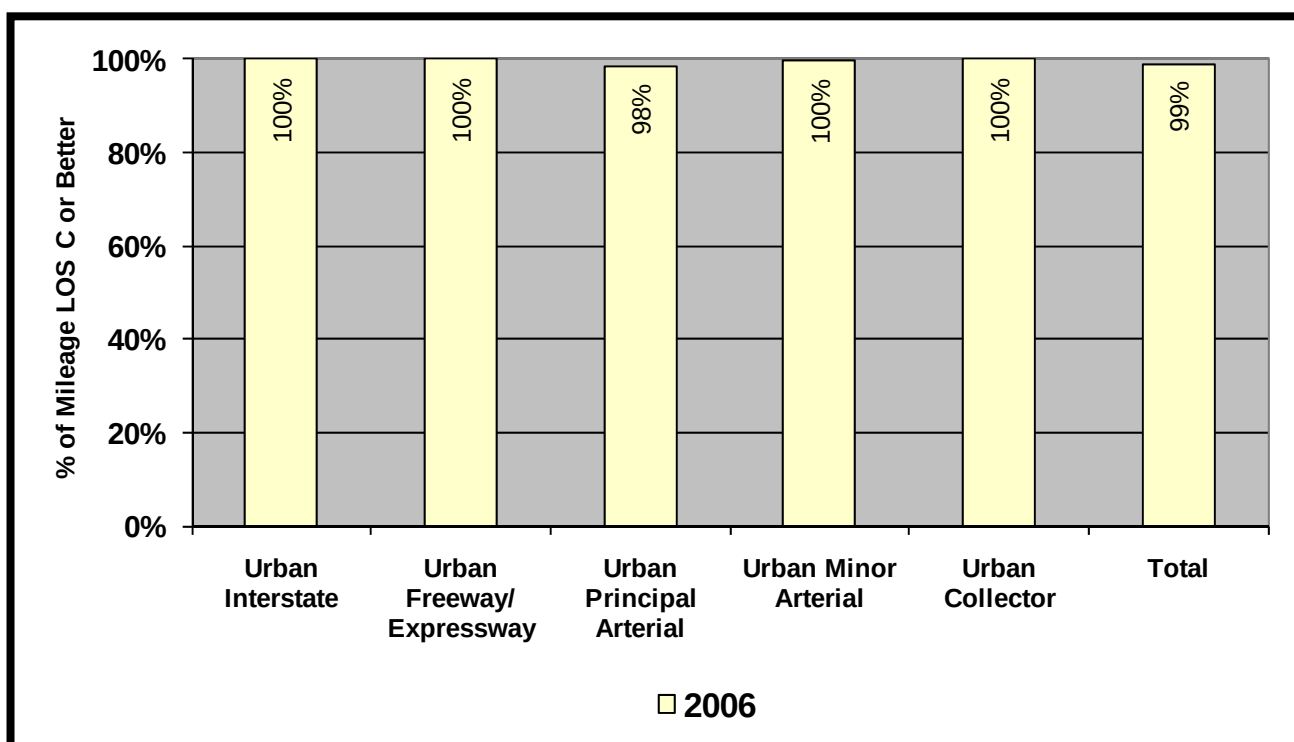


Figure 2.5.2.6 displays the seconds of delay per daily VMT by rural functional class. The rural interstate classification which consists primarily of I-75, has the largest number of seconds delay, 1.4 per VMT. Rural minor arterials have .70 seconds of delay per daily VMT. All of the other facilities have less than a second of delay per daily VMT.

Figure 2.5.2.7 displays the seconds of daily delay per VMT by urban functional class. Urban principal arterials have the largest number of seconds delay, 2.25 per daily VMT. These facilities are within or near the cities or municipalities within the study area. Urban minor arterials have 1.6 seconds of delay per VMT while the urban interstates have one second of delay per daily VMT. Overall travelers within the study area experience little delay.



## Southwest Georgia Interstate Study

### ***Travel Conditions and Patterns***

### ***Existing Conditions***

Figure 2.5.2.6  
Seconds of Delay per Vehicle Mile of Travel  
By Rural Functional Classification

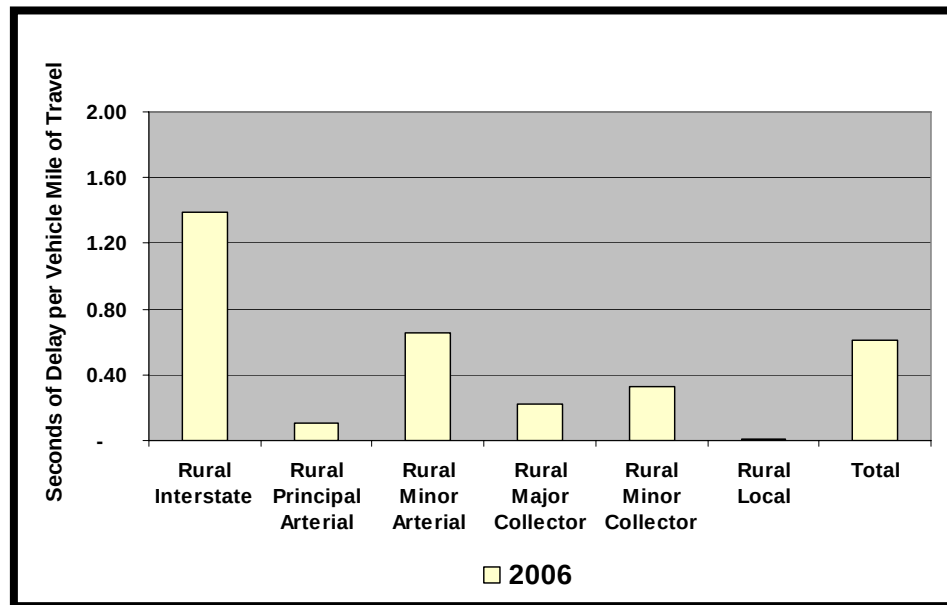
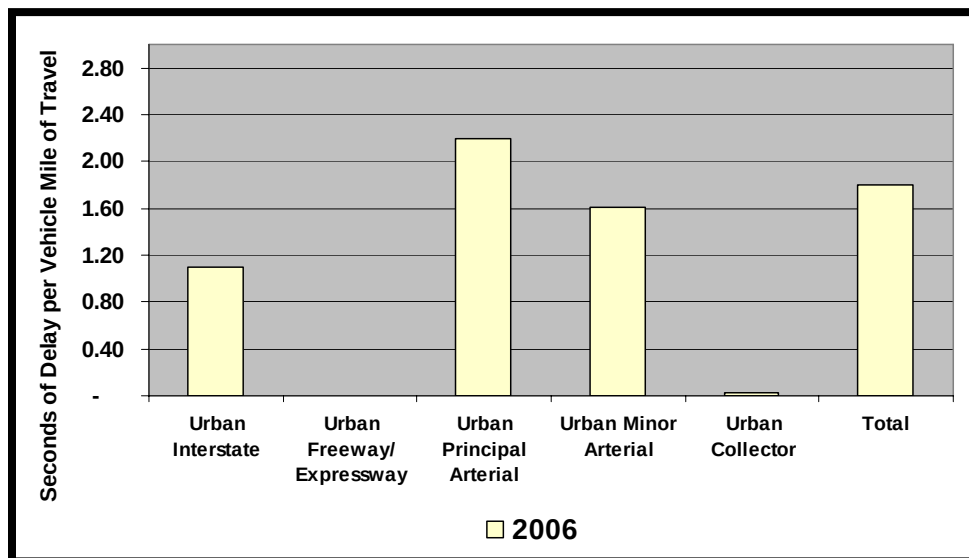


Figure 2.5.2.7  
Seconds of Delay per Vehicle Mile of Travel  
By Urban Functional Classification







## Southwest Georgia Interstate Study

# **Travel Conditions and Patterns**

## **Existing Conditions**

Accessibility to interstate facilities is reflected in Table 2.5.2.3. There are three interstate facilities, I-75, I-185 and I-10 that are accessible to residents and workers in the study area. All of the urban areas are within a two hour drive to I-75, while half of the urban areas are within a one hour drive to I-75. Easy access to I-185 is available to residents and workers in the northwestern portion of the study area as shown by the travel times from Buena Vista, Columbus and Lumpkin. Reasonable access to I-10 in Florida is available to residents and workers in the southern part of the study as shown by the travel times from Moultrie, Quitman, Thomasville, and Valdosta. Almost all of the study area is within one hour access to an interstate facility with the exception of the western middle area of Early, Baker, Clay, Calhoun and Randolph counties. Table 2.5.2.3 shows that all of the urban areas within the study area are within 60-75 minutes access to an interstate facility.

**Table 2.5.2.3**  
**Access Time to Interstate Facility**  
**(in Minutes)**

| <b>Urban Area</b> | <b>I-75</b> | <b>I-185</b> | <b>I-10</b> |
|-------------------|-------------|--------------|-------------|
| Albany            | 49          | 96           | 145         |
| Americus          | 42          | 81           | 176         |
| Bainbridge        | 95          | 142          | 141         |
| Blakely           | 117         | 103          | 191         |
| Buena Vista       | 82          | 46           | 214         |
| Camilla           | 72          | 129          | 134         |
| Columbus          | 117         | 0            | 235         |
| Cordele           | 0           | 117          | 133         |
| Cuthbert          | 92          | 64           | 194         |
| Dawson            | 64          | 71           | 167         |
| Georgetown        | 121         | 66           | 222         |
| Lumpkin           | 93          | 49           | 206         |
| Moultrie          | 33          | 147          | 107         |
| Oglethorpe        | 46          | 85           | 175         |
| Quitman           | 24          | 185          | 76          |
| Thomasville       | 48          | 159          | 103         |
| Tifton            | 0           | 139          | 101         |
| Valdosta          | 0           | 181          | 61          |



## Southwest Georgia Interstate Study

# **Travel Conditions and Patterns**

### **Existing Conditions**

#### **2.5.3 Crash Analysis**

The primary purpose of the accident analysis is to identify “Above average” crash locations in the 32-county Southwest Georgia Interstate Study (SWGIS) area. This information will be used in the study to aid in determining potentially feasible limited access transportation corridors as well as identifying areas where countermeasures could possibly address potential safety issues. In addition, it will be used to rank potentially feasible SWGIS freeway corridors in terms of their relative effectiveness toward overall crash reduction. A secondary utility of the above average crash location analysis findings is to provide Georgia DOT District offices and local public works officials with a list of highway sections whose three-year crash experience from 2004 to 2006 exceeds average or ordinary crash rate, total crash frequency or fatal crash frequency experience.

Three primary accident statistics were used to focus the identification of critical locations in the study area. These were:

- Number of Total Crashes;
- Number of Fatal Crashes; and,
- Calculated Accident Rate (Number of accidents per 100 million vehicle miles of travel).

In identifying the above average crash locations, an analysis process was developed and applied at a subarea level. The crash analysis procedure and highway link ranking methodology are described in detail in the *Crash Analysis Technical Memorandum*.

##### **2.5.3.1 Data Sources**

Three principal data files provided the fundamental information needed to conduct this crash analysis. These files are:

- Georgia Department of Transportation's Safety Management Crash Database (2004-2006) containing descriptive data, including location variables, for all crashes that occurred on public roads in the 32 county study area;
- Georgia Department of Transportation's Statewide Road Conditions File (RC File) obtained during calendar year 2007. This link-based road network file contains a broad cross-section of attributes pertaining to every section of public road in the State of Georgia. Information in this file is geo-referenced to a GIS street centerline file so it can be related to other sources of data, like the Department of Transportation's crash database; and
- Travel Demand Model Highway Network File which was built by the study team as part of their task to develop a travel demand model for Southwest Georgia. The travel demand model will be designed to establish current year (2006) and future year (2040) travel patterns within and through the study area.



## Southwest Georgia Interstate Study

# Travel Conditions and Patterns

### Existing Conditions

The primary source of data in the analysis was the Department of Transportation's crash database of all accidents that occurred in the 32 county study area from 2004 to 2006. This data collection effort is one of the primary building blocks supporting the Governor's Strategic Highway Safety Plan for Georgia. The database is built from accident reports filed by local public safety officials who respond to motor vehicle crashes when they occur. The statewide master database is refined and maintained by the Georgia Department of Transportation's Safety Management Department, where they are catalogued by county, road identification number, and mile log. As such, each accident has location attributes which associate it with a particular roadway facility and point (in hundredths of a mile) on that facility. To perform the crash location analysis for the SWGIS, data was extracted from several different tables inside GDOT's accident database.

Although the study team was given accident records for all crashes that occurred inside the boundary of the SWGIS, this analysis focused on those accidents that occurred on roads represented in the travel demand model. Although the extent of highway facilities represented in the travel demand model amounts to a relatively small percentage of total route mileage for the entire public road system, a majority of all accidents that occurred in the SWGIS area between 2004 and 2006 took place on highway facilities represented in the travel demand model. To illustrate this point, the ratio of travel demand model network crashes to total crashes by SWGIS subarea is listed below.

**Table 2.5.3.1.1**  
**Percent of Total Crashes in Analysis**

| SUBAREA    | TOTAL<br>CRASHES | CRASH<br>ANALYSIS<br>CRASHES <sup>1</sup> | PERCENT<br>OF TOTAL<br>IN ANALYSIS |
|------------|------------------|-------------------------------------------|------------------------------------|
| SWGIS Area | 29,996           | 20,261                                    | 68%                                |

(1) Crashes occurring on SWGIS travel demand model highway network links.

### 2.5.3.2 Analysis Methodology

The crash analysis was conducted to identify where accidents occur most frequently and where fatal crashes take place. By taking both total crashes and fatal crashes into account, the analysis process identifies locations with above average composite total crash and fatal crash experiences. The terms "crashes" and "accidents" are used interchangeably herein. They both represent a single occurrence of a collision that involved one or more motor vehicle(s) on the state's public road system. Most crashes involved two or more vehicles, but there are a significant number involving just one vehicle.



## Southwest Georgia Interstate Study

# ***Travel Conditions and Patterns***

### ***Existing Conditions***

Three accident attributes characterizing the composite level-of-safety on each segment of the analysis network were computed to determine above average crash locations. These three segment attributes were:

1. Accident Frequency;
2. Accident Rate; and,
3. Number of Fatal Accidents.

In addition, the Number of Truck Accidents for each network link was computed, but for informational purposes only. Crashes involving trucks are already factored into identifying above average crash locations by means of overall average accident frequency, accident rate and fatal accident frequency. The identification of highway network links with above average truck accident experience will provide the study team with information that will aid in determining which potentially feasible freeway improvement alternates serve truck movements better than others.

Accident rates are the most commonly used statistic employed by transportation professionals to gauge the relative safety of different highway facilities. However, rarely are accident rates considered outside of the context of a roadway's functional classification. Three functional classes were used: Interstate; Principal Arterial; and a single class combining Minor Arterials and Collectors. Interstate facilities are limited access, multi-lane highways that connect different geographic regions and cities. Principal Arterials, Minor Arterials and Collectors are less easy to distinguish. Principal Arterials are generally designed and built to facilitate the movement of motor vehicles through a corridor, recognizing that the roadway's primary users are motorists whose intention is to drive completely through the corridor. Minor Arterials and Collector roads are classified differently from Principal Arterials because they are designed to accommodate a higher proportion of local traffic seeking to access adjacent properties inside a travel corridor.

The Georgia Department of Transportation computes statewide summaries of its traffic and accident data by functional classification. One way of determining whether accident experience in a particular place or subarea occurs more frequently than what would be considered "normal" is to compare its accident rates with statewide averages. Statewide average crash rates by functional classification, for total accidents in 2004, are listed below.

- Interstate System – 154 crashes per 100 million AVMT
- Principal Arterial System – 375 crashes per 100 million AVMT
- Minor Arterial and Collector System – 382 crashes per 100 million AVMT



## Southwest Georgia Interstate Study

# **Travel Conditions and Patterns**

### **Existing Conditions**

These average crash rates are based upon 2004 traffic volumes and accident experience collected throughout the State of Georgia, the most current year for which these complete system-level statistics are available. The Department of Transportation uses standard units of “100 million annual vehicle miles of travel” or 100 million AVMT to express crash rates.

#### **2.5.3.3 Crash Rates**

Accident rates were used to identify Travel Demand Model network links that were most susceptible to crashes occurring during the 2004 to 2006 time frame. The use of crash rates normalizes the accident frequency statistic to account for the fact that higher frequency is strongly correlated to elevated traffic volumes and lower accident frequency is associated with low volumes. Crash rates are expressed as “Number of Accidents” Per “100 million vehicle miles of travel”. As such, roadway segments having higher computed accident rates are associated with the following characteristics:

- Large number of accidents;
- Low traffic volumes; and/or,
- Short segment lengths.

#### **2.5.3.4 Fatal Crash Locations**

In the crash analysis, number of fatal accidents is one of the key factors in identifying above average crash locations. They have disproportionately higher monetary and social costs associated with them. Fatal accidents are associated with specific Travel Demand Model network links in exactly the same way as total accidents, explained in a previous section.

The identification of fatal accidents, as opposed to total accidents, is done by using the Georgia Department of Transportation crash database record attribute “Fatalities”. A fatal crash, in this analysis, is exactly that. It is not a misrepresentation of the variable “Fatalities” which corresponds to the number of fatalities resulting from a particular crash. Fatal crashes assigned to travel model network segments were post-processed in an MS Access database using the “Fatalities” attribute key.

#### **2.5.3.5 Above Average Crash Location Identification**

Accident rates, total accident frequency and the number of fatal crashes were computed for all Travel Demand Model network links. These three crash statistics, tabulated at the travel model link level, supplied the framework to determine above average crash locations in the Crash Analysis. In this context, above average crash locations are those base year model network links where crash experience from 2004 to 2006 exceeded average or ordinary crash rate, total crash frequency or fatal crash frequency experience. Those sections of the travel model highway network with a clearly higher composite score than what would be considered average or ordinary were identified and categorized as “above average” crash locations.





## Southwest Georgia Interstate Study

# **Travel Conditions and Patterns**

### **Existing Conditions**

Analyses leading up to the identification of above average crash locations were performed for ten subareas of the SWGIS area. Above average crash road sections were not determined from the relationship between local network link crash rates and statewide average crash rates, but by comparing crash rate, total crash frequency and number of fatal crashes on network links inside each of ten (10) SWGIS subareas with each other. As such, the above average crash locations were identified from a population of road segments within a particular subarea.

Composite crash safety scores were computed for each network link based on the individual accident rate, total crash frequency, and number of fatal crashes statistics as described in the previous sections. Composite scores were for each network link by ranking each individual crash statistics using the scoring system described below.

Accident Rates – All network links are sorted in descending order by accident rate. Each link is then assigned an accident rate pentile number, from 1 through 5. Links whose crash rates are highest fall into Pentile 1. Highway links whose rates are '0' or very low are assigned Pentile 5. Based on this pattern of Pentile designation for the network links, the scores shown in Table 2.5.3.5.1 were assigned for the accident rate statistic.

**Table 2.5.3.5.1**  
**Accident Rate Pentile Scores**

| PENTILE | SCORE |
|---------|-------|
| 1       | 3     |
| 2       | 2     |
| 3       | 1     |
| 4       | 0     |
| 5       | 0     |

Total Accident Frequency – All network links are sorted in descending order by number of total crashes. Each link is then assigned an accident rate pentile number, from 1 through 5. Links whose crash counts are highest fall into Pentile 1. Highway links having '0' crashes or a very low count are assigned Pentile 5. Based on this pattern of Pentile designation, the scores shown in Table 2.5.3.5.2 were assigned for the total accident frequency statistic.



## Southwest Georgia Interstate Study

# **Travel Conditions and Patterns**

### **Existing Conditions**

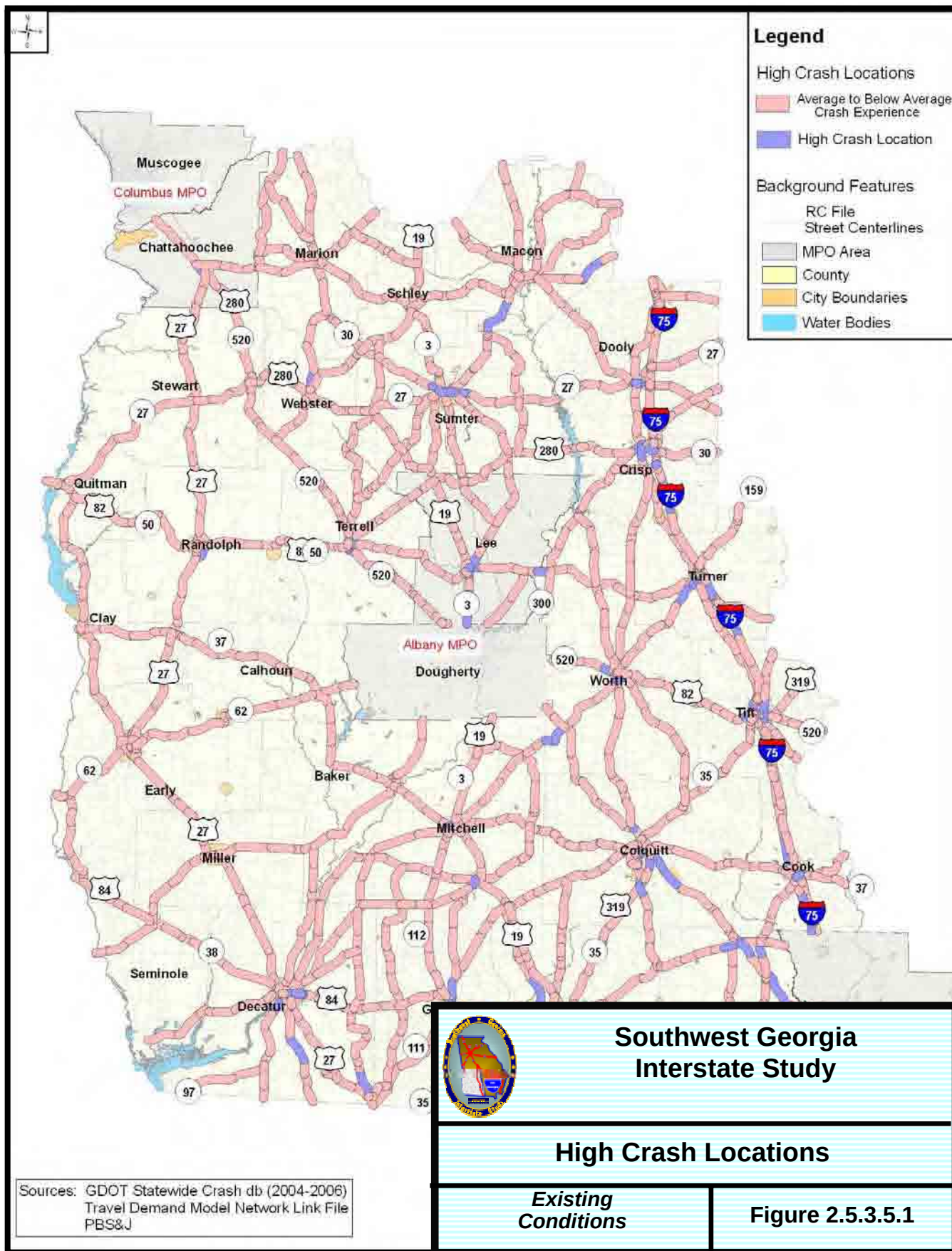
Table 2.5.3.5.2  
Total Accident Frequency Pentile Scores

| PENTILE | SCORE |
|---------|-------|
| 1       | 3     |
| 2       | 2     |
| 3       | 1     |
| 4       | 0     |
| 5       | 0     |

Number of Fatal Accidents – Scoring for fatal accidents is more straightforward than for the other two crash statistics. Highway links having three or more fatal crashes during the 2004-2006 time frame were assigned a score of 5. This is an extremely rare occurrence, but does happen on segments of I-75 for example. If two fatal crashes occurred on a link, a score of 3 was assigned. A score of 2 was assigned if one fatal crash occurred and a score of ‘0’ for those links where no fatal crashes were recorded. The individual scoring system for network links having fatal accidents does not come from a highway safety planning textbook. It is, however, the study team’s method of including crash severity along with crash rate and frequency in identifying above average crash locations which is a “Best Practice” approach to conducting system-level highway safety planning.

The composite crash safety score for each link was computed from the sum of scores assigned to the crash rate, total crash frequency and fatal accident statistics. Over 90 above average crash locations were identified from the investigation of motor vehicle crashes in the Southwest Georgia Interstate Study area. The full range of highway segments from which pieces were identified as being “above average” crash locations included all those base year highway network links in the SWGIS travel demand model, excluding roadway segments residing inside Metropolitan Planning Organization (MPO) boundaries. Because urbanized areas inside the three MPOs were excluded from this analysis, highway network links in Muscogee, Dougherty and Lowndes counties were not included in the analysis. Although a portion of Lee County is inside the Albany-Dougherty MPO boundary, Lee County network links were included in the crash analysis. Above average crash links are highlighted in a map of the study area, Figure 2.5.3.5.1. The links are displayed in color-coded bands indicating the ones whose composite score for Total Crashes, Fatal Crashes and Accident Rate were clearly above average composite scores computed for the total population of roadways in the particular subarea being analyzed.

All of the “above average” crash links identified in the analysis are listed in Table 2.5.3.5.3. The largest calculated composite score for above average crash locations was ‘10’ and the lowest was ‘6’.





# Southwest Georgia Interstate Study

## Travel Conditions and Patterns

### Existing Conditions

Table 2.5.3.5.3  
Above Average Crash Location List – Study Area

| FACILITY<br>NAME            | COUNTY        | LOCATION                                        | ACCIDENT      | TOTAL                 | NUMBER                 | COMPOSITE |
|-----------------------------|---------------|-------------------------------------------------|---------------|-----------------------|------------------------|-----------|
|                             |               |                                                 | RATE<br>SCORE | ACCIDENT<br>FREQUENCY | OF<br>FATAL<br>CRASHES |           |
| I-75                        | Turner        | SR32/Jefferson Davis to SR252/E. Inaha          | 0             | 3                     | 7                      | 10        |
| I-75                        | Crisp         | Rockhouse Rd. to 1st St./Hawpond Rd.            | 1             | 3                     | 5                      | 9         |
| I-75                        | Tift          | CR204/Southwell Blvd. to Omega Eldorado Rd.     | 3             | 3                     | 3                      | 9         |
| US19/SR 3/Slappey           | Lee           | Dougherty Co. to SR133/Forrester Pkwy.          | 1             | 3                     | 5                      | 9         |
| BUS27/Dothan Rd.            | Decatur       | US84/US27 Bypass to SR253/Newton Rd.            | 3             | 3                     | 2                      | 8         |
| I-75                        | Cook          | Barneyville Rd. to Moultrie Rd.                 | 0             | 3                     | 5                      | 8         |
| I-75                        | Cook          | CR216 to Old Coffee Rd.                         | 0             | 3                     | 5                      | 8         |
| I-75                        | Dooly         | Houston Co. to SR230/2nd St.                    | 0             | 3                     | 5                      | 8         |
| I-75                        | Tift          | Omega Eldorado Rd. to Cook County               | 3             | 2                     | 3                      | 8         |
| I-75                        | Tift          | Old Omega Rd. to Central Ave.                   | 3             | 2                     | 3                      | 8         |
| I-75                        | Tift          | US41/SR7 to Whidden Mill/8th St.                | 3             | 3                     | 2                      | 8         |
| I-75                        | Turner        | SR159/North St. to 0.3 miles south              | 2             | 3                     | 3                      | 8         |
| I-75                        | Turner        | SR252/E. Inaha to Tift Co.                      | 0             | 3                     | 5                      | 8         |
| Spaulding/E. Railroad St.   | Macon         | E. Railroad St. to SR26/Walnut St.              | 3             | 3                     | 2                      | 8         |
| SR 133/Billy Langdale Pkwy. | Colquitt      | US319/Billy Langdale Pkwy. to Sardis Church Rd. | 2             | 3                     | 3                      | 8         |
| SR 37                       | Cook          | SR76/S. Elm St. to US41/SR7/Hutchinson          | 3             | 3                     | 2                      | 8         |
| SR 93/Curry St.             | Mitchell      | US19/SR3 to SR65/Hand Ave.                      | 3             | 3                     | 2                      | 8         |
| SR 93/N. Broad St.          | Grady         | 1st Ave. to 6th Ave.                            | 3             | 3                     | 2                      | 8         |
| US 280/SR 30/16th Ave.      | Crisp         | I-75 to Pecan St.                               | 3             | 3                     | 2                      | 8         |
| US 82/SR 520/5th St.        | Tift          | Goff St. to US319/SR35                          | 3             | 2                     | 3                      | 8         |
| US 84/SR 38                 | Seminole      | Spooner Rd. to CR24                             | 3             | 3                     | 2                      | 8         |
| I-75                        | Cook          | Moultrie Rd. to Lowndes Co.                     | 1             | 3                     | 3                      | 7         |
| SR 112                      | Turner        | SR32/Jefferson Davis to CR101                   | 2             | 2                     | 3                      | 7         |
| SR 112                      | Worth         | Pope St. to Spring Flats Rd.                    | 2             | 3                     | 2                      | 7         |
| SR 118                      | Terrell       | SR32/E. Lee St. to Billy Strong Rd.             | 2             | 3                     | 2                      | 7         |
| SR 122                      | Brooks        | SR333 to Aldeman Road                           | 3             | 2                     | 2                      | 7         |
| SR 27/E. Forsyth St.        | Sumter        | SR27/Vienna Rd. to SR27/E. Lamar St.            | 3             | 2                     | 2                      | 7         |
| SR 3/Old Albany             | Thomas        | Breezy Pines Ln. to Rock Rd.                    | 2             | 2                     | 3                      | 7         |
| SR 30/Adderton St.          | Sumter        | Peachtree St. to US19/SR3/M.L. King Blvd.       | 2             | 3                     | 2                      | 7         |
| SR 309                      | Decatur       | Toole Dairy Rd. to Bower Station Rd.            | 2             | 2                     | 3                      | 7         |
| SR 33/Thomasville Rd.       | Colquitt      | US319/Veterans Pkwy. to 26th Ave.               | 2             | 3                     | 2                      | 7         |
| SR 41                       | Webster       | CR127 to SR153                                  | 2             | 2                     | 3                      | 7         |
| SR 49                       | Sumter        | SR308 to Pessell Creek Rd.                      | 3             | 2                     | 2                      | 7         |
| SR 520/Corridor Z           | Chattahoochee | SR55/Broad St. to US27/SR1/Well St.             | 1             | 3                     | 3                      | 7         |
| SR 520/Corridor Z           | Terrell       | SR55 to Pecan St.                               | 2             | 3                     | 2                      | 7         |
| SR 76                       | Brooks        | SR122/Main St. to CR213                         | 3             | 2                     | 2                      | 7         |
| US 27/SR 1                  | Randolph      | US82/SR50 to BUS27/Blackley St.                 | 2             | 2                     | 3                      | 7         |
| US 319/East Bypass          | Colquitt      | SR133/Billy Langdale Pkwy. to Holmes Dr.        | 2             | 3                     | 2                      | 7         |
| US 319/SR 35                | Grady         | SR93 to Metcuff Rd.                             | 1             | 3                     | 3                      | 7         |
| US41/SR 7                   | Tift          | CR204/Southwell Blvd. to Omega Eldorado Rd.     | 3             | 2                     | 2                      | 7         |
| US 82/SR 520                | Tift          | Carpenter Rd. to CR411                          | 3             | 2                     | 2                      | 7         |
| US 84/SR 38                 | Decatur       | Zom Rd. to US84/US27 Bypass                     | 2             | 3                     | 2                      | 7         |
| SR 122                      | Brooks        | Segment east of SR133                           | 3             | 3                     | 0                      | 6         |
| SR 122                      | Brooks        | Segment west of SR133                           | 3             | 3                     | 0                      | 6         |
| SR 133                      | Brooks        | Segment north of SR122                          | 2             | 2                     | 2                      | 6         |
| SR 133                      | Brooks        | Segment south of SR122                          | 1             | 3                     | 2                      | 6         |
| SR 133                      | Brooks        | CR14 to CR280                                   | 0             | 3                     | 3                      | 6         |
| US 84/SR 38                 | Brooks        | SR76/S. Court to SR76/M.L. King Dr.             | 3             | 3                     | 0                      | 6         |
| US 84/SR 38                 | Brooks        | Lowndes Co. Border to CR15                      | 0             | 3                     | 3                      | 6         |





# Southwest Georgia Interstate Study

## Travel Conditions and Patterns

### Existing Conditions

Table 2.5.3.5.1  
Critical Location List (Continued)

| FACILITY NAME               | COUNTY   | LOCATION                                        | ACCIDENT RATE SCORE | TOTAL ACCIDENT FREQUENCY | NUMBER OF FATAL CRASHES | COMPOSITE SCORE |
|-----------------------------|----------|-------------------------------------------------|---------------------|--------------------------|-------------------------|-----------------|
| BUS 319/SR 33/N. Main St.   | Colquitt | 1st Ave. NE to 2nd Ave. SE                      | 3                   | 3                        | 0                       | 6               |
| SR 133/Billy Langdale Pkwy. | Colquitt | Sardis Church Rd. to Culbertson Rd.             | 0                   | 3                        | 3                       | 6               |
| SR 133/Billy Langdale Pkwy. | Colquitt | Woodmen Rd. to US319/Tifton Hwy.                | 3                   | 3                        | 0                       | 6               |
| SR 33                       | Colquitt | James Buckner Rd. to SR133/Billy Langdale Pkwy. | 2                   | 2                        | 2                       | 6               |
| SR 33/Thomasville Rd.       | Colquitt | US319/Veterans Pkwy. to Gene McQueen Rd.        | 3                   | 3                        | 0                       | 6               |
| SR 37/1st Ave./E. Central   | Colquitt | 10th St. SE to 11th St. SW                      | 3                   | 3                        | 0                       | 6               |
| SR 257/8th Ave.             | Crisp    | US41/SR7/7th St. to 2nd Ave.                    | 3                   | 3                        | 0                       | 6               |
| SR 300                      | Crisp    | I-75 to 10th St./Culpepper                      | 3                   | 1                        | 2                       | 6               |
| US 280/SR 30/16th Ave.      | Crisp    | Pecan St. to US41/SR7/7th St.                   | 3                   | 3                        | 0                       | 6               |
| US 280/SR 30/16th Ave.      | Crisp    | US41/SR7/7th St. to 15th St.                    | 3                   | 3                        | 0                       | 6               |
| US 41/SR 7/7th St.          | Crisp    | US280/SR30/16th Ave. to Exa Ave.                | 3                   | 3                        | 0                       | 6               |
| US 41/SR 7/7th St.          | Crisp    | US280/SR30/16th Ave. to SR257/8th Ave.          | 3                   | 3                        | 0                       | 6               |
| BUS 27/Dothan Rd.           | Decatur  | SR253/Newton Rd. to SR97/E. Calhoun St.         | 3                   | 3                        | 0                       | 6               |
| BUS 27/N. West St.          | Decatur  | SR97/E. Calhoun St. to BUS27/Shotwell St.       | 3                   | 3                        | 0                       | 6               |
| BUS 27/S. Scott St.         | Decatur  | BUS84/E. Shotwell St. to US84/US27 Bypass       | 3                   | 3                        | 0                       | 6               |
| BUS 27/Shotwell St.         | Decatur  | SR97/West St. to BUS84/E. Shotwell St.          | 3                   | 3                        | 0                       | 6               |
| BUS 84/Shotwell St.         | Decatur  | BUS27/S. Scott St. to US84/SR38 Bypass          | 3                   | 3                        | 0                       | 6               |
| SR 262/Antioch Church Rd.   | Decatur  | Calvary Rd. to Amsterdam Rd.                    | 2                   | 2                        | 2                       | 6               |
| SR 97/Faceville Rd.         | Decatur  | Crawford Rd. to US84/US27 Bypass                | 1                   | 2                        | 3                       | 6               |
| SR 97/West St.              | Decatur  | SR97/Faceville Rd. to BUS84/Shotwell St.        | 3                   | 3                        | 0                       | 6               |
| SR 26                       | Macon    | SR329 to CR194                                  | 1                   | 3                        | 2                       | 6               |
| SR 26/Walnut St.            | Macon    | SR90/S. Dooley St. to Spaulding Rd.             | 3                   | 3                        | 0                       | 6               |
| SR 49/Andersonville Trail   | Macon    | CR18 to SR228                                   | 0                   | 3                        | 3                       | 6               |
| SR 27/Lamar St.             | Sumter   | US19/SR3/M.L. King Blvd. to SR49/Tripp St.      | 3                   | 3                        | 0                       | 6               |
| SR 27/Vienna Rd.            | Sumter   | Southland Rd. to US280/SR30/E. Forsyth St.      | 3                   | 3                        | 0                       | 6               |
| SR 27/W. Forsyth St.        | Sumter   | SR366/Lee St. to US19/SR3/M.L. King Blvd.       | 3                   | 3                        | 0                       | 6               |
| SR 377/Lee St.              | Sumter   | SR27/E. Forsyth St. SR27/E. Lamar St.           | 3                   | 3                        | 0                       | 6               |
| SR 49/Tripp St.             | Sumter   | SR27/E. Lamar St. to SR27/E. Forsyth St.        | 3                   | 3                        | 0                       | 6               |
| US19/SR 3/M.L. King Blvd.   | Sumter   | SR27/W. Forsyth St. to SR30/Adderton St.        | 3                   | 3                        | 0                       | 6               |
| BUS 84/Smith Ave.           | Thomas   | Covington Ave. to S. Broad St.                  | 3                   | 3                        | 0                       | 6               |
| Madison St.                 | Thomas   | SR122/Remington Ave. to North Blvd.             | 3                   | 3                        | 0                       | 6               |
| S. Broad St.                | Thomas   | BUS84/Smith Ave. to S. Hansell St.              | 3                   | 3                        | 0                       | 6               |
| SR 3/Old Albany             | Thomas   | Breezy Pines Ln. to Pine Tree Blvd.             | 3                   | 3                        | 0                       | 6               |
| US19/US 84/SR 38            | Thomas   | Old Monticello Rd. to US84/Boston Rd.           | 1                   | 3                        | 2                       | 6               |
| US19/US 84/SR 38            | Thomas   | Commercial Dr. to Clark Rd.                     | 3                   | 3                        | 0                       | 6               |
| US 319/SR 35                | Thomas   | Will Watt Pkwy. to SR122                        | 3                   | 3                        | 0                       | 6               |
| US 84/Wiregrass-Georgia     | Thomas   | Cassidy Rd. to Will Watt Pkwy.                  | 3                   | 3                        | 0                       | 6               |
| Will Watt Pkwy.             | Thomas   | North Blvd. to SR122                            | 3                   | 3                        | 0                       | 6               |
| SR 125                      | Tift     | Brighton Rd. to W. Higdon Rd.                   | 3                   | 1                        | 2                       | 6               |
| US 319/SR 35                | Tift     | Feery Lake Rd. to Bowen Rd.                     | 3                   | 1                        | 2                       | 6               |
| US 319/SR 35                | Tift     | CR220 to Crum Rd./CR59                          | 3                   | 1                        | 2                       | 6               |
| US 82/SR 520                | Tift     | CR8 to US319/SR35                               | 3                   | 1                        | 2                       | 6               |
| SR 112                      | Worth    | Mitchell Co. to SR133/Billy Langdale Pkwy.      | 3                   | 1                        | 2                       | 6               |
| SR 112/N. Isabella St.      | Worth    | Pope St. to US82/SR520/Franklin St.             | 3                   | 3                        | 0                       | 6               |
| SR 256/M.L. King Dr.        | Worth    | SR33/N. Main St. to Town Creek Dr.              | 3                   | 3                        | 0                       | 6               |
| SR 32                       | Worth    | Lee Co. to SR300/GA-Florida Pkwy.               | 2                   | 2                        | 2                       | 6               |
| SR 33/N. Main St.           | Worth    | SR112 to SR256/M.L. King Dr.                    | 3                   | 3                        | 0                       | 6               |
| US 82/SR 520/Franklin St.   | Worth    | Massey Airport Rd. to SR313/N. Monroe St.       | 1                   | 3                        | 2                       | 6               |
| US 82/SR 520/Franklin St.   | Worth    | SR313/N. Monroe St. to SR33/N. Main St.         | 3                   | 3                        | 0                       | 6               |

Source: Southwest Georgia Interstate Study High Crash Location Analysis





# Southwest Georgia Interstate Study

## **Travel Conditions and Patterns**

### **Existing Conditions**

#### **2.5.4 Evacuation Routes**

Due to the proximity to the Florida Gulf Coast, roadways within the southern part of the study area have been designated evacuation routes in case of a hurricane/tropical storm. The evacuation routes within the study area are shown in Figure 2.5.4.1. Table 2.5.4.1 lists the routes based on the point of entry into the study area.

**Table 2.5.4.1**  
**Evacuation Routes**

| <u><b>Entry Point</b></u>                                     | <u><b>Evacuation Route</b></u>                                                                                                                            |
|---------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------|
| Entering Georgia on northbound I-75 (from Florida)            | Take northbound I-75 north through Valdosta and Tifton to Cordele and points north.                                                                       |
| Entering Georgia on northbound US 319 (from Tallahassee area) | Take northbound US 319 through Thomasville and on to Moultrie, Tifton, and points north.                                                                  |
|                                                               | -or-                                                                                                                                                      |
|                                                               | Take northbound US 319 to Thomasville and then US 19/SR 3 to Albany and then westbound US 82 to Dawson.                                                   |
|                                                               | -or-                                                                                                                                                      |
| Entering Georgia on northbound US 27 (from Tallahassee area)  | Take northbound US 319 to Thomasville and then US 19/SR 3 to Albany and then northbound SR 300 north to Cordele.                                          |
|                                                               | -or-                                                                                                                                                      |
|                                                               | At the Georgia state line, take SR 111 through Cairo and on to Meigs. Then take northbound US 19/SR 3 to Albany. Then take northbound SR 300 to Cordele.  |
| Entering Georgia on SR 302 (via Florida's SR 267/Quincy area) | At the Georgia state line, continue on US 27/SR 1 through Bainbridge, Colquitt, Blakely and on to Cuthbert.                                               |
| Entering Georgia on SR 241 (via Florida's SR 65/Quincy area)  | Take northbound SR 302 to SR 97 north to Bainbridge. Then take northbound US 27 through Colquitt and Blakely.                                             |
| Entering Georgia on SR 97 (from US 90 in Florida)             | Take northbound SR 241 to Attapulgus. Then take northbound US 27 through Bainbridge, Colquitt and Blakely.                                                |
| Entering Georgia on US 221/SR 76 (from Greenville, Florida)   | Take SR 97 through Faceville and on to Bainbridge. Then take northbound US 27 through Colquitt and Blakely.                                               |
|                                                               | Take northbound US 221 to Quitman. Then take northbound SR 333 to New Rock Hill. Then take northbound SR 133 to Moultrie and northbound US 319 to Tifton. |



# Southwest Georgia Interstate Study

## ***Travel Conditions and Patterns***

### ***Existing Conditions***

Table 2.5.4.1 (continued)  
Evacuation Routes

| <u>Entry Point</u>                                           | <u>Evacuation Route</u>                                                                                                                                     |
|--------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Entering Georgia on SR 333 (from Florida's SR 53)            | Take northbound SR 333 to Quitman. Continue on northbound SR 333 to New Rock Hill. Then take northbound SR 133 to Moultrie and northbound US 319 to Tifton. |
| Entering Georgia on SR 31 (from Florida's SR 145)            | Take northbound SR 31 to I-75. Then take northbound I-75 to Cordele and points north.                                                                       |
| Entering Georgia on US 441 (from Florida)                    | Take northbound US 441 through Edith and Homerville and on to Douglas.                                                                                      |
| Entering Georgia on northbound US 129 (from Jasper, Florida) | Take northbound US 129 to Statenville. Then take westbound SR 376 to northbound US 41 to northbound I-75.                                                   |
| Entering Georgia on SR 94 (from Florida's SR 2)              | Take northbound SR 94 to Edith. Then take northbound US 441 to Homerville and on to Douglas.                                                                |
| Entering Georgia on SR 91 (from Alabama's SR 2/Malone area)  | Take SR 91 through Donalsonville to Colquitt. Then take northbound US 27 to Blakely and Cuthbert                                                            |
| Entering Georgia on SR 62 (from Alabama's SR 52/Dothan area) | Take SR 62 to Blakely. Then take northbound US 27 towards Cuthbert                                                                                          |

Source: Georgia's Disaster & Emergency Website, Gulf Coast Hurricane Evacuation Routes  
<http://www.georgia-navigator.com/hurricane/gulf.shtml>



Source: Georgia's Disaster & Emergency Website, Gulf Coast Hurricane Evacuation Routes  
<http://www.georgia-navigator.com/hurricane/gulf.shtml>



### **3.0 Introduction**

A detailed analysis of the future conditions was performed for the Southwest Georgia Interstate Study (SWGIS) area. This analysis considered all facets of conditions in the study area including demographics, land use, and travel conditions. The information presented in this Technical Memorandum summarizes the results from the analysis of forecast future travel conditions as they compare to the existing travel conditions within the study area. Conditions were analyzed for the base year 2006 and for the study horizon year of 2040. The future system network for the year 2040 is assumed to include those projects that were existing in 2006, plus improvements committed to be constructed (i.e., funding has been programmed to perform the system improvements). Throughout the document, the horizon year base network will be referred to as the 2040 Existing plus Committed (E+C) network. The list of projects assumed to be included in the E+C network is listed in Section 3.6 Travel Patterns.

### **3.1 Socio-Economic Data**

A comprehensive collection and review of socioeconomic (SE) and demographic data for the study area was performed as discussed in the previous chapter. This information was used as the base to estimate the future growth. Future comprehensive plans were also collected and reviewed to assist this effort.

#### ***3.1.1 Population and Households***

The base year (2006) and projected study horizon year (2040) population and employment information was developed for the application of the travel demand model for the SWGIS area transportation system to evaluate existing and future conditions. Reliable data is needed to ensure that the transportation model accurately reflects current and future transportation system conditions.

The future year SE data for population and households were developed from the existing series of the historical data published by the U.S. Census. In addition, the locally adopted Comprehensive Plans were also used to gain insight into future growth activities by county. The U.S. Census provides state population projections up to year 2030 and county level historical populations from 1960 to 2006. Therefore, the 2040 data for population at both the state and county levels can be forecasted based on the available historical trends. Since the U.S. Census's state population projection for 2030 is relatively close to the forecasted year of 2040, this total is considered more accurate than the state total that is summarized from the forecasted county population, which is



## Southwest Georgia Interstate Study

# Socio-Economic Data

# Future Conditions

calculated using historical trends from 1960 to 2006. Table 3.1.1.1 shows the state population projection by the U.S Census and the forecasted 2040 state population. The annual growth rate calculated for each state between 2000 and 2040 is close to the Census projected annual growth rate observed between the 2000 and 2030. The population growth trends for the six southeastern states and the study area are shown in Figures 3.1.1.1 to 3.1.1.7, respectively. These figures also show the forecasted 2040 population and the R-squared value which is a statistical measure of how well a regression line approximates real data points. An R-squared of 1.0 (100%) indicates a perfect fit. The 2040 population by state is also listed in Table 3.1.1.1.

**Table 3.1.1.1**  
**State Population Forecast for 2040**

| State Abbreviation | Census 2000 | Census Projection 2010 | Census Projection 2020 | Census Projection 2030 | Forecast 2040 | Census Annual Growth Rate (2000 - 2030) | Forecasted Annual Growth Rate (2000 - 2040) |
|--------------------|-------------|------------------------|------------------------|------------------------|---------------|-----------------------------------------|---------------------------------------------|
| US                 | 281,421,906 | 308,935,581            | 335,804,546            | 363,584,435            | 391,833,137   | 0.90%                                   | 0.80%                                       |
| AL                 | 4,447,100   | 4,596,330              | 4,728,915              | 4,874,243              | 5,022,591     | 0.30%                                   | 0.30%                                       |
| AK                 | 626,932     | 694,109                | 774,421                | 867,674                | 961,525       | 1.10%                                   | 1.10%                                       |
| AZ                 | 5,130,632   | 6,637,381              | 8,456,448              | 10,712,397             | 13,067,702    | 2.50%                                   | 2.40%                                       |
| AR                 | 2,673,400   | 2,875,039              | 3,060,219              | 3,240,208              | 3,418,981     | 0.60%                                   | 0.60%                                       |
| CA                 | 33,871,648  | 38,067,134             | 42,206,743             | 46,444,861             | 50,720,560    | 1.10%                                   | 1.00%                                       |
| CO                 | 4,301,261   | 4,831,554              | 5,278,867              | 5,792,357              | 6,329,233     | 1.00%                                   | 1.00%                                       |
| CT                 | 3,405,565   | 3,577,490              | 3,675,650              | 3,688,630              | 3,684,799     | 0.30%                                   | 0.20%                                       |
| DE                 | 783,600     | 884,342                | 963,209                | 1,012,658              | 1,056,825     | 0.90%                                   | 0.80%                                       |
| DC                 | 572,059     | 529,785                | 480,540                | 433,414                | 389,739       | -0.90%                                  | -1.00%                                      |
| FL                 | 15,982,378  | 19,251,691             | 23,406,525             | 28,685,769             | 34,216,772    | 2.00%                                   | 1.90%                                       |
| GA                 | 8,186,453   | 9,589,080              | 10,843,753             | 12,017,838             | 13,177,835    | 1.30%                                   | 1.20%                                       |
| HI                 | 1,211,537   | 1,340,674              | 1,412,373              | 1,466,046              | 1,520,688     | 0.60%                                   | 0.60%                                       |
| ID                 | 1,293,953   | 1,517,291              | 1,741,333              | 1,969,624              | 2,202,956     | 1.40%                                   | 1.30%                                       |
| IL                 | 12,419,293  | 12,916,894             | 13,236,720             | 13,432,892             | 13,617,799    | 0.30%                                   | 0.20%                                       |
| IN                 | 6,080,485   | 6,392,139              | 6,627,008              | 6,810,108              | 6,987,687     | 0.40%                                   | 0.30%                                       |
| IA                 | 2,926,324   | 3,009,907              | 3,020,496              | 2,955,172              | 2,879,384     | 0.00%                                   | 0.00%                                       |
| KS                 | 2,688,418   | 2,805,470              | 2,890,566              | 2,940,084              | 2,982,635     | 0.30%                                   | 0.30%                                       |
| KY                 | 4,041,769   | 4,265,117              | 4,424,431              | 4,554,998              | 4,685,346     | 0.40%                                   | 0.40%                                       |
| LA                 | 4,468,976   | 4,612,679              | 4,719,160              | 4,802,633              | 4,883,656     | 0.20%                                   | 0.20%                                       |
| ME                 | 1,274,923   | 1,357,134              | 1,408,665              | 1,411,097              | 1,404,852     | 0.30%                                   | 0.20%                                       |
| MD                 | 5,296,486   | 5,904,970              | 6,497,626              | 7,022,251              | 7,540,428     | 0.90%                                   | 0.90%                                       |





# Southwest Georgia Interstate Study

## Socio-Economic Data

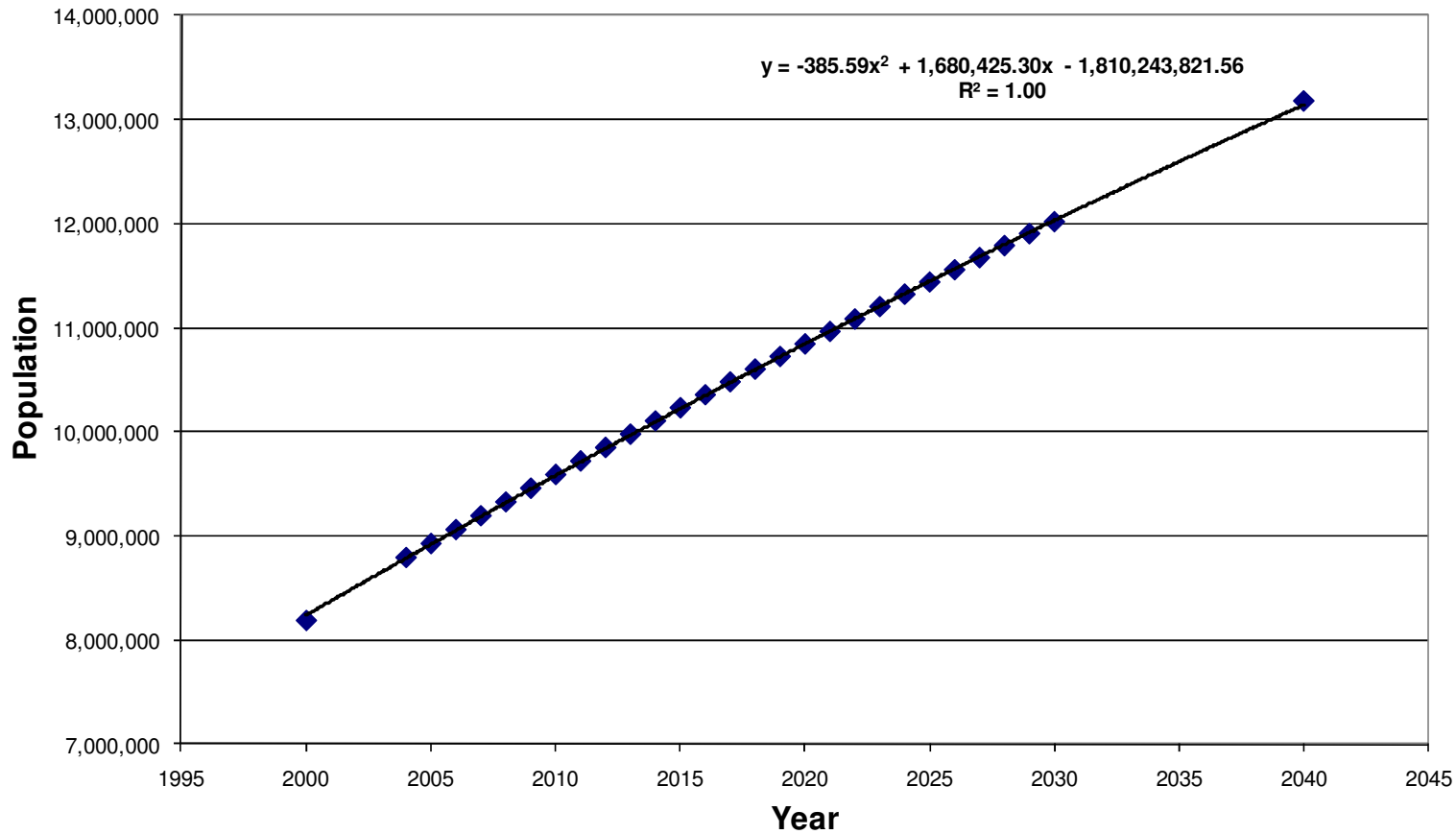
### Future Conditions

Table 3.1.1.1 (continued)  
State Population Forecast for 2040

| State Abbreviation | Census 2000 | Census Projection 2010 | Census Projection 2020 | Census Projection 2030 | Forecast 2040 | Census Annual Growth Rate (2000 - 2030) | Forecasted Annual Growth Rate (2000 - 2040) |
|--------------------|-------------|------------------------|------------------------|------------------------|---------------|-----------------------------------------|---------------------------------------------|
| MA                 | 6,349,097   | 6,649,441              | 6,855,546              | 7,012,009              | 7,159,313     | 0.30%                                   | 0.30%                                       |
| MI                 | 9,938,444   | 10,428,683             | 10,695,993             | 10,694,172             | 10,655,786    | 0.20%                                   | 0.20%                                       |
| MN                 | 4,919,479   | 5,420,636              | 5,900,769              | 6,306,130              | 6,700,640     | 0.80%                                   | 0.80%                                       |
| MS                 | 2,844,658   | 2,971,412              | 3,044,812              | 3,092,410              | 3,138,451     | 0.30%                                   | 0.20%                                       |
| MO                 | 5,595,211   | 5,922,078              | 6,199,882              | 6,430,173              | 6,659,242     | 0.50%                                   | 0.40%                                       |
| MT                 | 902,195     | 968,598                | 1,022,735              | 1,044,898              | 1,060,245     | 0.50%                                   | 0.40%                                       |
| NE                 | 1,711,263   | 1,768,997              | 1,802,678              | 1,820,247              | 1,835,371     | 0.20%                                   | 0.20%                                       |
| NV                 | 1,998,257   | 2,690,531              | 3,452,283              | 4,282,102              | 5,119,496     | 2.60%                                   | 2.40%                                       |
| NH                 | 1,235,786   | 1,385,560              | 1,524,751              | 1,646,471              | 1,766,434     | 1.00%                                   | 0.90%                                       |
| NJ                 | 8,414,350   | 9,018,231              | 9,461,635              | 9,802,440              | 10,134,065    | 0.50%                                   | 0.50%                                       |
| NM                 | 1,819,046   | 1,980,225              | 2,084,341              | 2,099,708              | 2,088,343     | 0.50%                                   | 0.30%                                       |
| NY                 | 18,976,457  | 19,443,672             | 19,576,920             | 19,477,429             | 19,352,014    | 0.10%                                   | 0.00%                                       |
| NC                 | 8,049,313   | 9,345,823              | 10,709,289             | 12,227,739             | 13,782,508    | 1.40%                                   | 1.40%                                       |
| ND                 | 642,200     | 636,623                | 630,112                | 606,566                | 578,473       | -0.20%                                  | -0.30%                                      |
| OH                 | 11,353,140  | 11,576,181             | 11,644,058             | 11,550,528             | 11,439,825    | 0.10%                                   | 0.00%                                       |
| OK                 | 3,450,654   | 3,591,516              | 3,735,690              | 3,913,251              | 4,097,899     | 0.40%                                   | 0.40%                                       |
| OR                 | 3,421,399   | 3,790,996              | 4,260,393              | 4,833,918              | 5,428,079     | 1.20%                                   | 1.20%                                       |
| PA                 | 12,281,054  | 12,584,487             | 12,787,354             | 12,768,184             | 12,703,236    | 0.10%                                   | 0.10%                                       |
| RI                 | 1,048,319   | 1,116,652              | 1,154,230              | 1,152,941              | 1,143,556     | 0.30%                                   | 0.20%                                       |
| SC                 | 4,012,012   | 4,446,704              | 4,822,577              | 5,148,569              | 5,466,978     | 0.80%                                   | 0.80%                                       |
| SD                 | 754,844     | 786,399                | 801,939                | 800,462                | 797,661       | 0.20%                                   | 0.10%                                       |
| TN                 | 5,689,283   | 6,230,852              | 6,780,670              | 7,380,634              | 7,994,792     | 0.90%                                   | 0.90%                                       |
| TX                 | 20,851,820  | 24,648,888             | 28,634,896             | 33,317,744             | 38,207,779    | 1.60%                                   | 1.50%                                       |
| UT                 | 2,233,169   | 2,595,013              | 2,990,094              | 3,485,367              | 4,003,823     | 1.50%                                   | 1.50%                                       |
| VT                 | 608,827     | 652,512                | 690,686                | 711,867                | 729,116       | 0.50%                                   | 0.50%                                       |
| VA                 | 7,078,515   | 8,010,245              | 8,917,395              | 9,825,019              | 10,744,539    | 1.10%                                   | 1.00%                                       |
| WA                 | 5,894,121   | 6,541,963              | 7,432,136              | 8,624,801              | 9,878,638     | 1.30%                                   | 1.30%                                       |
| WV                 | 1,808,344   | 1,829,141              | 1,801,112              | 1,719,959              | 1,627,695     | -0.20%                                  | -0.30%                                      |
| WI                 | 5,363,675   | 5,727,426              | 6,004,954              | 6,150,764              | 6,276,005     | 0.50%                                   | 0.40%                                       |
| WY                 | 493,782     | 519,886                | 530,948                | 522,979                | 511,146       | 0.20%                                   | 0.10%                                       |

Source: US Census Bureau

# Population Trend (Georgia)



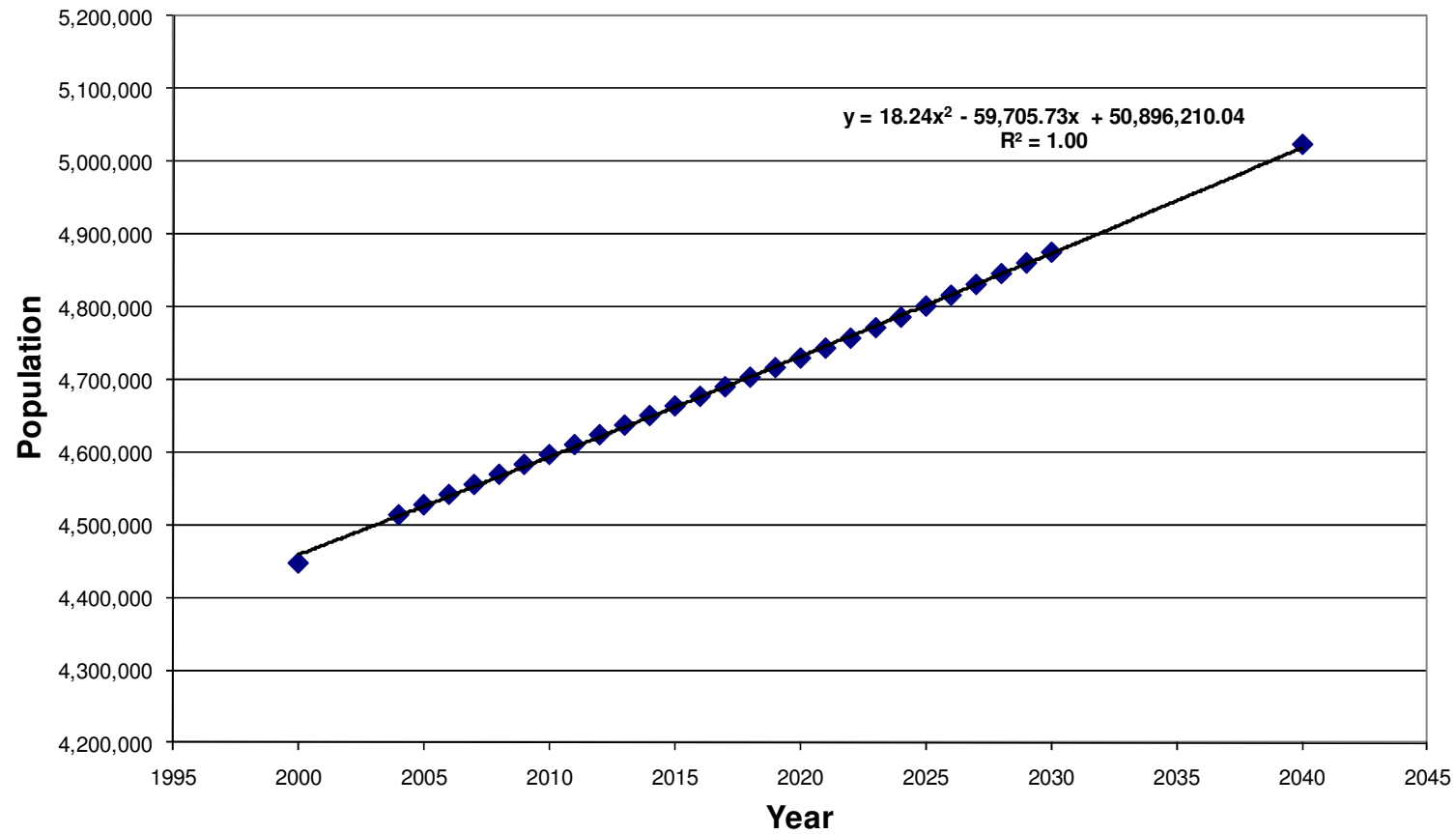
**Southwest Georgia  
Interstate Study**

**Future Population**

*Future  
Conditions*

Figure 3.1.1.1

## Population Trend (Alabama)



**Southwest Georgia  
Interstate Study**

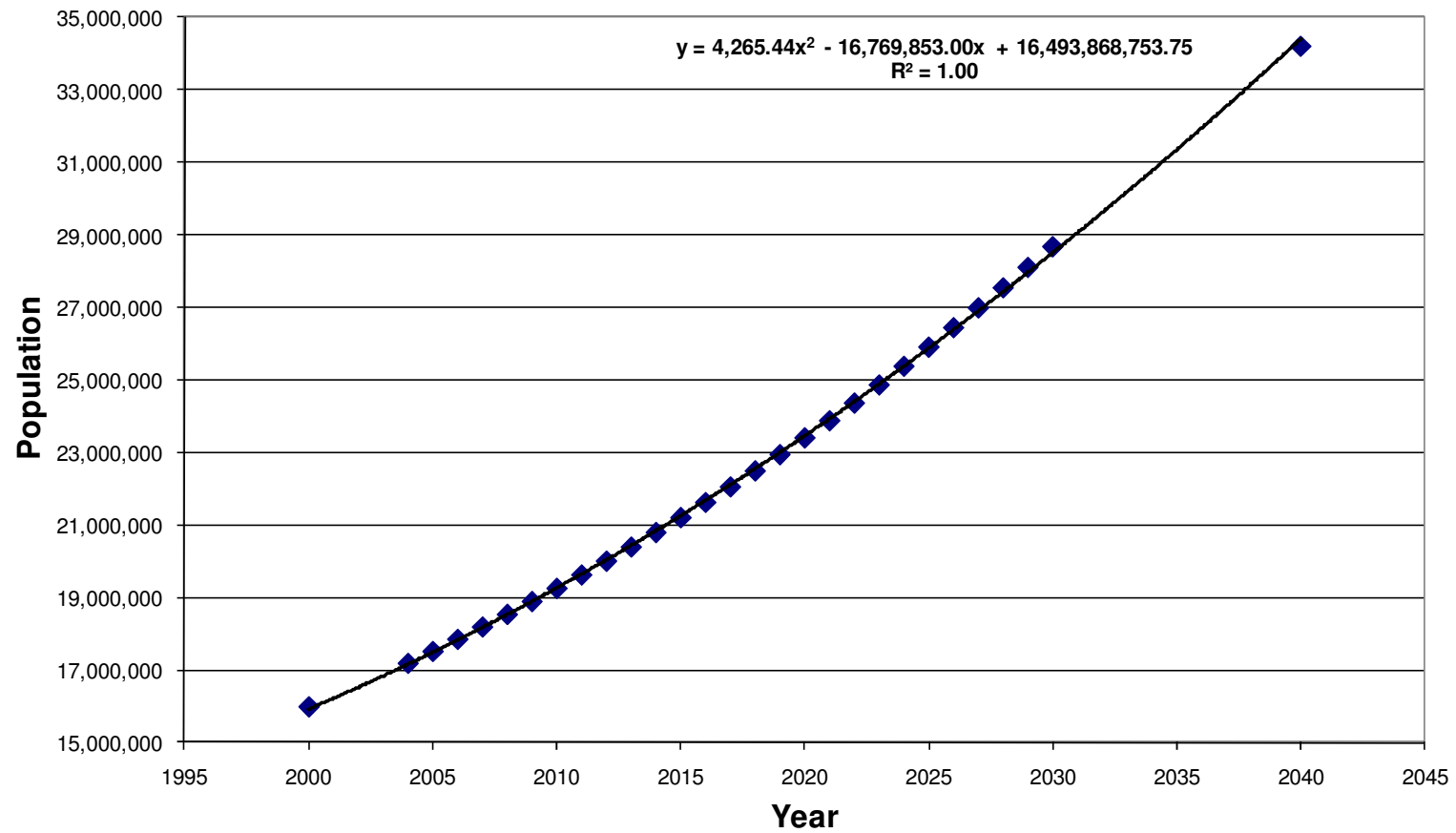
**Future Population**

*Future  
Conditions*

**Figure 3.1.1.2**

*Final Report*

## Population Trend (Florida)



**Southwest Georgia  
Interstate Study**

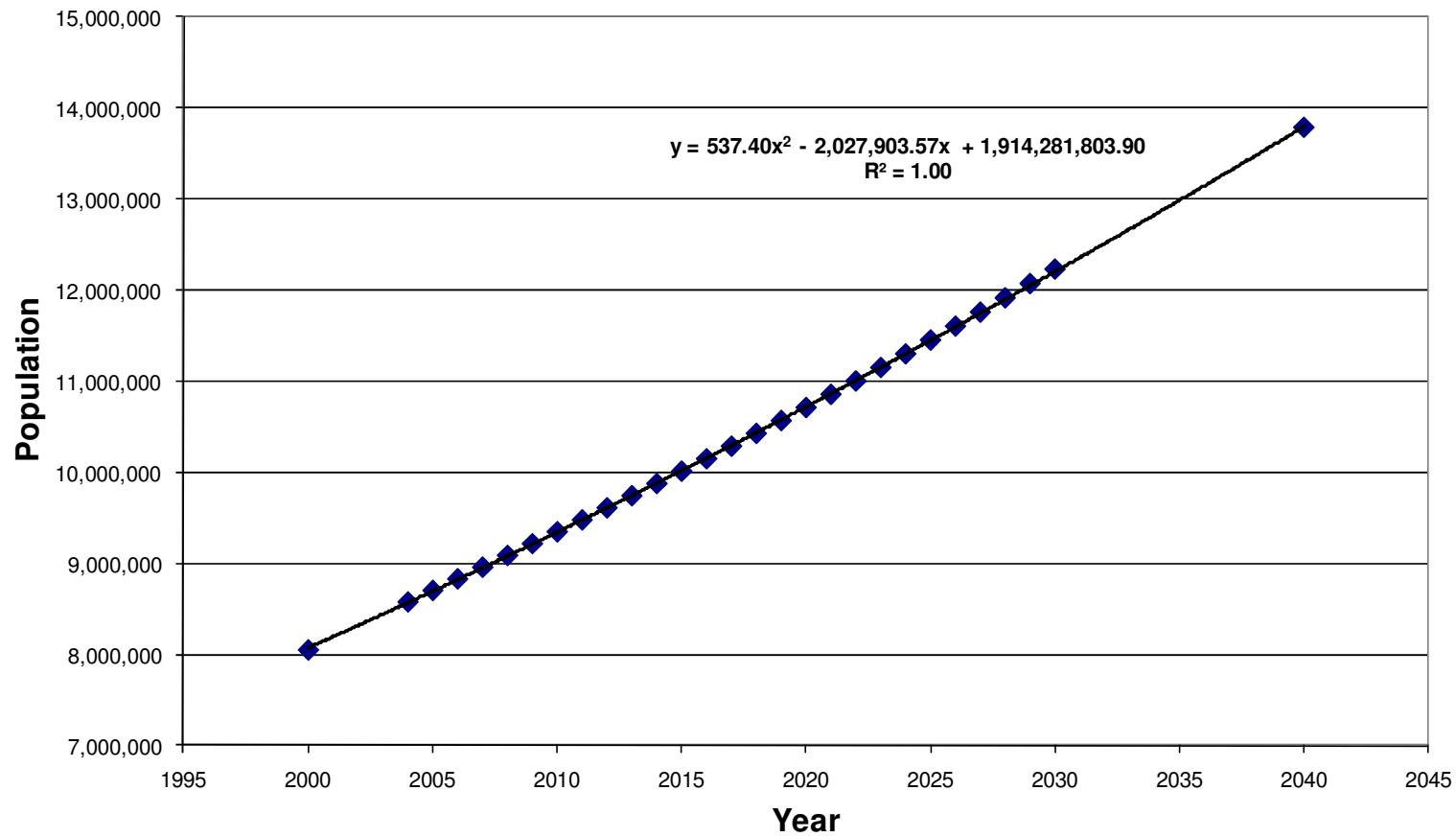
**Future Population**

*Future  
Conditions*

**Figure 3.1.1.3**

*Final Report*

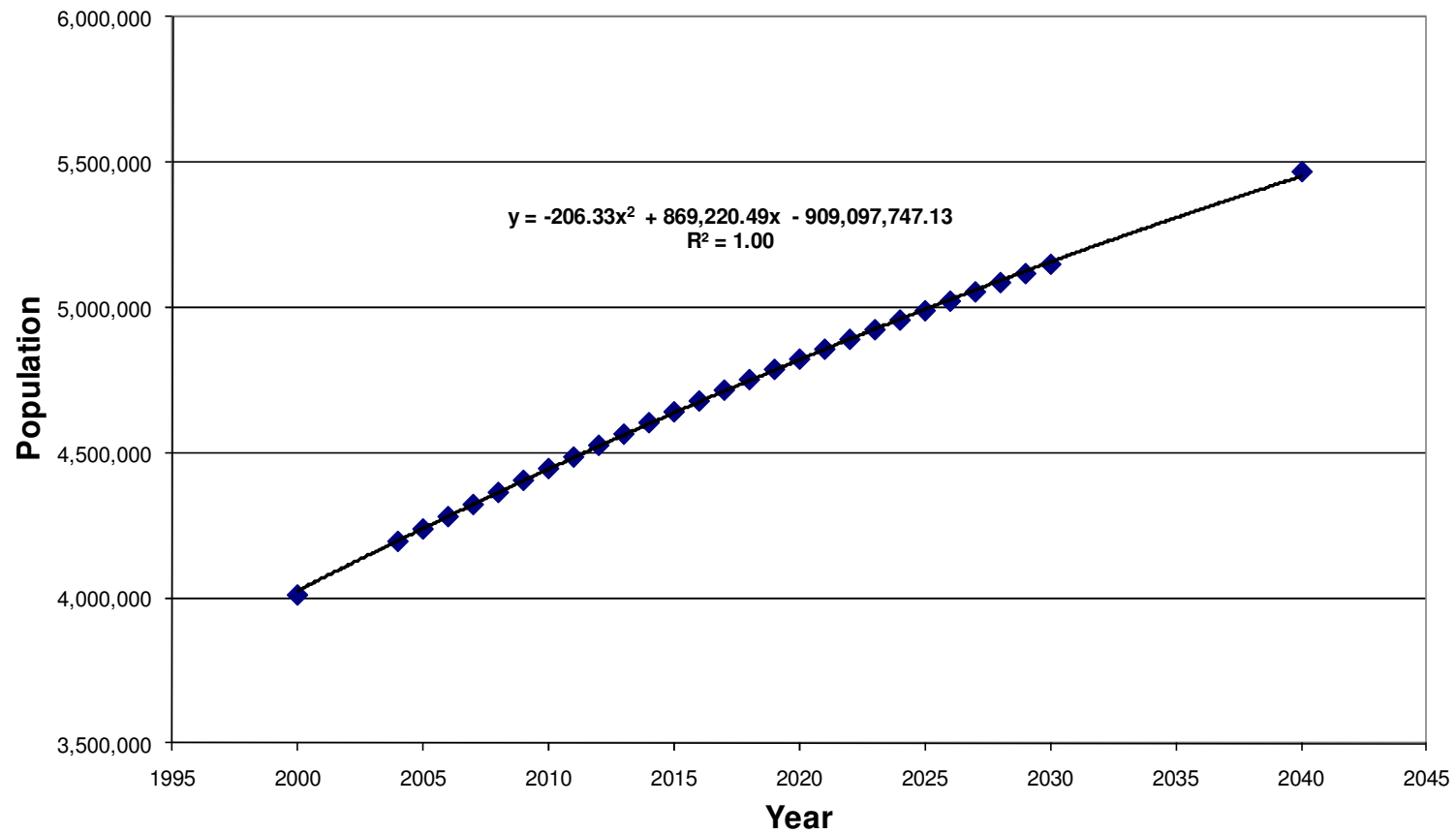
## Population Trend (North Carolina)



|                                                                                                                                     |                       |
|-------------------------------------------------------------------------------------------------------------------------------------|-----------------------|
|  <b>Southwest Georgia<br/>Interstate Study</b> |                       |
| <b>Future Population</b>                                                                                                            |                       |
| <i>Future<br/>Conditions</i>                                                                                                        | <b>Figure 3.1.1.4</b> |



## Population Trend (South Carolina)



**Southwest Georgia  
Interstate Study**

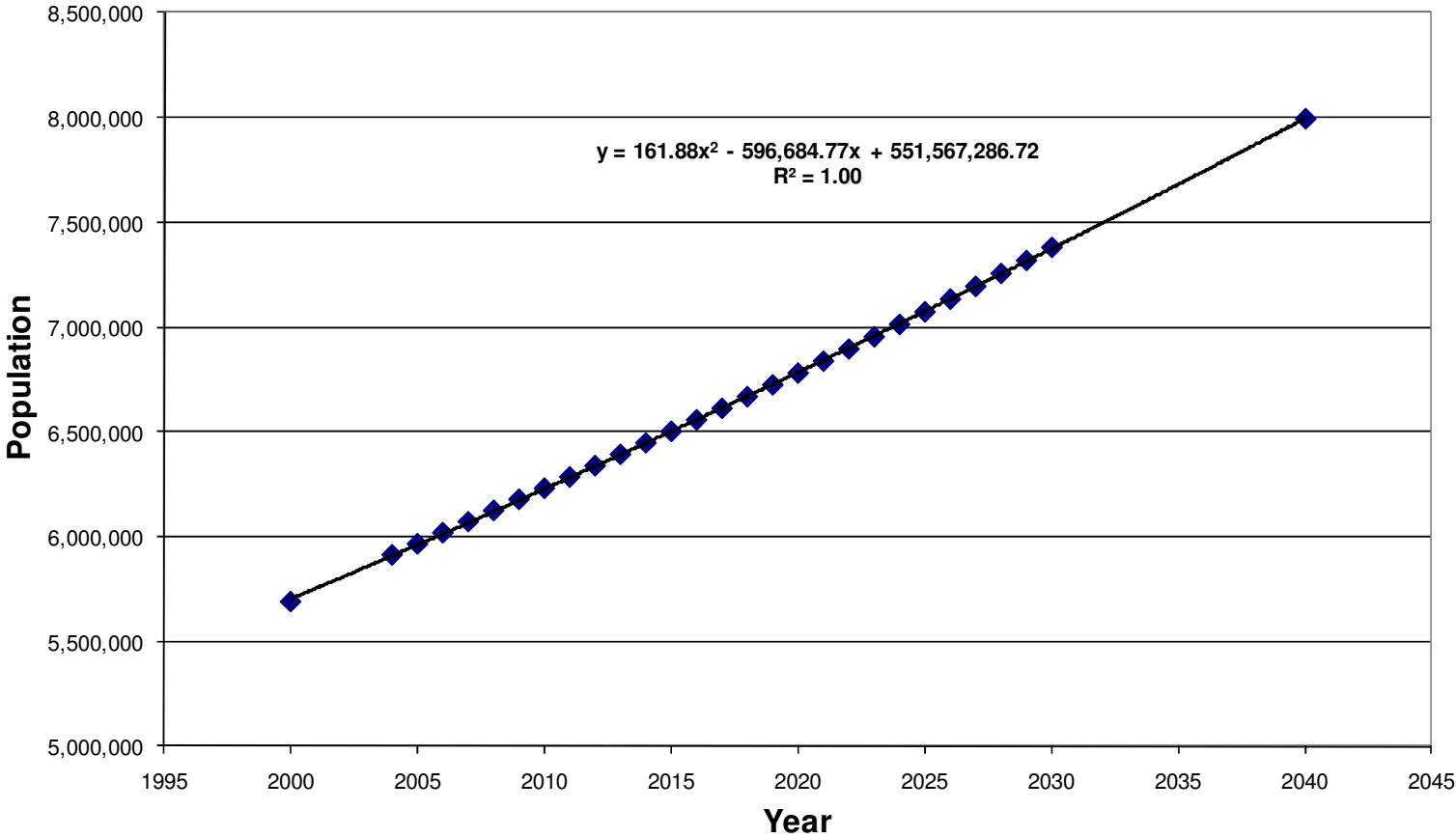
**Future Population**

*Future  
Conditions*

**Figure 3.1.1.5**

*Final Report*

# Population Trend (Tennessee)



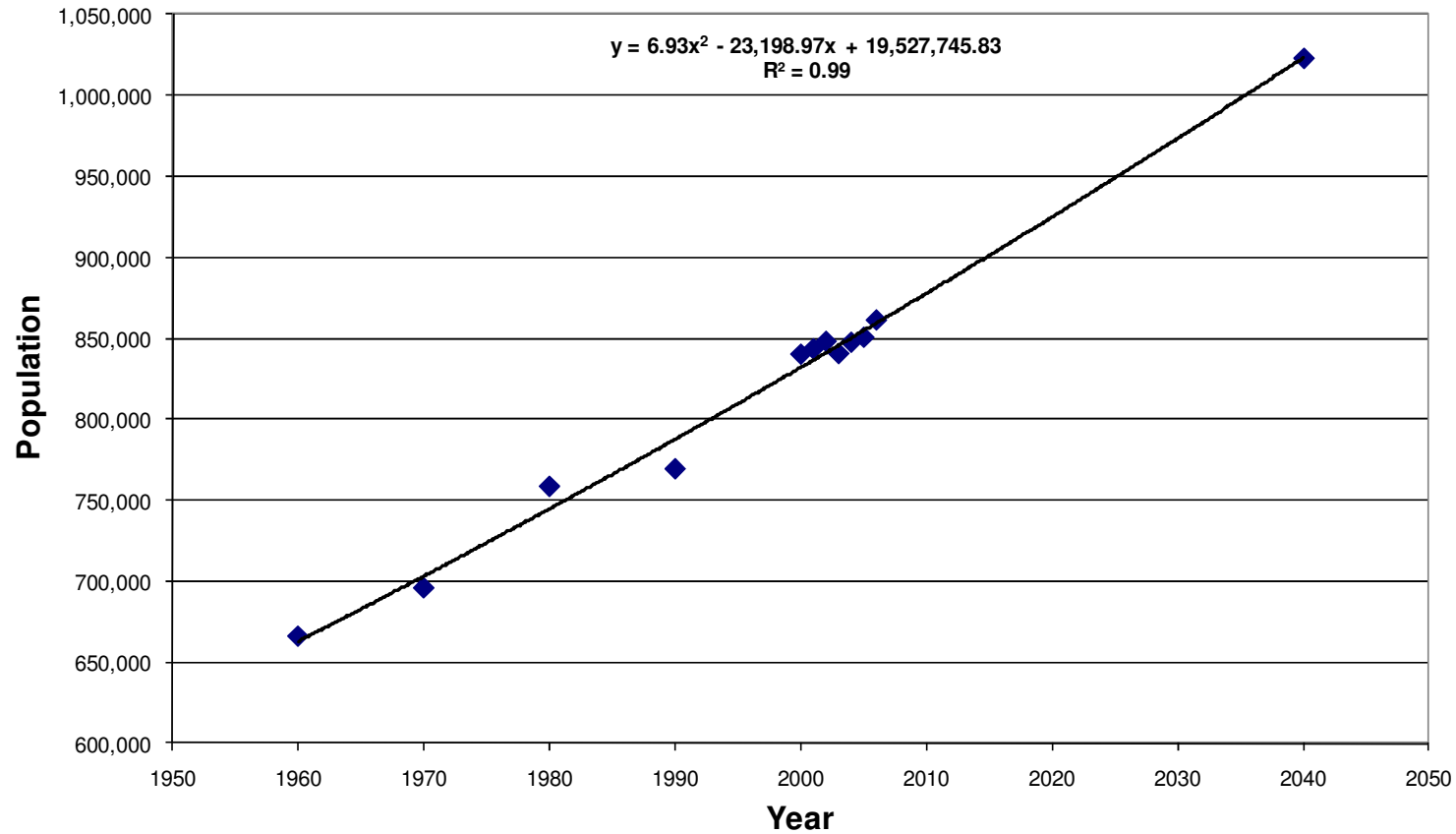
**Southwest Georgia  
Interstate Study**

**Future Population**

*Future  
Conditions*

**Figure 3.1.1.6**

## Population Trend (Study Area)



**Southwest Georgia  
Interstate Study**

**Future Population**

*Future  
Conditions*

**Figure 3.1.1.7**



## Southwest Georgia Interstate Study

# Socio-Economic Data

## Future Conditions

In addition to the state projections for 2040, the forecasted population for the counties within the six (6) southeastern states was summed accordingly, and the summarized total was compared with that from the state projections. As expected, the two state totals do not match exactly with each other. Since the state population for the future year (2040) was forecasted based on the U.S. Census projection (2000 - 2030), it is considered more reliable than the state total summarized from the individual county forecasts. Therefore, the total for each county within a state was adjusted to match the projected total of each state. Table 3.1.1.2 shows the population comparison between the projected state total and forecasted state total summarized from the counties. The adjustment factors calculated were applied to the population of each county. Final checks were conducted on the forecasted county total population, especially for the counties within the study area for reasonableness. Table 3.1.1.3 shows the forecasted population for the 32 counties within the study area. The census forecasted annual average growth rate between 1990 and 2006 was compared with that between 1990 and the forecast year 2040. The growth rate for the study area is 0.6 percent annually compared with the 0.7 percent obtained from the census data.

**Table 3.1.1.2**  
**State Population Adjustment Factors**

| <b>State</b> | <b>2040 State Projection</b> | <b>2040 County Total</b> | <b>Adjustment Factors</b> |
|--------------|------------------------------|--------------------------|---------------------------|
| AL           | 5,022,591                    | 5,599,514                | 0.90                      |
| FL           | 34,216,772                   | 27,884,218               | 1.23                      |
| GA           | 13,177,835                   | 13,209,307               | 1.00                      |
| NC           | 13,782,508                   | 11,970,353               | 1.15                      |
| SC           | 5,466,978                    | 5,761,687                | 0.95                      |
| TN           | 7,994,792                    | 7,869,103                | 1.02                      |

Since the TAZ system for the travel demand model was developed in such a way that several different geographic buffer layers were designated to accommodate different TAZ sizes, the allocation of the future state and county population data to each TAZ was performed depending on the location of the TAZ. For example, a TAZ located outside the six (6) southeastern states was represented by individual states. The projected state population therefore was directly allocated to those zones. For the surrounding six southeastern states, the data was disaggregated to Regional Planning Commissions (RPC) which are the regional or metropolitan planning agencies comparable to metropolitan planning agencies ((MPOs). The total population for each Regional Planning Commission RPC region TAZ was calculated by summarizing the population of all counties located within each RPC. For a county level TAZ, the county forecasted population was directly allocated. Finally, for a TAZ at the sub-county level, the base year distribution pattern of population within a county was applied to the forecasted county population to calculate the future zonal population. The 2040 population in the study area is shown in Figure 3.1.1.8.



## Southwest Georgia Interstate Study

# Socio-Economic Data

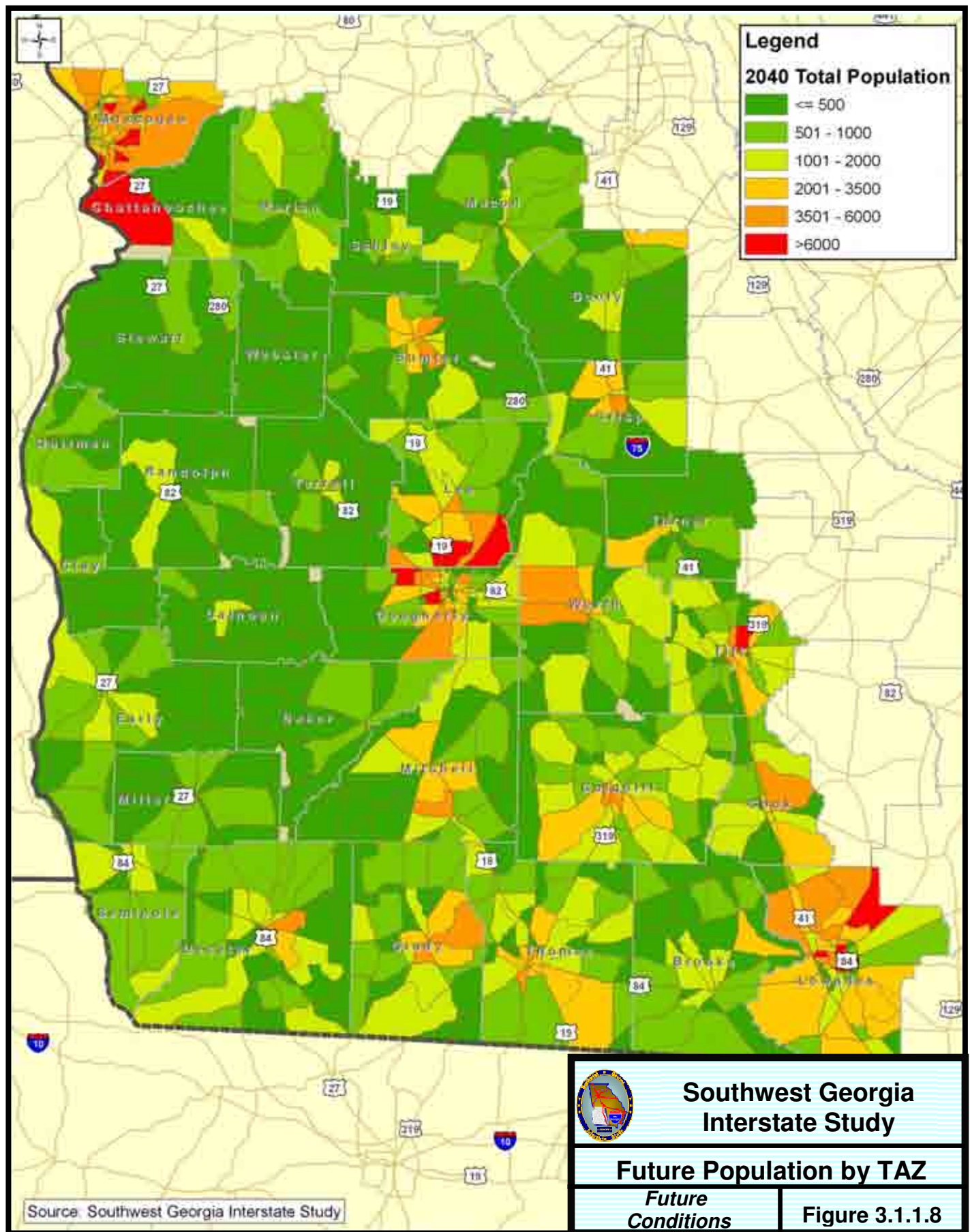
# Future Conditions

Table 3.1.1.3  
County Population Forecast for 2040 within the Study Area

| County             | Census 1990    | Census 2000    | Census 2006    | Forecasted 2040  | Census Annual Growth Rate (1990-2006) | Forecasted Annual Growth Rate (1990-2040) |
|--------------------|----------------|----------------|----------------|------------------|---------------------------------------|-------------------------------------------|
| Baker              | 3,615          | 4,053          | 4,101          | 4,307            | 0.80%                                 | 0.40%                                     |
| Brooks             | 15,398         | 16,477         | 16,461         | 19,036           | 0.40%                                 | 0.40%                                     |
| Calhoun            | 5,013          | 6,323          | 6,095          | 5,613            | 1.20%                                 | 0.20%                                     |
| Chattahoochee      | 16,934         | 14,991         | 14,042         | 10,800           | -1.20%                                | -0.90%                                    |
| Clay               | 3,364          | 3,357          | 3,180          | 2,750            | -0.40%                                | -0.40%                                    |
| Colquitt           | 36,645         | 42,128         | 44,821         | 56,740           | 1.30%                                 | 0.90%                                     |
| Cook               | 13,456         | 15,837         | 16,332         | 20,305           | 1.20%                                 | 0.80%                                     |
| Crisp              | 20,011         | 21,988         | 22,054         | 25,795           | 0.60%                                 | 0.50%                                     |
| Decatur            | 25,511         | 28,242         | 28,664         | 34,668           | 0.70%                                 | 0.60%                                     |
| Dooly              | 9,901          | 11,501         | 11,747         | 13,019           | 1.10%                                 | 0.50%                                     |
| Dougherty          | 96,311         | 95,912         | 94,776         | 99,624           | -0.10%                                | 0.10%                                     |
| Early              | 11,854         | 12,346         | 12,065         | 11,482           | 0.10%                                 | -0.10%                                    |
| Grady              | 20,279         | 23,660         | 25,083         | 31,938           | 1.30%                                 | 0.90%                                     |
| Lee                | 16,250         | 24,893         | 32,492         | 56,532           | 4.40%                                 | 2.50%                                     |
| Lowndes            | 75,981         | 92,117         | 97,843         | 138,202          | 1.60%                                 | 1.20%                                     |
| Macon              | 13,114         | 14,065         | 13,817         | 12,437           | 0.30%                                 | -0.10%                                    |
| Marion             | 5,590          | 7,185          | 7,276          | 9,071            | 1.70%                                 | 1.00%                                     |
| Miller             | 6,280          | 6,384          | 6,239          | 6,088            | 0.00%                                 | -0.10%                                    |
| Mitchell           | 20,275         | 23,970         | 23,852         | 28,478           | 1.00%                                 | 0.70%                                     |
| Muscogee           | 179,278        | 186,428        | 188,661        | 208,758          | 0.30%                                 | 0.30%                                     |
| Quitman            | 2,209          | 2,606          | 2,486          | 2,774            | 0.70%                                 | 0.50%                                     |
| Randolph           | 8,023          | 7,758          | 7,356          | 6,055            | -0.50%                                | -0.60%                                    |
| Schley             | 3,588          | 3,784          | 4,196          | 5,240            | 1.00%                                 | 0.80%                                     |
| Seminole           | 9,010          | 9,372          | 9,167          | 11,161           | 0.10%                                 | 0.40%                                     |
| Stewart            | 5,654          | 5,246          | 4,755          | 3,096            | -1.10%                                | -1.20%                                    |
| Sumter             | 30,228         | 33,244         | 32,490         | 37,737           | 0.50%                                 | 0.40%                                     |
| Terrell            | 10,653         | 10,974         | 10,654         | 9,940            | 0.00%                                 | -0.10%                                    |
| Thomas             | 38,986         | 42,843         | 45,136         | 55,163           | 0.90%                                 | 0.70%                                     |
| Tift               | 34,998         | 38,437         | 41,686         | 55,285           | 1.10%                                 | 0.90%                                     |
| Turner             | 8,703          | 9,513          | 9,322          | 9,826            | 0.40%                                 | 0.20%                                     |
| Webster            | 2,263          | 2,383          | 2,252          | 2,147            | 0.00%                                 | -0.10%                                    |
| Worth              | 19,745         | 21,966         | 21,941         | 28,707           | 0.70%                                 | 0.80%                                     |
| <b>Grand Total</b> | <b>769,120</b> | <b>839,983</b> | <b>861,042</b> | <b>1,022,774</b> | <b>0.70%</b>                          | <b>0.60%</b>                              |

Source: US Census Bureau







## **Southwest Georgia Interstate Study**

# **Socio-Economic Data**

# **Future Conditions**

Unlike the state populations, the state household projections are not available from the U.S. Census. Since households have a close correlation to the population, it was decided that the base year household to population ratio at zonal level would be applied to the future year population for estimating the future zonal households. The resulting households in the study area are shown in Figure 3.1.1.9.

### ***3.1.2 Future Year (2040) Employment Forecast***

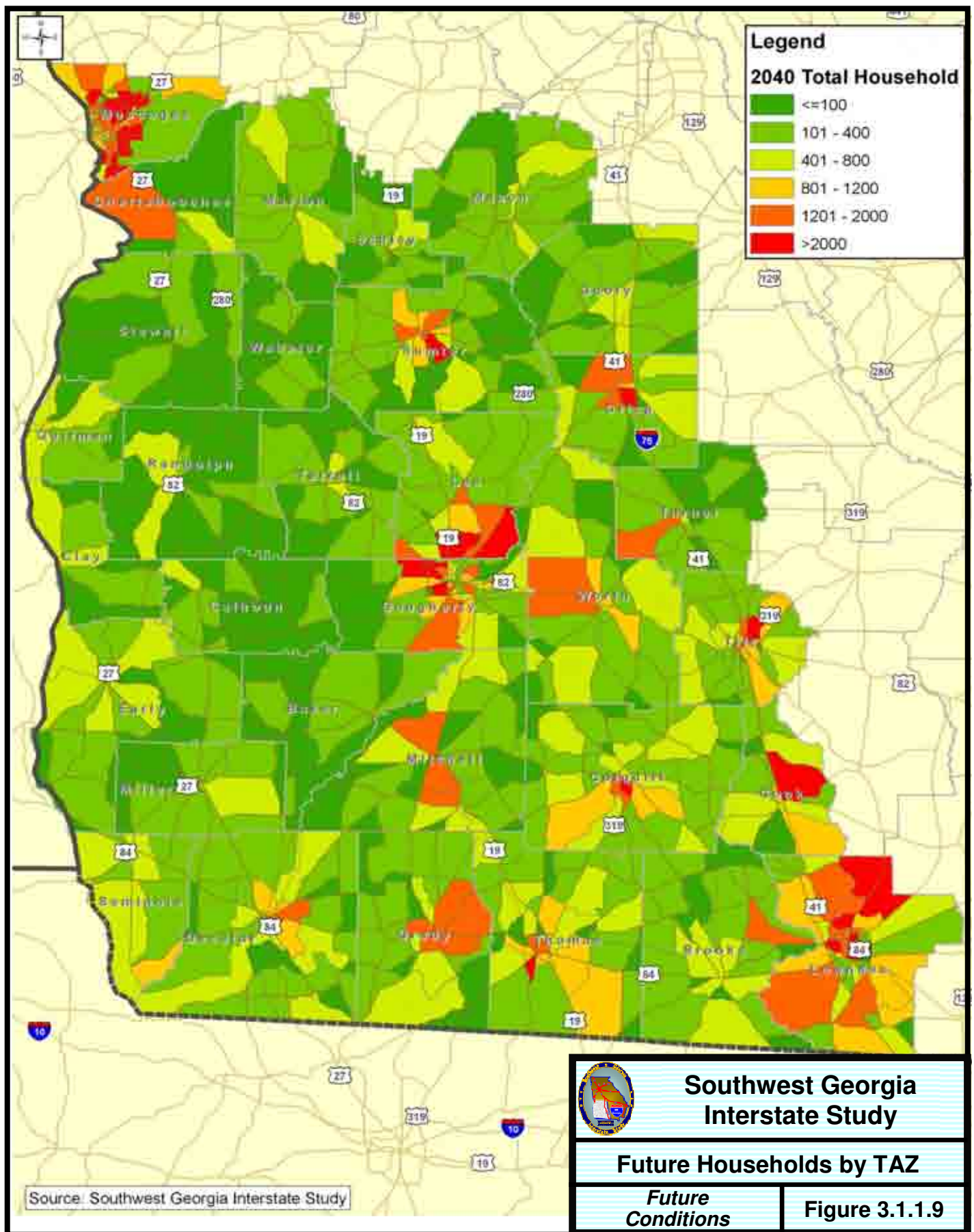
The future zonal employment was developed in a similar fashion to the population. The data sources for the forecast task were Georgia Department of Labor (GADOL) for counties within the study area and the Bureau of Economic Analysis (BEA) for states and counties outside the study area. The historical trend of employment from 1990 to 2006 was used to forecast the 2040 employment. Table 3.1.2.1 shows the forecasted state employment and the annual growth rates for the forecasted period. The employment forecast for counties within the study area is shown in Table 3.1.2.2. Figures 3.12.1 to 3.1.2.7 show the forecasted trend line and the R-squared values for the six southeastern states as well as the counties within the study area.

The state and county level employment were allocated to each TAZ according to the buffer layers as previously done in the allocation of the population. The state and county projections were directly allocated into the TAZs that are either states or counties. For TAZs at the sub-county level, the future county level employment was distributed to TAZs according to the base year employment distribution pattern. The resulting future employment for the study area is shown in Figure 3.1.2.8. The future year employment by sector was also estimated according to the base year employment type distribution. The 2006 share of each employment sector relative to the total employment of each zone was calculated and then applied to the future zonal employment to estimate the future count. Table 3.1.2.3 shows the future employment by sector within the study area.

### ***3.1.3 Supplemental Information for the Study Area***

The U.S. Census 2000 contains a variety of demographic characteristics that provide a broad view of the region. Identifying these characteristics and understanding their impact on travel patterns within a specific project area is crucial to understanding travel conditions. In addition, these data sets were used to assist with the design and development of a public outreach and involvement program to solicit input from populations that usually do not participate in the planning process. For detailed information related to the identification and use of this data, refer to the *Existing Conditions Technical Memorandum*. Future year data by the various characteristics was not available







# Southwest Georgia Interstate Study

## Socio-Economic Data

### Future Conditions

Table 3.1.2.1  
State Employment Forecast for 2040

| State<br>Abbreviation | BEA<br>1990 | BEA<br>1995 | BEA<br>2000 | BEA<br>2006 | BEA<br>2040 | BEA Annual<br>Growth Rate<br>(1990 - 2006) | Forecasted<br>Annual<br>Growth Rate<br>(1990 - 2040) |
|-----------------------|-------------|-------------|-------------|-------------|-------------|--------------------------------------------|------------------------------------------------------|
| AL                    | 2,061,101   | 2,256,073   | 2,416,422   | 2,590,042   | 3,574,523   | 1.40%                                      | 1.10%                                                |
| AZ                    | 1,909,879   | 2,275,033   | 2,819,302   | 3,366,201   | 6,434,529   | 3.60%                                      | 2.50%                                                |
| AK                    | 1,211,177   | 1,390,772   | 1,503,867   | 1,601,339   | 2,368,123   | 1.80%                                      | 1.40%                                                |
| CA                    | 16,965,207  | 17,058,764  | 19,626,033  | 20,525,491  | 29,949,388  | 1.20%                                      | 1.10%                                                |
| CO                    | 2,054,265   | 2,441,399   | 2,949,831   | 3,175,268   | 5,663,987   | 2.80%                                      | 2.00%                                                |
| CT                    | 2,018,357   | 1,957,936   | 2,113,957   | 2,236,062   | 2,813,125   | 0.60%                                      | 0.70%                                                |
| DE                    | 422,940     | 445,378     | 507,820     | 543,093     | 830,268     | 1.60%                                      | 1.40%                                                |
| DC                    | 788,475     | 739,642     | 756,979     | 806,855     | 839,039     | 0.10%                                      | 0.10%                                                |
| FL                    | 6,800,161   | 7,554,305   | 8,933,114   | 10,521,966  | 18,490,844  | 2.80%                                      | 2.00%                                                |
| GA                    | 3,689,354   | 4,215,080   | 4,892,294   | 5,381,295   | 9,137,261   | 2.40%                                      | 1.80%                                                |
| ID                    | 552,404     | 671,786     | 787,929     | 915,021     | 1,628,830   | 3.20%                                      | 2.20%                                                |
| IL                    | 6,439,873   | 6,821,755   | 7,416,309   | 7,601,747   | 10,256,955  | 1.00%                                      | 0.90%                                                |
| IN                    | 3,089,817   | 3,399,530   | 3,673,247   | 3,744,661   | 5,168,105   | 1.20%                                      | 1.00%                                                |
| IW                    | 1,645,944   | 1,795,644   | 1,934,077   | 2,027,293   | 2,786,556   | 1.30%                                      | 1.10%                                                |
| KS                    | 1,483,043   | 1,609,299   | 1,771,218   | 1,844,852   | 2,654,604   | 1.40%                                      | 1.20%                                                |
| KY                    | 1,918,471   | 2,122,906   | 2,332,023   | 2,432,901   | 3,544,631   | 1.50%                                      | 1.20%                                                |
| LA                    | 2,018,862   | 2,209,120   | 2,404,237   | 2,439,028   | 3,561,087   | 1.20%                                      | 1.10%                                                |
| ME                    | 706,689     | 710,076     | 792,255     | 844,635     | 1,196,418   | 1.10%                                      | 1.10%                                                |
| MD                    | 2,759,870   | 2,788,164   | 3,091,547   | 3,413,120   | 4,992,186   | 1.30%                                      | 1.20%                                                |
| MA                    | 3,646,584   | 3,679,800   | 4,096,551   | 4,216,027   | 5,791,533   | 0.90%                                      | 0.90%                                                |
| MI                    | 4,824,727   | 5,174,594   | 5,629,498   | 5,542,222   | 7,595,229   | 0.90%                                      | 0.90%                                                |
| MN                    | 2,711,618   | 3,014,905   | 3,343,518   | 3,571,011   | 5,463,838   | 1.70%                                      | 1.40%                                                |
| MI                    | 1,209,606   | 1,373,875   | 1,492,672   | 1,531,373   | 2,231,751   | 1.50%                                      | 1.20%                                                |
| MO                    | 2,993,361   | 3,217,944   | 3,497,220   | 3,671,337   | 5,172,231   | 1.30%                                      | 1.10%                                                |
| MT                    | 436,338     | 506,891     | 559,055     | 637,401     | 1,021,109   | 2.40%                                      | 1.70%                                                |
| NE                    | 994,282     | 1,077,348   | 1,183,320   | 1,240,199   | 1,784,649   | 1.40%                                      | 1.20%                                                |
| NV                    | 766,439     | 963,957     | 1,267,999   | 1,611,936   | 3,389,383   | 4.80%                                      | 3.00%                                                |



# Southwest Georgia Interstate Study

## Socio-Economic Data

### Future Conditions

Table 3.1.2.1 (continued)  
State Employment Forecast for 2040

| State Abbreviation | BEA 1990  | BEA 1995   | BEA 2000   | BEA 2006   | BEA 2040   | BEA Annual Growth Rate (1990-2006) | Forecasted Annual Growth Rate (1990-2040) |
|--------------------|-----------|------------|------------|------------|------------|------------------------------------|-------------------------------------------|
| NH                 | 647,635   | 684,551    | 784,839    | 861,053    | 1,379,775  | 1.80%                              | 1.50%                                     |
| NJ                 | 4,344,458 | 4,330,143  | 4,755,379  | 5,114,577  | 7,029,866  | 1.00%                              | 1.00%                                     |
| NM                 | 767,139   | 904,934    | 972,954    | 1,099,401  | 1,732,000  | 2.30%                              | 1.60%                                     |
| NY                 | 9,817,397 | 9,601,228  | 10,455,409 | 10,952,095 | 13,886,888 | 0.70%                              | 0.70%                                     |
| NC                 | 3,928,125 | 4,380,498  | 4,924,918  | 5,317,153  | 8,229,379  | 1.90%                              | 1.50%                                     |
| ND                 | 376,396   | 420,792    | 447,380    | 485,172    | 686,703    | 1.60%                              | 1.20%                                     |
| OH                 | 5,904,767 | 6,340,680  | 6,835,688  | 6,893,151  | 9,269,549  | 1.00%                              | 0.90%                                     |
| OK                 | 1,664,461 | 1,810,296  | 2,015,085  | 2,144,708  | 3,132,334  | 1.60%                              | 1.30%                                     |
| OR                 | 1,638,149 | 1,858,019  | 2,110,915  | 2,304,410  | 3,699,006  | 2.20%                              | 1.60%                                     |
| PA                 | 6,342,434 | 6,471,174  | 6,973,171  | 7,295,987  | 9,467,209  | 0.90%                              | 0.80%                                     |
| RI                 | 555,265   | 541,109    | 583,826    | 619,991    | 799,381    | 0.70%                              | 0.70%                                     |
| SC                 | 1,925,779 | 2,050,657  | 2,291,238  | 2,441,522  | 3,583,074  | 1.50%                              | 1.20%                                     |
| SD                 | 412,013   | 475,042    | 519,228    | 555,921    | 835,940    | 1.90%                              | 1.40%                                     |
| TN                 | 2,796,010 | 3,164,061  | 3,496,446  | 3,724,901  | 5,678,255  | 1.80%                              | 1.40%                                     |
| TX                 | 9,304,146 | 10,507,238 | 12,244,699 | 13,514,130 | 22,511,668 | 2.40%                              | 1.80%                                     |
| UT                 | 944,329   | 1,157,659  | 1,387,847  | 1,591,476  | 2,911,652  | 3.30%                              | 2.30%                                     |
| VT                 | 343,568   | 364,634    | 404,463    | 434,333    | 642,121    | 1.50%                              | 1.30%                                     |
| VA                 | 3,726,176 | 3,931,060  | 4,407,324  | 4,859,015  | 7,377,041  | 1.70%                              | 1.40%                                     |
| WA                 | 2,862,956 | 3,123,229  | 3,551,468  | 3,868,813  | 5,904,793  | 1.90%                              | 1.50%                                     |
| WV                 | 782,852   | 844,350    | 886,620    | 927,285    | 1,208,904  | 1.10%                              | 0.90%                                     |
| WI                 | 2,834,282 | 3,139,722  | 3,431,272  | 3,611,453  | 5,290,009  | 1.50%                              | 1.30%                                     |
| WY                 | 272,431   | 302,472    | 328,036    | 376,249    | 559,782    | 2.00%                              | 1.50%                                     |

Source: Bureau of Economic Analysis (BEA)





## Southwest Georgia Interstate Study

# Socio-Economic Data

# Future Conditions

Table 3.1.2.2  
County Employment Forecast for 2040 within the Study Area

| County             | GA DOL<br>1990 | GA<br>DOL<br>2000 | GA<br>DOL<br>2006 | Forecasted<br>2040 | GADOL<br>Annual<br>Growth Rate<br>(1990 - 2006) | Forecasted<br>Annual<br>Growth Rate<br>(1990 - 2040) |
|--------------------|----------------|-------------------|-------------------|--------------------|-------------------------------------------------|------------------------------------------------------|
| Baker              | 633            | 596               | 523               | 540                | -1.2%                                           | -0.3%                                                |
| Brooks             | 3,422          | 3,234             | 3,016             | 3,110              | -0.8%                                           | -0.2%                                                |
| Calhoun            | 1,385          | 1,590             | 1,594             | 2,098              | 0.9%                                            | 0.8%                                                 |
| Chattahoochee      | 5,914          | 1,299             | 1,382             | 1,427              | -8.7%                                           | -2.8%                                                |
| Clay               | 566            | 665               | 831               | 1,439              | 2.4%                                            | 1.9%                                                 |
| Colquitt           | 12,308         | 15,122            | 16,222            | 25,327             | 1.7%                                            | 1.5%                                                 |
| Cook               | 4,046          | 5,770             | 4,780             | 6,538              | 1.0%                                            | 1.0%                                                 |
| Crisp              | 7,905          | 8,892             | 8,910             | 11,391             | 0.8%                                            | 0.7%                                                 |
| Decatur            | 10,307         | 11,594            | 10,244            | 10,570             | 0.0%                                            | 0.1%                                                 |
| Dooly              | 2,646          | 3,685             | 3,446             | 5,308              | 1.7%                                            | 1.4%                                                 |
| Dougherty          | 47,672         | 53,860            | 51,638            | 61,906             | 0.5%                                            | 0.5%                                                 |
| Early              | 4,801          | 4,469             | 4,694             | 4,794              | -0.1%                                           | 0.0%                                                 |
| Grady              | 6,000          | 5,932             | 6,454             | 7,667              | 0.5%                                            | 0.5%                                                 |
| Lee                | 1,856          | 3,686             | 4,874             | 11,633             | 6.2%                                            | 3.7%                                                 |
| Lowndes            | 31,723         | 43,754            | 49,403            | 89,734             | 2.8%                                            | 2.1%                                                 |
| Macon              | 4,142          | 4,114             | 3,637             | 3,755              | -0.8%                                           | -0.2%                                                |
| Marion             | 1,409          | 2,201             | 1,714             | 2,437              | 1.2%                                            | 1.1%                                                 |
| Miller             | 1,233          | 1,465             | 1,699             | 2,770              | 2.0%                                            | 1.6%                                                 |
| Mitchell           | 5,978          | 8,839             | 8,850             | 15,427             | 2.5%                                            | 1.9%                                                 |
| Muscogee           | 76,464         | 98,396            | 97,937            | 148,183            | 1.6%                                            | 1.3%                                                 |
| Quitman            | 166            | 279               | 422               | 1,001              | 6.0%                                            | 3.7%                                                 |
| Randolph           | 2,384          | 2,466             | 2,202             | 2,273              | -0.5%                                           | -0.1%                                                |
| Schley             | 997            | 1,250             | 1,424             | 2,403              | 2.3%                                            | 1.8%                                                 |
| Seminole           | 2,229          | 2,647             | 2,348             | 2,690              | 0.3%                                            | 0.4%                                                 |
| Stewart            | 1,059          | 1,224             | 1,063             | 1,109              | 0.0%                                            | 0.1%                                                 |
| Sumter             | 12,216         | 14,526            | 12,836            | 14,608             | 0.3%                                            | 0.4%                                                 |
| Terrell            | 2,930          | 2,613             | 2,414             | 2,490              | -1.2%                                           | -0.3%                                                |
| Thomas             | 17,127         | 21,136            | 23,813            | 39,211             | 2.1%                                            | 1.7%                                                 |
| Tift               | 16,908         | 20,990            | 21,015            | 30,702             | 1.4%                                            | 1.2%                                                 |
| Turner             | 1,988          | 2,352             | 2,628             | 4,120              | 1.8%                                            | 1.5%                                                 |
| Webster            | 366            | 456               | 550               | 972                | 2.6%                                            | 2.0%                                                 |
| Worth              | 3,256          | 3,479             | 3,448             | 3,973              | 0.4%                                            | 0.4%                                                 |
| <b>Grand Total</b> | <b>292,036</b> | <b>352,581</b>    | <b>356,011</b>    | <b>521,606</b>     | <b>1.2%</b>                                     | <b>1.2%</b>                                          |

Source: Georgia Department of Labor (GADOL)



## Southwest Georgia Interstate Study

# Socio-Economic Data

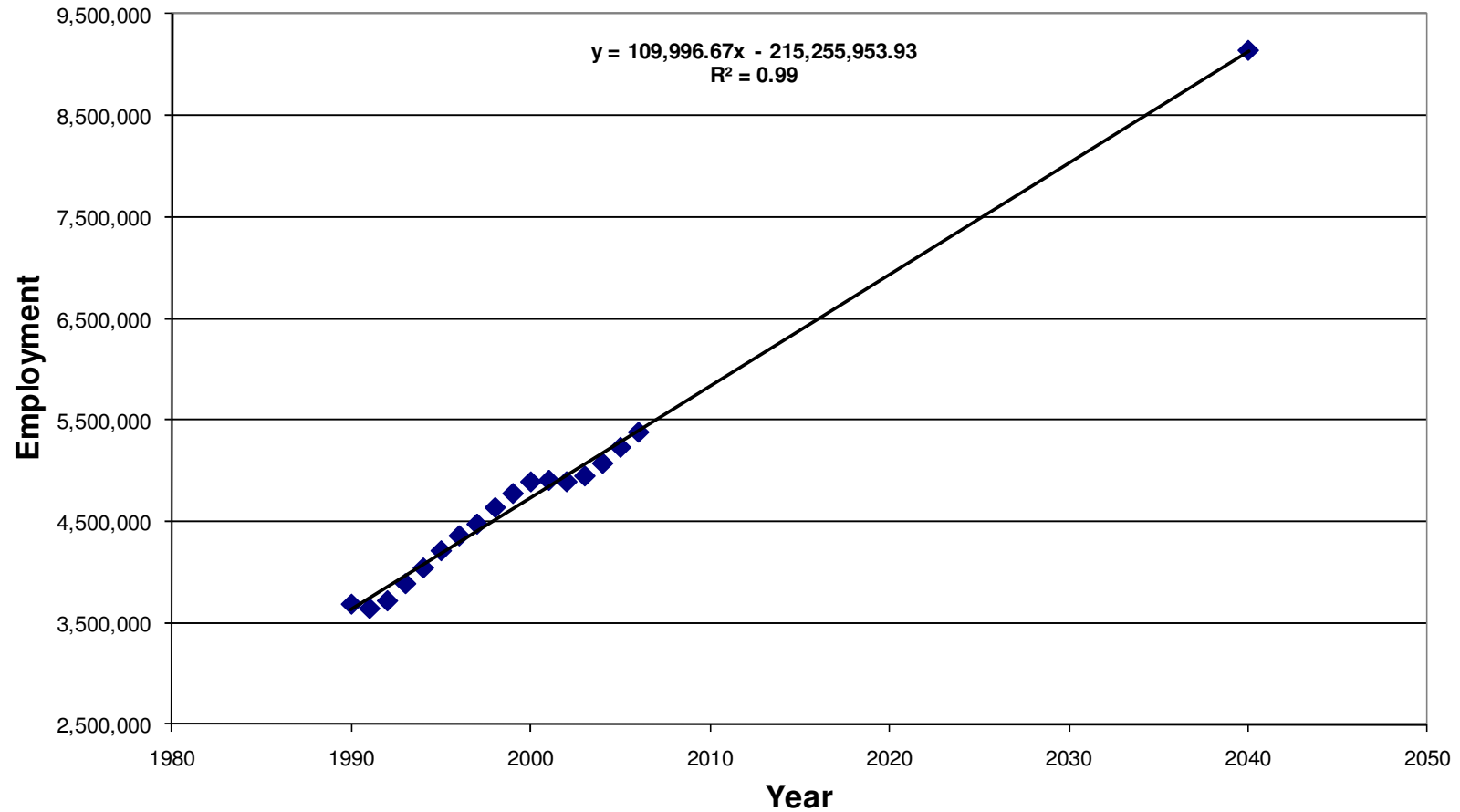
# Future Conditions

Table 3.1.2.3  
2040 County Employment by Sector

| County             | AMC           | MFG           | WFW           | RET           | SER            | Total          |
|--------------------|---------------|---------------|---------------|---------------|----------------|----------------|
| Baker              | 72            | 0             | 7             | 48            | 413            | 540            |
| Brooks             | 599           | 574           | 130           | 292           | 1,516          | 3,111          |
| Calhoun            | 243           | 335           | 95            | 192           | 1,235          | 2,100          |
| Chattahoochee      | 55            | 0             | 57            | 90            | 1,225          | 1,427          |
| Clay               | 432           | 0             | 22            | 174           | 810            | 1,438          |
| Colquitt           | 3,641         | 6,184         | 1,119         | 2,947         | 11,444         | 25,335         |
| Cook               | 1,148         | 1,446         | 190           | 617           | 3,133          | 6,534          |
| Crisp              | 827           | 1,557         | 905           | 1,984         | 6,119          | 11,392         |
| Decatur            | 1,419         | 1,422         | 754           | 1,603         | 5,369          | 10,567         |
| Dooly              | 213           | 1,878         | 570           | 466           | 2,179          | 5,306          |
| Dougherty          | 2,700         | 7,080         | 4,641         | 7,863         | 39,628         | 61,912         |
| Early              | 533           | 1,036         | 484           | 375           | 2,364          | 4,792          |
| Grady              | 1,313         | 1,124         | 506           | 938           | 3,786          | 7,667          |
| Lee                | 2,624         | 545           | 859           | 1,296         | 6,307          | 11,631         |
| Lowndes            | 5,537         | 9,968         | 5,014         | 15,097        | 54,126         | 89,742         |
| Macon              | 355           | 1,015         | 90            | 438           | 1,856          | 3,754          |
| Marion             | 308           | 958           | 41            | 196           | 933            | 2,436          |
| Miller             | 234           | 56            | 315           | 382           | 1,784          | 2,771          |
| Mitchell           | 1,004         | 5,832         | 776           | 1,443         | 6,371          | 15,426         |
| Muscogee           | 7,073         | 14,977        | 4,352         | 17,311        | 104,475        | 148,188        |
| Quitman            | 121           | 185           | 107           | 103           | 485            | 1,001          |
| Randolph           | 417           | 201           | 118           | 174           | 1,363          | 2,273          |
| Schley             | 61            | 1,305         | 131           | 123           | 785            | 2,405          |
| Seminole           | 274           | 140           | 175           | 409           | 1,690          | 2,688          |
| Stewart            | 67            | 115           | 64            | 96            | 766            | 1,108          |
| Sumter             | 1,448         | 2,620         | 933           | 1,640         | 7,967          | 14,608         |
| Terrell            | 121           | 524           | 264           | 286           | 1,295          | 2,490          |
| Thomas             | 2,249         | 5,915         | 2,211         | 3,932         | 24,904         | 39,211         |
| Tift               | 2,520         | 4,257         | 3,947         | 3,924         | 16,053         | 30,701         |
| Turner             | 203           | 636           | 388           | 594           | 2,303          | 4,124          |
| Webster            | 54            | 516           | 41            | 46            | 316            | 973            |
| Worth              | 383           | 280           | 223           | 641           | 2,444          | 3,971          |
| <b>Grand Total</b> | <b>38,248</b> | <b>72,681</b> | <b>29,529</b> | <b>65,720</b> | <b>315,444</b> | <b>521,622</b> |

Source: Georgia Department of Labor (GADOL)

# Employment Trend (Georgia)



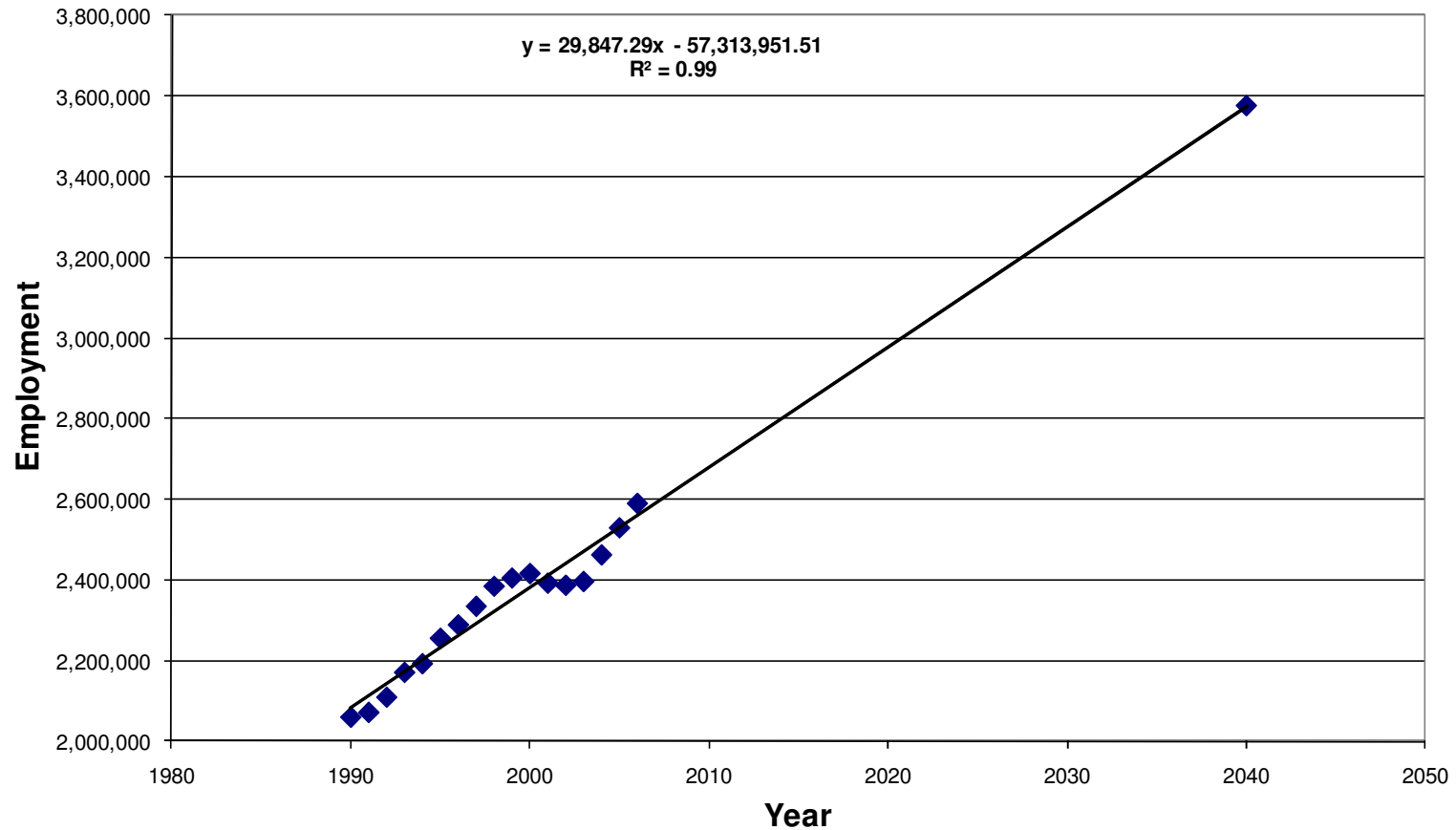
**Southwest Georgia  
Interstate Study**

**Future Employment**

*Future  
Conditions*

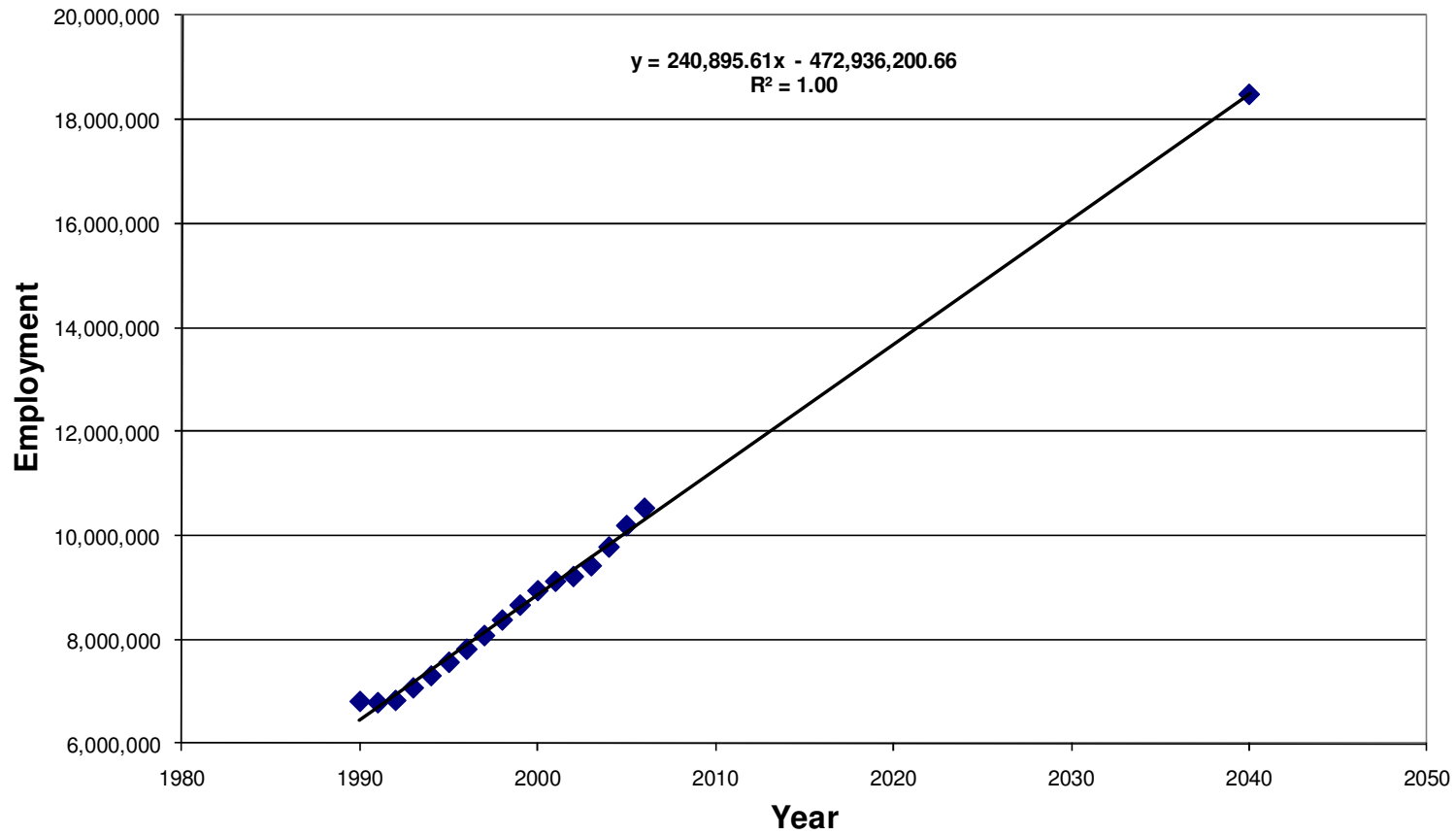
**Figure 3.1.2.1**

## Employment Trend (Alabama)



|                                                                                       |                                           |                       |
|---------------------------------------------------------------------------------------|-------------------------------------------|-----------------------|
|  | <b>Southwest Georgia Interstate Study</b> |                       |
|                                                                                       | <b>Future Employment</b>                  |                       |
|                                                                                       | <b>Future Conditions</b>                  | <b>Figure 3.1.2.2</b> |

## Employment Trend (Florida)



**Southwest Georgia  
Interstate Study**

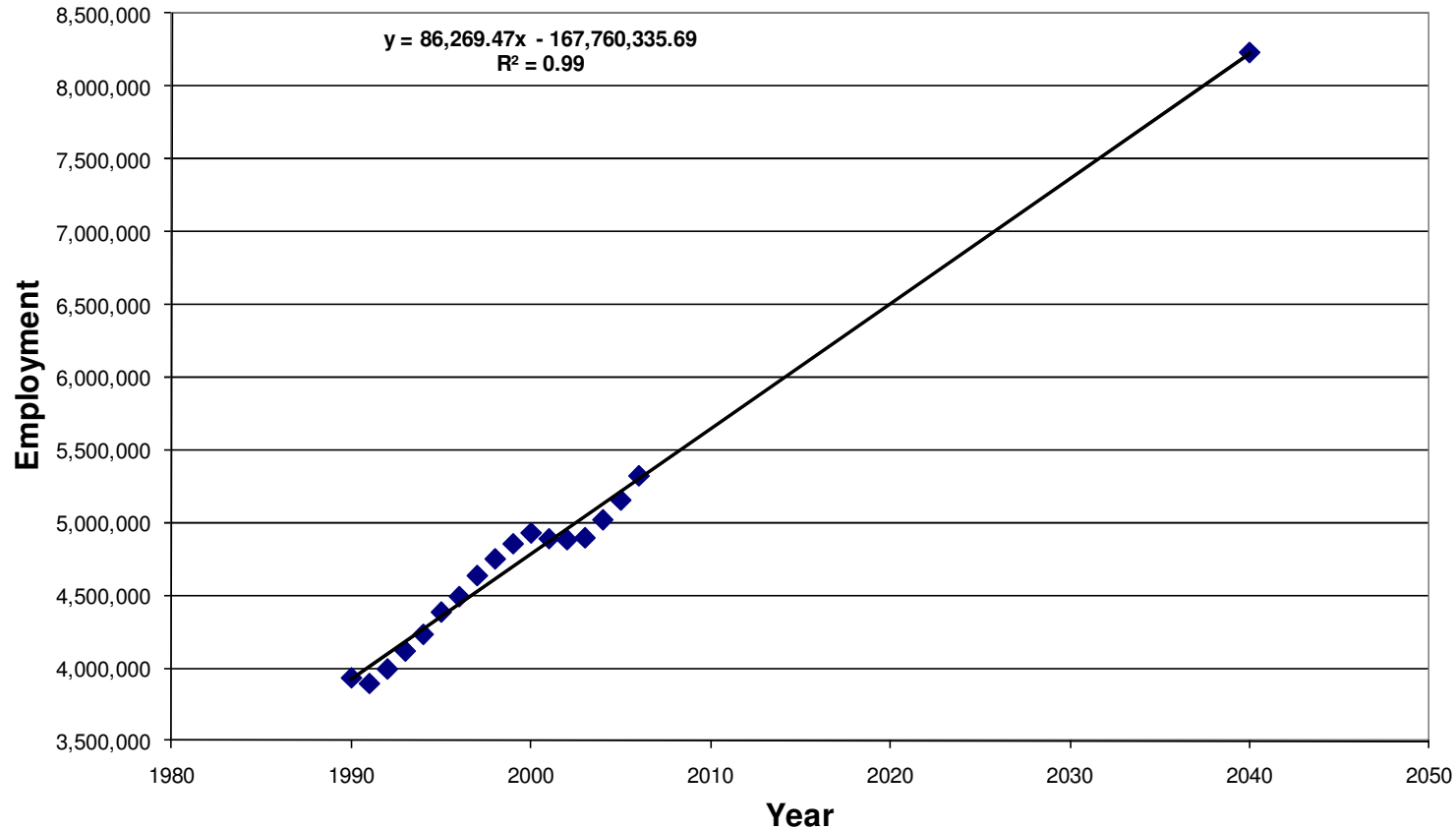
**Future Employment**

***Future  
Conditions***

**Figure 3.1.2.3**

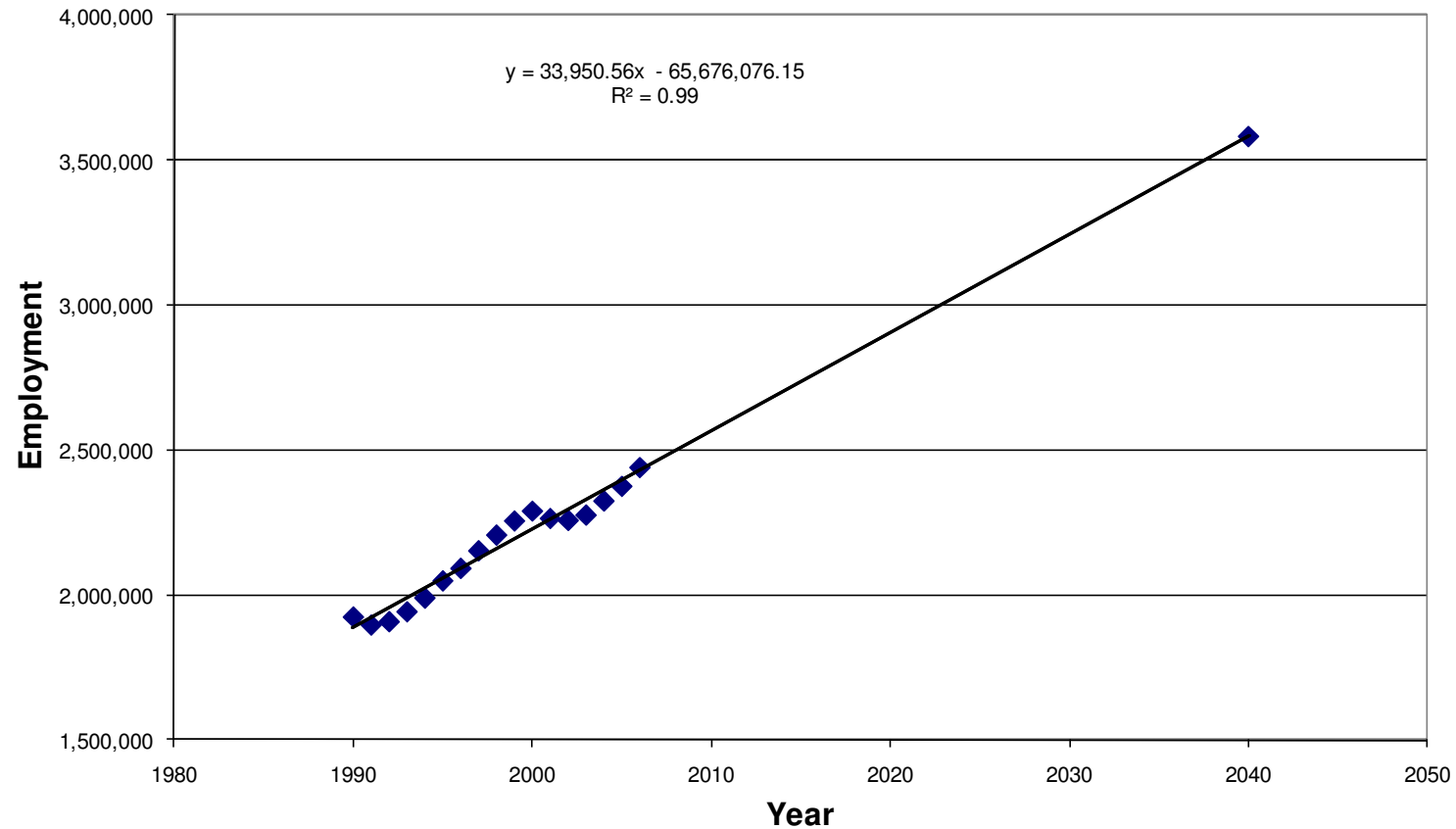


## Employment Trend (North Carolina)



|                                                                                       |                                           |                       |
|---------------------------------------------------------------------------------------|-------------------------------------------|-----------------------|
|  | <b>Southwest Georgia Interstate Study</b> |                       |
|                                                                                       | <b>Future Employment</b>                  |                       |
|                                                                                       | <i>Future Conditions</i>                  | <b>Figure 3.1.2.4</b> |

## Employment Trend (South Carolina)



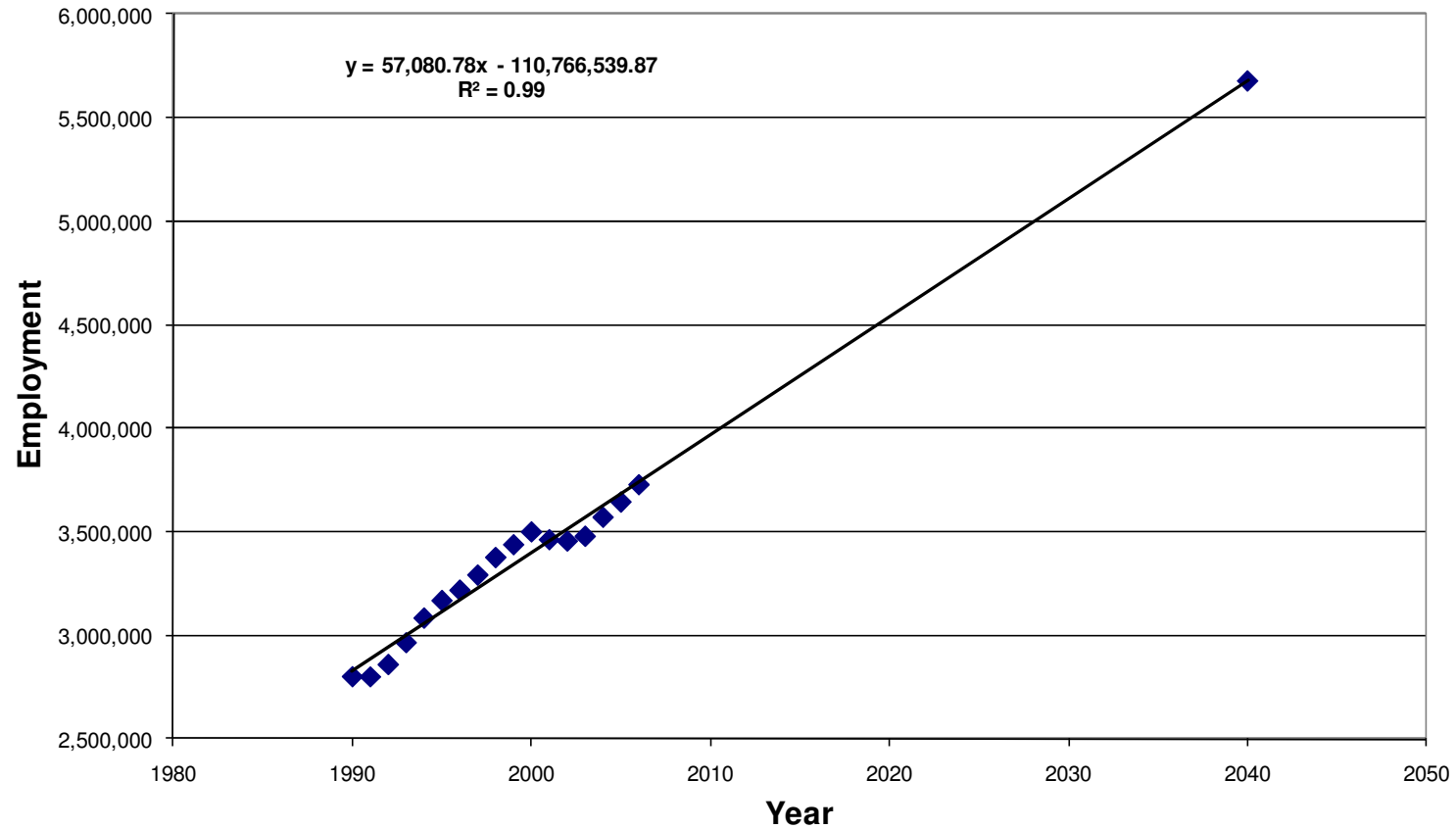
**Southwest Georgia  
Interstate Study**

**Future Employment**

*Future  
Conditions*

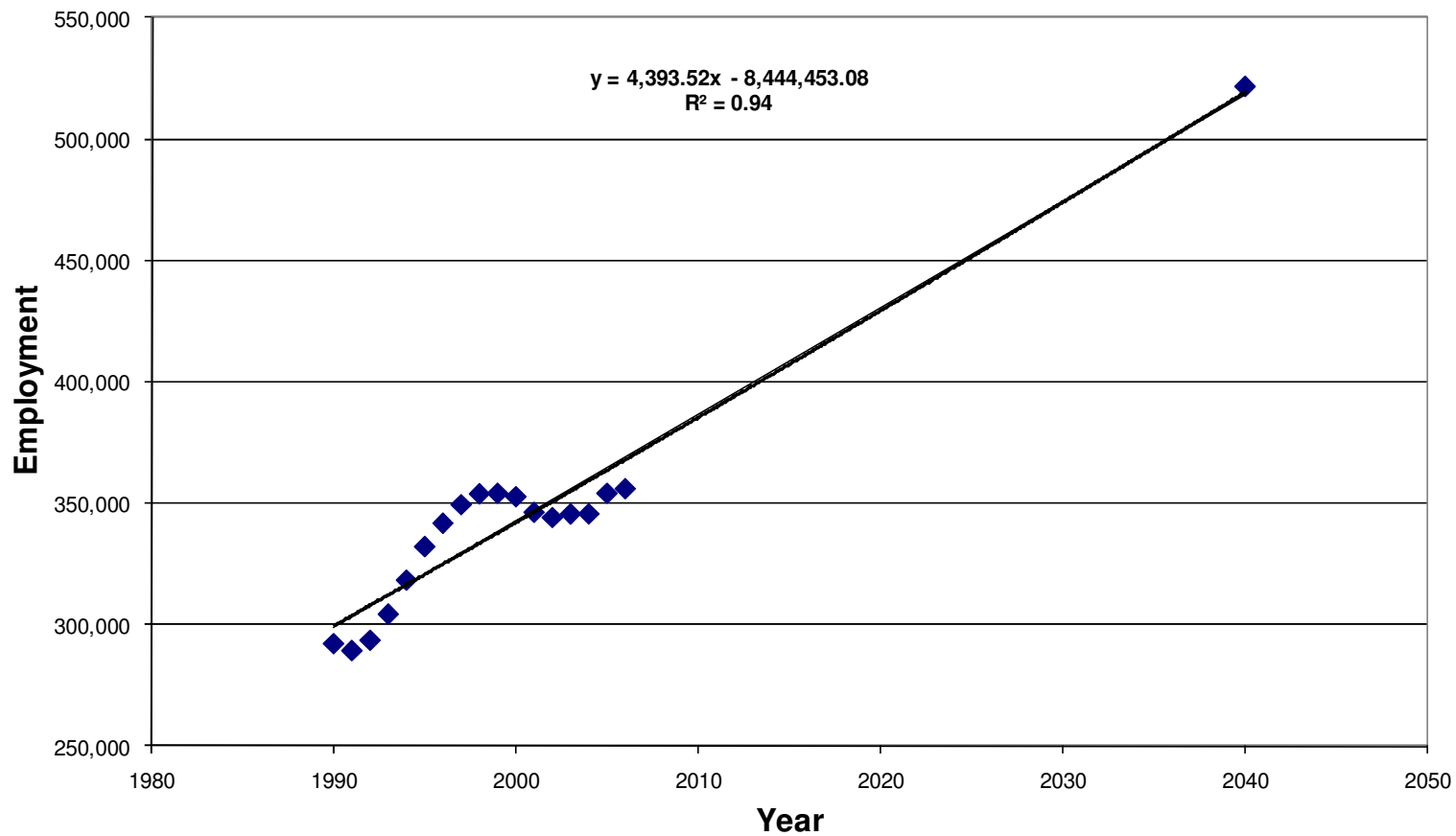
**Figure 3.1.2.5**

## Employment Trend (Tennessee)



|                                                                                                                                     |                       |
|-------------------------------------------------------------------------------------------------------------------------------------|-----------------------|
|  <b>Southwest Georgia<br/>Interstate Study</b> |                       |
| <b>Future Employment</b>                                                                                                            |                       |
| <i>Future<br/>Conditions</i>                                                                                                        | <b>Figure 3.1.2.6</b> |

## Employment Trend (Study Area)

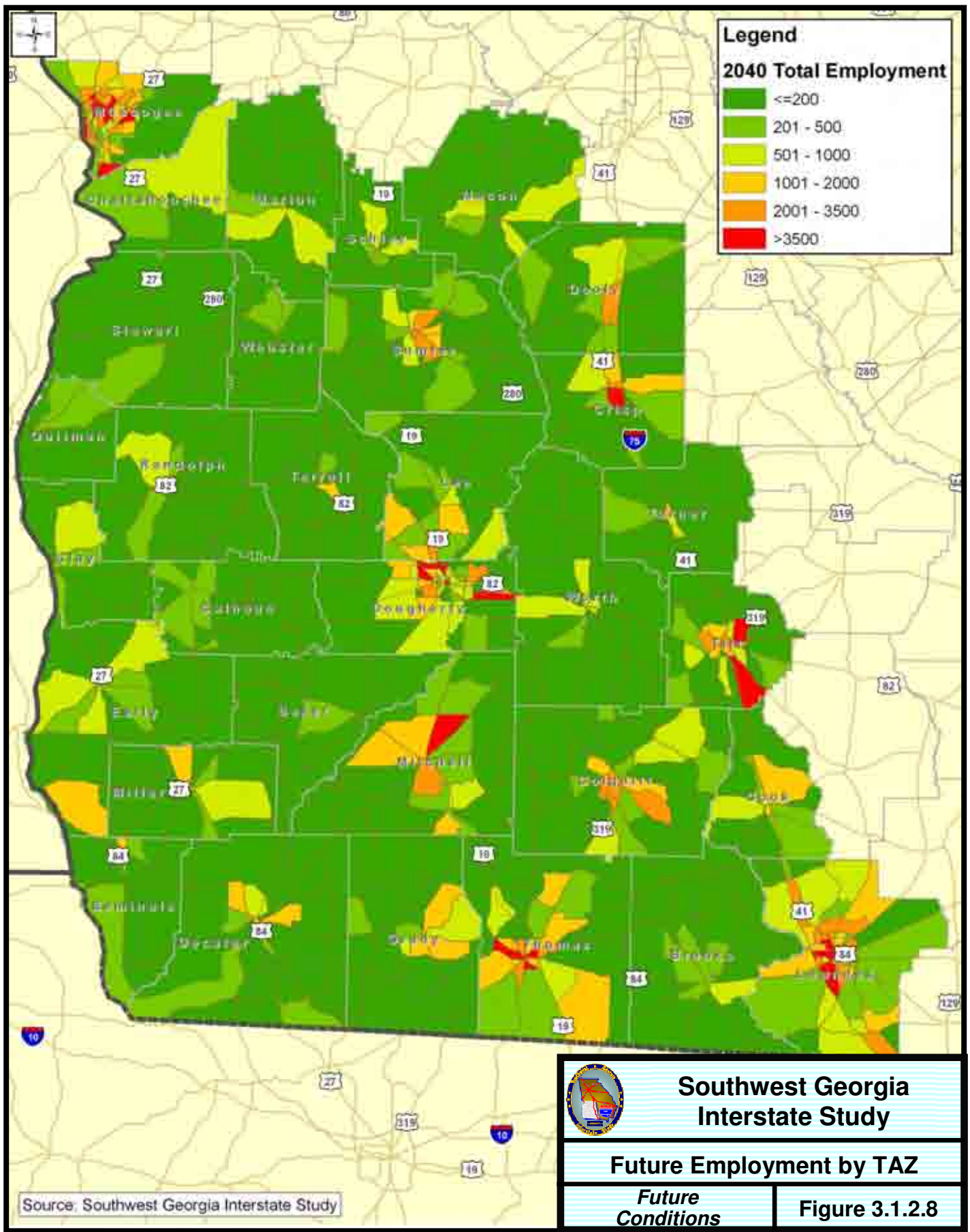


**Southwest Georgia  
Interstate Study**

**Future Employment**

*Future  
Conditions*

**Figure 3.1.2.7**







## **Southwest Georgia Interstate Study**

# ***Natural and Cultural Resources Future Conditions***

### **3.2 Natural and Cultural Resources**

Information was collected on natural and cultural resources from a variety of sources such as the Georgia Department of Natural Resources, US Fish and Wildlife Service and the Georgia Conservancy. The purpose of the collection of the natural and cultural resources was to identify sensitive areas and corridors that would be significantly impacted by the construction of a new highway or re-routing of an existing facility. For detailed information related to the evaluation of natural and cultural resources, refer to the Chapter 2 – Existing Conditions. Future natural and cultural resources were not available.



# ***Land Use, Comprehensive Plans, and Growth Future Conditions***

## **3.3 Land Use, Comprehensive Plans, and Growth**

Each county's Comprehensive Plan was reviewed<sup>1</sup> to determine long range growth priorities, development projects, particular land use sensitivities (such as historic preservation and environmental concerns), and economic development initiatives. Approximately half of the counties' Comprehensive Plans were out-of-date (i.e., written in the early 1990s) or were incomplete; in addition, many contain only the minimum level of information required for such plans.

This analysis of local growth issues such as those mentioned above helps identify high-level opportunities for or barriers to the implementation of transportation improvements in southwest Georgia. The detailed analysis of these plans is presented in Chapter 2 – Existing Conditions. The next step in this effort was to evaluate the opportunities for growth within the area.

### ***3.3.1 Opportunities for Growth and Growth Initiatives***

Southwest Georgia is only expecting moderate growth across the region as a whole. Most areas in the region cherish their rural character; however, more urban areas such as Albany, Columbus, and Valdosta welcome continued growth and are poised to develop considerably.

This section presents an analysis of significant opportunities for future growth in Southwest Georgia which may result in an acute increase in population or traffic in a certain area. The analysis is meant to capture new and proposed expansions in industry or housing across the 32-county study area to provide insight into growth areas which might not be predicted through traditional forecasting. Information on future projects was sourced primarily from local newspapers and regional economic plans. Growth initiatives are presented by region below.

This section provides baseline research to determine the relative need for and potential location of transportation improvements in southwest Georgia. It is part of a larger technical study to help better understand local issues and complexities of counties which may be directly affected by transportation improvements.

Southwest Georgia is expected to grow at a nominal rate in upcoming years. However, certain initiatives – largely focused around the urban centers of the region – are expected to help boost population and employment numbers at an increased rate. Although there are many economic development projects which are being undertaken, the following describes the principal endeavors which will spur this growth in the future as these will likely have the biggest implications for traffic in the area.

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<sup>1</sup> All counties' Comprehensive Plans have been reviewed except for Quitman County's plan, which was not available.



## ***Land Use, Comprehensive Plans, and Growth Future Conditions***

### **3.3.1.1 Lower Chattahoochee Region**

The Lower Chattahoochee region is situated on the western edge of Georgia bordering Alabama. The counties within the SWGIS study area within the Lower Chattahoochee region are Muscogee, Chattahoochee, Stewart, Quitman, Randolph, and Clay; Harris and Talbot counties, while in the region, are not included in the study area. The City of Columbus (in Muscogee County) is within the region and is the economic center.

Generally, the region reported higher than state and national average unemployment rates in 2006, although per capita income has been increasing since 1980 and is forecasted to continue. Educational attainment is also increasing, which should positively impact the quality of the workforce.

According to the “Comprehensive Economic Development Strategy for Lower Chattahoochee” (Lower Chattahoochee Regional Development Center, 2005), the region faces several critical issues which hinder its advancement. One primary issue is workforce development, as literacy, poverty, and educational attainment are problems. Re-training employees who had been employed in manufacturing to work in a service-based economy is another challenge. Inadequate infrastructure is another issue in the region, as each county is not sufficiently equipped with water, sewer, natural gas, and other utilities.

Several growth initiatives promise to help raise the region’s profile in the upcoming years, and these projects are summarized below.

#### **3.3.1.1.1 Fort Benning (City of Columbus, Muscogee County and beyond)**

Undoubtedly the most significant impact on the region’s growth will be a result of the expansion of Fort Benning, which is located in Columbus in Muscogee County. A Regional Growth Management Plan is studying the impact that Base Realignment and Closure (BRAC) activities will have on counties within a 35-mile radius of Fort Benning. Within the SWGIS area, affected counties include Columbus, Chattahoochee, Marion, and Stewart. However, Fort Benning is located primarily in Columbus and Chattahoochee counties. Studies by the Columbus Consolidated Government estimate that 75 percent of the BRAC growth will occur in the Columbus-Muscogee region.

Due to BRAC realignment activities, Fort Benning is poised to accommodate a population increase of more than 27,500 people. This growth promises to significantly impact local infrastructure, including transportation networks which are expected to have to accommodate increases in traffic at a rate of 2 percent per year, and increases truck traffic at 5.75 percent each year. On the military base, 17,444 new daily trips are expected for employees and trainees associated with BRAC. Off-base, increases in population plus the development of major nearby industries such as the Kia



## ***Land Use, Comprehensive Plans, and Growth Future Conditions***

automobile plant located in nearby West Point and Aflac expansion, are anticipated to contribute to future problem areas in Columbus-Muscogee County by the year 2030. Sections of I-185 / Lindsay Creek Parkway and U.S. 80 / J.R. Allen Parkway and Sections of SR 22 Spur / Macon Road and Buena Vista at St Mary's Road are among the corridors expected to be affected. However, it is not anticipated that Cusseta-Chattahoochee County should experience any transportation network problems due to the growth, although it is unclear what the designation of SR 26 as part of the Strategic Highway Network entails with regard to new or additional traffic volumes.

A separate technical document *Southwest Georgia Interstate Study Military Operations Growth* addresses these concerns in more detail.

### **3.3.1.1.2 Aflac (City of Columbus, Muscogee County)**

In 2005, Georgia Governor Sonny Perdue announced that the insurance company Aflac planned to add 2,000 new employees to its Columbus location, according to a press release from the Governor's office ("Governor Perdue Announces Aflac Expansion in Columbus," November 15, 2005). This growth was planned to take place over five to seven years. Additionally, the company planned to grow its campus by 340,000 square feet of office space, bringing the total footprint to over one million square feet. Phase I of the expansion (building 90,000 square feet of space) has been completed and Phase II is under construction. The expansion is expected to cost \$100 million. Although it was reported that Aflac planned to outsource 225 data processing jobs earlier in 2008, the company is set to re-train its employees for other jobs in the company to prevent a net job loss ("Aflac outsourcing data processing jobs," Columbus Ledger-Enquirer, February 11, 2008).

### **3.3.1.1.3 Kia Automotive Assembly Plant (City of West Point, Harris and Troup counties)**

South Korean automaker Kia's assembly plant is being built on I-85 in West Point, GA, located north of Columbus and near the Alabama border. Although the Kia plant is technically located outside the study area (West Point is located in Harris and Troup counties), it is within the Lower Chattahoochee region and so will have an impact on surrounding counties and towns due to the size of the project. The \$1 billion plant which measures 2.4 sq.ft million was just recently completed and open for production; it has been under construction since 2006. It is expected that 275 hourly workers will be hired to staff the plant ("Kia construction on target," Columbus Ledger-Enquirer, August 7, 2008).

The construction of the Kia plant is expected to attract suppliers to the region as well. For example, Daehan Solution is a tier I Kia supplier which manufactures interior automotive components such as sound insulation materials like carpeting, insulation, and interior foam. The business is expected to make a \$35 million capital investment to begin operations in Harris County. It is estimated that Daehan Solution will employ 300 people over the next five years to work in the facility, which opened in early 2009.



## ***Land Use, Comprehensive Plans, and Growth Future Conditions***

### **3.3.1.1.4 Other Noteworthy Growth Generators**

Although not of the same magnitude as the projects listed above, the following are worthy of recognition due to the relative growth they promise to engender in the region:

- **D&J Plastics (Quitman County)** – A 14,000 square foot expansion of the D&J Plastics facility is expected by 2009. The company, which makes fishing lures, will invest \$600,000 for the project (“Governor Perdue Announces over \$7 million in OneGeorgia Awards,” June 11, 2008).
- **Columbus State University (Muscogee County)** – This four-year university – part of the University System of Georgia – has increased its enrollment by over 50 percent since 1999 and now has a student body of nearly 8,000 people. It is anticipated to continue to grow, which will be a boon for the local economy as the university contributed \$212 million in FY 2007 (Humphreys, Dr. Jeffrey M. “The Economic Impact of University System of Georgia Institutions on their Regional Economies in FY 2007,” April 2008).
- **TSYS (City of Columbus, Muscogee County)** – One of the largest credit card processing companies in the world, TSYS (located in Columbus) has grown significantly in the past 25 years. Although no specific projects for expansion were found, the RDC notes in its Economic Development Strategy that new services may be needed to support TSYS operations, signaling potential small business growth.
- **Medical Industry (Muscogee, Stewart, and Randolph counties)** – The Economic Development Strategy also describes the potential for the medical cluster – consisting of three existing major hospitals in Columbus, an internationally recognized orthopedic hospital, and hospitals in Stewart and Randolph counties – to require increasing support services.
- **Callaway Gardens** – Although technically located outside the study area in the City of Pine Mountain in Harris County, the 13,000-acre Callaway Gardens resort is a significant attraction in the region, attracting 750,000 visitors annually (“The Ida Cason Callaway Foundation Appoints Noble Management Group to Operate Callaway Gardens Resort & Preserve,” Hotel Online Special Report, December 6, 2004). The resort contains lodging, meeting spaces, a number of lakes, golf courses, and other sporting facilities. The resort hosts a number of events, including the annual Steeplechase horse race and arts event which in 2008 was in its 24<sup>th</sup> year. While \$250,000 was recently allocated for improvements to the race grounds, attendance at this year’s event was 7,000, which was down by 2,000 from last year. However, Steeplechase is still known as one of the top 5 events of its nature in the country (Okamoto, Sandra. “Steeplechase still going strong, especially with its upgrades,” Columbus Ledger-Enquirer, November 25, 2008).





## ***Land Use, Comprehensive Plans, and Growth Future Conditions***

### **3.3.1.2 Middle Flint Region**

The Middle Flint Region is located to the east of the Lower Chattahoochee Region. Marion, Webster, Schley, Sumter, Macon, Dooly, and Crisp counties comprise the region and are within the study area; although Taylor County is also within the region, it is not in the study area. The cities of Americus (Sumter County) and Cordele (Crisp County) are located in the Middle Flint Region and are its economic centers.

Manufacturing, services, State and Local Government, and retail trade account for the vast majority of total employment earnings in the Middle Flint Region and are expected to continue to do so, according to the “Middle Flint Technical Staff Report” (Middle Flint RDC, January 2004). Like the Lower Chattahoochee Region, the Middle Flint area’s unemployment rates are generally higher than state and national averages. Historically, in fact, Middle Flint had the highest unemployment rate of all six regions adjoining it. Low educational attainment and low skill levels are prevalent in the region and attribute to this joblessness.

Several major employers are located in Middle Flint, however. Cargill, Inc. has a poultry processing facility in Marion County and employed 1,380 people in 2002. Cooper Industries, Inc. – a worldwide manufacturer of electrical products, tools, and hardware – employed 1,150 people in Sumter County (plus another 185 people in Schley County). Weyerhaeuser (a manufacturer of wood products), Tyson (poultry processing), and Airxcel, Inc. (manufacturers of a variety of specialty air conditioning, heating, and related appliances) also employ hundreds of people each. Although it employs relatively few people, Habitat for Humanity – perhaps the most well-known employer in the area – also has its operational headquarters in Americus (Sumter County) where approximately 100 people work.

Although several economic development projects were noted in the Technical Staff Report, the information is dated and thus is not reflective of current initiatives. However, preliminary research revealed two potential growth generators in the Middle Flint Region.

#### **3.3.1.2.1 PharmaCentra’s Americus Center (City of Americus, Sumter County)**

PharmaCentra is an Atlanta-based company that provides call center services for the pharmaceutical industry. An article in the Atlanta Journal-Constitution (“PharmaCentra’s South Georgia center to employ 150,” October 16, 2008) describes the firm’s decision to open a center in Americus which employs 150 people. A company representative reported that access to a skilled, motivated workforce graduating from Georgia Southwestern State University and South Georgia Technical College – both in Americus – was a key factor in choosing the town as the location for a new call center. According to the article, this is the third operations center PharmaCentra opened in southern Georgia since 2006.



## ***Land Use, Comprehensive Plans, and Growth Future Conditions***

### **3.3.1.2.2 Georgia Southwestern State University (City of Americus, Sumter County)**

Georgia Southwestern State University is a four-year college located in Americus and is part of the University System of Georgia. In FY 2007, the university contributed \$78 million to the local economy (Humphreys, Dr. Jeffrey M. "The Economic Impact of University System of Georgia Institutions on their Regional Economies in FY 2007," April 2008). According to the school's website, it is growing: from Fall 2007 enrollment, the student body has increased by approximately 16 percent to 2,804 students (as of August 15, 2008).

### **3.3.1.3 South Georgia Region**

The South Georgia region borders Florida to the south and touches the Middle Flint region to the north. Turner, Tift, Cook, Brooks, and Lowndes counties are within the study area and the region. Ben Hill, Irwin, Lanier, and Echols counties are also within the region; however, they are not in the study area. Valdosta (Lowndes County) and Tifton (Tift County) are the major urban and growth areas within the region.

According to the "Comprehensive Economic Development Strategy" for the area (South Georgia RDC, August 2006), per capita income is low in the South Georgia region in relation to the state and nation; however, South Georgia does not generally have the same degree of problems with unemployment as adjacent regions as opportunities for work in the region are better. Consistent economic distress and long-term population decline is characteristic of the region, and educational attainment has lagged behind national averages (as with most rural areas in the state).

Potential to grow, however, is noted in that the area has a labor force which is available and trainable. Industrial diversification and the creation of new job opportunities are seen as key to reversing the region's negative trends. Producing ethanol (made from grain) as an alternative fuel is an exciting prospect for future industry in the region. Additionally, growing economic clusters around manufacturing industries (including transportation equipment, food manufacturing, and wood products) and non-manufacturing industries (including finance / insurance, medical and diagnostic laboratories, and waste treatment and disposal) is recommended. Projects listed below also promise to inject capital and help economic development in the region.

### **3.3.1.3.1 Millennium Technology Pointe (City of Fitzgerald, Ben Hill and Irwin counties)**

Although technically outside the study area but within the region, Millennium Technology Pointe (MTP) is a 214-acre technology park which has received around \$20 million in local, state, and federal funding. Beyond building infrastructure to attract high tech industries to MTP, this investment includes the development of a \$15 million Technology Training Center as part of East Central Technical College, located adjacent to the technology park, which opened in 2006. Diplomas and certificates (based on a curriculum developed by a Georgia Tech study) for data center



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operations, including computer information systems and telecommunications, are currently offered. By situating the campus next to MTP, it is hoped that graduates can work in the new high tech jobs expected to occupy the park and continue to stay within the area.

As reported in a Georgia Trend article (Southerland, Randy. “Fitzgerald/Ben Hill County: Small Place, Big Thinking,” December 2006), the Wall Street Journal recognized the city of Fitzgerald as one of the most successful small towns in America due to its capacity to secure new business and industry. According to the paper, the city was “the recruiting colossus from nowhere.” Therefore, this is an area poised for considerable future growth.

### **3.3.1.3.2 PharmaCentra’s Fitzgerald Center (City of Fitzgerald, Ben Hill and Irwin counties)**

The marketing and services firm PharmaCentra opened another call center in southern Georgia in early 2007. The business was the first to locate on the campus of the East Central Technical College, adjacent to Millennium Technology Pointe (described above). The call center will be staffed by around 40 healthcare representatives (“PharmaCentra Makes the Call,” <http://www.georgia.org/PressCenter/NewsItems/Business/PharmaCentra+Makes+The+Call.htm>).

### **3.3.1.3.3 Valdosta State University (City of Valdosta, Lowndes County)**

Valdosta State University offers undergraduate, master’s, and doctoral degrees. With a student body of approximately 11,500 and a faculty of 585, the university has a major presence in the South Georgia region. In FY 2007, the school contributed \$302 million to the local economy (Humphreys, Dr. Jeffrey M. “The Economic Impact of University System of Georgia Institutions on their Regional Economies in FY 2007,” April 2008). The university is expected to grow as well with anticipated enrollment of 16,000 students (an increase of about 4,500) by 2020. To cope with the growth, VSU has invested \$35.6 million to re-develop its student housing, and is in the midst of transforming its campus through a three-phase master plan initiative (Pope, Jessica. “Valdosta State University Building for the Future.” Valdosta Scene, October 31, 2007).

### **3.3.1.3.4 Creekside West (City of Hahira, Lowndes County)**

Creekside West is a planned Doubletree Communities project set on 174 acres near I-75, convenient for prospective residents to commute to Valdosta. The development contains 300 residential lots (Bruce, Billy. “Creekside West Emerges.” Valdosta Daily Times, October 20, 2007).

### **3.3.1.3.5 Other Noteworthy Growth Generators**

Tourism has long been associated with the South Georgia region as two relatively major sites – Andersonville National Historic Site and the Jimmy Carter National Historic Site – are located here. Additionally, Moody Air Force Base has long been an economic driver in the region. While



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no specific plans for expansion are proposed for these places, they are significant contributors to growth in the region and thus worthy of inclusion.

- **Andersonville National Historic Site, Sumter and Macon Counties** – Located 12 miles north of Americus, the Andersonville National Historic Site (officially “Camp Sumter”) has long been a major tourist attraction in the region and promises to remain so into the future. While the National Parks Service (NPS) *Forecast Report for 2008 and 2009* shows that 153,686 people visited the site in 2007, it also forecasts a slight drop in visitation in the upcoming years (down to 125,823 in 2009). Despite this anticipated decline, the site remains a significant draw in this part of Southwest Georgia ([www.nature.nps.gov/stats/forecasts/forecast0809.pdf](http://www.nature.nps.gov/stats/forecasts/forecast0809.pdf)).

Andersonville, the largest Confederate military prison during Civil War, was known for its overcrowded conditions and poor treatment of Union soldiers confined within its walls. Of the approximate 45,000 Union soldiers held there, nearly 13,000 perished due to malnutrition, starvation, exposure to the elements, and disease. The prison grounds now serve as the Andersonville National Historic Site, which includes the Andersonville National Cemetery and the National Prisoner of War Museum. The museum not only focuses on life at Andersonville but the experiences of all American prisoners of war. Andersonville is unique not only because of this museum, but because it is one of only two active National Cemeteries (i.e., continues to bury veterans and their dependents) that the National Park Service maintains in the country (the other is Andrew Johnson National Historic Site in Greeneville, TN). While no entrance fees are charged for visiting the park or museum, Andersonville is supported by the NPS and an active Friends of Andersonville organization, which has contributed nearly \$300,000 to the National Historic Site since 1996 ([www.nps.gov/ande/](http://www.nps.gov/ande/); <http://friendsofandersonville.org/>).

- **Jimmy Carter National Historic Site (City of Plains, Sumter County)** – Located about 20 miles from Andersonville National Historic Site, the Jimmy Carter National Historic Site contains the 39<sup>th</sup> U.S. President’s boyhood farm with exhibits which describe the history and culture of the rural community in which he grew up. The site also includes Plains High School, the Historic District of Plains, the Plains train depot, the Carter private residence and compound (although not open to the public), and 100 foot easements along both sides of Old Plains Highway (U.S. 280). Entrance to the historic site is free. During 2007, 84,501 people visited the site, and this number is expected to increase to 105,429 by 2009 ([www.nature.nps.gov/stats/forecasts/forecast0809.pdf](http://www.nature.nps.gov/stats/forecasts/forecast0809.pdf)).



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- **Moody Air Force Base (near City of Valdosta, Lowndes County)** - Moody Air Force Base trains and employs approximately 5,500 personnel, including para-rescuemen and other military and civilian employees. It is estimated that about 26,000 people in the Valdosta community are associated with the base (military families, civilians and family, and retirees and family). This number is striking when compared to the population of Valdosta (48,000) and Lowndes County (85,000). The total economic impact has been calculated at around \$323 million, considering direct payroll to the local economy; construction, services, and commodities contracts; and other expenditures such as pay from secondary jobs created by the base ([www.moody.af.mil/library/factsheets/factsheet.asp?id=3441](http://www.moody.af.mil/library/factsheets/factsheet.asp?id=3441)). While the base is not involved with the BRAC activities and no specific growth projects have been found for Moody Air Force Base, it has been reported that the base is expected to grow in the future (particularly by adding more training aircraft) and continue to play a vital role in the prosperity of the City of Valdosta, Lowndes County, and the region as a whole.

### **3.3.1.4 Southwest Georgia Region**

The Southwest Georgia region is located in the southwest corner of the state, bordered to the north and east by the other study area regions (Lower Chattahoochee, Middle Flint, and South Georgia) and to the west and south by Alabama and Florida, respectively. The counties within this region are Terrell, Lee, Calhoun, Dougherty, Worth, Early, Miller, Baker, Mitchell, Colquitt, Seminole, Decatur, Grady, and Thomas; they are all located within the study area. Principal cities within the Southwest Georgia region are Albany (Dougherty County), Thomasville (Thomas County), Moultrie (Colquitt County), Bainbridge (Decatur County), and Cairo (Grady County).

Growth in the Southwest Georgia region has not been significant over time, except for in Dougherty County which is more urban. Primarily a rural area, the region's economy revolves around agriculture and is to a large degree dependent on federal farm support programs, particularly the peanut program, according to the "Southwest Georgia Technical Staff Report" (Southwest Georgia RDC, 1997). The report states that from 1990 to 1995, "all employment sectors experienced declines in available jobs with the exception of services, TCPU (transportation, communications and public utilities) and agricultural services" (pp. 3-4). A challenge for the local economy is the proximity of major shopping and service outlets of Tallahassee, Florida, which many of the region's residents frequent rather than patronizing local establishments.

Although the trend at the time of the report was negative, Southwest Georgia had the most job opportunities compared to the other regions examined as part of this interstate study, totaling 152,228 jobs in 1995. It is anticipated that employment trends evident in the region in the 1995 reporting will generally continue into the future, with services providing around 21 percent of jobs by 2020, followed by manufacturing (18 percent), retail (16 percent), and state and local government (16 percent).





## ***Land Use, Comprehensive Plans, and Growth Future Conditions***

Perhaps more telling of the growth the region is expecting, however, is reflected in projected population growth. According to the Albany-Dougherty County Comprehensive Plan 2005 - 2025 (June 2006), it is estimated that Albany alone will grow by 45,000 households. To accommodate this growth, 27,669 acres will need to be allocated. The projects which follow illustrate some of the areas where a portion of job growth will likely occur.

### **3.3.1.4.1 Marine Corps Logistics Base (City of Albany, Dougherty County)**

The mission of the Marine Corps Logistics Base (MCLB) is repairing, rebuilding, and maintaining military combat and combat support equipment. The base is located in Dougherty County just outside the Albany city limits, about 33 miles from I-75 (served also by US 82, US 19, GA 133 and GA 300), and is therefore considered to be at the nexus of major regional highways transecting the Southeast U.S.

MCLB Albany is one of three Marine Corps Logistics Bases (known as LOGCOM) in the country, with the others located in Barstow, California and Blount Island in Jacksonville, Florida. MCLB Albany and MCLB Barstow furnish supplies for Marine Corps' forces worldwide, while the Blount Island port facility contains sealift, storage, and maintenance facilities used to load and unload equipment to and from overseas locations. Significant traffic is generated between MCLB Albany and the Jacksonville facility as equipment is transported to the inland Albany location for repairs and then shipped back to the Florida location for redeployment abroad. MCLB Albany serves not only the Marine Corps, but also other branches of the military, civil service, and private contract teams. During the Persian Gulf War (1990 - 91), the base distributed more than nine million pounds of equipment to air and seaports for rapid transport to troops abroad, and the base has been actively involved in supplying logistics support for the current Iraq and Afghanistan wars.

More than 2,200 civilians and 600 Marines work at MCLB Albany, making it the second largest employer in Albany (behind Phoebe Putney Memorial Hospital) and serves an estimated 3,400 local military retirees through the Commissary, PX, and other benefits. Additionally, the Albany Marine Corps schools offer training on site, bringing 1,000 students to the area each year.

While MCLB Albany will not experience the same degree of growth as Fort Benning due to the BRAC activities, it has been recommended in 2005 by the U.S. Secretary of Defense that many of the maintenance procedures undertaken by the MCLB in Barstow, CA be realigned at MCLB Albany ([www.globalsecurity.org/military/facility/mclb-barstow.htm](http://www.globalsecurity.org/military/facility/mclb-barstow.htm)), promising increased growth into the future.

### **3.3.1.4.2 Longleaf Energy Associates' Coal Plant (Early County)**

The New Jersey energy corporation, LS Power (who together with their Houston-based partner Dynegy comprise Longleaf Energy Associates), acquired a permit in May 2007 to build a 1,200-



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megawatt coal plant along the Chattahoochee River in Early County. The cost of the plant is expected to top \$2 billion. However, a Fulton County Superior Court judge invalidated the state permit the same year, advising the state Environmental Protection Division (EPD) to put a limit on carbon dioxide emissions in any new permit for the plant. Early County leaders will lobby for the plant to be built as its development promises to bring over 100 high-paying jobs into the area and millions of dollars in tax revenues. The electricity generated, which would supply power for around one million homes, could be sold in Alabama and Florida as well as Georgia (Shelton, Stacy. "Fulton judge invalidates permit for coal plant." Atlanta Journal-Constitution, June 30, 2008).

### **3.3.1.4.3 Other Noteworthy Growth Generators**

While no specific plans for expansion are planned for the following, they are significant contributors to growth in the region:

- **Southwest Georgia Regional Airport (Dougherty County)** – Located in Albany, the airport is the largest in the region at 950 acres. In addition to commercial connections service provided by Delta Airlines, United Parcel Service (UPS) uses the airport to transport freight to 11 locations via Boeing 757-200 and Airbus A300-600 aircraft. UPS contributes more than 50 jobs to the local economy. In 2006, facilities were expanded for UPS to include a new cargo apron of 400,000 square feet, and a new air cargo sorting facility.
- **Albany State University (Dougherty County)** – The only four-year public institution in the region, ASU contributed \$137 million to the local economy in FY 2007 (Humphreys, Dr. Jeffrey M. "The Economic Impact of University System of Georgia Institutions on their Regional Economies in FY 2007," April 2008).

### **3.3.1.5 Summary and Conclusions**

Four regions comprised of 32 counties form the study area for the Southwest Georgia Interstate Study: Lower Chattahoochee, Middle Flint, South Georgia, and Southwest Georgia. In general, these regions are rural and are typified by higher than average unemployment rates, with a contributing factor often being poor educational attainment among the resident populations.

Based on desktop research, several initiatives were found which promise to bring growth to the area in the upcoming years, however, as follows:

- Fort Benning expansion due to the BRAC activities (City of Columbus, Muscogee County and beyond)
- AFLAC expansion (City of Columbus, Muscogee County)
- Kia Automotive Assembly Plant development (City of West Point, Harris and Troup counties)



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- PharmaCentra's Americus Center development (City of Americus, Sumter County)
- Georgia Southwestern State University growth (City of Americus, Sumter County)
- Millennium Technology Pointe development (City of Fitzgerald, Ben Hill and Irwin counties)
- PharmaCentra's Fitzgerald Center development (City of Fitzgerald, Ben Hill and Irwin counties)
- Valdosta State University growth (City of Valdosta, Lowndes County)
- Creekside West development (City of Hahira, Lowndes County)
- Marine Corps Logistics Base growth (City of Albany, Dougherty County)
- Longleaf Energy Associates' Coal Plant development (Early County)

Other noteworthy industries / institutions which may or may not have specific growth plans yet may help grow the region in the future include:

- D&J Plastics (Quitman County)
- Columbus State University (Muscogee County)
- TSYS (City of Columbus, Muscogee County)
- Medical Industry (Muscogee, Stewart, and Randolph counties)
- Andersonville National Historic Site (Sumter and Macon Counties)
- Jimmy Carter National Historic Site (City of Plains, Sumter County)
- Moody Air Force Base (near City of Valdosta, Lowndes County)
- Southwest Georgia Regional Airport (City of Albany, Dougherty County)
- Albany State University (City of Albany, Dougherty County)

Reviewing the locations of most of these projects, several potential activity centers are apparent, mainly focused in or near existing urban areas. Generally, major growth initiatives appear to exist in Columbus, Americus, Valdosta, and Albany. PharmaCentra has located several call centers in the southwest Georgia area in the past several years and could be expected to continue into the future. Local universities which are part of the University System of Georgia are also expected to grow by thousands of students; however, the number of students simply relocating to these universities from inside the four-region study area will likely represent a significant portion of the projected growth. The City of Fitzgerald, located just outside the study area in Ben Hill and Irwin counties, is the exception. Due to local leaders' interest in luring high tech industries to the area, Fitzgerald has been able to attract new businesses to the Millennium Technology Pointe technology park, in addition to a new student population to the neighboring East Central Technical College.

Although these projects will make a sizeable impact on local economies and populations, it must be determined if they alone will generate substantial increases in traffic demand to justify a new interstate due to the relatively small number of jobs and transportation impacts they will create. The



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most significant anticipated growth occurring around military bases (Fort Benning in Columbus and the Marine Corps Logistics Base in Albany) may well have a more significant affect, however. The next section addresses these bases' plans for growth in further detail.

### ***3.3.2 Military Operations Growth***

Southwest Georgia is expecting moderate growth across the region as a whole; however, military bases within the study area are poised for expansion, largely due to Base Realignment and Closure (BRAC) activities, which will impact population and traffic growth.

There are three bases in the area: Fort Benning near Columbus, the Marine Corps Logistics Base near Albany, and Moody Air Force Base in Lowndes County. This document presents an analysis of their projected expansion activities to provide insight into growth areas which might not be picked up through typical modeling. Information on future projects was sourced primarily from consultants' and base-generated reports pertaining to future planned and proposed activities.

#### **3.3.2.1 Fort Benning (near Columbus, GA)**

Fort Benning, located south of Columbus, Georgia along US 27, covers over 180,000 acres in land and is anticipated to experience significant growth due to BRAC activities. Already serving a daily population of around 105,000 people, installation operations are set to grow as part of the initiative, causing increases in post and civilian populations. Of the military personnel currently assigned to Fort Benning, 34 percent live on base and 66 percent live off base who commute to work daily; the majority of those living off-post (92 percent) reside in Georgia.

Approximately 27,546 people are expected to move into the community, plus an additional 30,000 per year in military students and trainees (U.S. Army Approved Growth Estimates as of January 29, 2008), with the majority of growth expected by 2013. Table 3.3.2.1.1 below shows the breakdown of how population growth is expected to be distributed.

EDAW, working as a sub-consultant with SAIC, is participating in a Regional Growth Management Plan to study the impact that BRAC activities will have on counties within a 35-mile radius of Fort Benning. The study analyzes the impact this growth will have not only on Columbus, but a wider 10-county area, including three counties in Alabama (although 93 percent of Fort Benning is located in the State of Georgia, primarily in Chattahoochee and Muscogee counties), as listed below:

- Columbus – Muscogee County, GA
- Cusseta – Chattahoochee County, GA
- Harris County, GA
- Marion County, GA
- Talbot County, GA



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- Taylor County, GA
- Stewart County, GA
- Barbour County, AL
- Lee County, AL
- Russell County, AL

**Table 3.3.2.1.1**  
**Population Growth at Fort Benning due to BRAC Activities**

| <b>Growth Categories</b> | <b>Jobs</b>   | <b>Spouses</b> | <b>Children</b> | <b>School Age Children</b> | <b>Total*</b> |
|--------------------------|---------------|----------------|-----------------|----------------------------|---------------|
| Military Service Members | 5,125         | 2,973          | 4,780           | 3,021                      | 12,878        |
| Government Civilians     | 1,658         | 1,236          | 1,274           | 962                        | 4,168         |
| Contractors              | 3,500         | 2,800          | 4,200           | 3,150                      | 10,500        |
| <b>Total</b>             | <b>10,283</b> | <b>7,009</b>   | <b>10,254</b>   | <b>7,133</b>               | <b>27,546</b> |

\*Note: Total reflects the sum of jobs, spouses and children – school age children are a subset of children

Source: U.S. Army Approved Growth Estimates as of January 29, 2008 and SAIC – Regional Growth Management Plan

Four of these counties – Muscogee, Chattahoochee, Marion, and Stewart – overlap with the SWGIS area. As part of the first phase of the Fort Benning growth study, transportation data has been generated by SAIC, considering both baseline conditions and future need based on projected growth due to BRAC. Results of the analysis in Muscogee and Chattahoochee Counties will be available in February 2009. The full Regional Growth Management Plan, including the more rural counties of Stewart and Marion will be released in April 2009.

The following summary of growth impacts for Muscogee and Chattahoochee counties is derived from the initial phase of work. It must be noted that the information that follows is in draft form and has not yet been finalized by the client. It should therefore be considered confidential and used for internal purposes only. Additionally, figures contained within this document should be used with caution as they have yet to be finalized.

### **3.3.2.1.1 Existing Conditions On Base**

Nine major roadways serve Fort Benning, with I-185 (Lindsay Creek Parkway), Fort Benning Boulevard, South Lumpkin Road, and Victory Drive (US 27/US 280) being the most utilized.





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Seven access control points (ACP) exist on post, with an entrance on I-185 being the most utilized with almost 70 percent of all traffic coming to / from the post passing through this point. Table 3.3.2.1.1.1 summarizes existing traffic volumes to / from the post.

**Table 3.3.2.1.1.1**  
**Fort Benning Traffic Volume Summary at the Access Control Points**

| No.         | Access Control Points         | DAILY TRAFFIC |          |                 | PEAK HOUR TRAFFIC |                  | % Total of Installation Access Traffic |
|-------------|-------------------------------|---------------|----------|-----------------|-------------------|------------------|----------------------------------------|
|             |                               | Inbound       | Outbound | Both Directions | AM Peak Inbound   | PM Peak Outbound |                                        |
| 1           | I-185 (Lindsay Creek Parkway) | 14,283        | 7,235    | 21,518          | 1,900             | 1,100            | 42%                                    |
| 2           | Sand Hill                     | 4,654         | 4,595    | 9,249           | 530               | 520              | 18%                                    |
| 3           | Fort Benning Boulevard        | 2,896         | 3,124    | 6,020           | 445               | 545              | 12%                                    |
| 4           | South Lumpkin Road            | 3,161         | 2,732    | 5,893           | 460               | 425              | 11%                                    |
| 5           | Custer Road                   | 2,126         | 2,278    | 4,404           | 165               | 190              | 9%                                     |
| 6           | Eddy Bridge                   | 1,192         | 1,163    | 2,355           | 190               | 175              | 5%                                     |
| 7           | First Division Road           | 1,179         | 878      | 2,057           | 165               | 145              | 4%                                     |
| GRAND TOTAL |                               | 29,491        | 22,005   | 51,496          |                   |                  | 100%                                   |

Source: 2006 Traffic Data from Fort Benning Comprehensive Traffic Study

## 3.3.2.1.2 Future Growth On Base

BRAC activities necessitate transportation improvements on and off post. On the installation, which is divided into four cantonments (Main Post, Harmony Church, Kelley Hill, and Sand Hill) and range and training areas, an estimated \$482.9 million of BRAC-related construction is anticipated to be built (mostly by 2011) to accommodate the growth, including hospital facilities, barracks, and ranges. The Harmony Church Cantonment will house most of the newly assigned troops and is expected to be the most impacted. The ACP here is currently being renovated to accommodate this new growth. A hospital being built in the Main Post area will also be a significant addition, as it is expected to generate the largest increase in military and civilian traffic from the neighboring communities. This will certainly have a substantial impact on the transportation network surrounding the installation.

In total, 17,444 new daily trips are expected for employees and trainees associated with BRAC. Of these new trips, it is estimated that 60 percent will be to the Harmony Church Cantonment, 25 percent to Sand Hill, 15 percent to Main Post, and 0 percent to Kelley Hill, based on proposed BRAC development plans. This distribution increases traffic at the Harmony Church ACP by 60 percent, and therefore traffic demand along US 27 /US 280 mainline and interchange as well.



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The impacts anticipated on the transportation networks of Columbus-Muscogee County and Cusseta-Chattahoochee County due to BRAC are described below.

### **3.3.2.1.3 Columbus – Muscogee County**

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

Approximately 75 percent of BRAC growth is expected to occur in the Columbus – Muscogee region, according to the Columbus Consolidated Government, which will require residential, commercial, transportation, infrastructure, and other improvements to be constructed. Eight major arterials were identified in Columbus and Muscogee County:

- I-185 / Lindsay Creek Bypass;
- US 80 / J.R. Allen Parkway / SR 22;
- US 27 / US 80 / Victory Drive south of Columbus;
- Veterans Parkway / SR 1 / US 27;
- SR 22 Spur / Macon Road / Wynnton Road;
- 13<sup>th</sup> Street / Buena Vista Road;
- St. Mary's Road; and
- SR 219 / River Road.

Five existing highways were identified as major truck corridors for freight movement:

- I-185 north to I-85, I-75 and I-20 corridors;
- I-185 south to I-65 and I-10 corridors;
- US 80 west to I-65;
- US 280 northwest to Birmingham, and I-20, I-59 and I-65 corridors; and
- US 27 south to I-10 and I-75 corridors.

The highest tonnage roadway segments within the Columbus-Muscogee County include I-185 north of Columbus carrying over 12.6 million tons and US 280 south of Columbus carrying over eight million tons.

About 60 percent of the Fort Benning daily traffic is generated from the Columbus-Phenix City area, with the remaining 40 percent from the neighboring counties in Georgia and Alabama. Table 3.4.2.1.3.1 shows major roadways which currently experience congestion.



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Table 3.3.2.1.3.1  
Columbus – Muscogee County Major Roadway Congestion Levels

| Roadway               | Limits                                      | Direction | Level of Congestion | Improvement Priority |
|-----------------------|---------------------------------------------|-----------|---------------------|----------------------|
| Manchester Highway    | River Rd. and US 27/Veterans Pkwy           | EB        | Serious             | Short-Term           |
|                       | US 27/Veterans Pkwy and Hilton Ave /Lake Dr | WB        | Serious             | Short-Term           |
|                       | US 27/Veterans Pkwy and Hilton Ave /Lake Dr | EB        | Congested           | Short-Term           |
|                       | Armour Rd and I-185                         | WB        | Serious             | Short-Term           |
|                       | River Rd and US 27/ Veterans Pkwy           | WB        | Congested           | Short-Term           |
|                       | I-185 and Anglin Rd / Reese Rd              | EB & WB   | Congested           | Short-Term           |
| US 27 / Veterans Pkwy | 16th St and 13th St/Macon Rd                | SB        | Congested           | Long-Term            |
|                       | 50th St to Airport Thruway                  | NB        | Congested           | Long-Term            |
|                       | Whitesville Rd and Airport Thruway          | SB        | Congested           | Long-Term            |
|                       | US 80/J.R. Allen Pkwy to Weems Rd           | SB        | Congested           | Long-Term            |
| 13th St/ Macon Rd     | Hilton Ave and 18th Ave                     | WB        | Congested           | Long-Term            |
|                       | Forrest Rd and I-185                        | WB        | Serious             | Short-Term           |
|                       | Reese Rd to Woodruff Farm Rd                | EB        | Congested           | Long-Term            |
| Buena Vista Rd        | 13th St/Macon Rd to Wynnton Rd/Macon Rd     | EB        | Serious             | Long-Term            |
|                       | Morris Rd to Brennan Rd                     | EB        | Serious             | Long-Term            |

Source: Columbus-Phenix City Long Range Transportation Plan

Traffic data from the Georgia Department of Transportation Traffic Count Database for 2007 reveals that the existing section of US 80 / J.R. Allen Parkway / SR 22 between Summerville Road (State of Alabama) and River Road (State of Georgia) operates at unacceptable LOS E under the existing traffic demand conditions. The other major roadway sections operate at acceptable LOS levels under the existing traffic demand conditions.

## Future Growth Impacts

In Columbus – Muscogee County, 2030 traffic projections were modeled using a two percent annual growth rate, based on traffic volumes obtained from the Georgia Department of Transportation. Additionally, growth resulting from the proposed KIA automobile plant development and Aflac office facility in the region were also factored into the projections. Planned short and long-term transportation projects in the Columbus and Fort Benning region, as identified by the Columbus Consolidated Government, the Transportation Improvement Plan (TIP), and Long-Range Transportation Plan (LRTP), were also taken into account. Increases in truck traffic for the county were also calculated based on freight tonnage demand projected by the Georgia Statewide Freight Plan (2005 – 2035), resulting in an estimation of 5.75 percent annual truck growth along major roadways.



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Under the projected BRAC / KIA / Aflac growth scenario, transportation problems are expected to persist in the future even with the planned TIP and LRTP improvements, notably at the following areas, while other major roadway sections will operate at acceptable LOS standards:

- Sections of I-185 / Lindsay Creek Parkway and US 80 / J.R. Allen Parkway continue operating at unacceptable LOS E and/or F; and
- Sections of SR 22 Spur / Macon Road and Buena Vista at St Mary's Road also operate at unacceptable LOS E and/or F.

It is recommended that modifications be made to the existing list of long-term transportation improvements so that these major roadway segments will be able to accommodate traffic demands generated from growth due to BRAC and the KIA and Aflac developments in the year 2030.

### **3.3.2.1.4 Cusseta – Chattahoochee County**

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

About 90 percent of the population of Chattahoochee County resides within the Fort Benning installation. Three major urban freeways / expressways and principal arterials were identified in Cusseta – Chattahoochee County as part of the growth plan:

- US 27 / SR 1;
- SR 520 / US 280; and
- SR 26 / Clarke Duncan Highway.

No major roadways were identified as major truck corridors within the Cusseta-Chattahoochee County area.

However, the U.S. Department of Defense designated a section of SR 26 as part of the Strategic Highway Network (STRAHNET) in 2007, from the Fort Benning installation through Marion, Schley, Macon, Houston, Pulaski, and Bleckley counties to I-16 / SR 404 in Laurens County. This part of SR 26 is considered strategic as it is the most direct route from Fort Benning to the Port of Savannah. To ensure the route is kept in good condition to support defense deployments, it was officially added to the National Highway System.

A review of the existing operations of the major roadways within Chattahoochee County and the City of Cusseta revealed no congestion or queuing along the major roadways. All major roadway sections within Cusseta-Chattahoochee County operate at acceptable LOS levels for rural areas (with LOS of C considered acceptable for analysis purposes). The existing roadway network throughout Cusseta-Chattahoochee is considered as one of the many assets that can be used for attracting residents and industrial development.



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### ***Future Growth Impacts***

As with the Columbus-Muscogee County analysis, the future potential impact of the development of the KIA automobile plant and Aflac facility, planned roadway improvements, and the BRAC growth were taken into consideration when modeling traffic demands in the year 2030. These developments were factored into anticipated annual growth rates of 1 percent for SR 26 / Clarke Duncan Highway and 2 percent for US 27 / SR 1 and SR 520 / US 280, based on historic and existing traffic volumes for 2007.

The results of the modeling revealed that all major roadway segments will be able to adequately accommodate future traffic demands generated by the large planned developments (i.e., BRAC, Kia, and Aflac) in 2030. Therefore, no long-term recommendations have been identified as part of the Fort Benning growth study. It is unclear what the ramifications of designating SR 26 as part of the Strategic Highway Network will be.

### **3.3.2.2 Marine Corps Logistics Base (near Albany, GA)**

The following description of current and future activities and plans for the Marine Corps Logistics Base at Albany is a summary of findings from the Albany Marine Corps Logistics Base Special Area Study (HDR, December 2004) and pamphlets produced by the base. Where appropriate, information found on the internet is cited.

#### **3.3.2.2.1 Existing Conditions**

The mission of the Marine Corps Logistics Base (MCLB) is repairing, rebuilding, and maintaining military combat and combat support equipment. The base is located in Dougherty County just outside the Albany city limits, about 33 miles from I-75 (served also by US 82, US 19, SR 133 and SR 300), and is therefore considered to be at the nexus of major regional highways transecting the southeastern U.S.

MCLB Albany is one of three Marine Corps Logistics Bases (known as LOGCOM) in the country, the others are located in Barstow, California and Blount Island in Jacksonville, Florida. MCLB Albany and MCLB Barstow furnish supplies for Marine Corps forces worldwide, while the Blount Island port facility contains sealift, storage, and maintenance facilities and is used to load and unload equipment to and from overseas locations. Significant traffic is generated between MCLB Albany and the Jacksonville facility as equipment is transported to the inland Albany location for repairs and then shipped back to the Florida location for redeployment abroad. MCLB Albany serves not only the Marine Corps but also other branches of the military, civil service, and private contract teams. During the Persian Gulf War (1990-91), more than nine million pounds of equipment were serviced at the post and shipped to troops abroad. The base has been actively involved in supplying logistics support for the Iraq war.





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MCLB Albany covers 3,458 acres used for industrial, administrative, and residential use; it functions like a typical large-scale industrial warehousing facility. Additionally, the base has a “downtown” area and two areas of housing, one with eight residential barracks (239 rooms) and another with family housing (250 units). More than 2,200 civilians and 600 Marines work at MCLB Albany, making it the second largest employer in Albany (behind Phoebe Putney Memorial Hospital) and serves an estimated 3,400 local military retirees through the Commissary, PX, and other benefits. Additionally, the Albany Marine Corps schools offer training on-site, bringing 1,000 students to the area each year.

Although rail lines service Albany (freight rail service is provided to the area by Norfolk and Southern and the Atlantic and Gulf Railroad), most shipping of equipment to and from MCLB Albany is by truck on local highways. Truck usage is preferred over rail as equipment can be loaded as soon as it is ready for transport. With rail, on the other hand, response times are slowed as an entire rail car or series of cars must be full prior to shipping.

### **3.3.2.2.2 Future Growth Impacts**

While MCLB Albany will not experience the same degree of growth as Fort Benning due to the BRAC activities, it was recommended in 2005 by the U.S. Secretary of Defense that many of the maintenance procedures undertaken by the MCLB in Barstow, CA be realigned at MCLB Albany ([www.globalsecurity.org/military/facility/mclb-barstow.htm](http://www.globalsecurity.org/military/facility/mclb-barstow.htm)).

Although this announcement was made after the publication of the primary source document for this paper, transportation improvements recommended in the HDR study (December 2004) may still be relevant, although a more in-depth analysis must be performed to confirm if these recommendations represent the full extent of projects planned for the base in light of the realignment of MCLB Barstow.

According to the HDR report, a series of transportation improvements are vital to the expanded use of MCLB Albany, including the widening of SR133. It is proposed that this route be widened to four lanes all the way to I-75 and include a new spur into the base, linking to the entrance on Fleming Road. The result of this highway improvement will be a 4-lane, direct, one-traffic-light access to Interstate 75 and into Blount Island port facilities. Improvements to SR 82 have also been proposed. These improvements are especially critical if the base expands, such as onto the 3,100-acre parcel adjacent to the base on the southern boundary across from Fleming Road (the “Bridges Site”) or to the northeast, on a large tract of undeveloped land fronting on US 82.



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### **3.3.2.3 Moody Air Force Base (near Valdosta, GA)**

The following summary was generated from correspondence with a local planner at Lowndes County (email from Jason Davenport, Lowndes County Planner, dated October 27, 2008) and information contained on the Moody Air Force Base website.

#### **3.3.2.3.1 Existing Conditions**

Moody Air Force Base trains and employs approximately 5,500 personnel, including para-rescuemen and other military and civilian employees. It is estimated that about 26,000 people in the Valdosta community are associated with the base (military families, civilians and family, and retirees and family). This number is striking when compared to the population of Valdosta (48,000) and Lowndes County (85,000). The total economic impact has been calculated at around \$323 million, considering direct payroll to the local economy; construction, services, and commodities contracts; and other expenditures such as pay from secondary jobs created by the base ([www.moody.af.mil/library/factsheets/factsheet.asp?id=3441](http://www.moody.af.mil/library/factsheets/factsheet.asp?id=3441)).

#### **3.3.2.3.2 Future Growth Impacts**

While no specific growth projects have been found for Moody Air Force Base, it has been reported that the base is expected to grow in the future and continue to play a vital role in the prosperity of the City of Valdosta, Lowndes County, and the region as a whole. A project for a New South Commercial Gate (Bemis Road / Davidson Road) includes some indication of vehicle volumes that will occur from future growth, including an increase of a projected 420 personnel on base by 2011. According to proposal text, "Based on an eight-hour turn movement traffic count performed at this intersection on 02/06/07 by GDOT, the estimated average daily traffic for SR 125 is 13,590 vehicles per day. For Davidson Road, the estimated traffic will be 1,493 vehicles per day." As growth at the base is not expected to be particularly significant, it is assumed that this information gives an indication of the traffic which will regularly be travelling to and from the base.

#### **3.3.2.4 Military Growth Summary**

Fort Benning, MCLB Albany, and Moody Air Force Base are major institutions in Southwest Georgia and promise to continue to be so in the future.

Fort Benning, due to the BRAC realignment activities, is poised to accommodate the greatest growth with a population increase of more than 27,500 people. This growth promises to significantly impact local infrastructure, including transportation networks which are expected to have to accommodate increases in traffic at a rate of 2 percent per year and increases in truck traffic at 5.75 percent each year. On-post, 17,444 new daily trips are expected for employees and trainees associated with BRAC. Off-post, increases in population coupled with the development of major nearby industries such as the KIA automobile plant and Aflac expansion, highlight future problem



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areas in Columbus-Muscogee County by the year 2030: Sections of I-185 / Lindsay Creek Parkway and US 80 / J.R. Allen Parkway and Sections of SR 22 Spur / Macon Road and Buena Vista at St. Mary's Road. However, it is not anticipated that Cusseta-Chattahoochee County should experience any transportation network problems due to the growth, although it is unclear what the designation of SR 26 as part of the Strategic Highway Network entails in regards to new or additional traffic volumes.

MCLB Albany, one of only three Marine Corps logistics facilities in the country, will be taking on some of the responsibility from MCLB Barstow, California, if a 2005 recommendation on the BRAC activities from the U.S. Secretary of Defense is acted upon. While it remains to be seen what the specific ramifications in terms of road network will be, it is clear that the widening of SR133 into a four-lane facility, connecting to I-75 and providing a direct link to the Blount Island logistics facility in Jacksonville, Florida, is of interest to military officials.

For Moody Air Force Base, no significant growth plans have been found. However, some growth will occur as an additional 420 personnel are expected at the base by 2011. It is also estimated that on average, 13,590 vehicles per day will travel SR 125 and 1,500 vehicles will travel Davidson Road per day.

### ***3.3.3 Overall Land Use Summary***

Although southwest Georgia is primarily a rural region, there are several counties which will experience modest growth in the future. These counties contain the largest cities in the area, namely Albany (Dougherty County), Valdosta (Lowndes County), and Columbus (Muscogee County); however, there are also counties which have high aspirations seeking opportunities for growth. Of special significance in this category is Sumter County, which has expressed its desire to generate economic development through major highway improvements. However, there are numerous counties which cherish their rural / agricultural heritage and have swathes of protected / environmentally sensitive land on which they do not welcome major development. Those counties which contain particularly sensitive landscapes, such as Grady County; or with restricted development areas, such as Chattahoochee County; or those which simply want to remain rural, such as Schley County dot the region. Due to the age of many of the Comprehensive Plans and the iterative nature of this study, more detailed analyses must be carried out and individual counties consulted to gain a more complete understanding of where growth of the transportation system may be beneficial and desirable.



## **Southwest Georgia Interstate Study**

# ***Economic Development Conditions***

# ***Future Conditions***

### **3.4 Economic Development Conditions**

The Southwest Georgia Interstate Study was undertaken to assess the feasibility and expected outcomes of investments to improve the accessibility of southwest Georgia. Among the outcomes desired from such an investment is the promotion of economic growth and development in this primarily rural and agricultural region of the State. For detailed information related to the evaluation of economic development conditions, refer to the *Existing Conditions Technical Memorandum*. Future economic development conditions were not evaluated as part of this task. However the economic impact of the potential hypothetical interstate scenarios were evaluated and are documented in Chapter 4.



## **Southwest Georgia Interstate Study**

# **Travel Conditions and Patterns**

## **Future Conditions**

### **3.5 Travel Conditions and Patterns**

A travel demand model was developed to evaluate existing and future travel conditions within the study area. The detailed summary on the development of the inputs to the travel demand model and the model itself is contained in the following technical memorandums.

- Highway Network Development
- Traffic Analysis Zone Development
- Model Development

The results from the application of the travel demand model are shown in this section for the existing conditions of 2006 compared to future projected conditions of 2040 E+C network. The 2040 E+C network includes all of the 2006 network plus those projects that are in the GDOT CWP for construction and/or right-of-way. Although the travel demand model was developed that encompassed the entire 32-county study area, the level of detail for the urban areas of Albany, Columbus and Valdosta was not as fine as would be expected for a detailed urban model. GDOT has prepared separate travel demand models for each of these areas which are more detailed in order to develop the MPO transportation plans and programs. Since the MPO's are responsible for the analysis and evaluation of transportation operations and plan within their boundaries, the results from the MPO areas of Albany, Columbus and Valdosta are not included in the results shown in this section.

#### **3.5.1 Existing and Future Facilities**

Figure 3.5.1.1 displays the roadway facilities in the study area by functional classification. Functional classification is the process by which streets and highways are grouped into classes, or systems, according to the character of service they are intended to provide. Individual roads and streets do not serve travel independently in any major way; rather, most travel involves movement through a network of roads. Functional classification defines the nature of this movement by defining the part that any particular road or street should play in serving the flow of trips through a highway network. There is a hierarchy to the classification system. The higher classified facilities are designed to carry more traffic at higher speeds. The almost 8,300 centerline miles in the study area in 2006 is expected to increase slightly by the year 2040 based on the number of committed projects in the study area. Centerline miles include both directions of a roadway facility with multi-lane sections calculated as the same length despite the number of travel lanes in a section. Table 3.5.1.1 includes the number of centerline miles by functional classification for 2006 and the 2040 E+C networks. The committed projects included in the 2040 E+C network are listed in Table 3.5.1.2. Figure 3.5.1.2 illustrates the locations of the committed projects included in the 2040





## Southwest Georgia Interstate Study

# Travel Conditions and Patterns

## Future Conditions

E+C network. The most notable change is the projected roughly nine (9) percent increase in the Rural Principal Arterial classification from a 2-lane facility to a multi-lane facility.

On the 2040 E+C network, collectors account for over one-half of the centerline miles. Minor arterials such as SR 26, SR 49, SR 30, SR 27, SR 62, SR 37 and SR 91 account for just over one-fourth of the centerline miles. Principal arterials such as US 27, US 19, US 2, US 84 and US 280 account for just over one-sixth of the centerlane miles.

**Table 3.5.1.1**  
**Number of Centerline Miles by Functional Classification**  
**2006 and 2040 E+C Network**

| Area               | Functional Class         | 2006         |              |              | 2040 E+C     |              |               |
|--------------------|--------------------------|--------------|--------------|--------------|--------------|--------------|---------------|
|                    |                          | 2-Lane       | Multi-Lane   | Total        | 2-Lane       | Multi-Lane   | Total         |
| <b>Rural</b>       | Rural Interstate         | 0            | 159          | 159          | 0            | 159          | 159           |
|                    | Rural Principal Arterial | 377          | 728          | 1,105        | 282          | 823          | 1,105         |
|                    | Rural Minor Arterial     | 1,997        | 2            | 1,999        | 1,998        | 2            | 2,000         |
|                    | Rural Major Collector    | 4,022        | 16           | 4,038        | 4,024        | 16           | 4,040         |
|                    | Rural Minor Collector    | 346          | 0            | 346          | 347          | 0            | 347           |
|                    | Rural Local              | 72           | 0            | 72           | 72           | 0            | 72            |
|                    | <b>Total</b>             | <b>6,814</b> | <b>905</b>   | <b>7,719</b> | <b>6,723</b> | <b>1,000</b> | <b>7,723</b>  |
| <b>Urban</b>       | Urban Interstate         | 0            | 27           | 27           | 0            | 27           | 27            |
|                    | Urban Freeway            | 0            | 10           | 10           | 0            | 10           | 10            |
|                    | Urban Principal Arterial | 105          | 201          | 306          | 107          | 203          | 310           |
|                    | Urban Minor Arterial     | 186          | 5            | 191          | 184          | 6            | 190           |
|                    | Urban Collector          | 3            | 0            | 3            | 3            | 0            | 3             |
|                    | <b>Total</b>             | <b>294</b>   | <b>243</b>   | <b>537</b>   | <b>294</b>   | <b>246</b>   | <b>540</b>    |
| <b>Grand Total</b> | Interstate               | 0            | 186          | 186          | 0            | 186          | 186           |
|                    | Principal Arterial       | 482          | 939          | 1,421        | 389          | 1,036        | 1,425         |
|                    | Minor Arterial           | 2,183        | 7            | 2,190        | 2,182        | 8            | 2,190         |
|                    | Collector                | 4,371        | 16           | 4,387        | 4,374        | 16           | 4,390         |
|                    | Local Road               | 72           | 0            | 72           | 72           | 0            | 72            |
|                    | <b>Grand Total</b>       | <b>7,108</b> | <b>1,148</b> | <b>8,256</b> | <b>7,017</b> | <b>1,246</b> | <b>8,263*</b> |

Source: Southwest Georgia Interstate Study Travel Demand Model - \*The number of increased miles between 2006 and 2040 E+C networks differs slightly from the total number of miles in the Committed Projects list due to rounding and slight differences in coding and network distances.



# Southwest Georgia Interstate Study

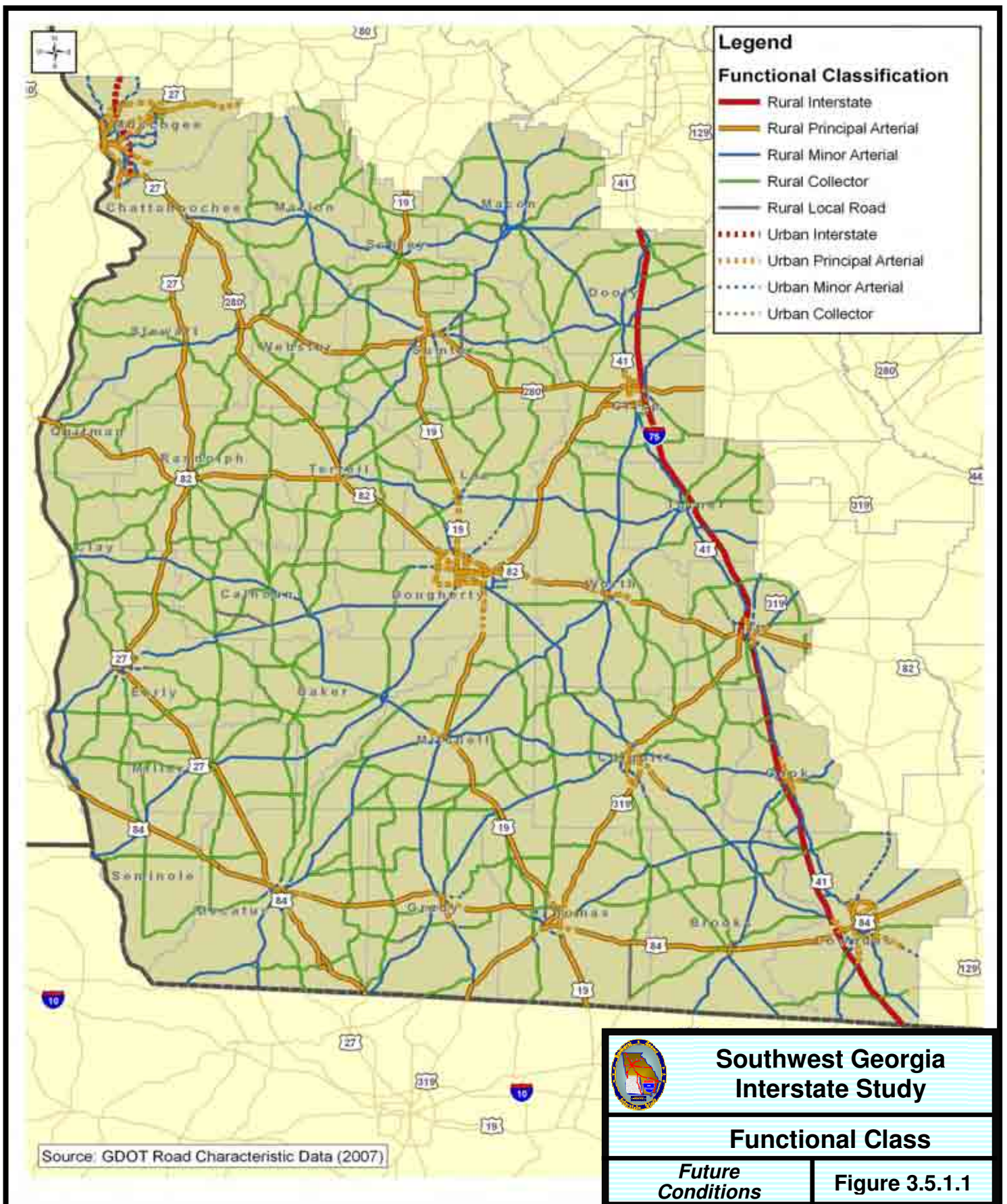
## Travel Conditions and Patterns

### Future Conditions

Table 3.5.1.2  
Committed Projects Included in 2040 E+C Network

| Project ID | Road                             | From                      | To                       | Improvement             | County   | Length (Mi.) |
|------------|----------------------------------|---------------------------|--------------------------|-------------------------|----------|--------------|
| 311445     | I-185                            | SR520                     | St. Marys Rd             | Widen from 4 to 6 lanes | Muscogee | 2.83         |
| 410520     | I-75                             | SR37                      | CR246/Kinard Bridge Rd   | Widen from 4 to 6 lanes | Cook     | 9.47         |
| 410530     | I-75                             | CR 246/Kinard Bridge Rd   | Tift CO line             | Widen from 4 to 6 lanes | Cook     | 3.99         |
| 410260     | I-75                             | SR300                     | Dooly CO line            | Widen from 4 to 6 lanes | Crisp    | 6.56         |
| 410500     | I-75                             | North of SR133            | Cook CO line             | Widen from 4 to 6 lanes | Lowndes  | 13.60        |
| 0006073    | I-75                             | Cook CO line              | CR204/Southwell Blvd     | Widen from 4 to 6 lanes | Tift     | 6.24         |
| 0006016    | I-75                             | SR32                      | SR159                    | Widen from 4 to 6 lanes | Turner   | 5.49         |
| 410245     | I-75                             | Tift CO line              | SR32                     | Widen from 4 to 6 lanes | Turner   | 5.58         |
| 0006472    | Schatulga Rd (Eastern Connector) | Red Arrow Rd/Cargo Rd     | Chattsworth Rd           | New 4 lane road         | Muscogee | 1.16         |
| 422215     | SR1/US27                         | CR279/Damascus-Hilton Rd  | Blakely Bypass           | Widen from 2 to 4 lanes | Early    | 7.00         |
| 422210     | SR1/US27                         | West City Limits Colquitt | CR279/Damascus-Hilton Rd | Widen from 2 to 4 lanes | Miller   | 9.50         |
| 350880     | SR22SP/Macon Rd                  | Reese Rd                  | Woodruff Farm Rd         | Widen from 2 to 4 lanes | Muscogee | 1.67         |
| 462395     | SR3/SR49/US19                    | North of CR151            | Sumter CO line           | Widen from 2 to 4 lanes | Lee      | 8.98         |
| 322195     | SR3/SR49/US19                    | Lee CO Line               | CR42/Sumter              | Widen from 2 to 4 lanes | Sumter   | 5.33         |
| 322190     | SR3/SR49/US19                    | CR42                      | 0.3 Mi North of US-280   | Widen from 2 to 4 lanes | Sumter   | 6.34         |
| 322420     | SR3/US19                         | Angelica Creek/Sumter     | SR271                    | Widen from 2 to 4 lanes | Schley   | 6.73         |
| 322730     | SR3/US19                         | SR271                     | SR240                    | Widen from 2 to 4 lanes | Schley   | 10.85        |
| 322720     | SR3/US19                         | SR240                     | CR201/Cooper Rd/Taylor   | Widen from 2 to 4 lanes | Schley   | 6.81         |
| 0000352    | SR38/US84                        | Alabama State Line        | SR370                    | Widen from 2 to 4 lanes | Early    | 1.29         |
| 350790     | St. Marys Rd                     | Buena Vista Rd            | Robin Dr                 | Widen from 2 to 4 lanes | Muscogee | 1.50         |

Source: GDOT Construction Work Program in July, 2008, GDOT review, and TREX







## Southwest Georgia Interstate Study

### Committed Projects

*Future  
Conditions*

Figure 3.5.1.2



## Southwest Georgia Interstate Study

# Travel Conditions and Patterns

## Future Conditions

Figure 3.5.1.3 displays the facilities in the study area by the number of lanes in 2040. Sections of I-185 and US 280 in Columbus and all of I-75 are the primary 6-lane facilities.

### 3.5.2 Travel Conditions and Level-of-Service

Table 3.5.2.1 lists the daily vehicle miles traveled (VMT) for the existing 2006 and 2040 E+C networks by functional class. In both conditions, 82 percent of the daily VMT takes place on the rural facilities. In the year 2040, an increase in the percentage distribution of VMT is anticipated on rural interstates, rural principal arterials, and urban interstates. All other functional classifications are expected to remain at the same percentage of VMT or should see a decrease in percentage distribution.

**Table 3.5.2.1**  
**Distribution of Total Daily Vehicle Miles Traveled**  
**for 2006 and 2040 E + C Network**

| Area               | Functional Class         | 2006              |                | 2040 E + C        |                |
|--------------------|--------------------------|-------------------|----------------|-------------------|----------------|
|                    |                          | VMT               | % of Total VMT | VMT               | % of Total VMT |
| Rural              | Rural Interstate         | 3,226,983         | 22.8%          | 4,778,416         | 23.4%          |
|                    | Rural Principal Arterial | 3,512,861         | 24.9%          | 5,812,724         | 28.4%          |
|                    | Rural Minor Arterial     | 2,651,689         | 18.8%          | 3,546,555         | 17.3%          |
|                    | Rural Major Collector    | 2,130,690         | 15.1%          | 2,617,515         | 12.8%          |
|                    | Rural Minor Collector    | 100,133           | 0.7%           | 111,374           | 0.5%           |
|                    | Rural Local              | 19,445            | 0.1%           | 24,974            | 0.1%           |
|                    | <b>Total</b>             | <b>11,641,802</b> | <b>82.4%</b>   | <b>16,891,558</b> | <b>82.6%</b>   |
| Urban              | Urban Interstate         | 563,020           | 4.0%           | 844,468           | 4.1%           |
|                    | Urban Freeway            | 58,954            | 0.4%           | 83,341            | 0.4%           |
|                    | Urban Principal Arterial | 1,487,729         | 10.5%          | 2,127,261         | 10.4%          |
|                    | Urban Minor Arterial     | 376,466           | 2.7%           | 497,526           | 2.4%           |
|                    | Urban Collector          | 2,957             | 0.0%           | 5,747             | 0.0%           |
|                    | <b>Total</b>             | <b>2,489,126</b>  | <b>17.6%</b>   | <b>3,558,343</b>  | <b>17.4%</b>   |
| <b>Grand Total</b> |                          | <b>14,130,927</b> | <b>100.0%</b>  | <b>20,449,901</b> | <b>100.0%</b>  |

Source: Southwest Georgia Interstate Study Travel Demand Model

Table 3.5.2.2 lists the change in daily VMT by functional class between 2006 and the 2040 E+C conditions. Total daily VMT increases by 44.7 percent or 6.3 million in the entire study area. The majority of this increase in VMT is forecasted to occur on the rural functionally classified facilities.







## Southwest Georgia Interstate Study

# Travel Conditions and Patterns

## Future Conditions

Daily VMT is forecasted to increase by 45.1 percent or 5.2 million on the rural functionally classified facilities while daily VMT is forecasted to increase by 43.0 percent to 1.1 million on the urban functionally classified facilities.

**Table 3.5.2.2**  
**Total Daily Vehicle Miles Traveled (VMT)**  
**for 2006 and 2040 E + C Network**

| Area               | Functional Class         | 2006              | 2040 E + C        | Difference       | Percent Change |
|--------------------|--------------------------|-------------------|-------------------|------------------|----------------|
| <b>Rural</b>       | Rural Interstate         | 3,226,983         | 4,778,416         | 1,551,433        | 48.1%          |
|                    | Rural Principal Arterial | 3,512,861         | 5,812,724         | 2,299,863        | 65.5%          |
|                    | Rural Minor Arterial     | 2,651,689         | 3,546,555         | 894,866          | 33.8%          |
|                    | Rural Major Collector    | 2,130,690         | 2,617,515         | 486,825          | 22.9%          |
|                    | Rural Minor Collector    | 100,133           | 111,374           | 11,241           | 11.2%          |
|                    | Rural Local              | 19,445            | 24,974            | 5,529            | 28.4%          |
|                    | <b>Total</b>             | <b>11,641,802</b> | <b>16,891,558</b> | <b>5,249,756</b> | <b>45.1%</b>   |
| <b>Urban</b>       | Urban Interstate         | 563,020           | 844,468           | 281,448          | 50.0%          |
|                    | Urban Freeway            | 58,954            | 83,341            | 24,387           | 41.4%          |
|                    | Urban Principal Arterial | 1,487,729         | 2,127,261         | 639,532          | 43.0%          |
|                    | Urban Minor Arterial     | 376,466           | 497,526           | 121,060          | 32.2%          |
|                    | Urban Collector          | 2,957             | 5,747             | 2,790            | 94.4%          |
|                    | <b>Total</b>             | <b>2,489,126</b>  | <b>3,558,343</b>  | <b>1,069,217</b> | <b>43.0%</b>   |
| <b>Grand Total</b> |                          | <b>14,130,927</b> | <b>20,449,901</b> | <b>6,318,974</b> | <b>44.7%</b>   |

Source: Southwest Georgia Interstate Study Travel Demand Model

Figure 3.5.2.1 displays the daily travel volumes by volume range for 2006 and Figure 3.5.2.2 displays the daily volumes by volume range for the 2040 E+C network. Figure 3.5.2.3 displays the total daily traffic volume difference between the 2006 existing network and the 2040 E+C network. The I-75 corridor, which provides for north-south travel within the study area and through the study area, has the highest daily travel volumes. Daily travel volumes on I-75 range from 50,000 to over 60,000 vehicles a day. US 280, US 82, US 19 and SR 300 carry the largest non-interstate north-south travel. The largest east-west travel movements occur on US 84 and parts of US 82. The major travel corridors are listed below.

- I-75 from the northern end of the study area to the southern end



## Southwest Georgia Interstate Study

# Travel Conditions and Patterns

## Future Conditions

- US 280 to US 82 from Columbus to Albany to Tifton
- US 19 from Americus to Albany to Thomasville to Tallahassee
- SR 300 from Cordele to Albany
- US 319 from Tifton to Moultrie to Thomasville
- US 84 from Valdosta to Thomasville to Bainbridge to Georgia-Alabama line

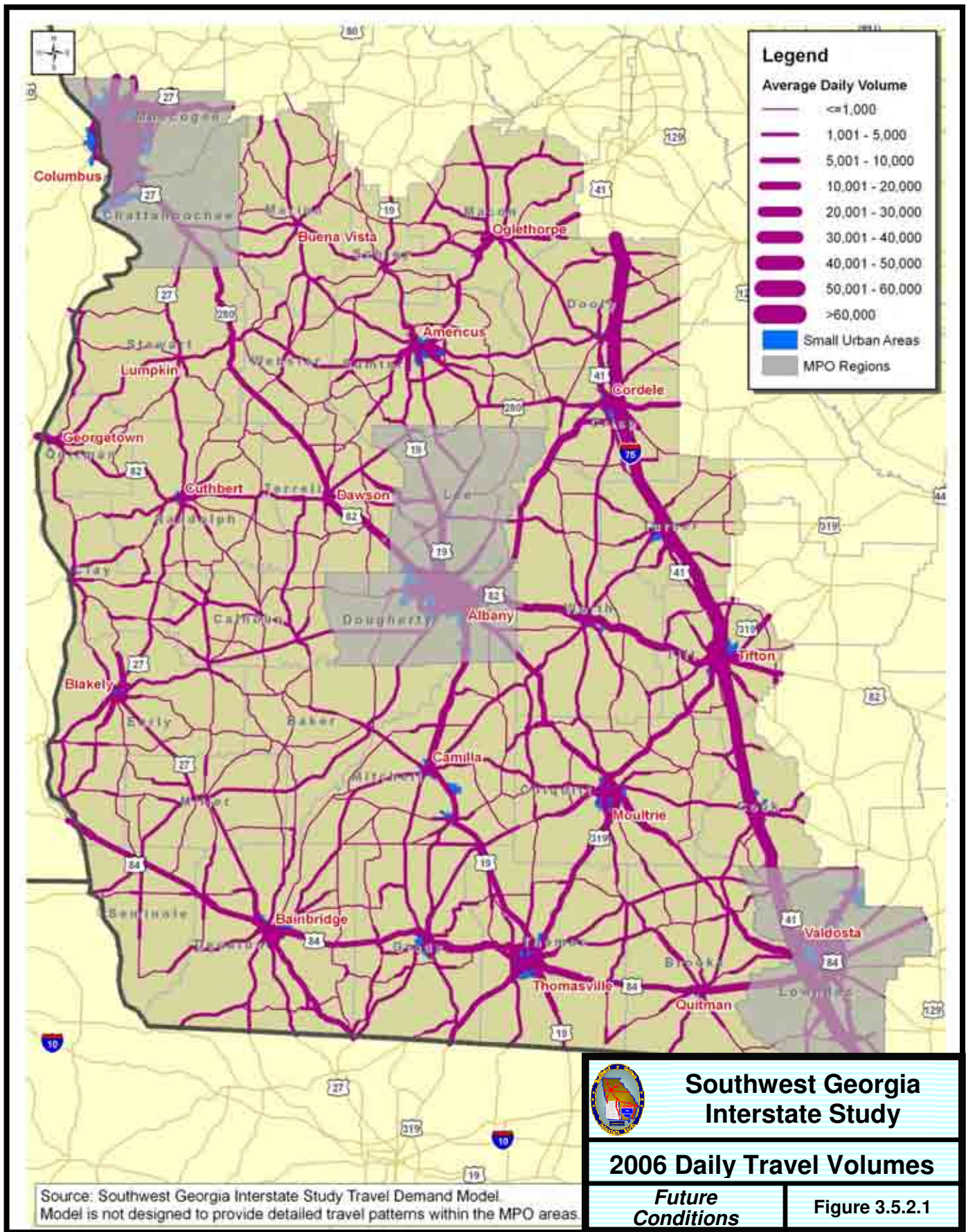
Table 3.5.2.3 lists the total daily truck VMT for 2006 by functional class. Trucks account for one-fourth of the daily VMT traveled within the study area. Approximately 60 percent of daily truck VMT occurs on interstates, freeways and principal arterials. The percent of truck VMT by functional class ranges between 23-32 percent for all of the facilities with the exception of urban collectors. The high percentage on urban collectors is probably due to the exclusion of the MPO areas and the small amount of urban collectors included in this analysis.

**Table 3.5.2.3**  
**Distribution of Total Daily Truck Vehicle Miles Traveled**  
**for 2006 and 2040 E+C**

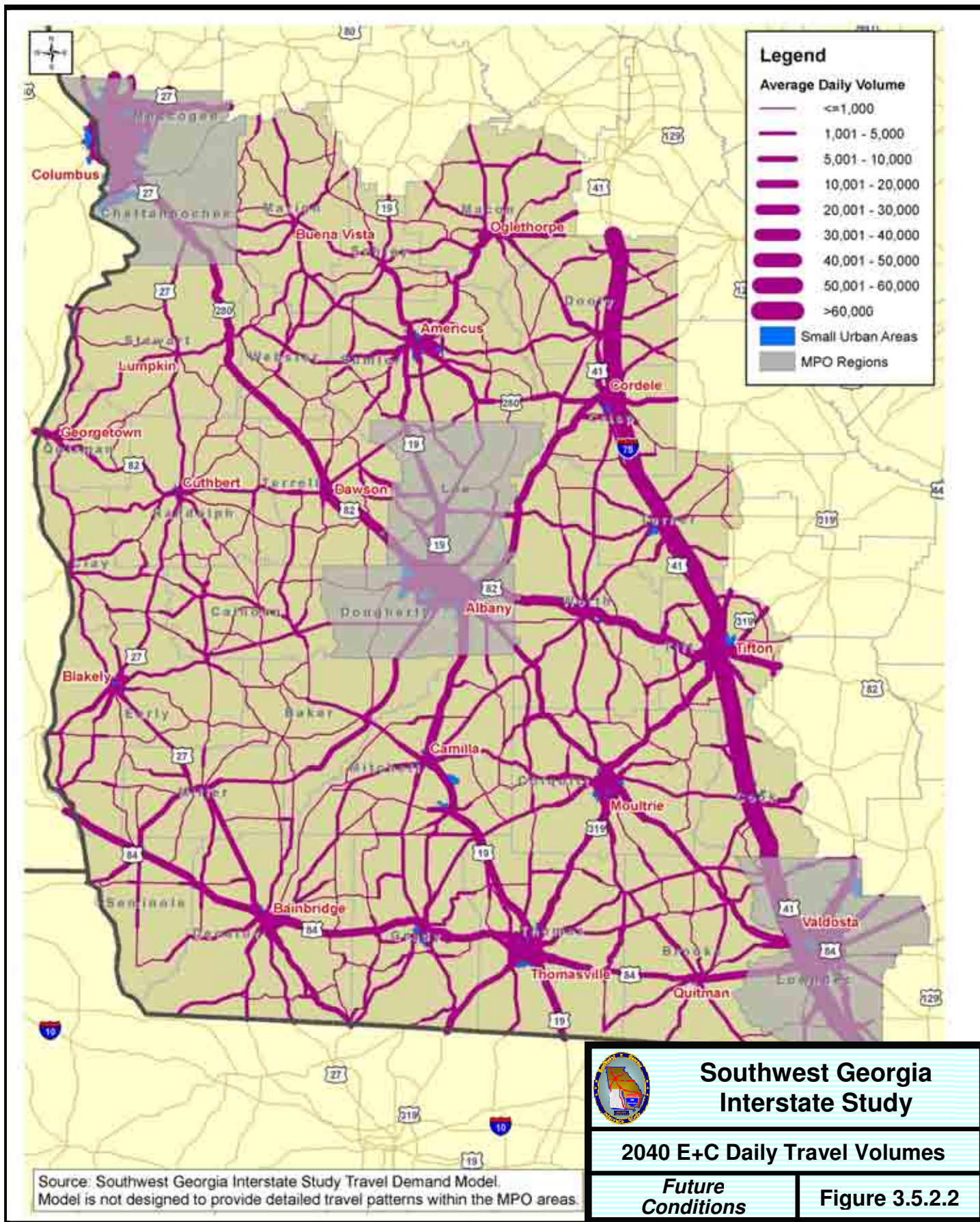
| Area               | Functional Class         | 2006             |                   |              | 2040 E+C         |                   |              |
|--------------------|--------------------------|------------------|-------------------|--------------|------------------|-------------------|--------------|
|                    |                          | Truck VMT        | Total VMT         | % Truck      | Truck VMT        | Total VMT         | % Truck      |
| <b>Rural</b>       | Rural Interstate         | 791,703          | 3,226,983         | 24.5%        | 1,154,163        | 4,778,416         | 24.2%        |
|                    | Rural Principal Arterial | 781,001          | 3,512,861         | 22.2%        | 1,689,293        | 5,812,724         | 29.1%        |
|                    | Rural Minor Arterial     | 698,579          | 2,651,689         | 26.3%        | 895,588          | 3,546,555         | 25.3%        |
|                    | Rural Major Collector    | 660,773          | 2,130,690         | 31.0%        | 798,136          | 2,617,515         | 30.5%        |
|                    | Rural Minor Collector    | 31,867           | 100,132           | 31.8%        | 34,603           | 111,374           | 31.1%        |
|                    | Rural Local              | 4,376            | 19,444            | 22.5%        | 5,444            | 24,974            | 21.8%        |
|                    | <b>Total</b>             | <b>2,968,299</b> | <b>11,641,799</b> | <b>25.5%</b> | <b>4,577,227</b> | <b>16,891,558</b> | <b>27.1%</b> |
| <b>Urban</b>       | Urban Interstate         | 140,327          | 563,019           | 24.9%        | 215,629          | 844,468           | 25.5%        |
|                    | Urban Freeway            | 15,847           | 58,953            | 26.9%        | 27,679           | 83,341            | 33.2%        |
|                    | Urban Principal Arterial | 405,998          | 1,487,728         | 27.3%        | 638,651          | 2,127,261         | 30.0%        |
|                    | Urban Minor Arterial     | 113,719          | 376,465           | 30.2%        | 157,969          | 497,526           | 31.8%        |
|                    | Urban Collector          | 1,785            | 2,957             | 60.4%        | 2,444            | 5,747             | 42.5%        |
|                    | <b>Total</b>             | <b>677,676</b>   | <b>2,489,122</b>  | <b>27.2%</b> | <b>1,042,372</b> | <b>3,558,343</b>  | <b>29.3%</b> |
| <b>Grand Total</b> |                          | <b>3,645,975</b> | <b>14,130,921</b> | <b>25.8%</b> | <b>5,619,599</b> | <b>20,449,901</b> | <b>27.5%</b> |

Source: Southwest Georgia Interstate Study Travel Demand Model

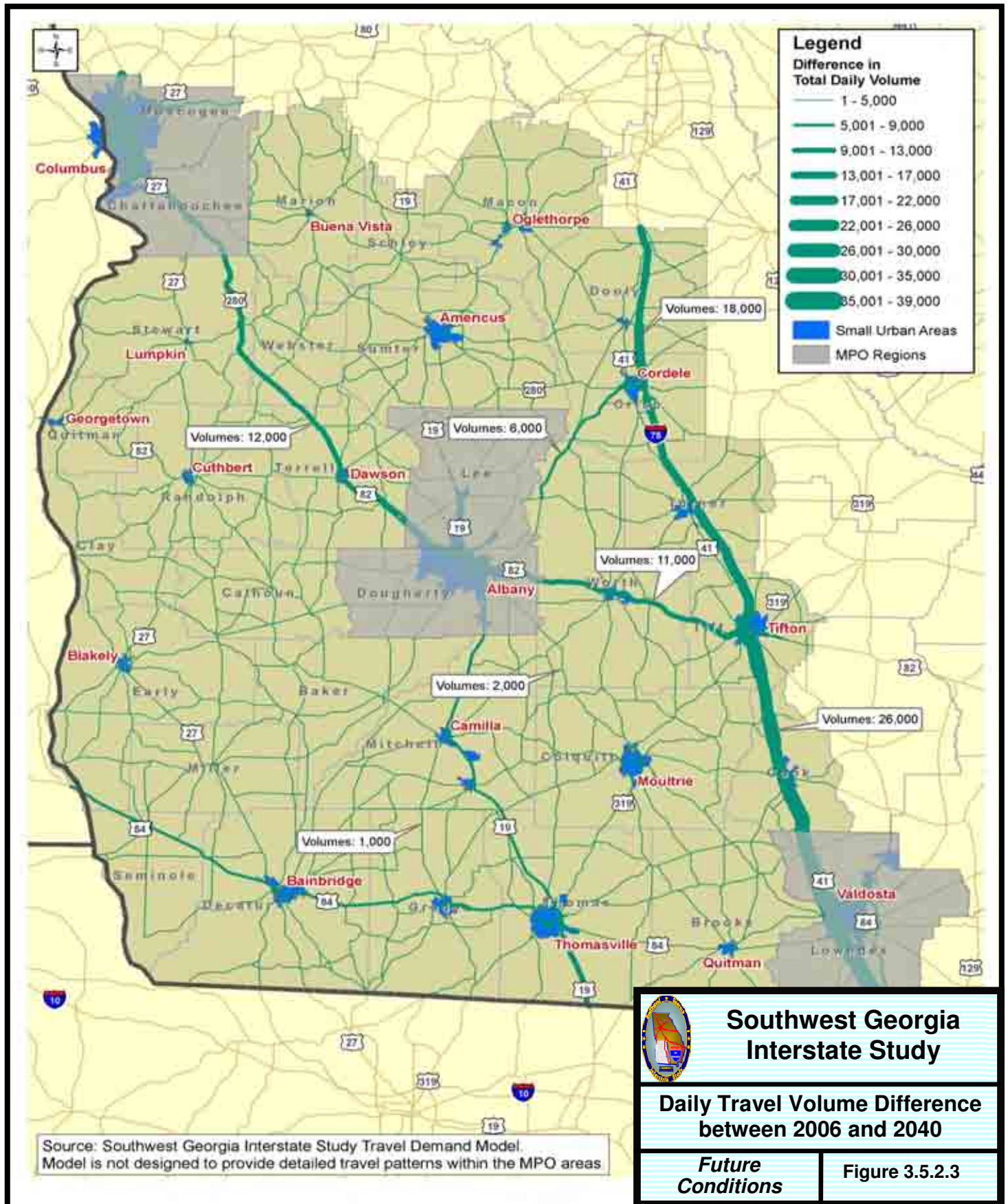














## Southwest Georgia Interstate Study

# Travel Conditions and Patterns

## Future Conditions

Table 3.5.2.4 lists the change in daily truck VMT by functional class between 2006 and the 2040 E+C conditions. Total daily truck VMT increases by 54.2 percent or 1.6 million in the entire study area. Daily truck VMT is forecasted to increase at a slightly higher rate than total VMT. The majority of this increase, 82 percent, in truck VMT is again forecasted to occur on the rural functionally classified facilities. Daily truck VMT is forecasted to increase by 54.2 percent or 1.6 million on the rural functionally classified facilities while daily truck VMT is forecasted to increase by 53.8 percent or 365,000 on the urban functionally classified facilities.

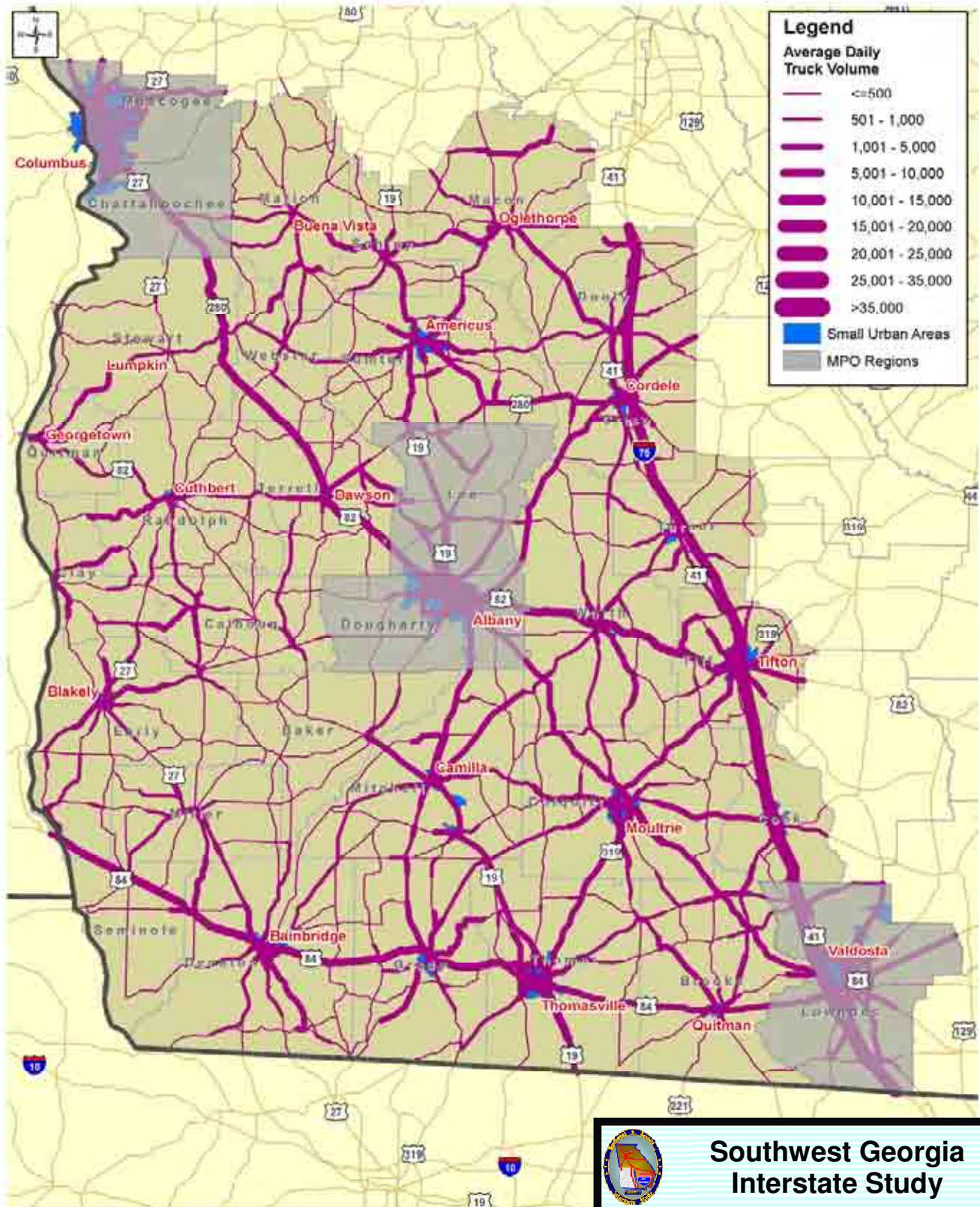
**Table 3.5.2.4**  
**Total Daily Truck Vehicle Miles Traveled for 2006 and 2040 E+C**

| Area         | Functional Class         | 2006             | 2040 E+C         | Difference       | Percent Change |
|--------------|--------------------------|------------------|------------------|------------------|----------------|
| <b>Rural</b> | Rural Interstate         | 791,703          | 1,154,163        | 362,460          | 45.8%          |
|              | Rural Principal Arterial | 781,001          | 1,689,293        | 908,292          | 116.3%         |
|              | Rural Minor Arterial     | 698,579          | 895,588          | 197,009          | 28.2%          |
|              | Rural Major Collector    | 660,773          | 798,136          | 137,363          | 20.8%          |
|              | Rural Minor Collector    | 31,867           | 34,603           | 2,736            | 8.6%           |
|              | Rural Local              | 4,376            | 5,444            | 1,068            | 24.4%          |
|              | <b>Total</b>             | <b>2,968,299</b> | <b>4,577,227</b> | <b>1,608,928</b> | <b>54.2%</b>   |
| <b>Urban</b> | Urban Interstate         | 140,327          | 215,629          | 75,302           | 53.7%          |
|              | Urban Freeway            | 15,847           | 27,679           | 11,832           | 74.7%          |
|              | Urban Principal Arterial | 405,998          | 638,651          | 232,653          | 57.3%          |
|              | Urban Minor Arterial     | 113,719          | 157,969          | 44,250           | 38.9%          |
|              | Urban Collector          | 1,785            | 2,444            | 659              | 36.9%          |
|              | <b>Total</b>             | <b>677,676</b>   | <b>1,042,372</b> | <b>364,696</b>   | <b>53.8%</b>   |
|              | <b>Grand Total</b>       | <b>3,645,975</b> | <b>5,619,599</b> | <b>3,582,552</b> | <b>54.1%</b>   |

Source: Southwest Georgia Interstate Study Travel Demand Model

Figure 3.5.2.4 displays the daily truck volumes within the study area in 2006 and Figure 3.5.2.5 displays the daily truck volumes on the 2040 E+C network. Figure 3.5.2.6 displays the total daily truck traffic volume difference between the 2006 existing network and the 2040 E+C network. As expected, the largest truck travel volumes occur on I-75. The largest increase in truck traffic between 2006 and the 2040 E+C network is anticipated on I-75 From Tifton south to the Valdosta MPO area with roughly 8,000 more trucks traveling in this corridor daily. The truck





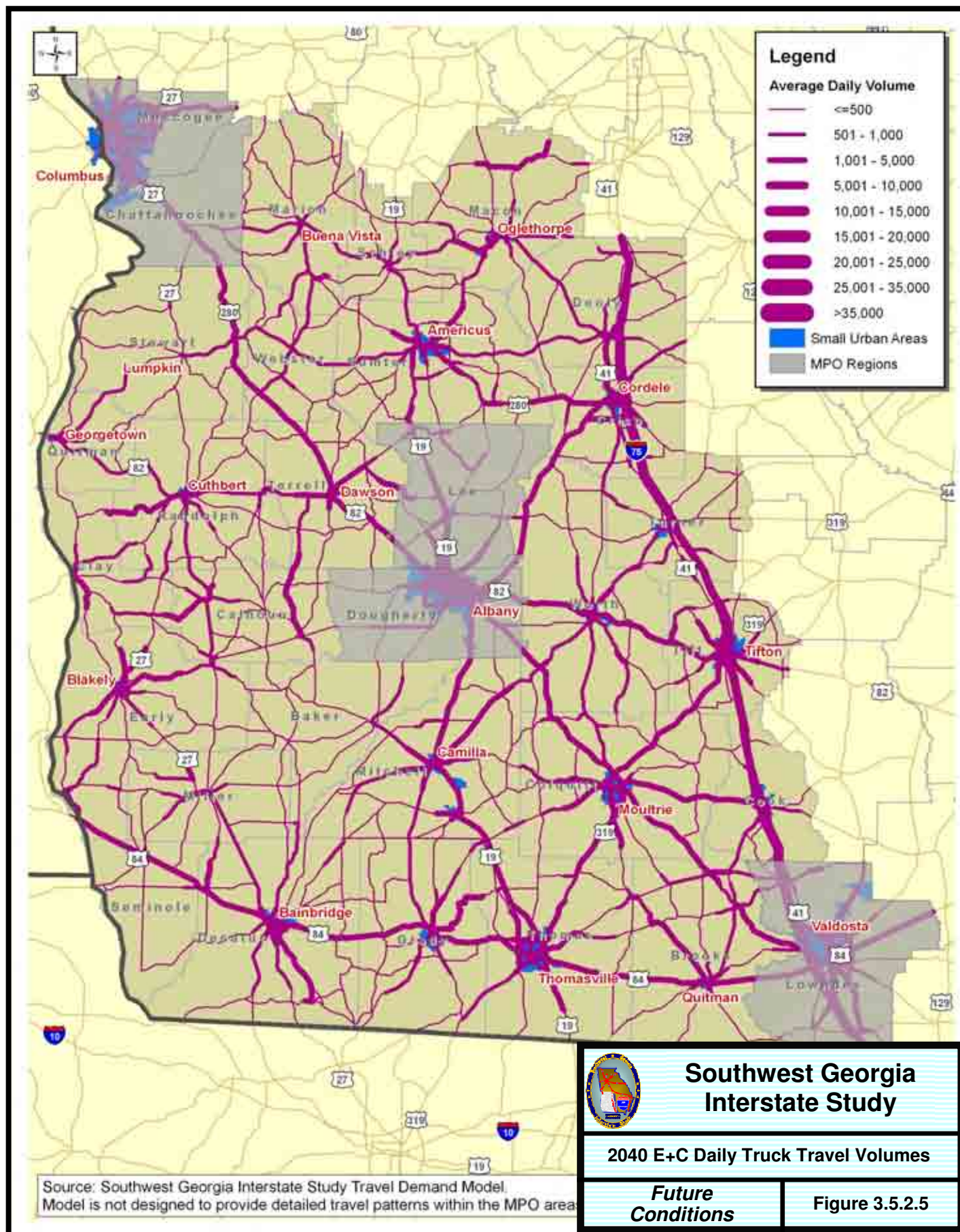
## Southwest Georgia Interstate Study

### 2006 Daily Truck Travel

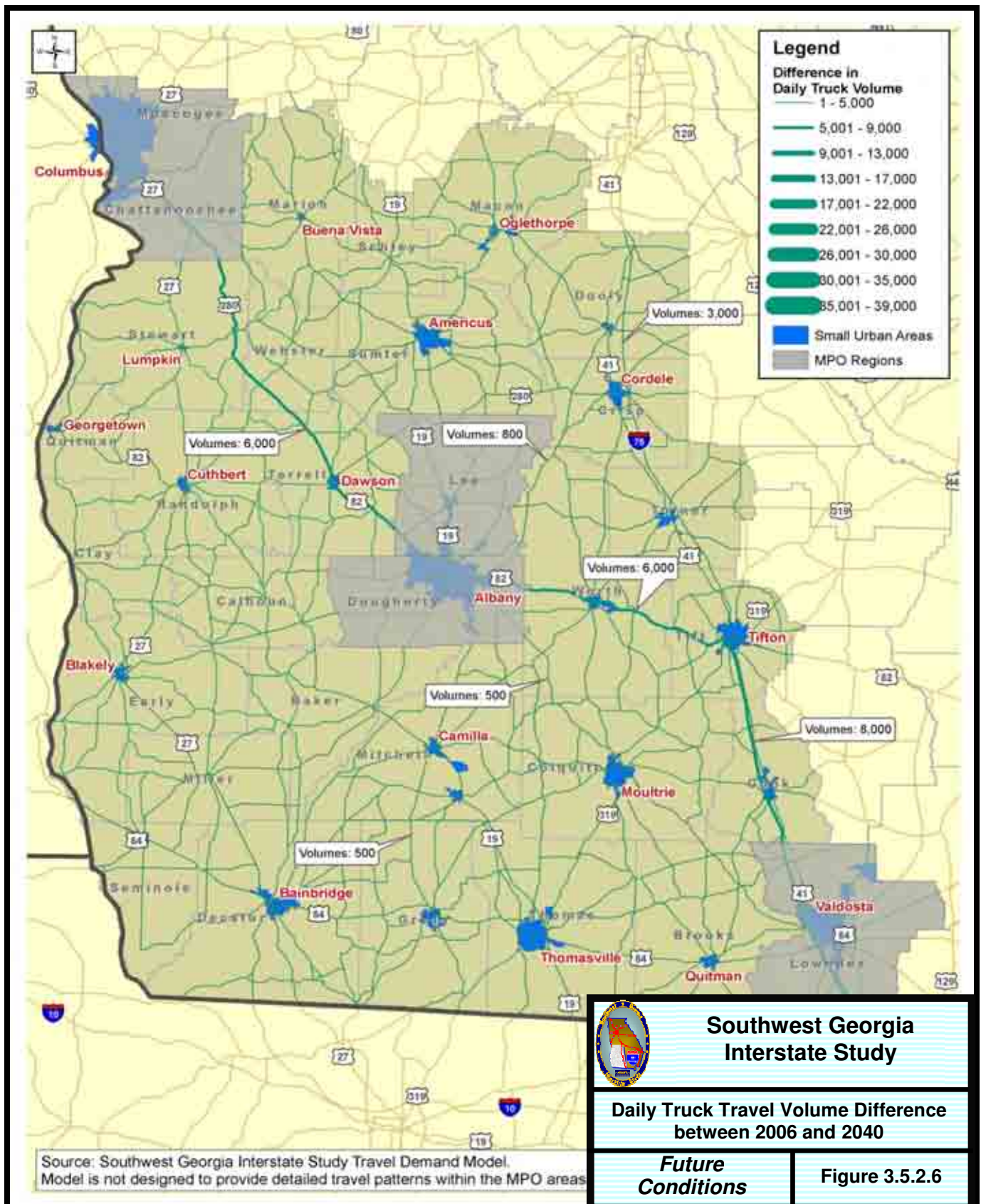
*Future  
Conditions*

Figure 3.5.2.4













## **Southwest Georgia Interstate Study**

# **Travel Conditions and Patterns**

### **Future Conditions**

traffic increase along US 280 south of the Columbus MPO area to Richland, SR 520 between Richland and Dawson, and US 82 from Dawson east to I-75 is anticipated to be approximately 6,000 additional trucks daily. The I-75 corridor north of Tifton is anticipated to carry approximately 3,000 additional trucks daily.

Figure 3.5.2.7 displays the Level-of-Service (LOS) within the study area. LOS represents the level of service for operations on a roadway facility and is represented by grades denoted by the letters A, B, C, D, E and F. Their meanings are similar to grades in school with an “A” representing little or no congestion/delay and “F” representing extreme congestion or long delays. This measure is derived by dividing the theoretical facility capacity by the traffic volume. Qualitative descriptions of traffic flow associated with each LOS are provided below. These descriptions are based on definitions established in the Highway Capacity Manual (HCM) 2000.

- LOS A: Represents free flow conditions. Individual users are virtually unaffected by the presence of others in the traffic stream. Freedom to select desired speeds and to maneuver within the traffic stream is extremely high.
- LOS B: In the range of stable flow, but the presence of other users in the traffic stream begins to be noticeable. Freedom to select desired speeds is relatively unaffected, but there is a slight decline in the freedom to maneuver within the traffic stream from LOS A.
- LOS C: In the range of stable flow, but it marks the beginning of the range of flow in which the operations of individual users become significantly affected by interactions with others in the traffic stream.
- LOS D: Represents high density but stable flow. Speed and freedom to maneuver are severely restricted, and the driver experiences a generally poor level of comfort and convenience.
- LOS E: Represents operating conditions at or near capacity level. Freedom to maneuver within the traffic stream is extremely difficult. Comfort and convenience levels are extremely poor, and driver frustration is generally high.
- LOS F: Describes forced or break-down flow. This condition exists when the amount of traffic approaching a point exceeds that which can traverse the point.



## Southwest Georgia Interstate Study

# Travel Conditions and Patterns

## Future Conditions

Outside of the MPO and urban areas, there were no facilities operating at LOS below C in 2006. This demonstrates that traffic volumes currently flow smoothly throughout the study area on a corridor level. On the 2040 E+C network, over 90% of the facilities operate at LOS C or better with the exception of urban principal arterial of which 87 percent of the roads classified in this category operate at LOS C or better. During this study GDOT conducted the Colquitt County Long Range Transportation Study which evaluated Colquitt County's transportation needs in more detail. The LOS for SR 133 was used for this analysis. Based on this study, traffic is forecasted to increase on the SR 133 corridor from Albany to Valdosta by 2040 which will result with an unacceptable LOS. Table 3.5.2.5 summarizes the percent of mileage operating at LOS C or better for the 2040 E+C conditions.

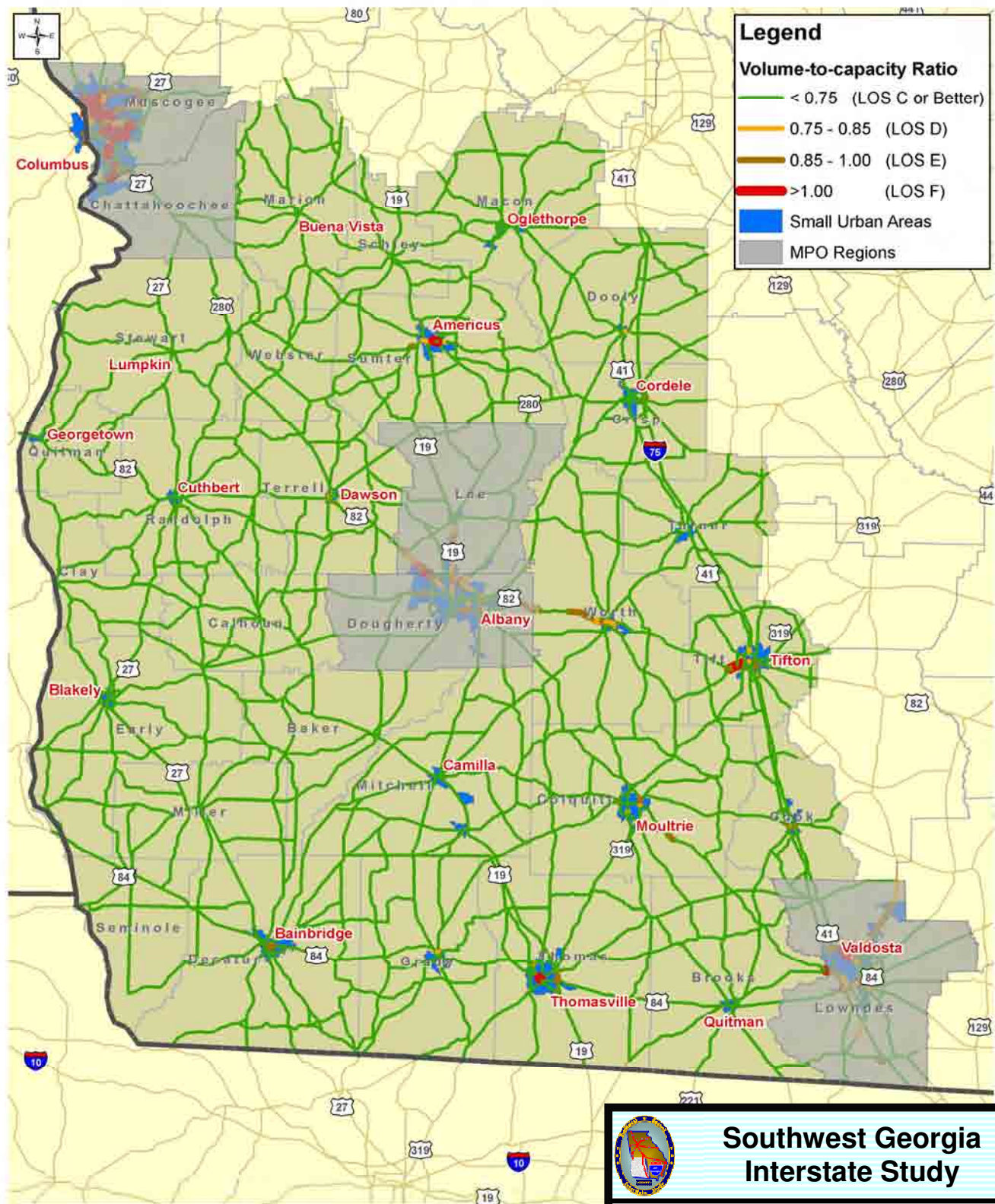
**Table 3.5.2.5**  
**Percent of Mileage Operating at LOS C or Better for 2040 E+C**

| Area         | Functional Class         | % of Mileage |
|--------------|--------------------------|--------------|
| <b>Rural</b> | Rural Interstate         | 92%          |
|              | Rural Principal Arterial | 99%          |
|              | Rural Minor Arterial     | 95%          |
|              | Rural Major Collector    | 100%         |
|              | Rural Minor Collector    | 100%         |
|              | Rural Local              | 100%         |
| <b>Urban</b> | Urban Interstate         | 93%          |
|              | Urban Freeway            | 100%         |
|              | Urban Principal Arterial | 87%          |
|              | Urban Minor Arterial     | 95%          |
|              | Urban Collector          | 100%         |

Source: Southwest Georgia Interstate Study Travel Demand Model and Colquitt County Long Range Transportation Study







Source: Southwest Georgia Interstate Study Travel Demand Model.  
Model is not designed to provide detailed travel patterns within the MPO areas.



## Southwest Georgia Interstate Study

Daily 2040 E+C Level-of-Service

*Future  
Conditions*

Figure 3.5.2.8



## Southwest Georgia Interstate Study

# Travel Conditions and Patterns

## Future Conditions

Table 3.5.2.6 displays the average volume to capacity ratio (V/C) and the percentage of the system operating at level of service (LOS) C or better on the 2006 and 2040 E+C network. A system operating at a V/C ratio of 0.75 or lower is classified LOS C or better. A LOS of C or better is considered to be free of any congestion requiring investment to correct. The 2006 rural system is free of congestion and only one percent of the entire 2006 urban roadway mileage is currently experiencing congestion. This demonstrates no serious and constant congestion currently in the study area. On the 2040 E+C network, based on the Southwest Georgia Interstate Model and the Colquitt County Long Range Transportation study model, the only facility with constant congestion is SR 133 between Albany and Valdosta. On the 2040 E+C network, seven (7) percent of the urban interstate, 12 percent of the urban principal arterial, and four (4) percent of the urban minor arterial and roadway mileage is anticipated to experience congestion.

**Table 3.5.2.6**  
**Level of Service for 2006 and 2040 E+C Network**

| Area               | Functional Class          | 2006        |                              | 2040 E+C    |                              |
|--------------------|---------------------------|-------------|------------------------------|-------------|------------------------------|
|                    |                           | Average V/C | LOS C or Better (V/C < 0.75) | Average V/C | LOS C or Better (V/C < 0.75) |
| <b>Rural</b>       | Rural Interstate          | 0.50        | 100%                         | 0.60        | 100%                         |
|                    | Rural Principal Arterial  | 0.15        | 100%                         | 0.24        | 98%                          |
|                    | Rural Minor Arterial      | 0.18        | 100%                         | 0.24        | 95%                          |
|                    | Rural Major Collectors    | 0.07        | 100%                         | 0.09        | 100%                         |
|                    | Rural Minor Collector     | 0.05        | 100%                         | 0.05        | 100%                         |
|                    | Rural Local Road          | 0.04        | 100%                         | 0.06        | 100%                         |
|                    | <b>Total</b>              | <b>0.12</b> | <b>100%</b>                  | <b>0.16</b> | <b>100%</b>                  |
| <b>Urban</b>       | Urban Interstate          | 0.46        | 100%                         | 0.52        | 93%                          |
|                    | Urban Freeway/ Expressway | 0.14        | 100%                         | 0.20        | 100%                         |
|                    | Urban Principal Arterial  | 0.33        | 98%                          | 0.45        | 88%                          |
|                    | Urban Minor Arterial      | 0.25        | 100%                         | 0.33        | 96%                          |
|                    | Urban Collector           | 0.13        | 100%                         | 0.33        | 100%                         |
|                    | <b>Total</b>              | <b>0.30</b> | <b>99%</b>                   | <b>0.41</b> | <b>91%</b>                   |
| <b>Grand Total</b> |                           | <b>0.13</b> | <b>100%</b>                  | <b>0.17</b> | <b>99%</b>                   |

Source: Southwest Georgia Interstate Study Travel Demand Model and Colquitt County Long Range Transportation Study

Table 3.5.2.7 and Figures 3.5.2.9 – 3.5.2.12 display the seconds of delay per daily VMT by rural and functional class for 2006 and the 2040 E+C Network. The four classifications with the highest number of seconds of delay are rural interstate, urban interstate, urban principal arterial, and





## Southwest Georgia Interstate Study

# Travel Conditions and Patterns

## Future Conditions

urban minor arterial. Between 2006 and the 2040 E+C network, the urban principal arterial and urban minor arterial are projected to experience the largest increase in number of seconds of delay within the system.

**Table 3.5.2.7**  
Seconds of Delay Per Vehicle Mile Traveled for 2006 and 2040 E+C

| Area               | Functional Class         | 2006        | 2040 E+C    | Difference |
|--------------------|--------------------------|-------------|-------------|------------|
| <b>Rural</b>       | Rural Interstate         | 1.39        | 3.22        | 1.83       |
|                    | Rural Principal Arterial | 0.11        | 1.12        | 1.01       |
|                    | Rural Minor Arterial     | 0.65        | 1.48        | 0.83       |
|                    | Rural Major Collector    | 0.22        | 0.66        | 0.44       |
|                    | Rural Minor Collector    | 0.33        | 1.00        | 0.67       |
|                    | Rural Local              | 0.01        | 0.00        | -0.01      |
|                    | <b>Total</b>             | <b>0.61</b> | <b>1.71</b> | 1.10       |
| <b>Urban</b>       | Urban Interstate         | 1.10        | 2.19        | 1.09       |
|                    | Urban Freeway/Expressway | 0.00        | 0.04        | 0.04       |
|                    | Urban Principal Arterial | 2.20        | 9.36        | 7.16       |
|                    | Urban Minor Arterial     | 1.61        | 5.87        | 4.26       |
|                    | Urban Collector          | 0.03        | 0.63        | 0.60       |
|                    | <b>Total</b>             | <b>1.80</b> | <b>6.94</b> | 5.14       |
| <b>Grand Total</b> |                          | <b>0.82</b> | <b>2.62</b> | 1.80       |

Source: Southwest Georgia Interstate Study Travel Demand Model



## Southwest Georgia Interstate Study

# Travel Conditions and Patterns

## Future Conditions

Figure 3.5.2.9  
Seconds of Delay per Vehicle Mile of Travel in 2006  
By Rural Functional Classification

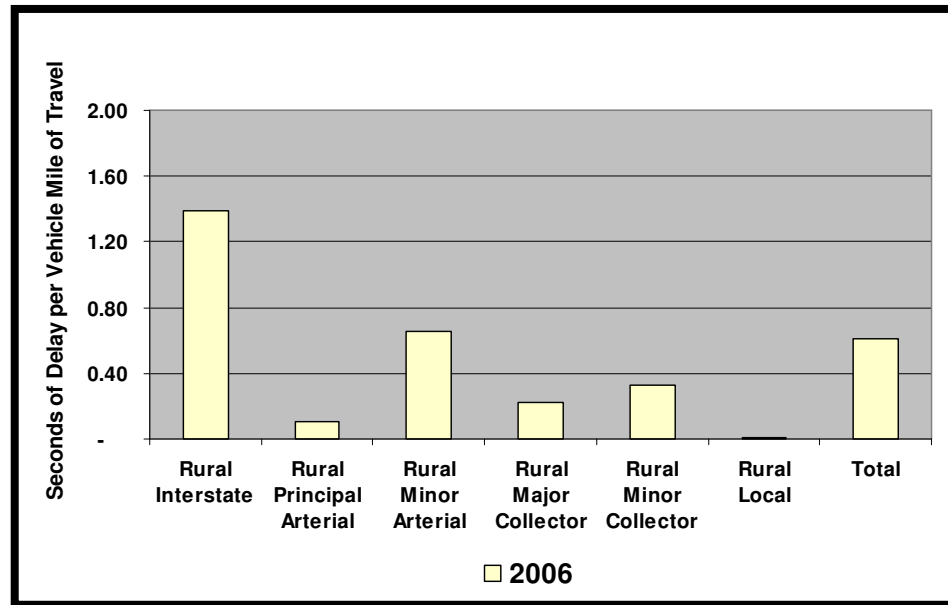
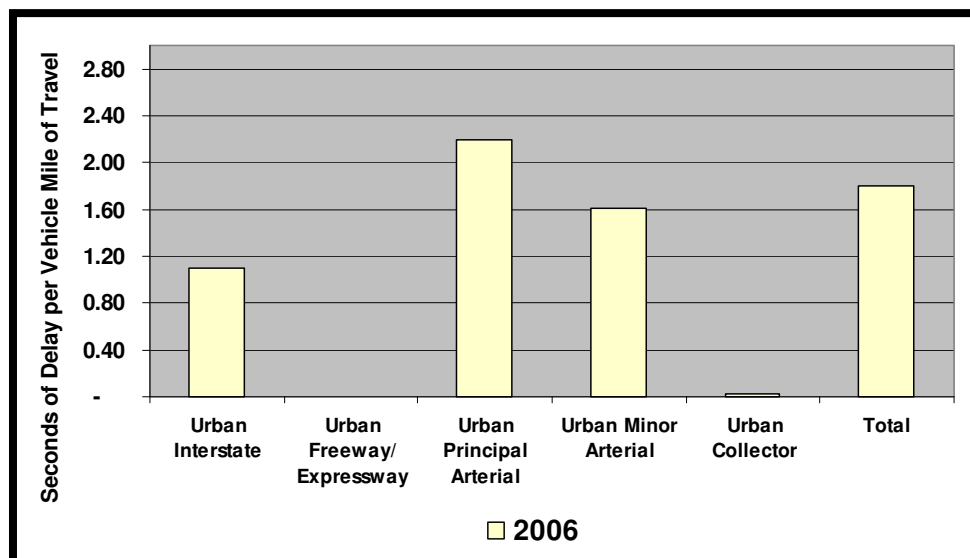


Figure 3.5.2.10  
Seconds of Delay per Vehicle Mile of Travel in 2006  
By Urban Functional Classification





# Southwest Georgia Interstate Study

## Travel Conditions and Patterns

### Future Conditions

Figure 3.5.2.11  
Seconds of Delay per Vehicle Mile of Travel in 2040 E+C  
By Rural Functional Classification

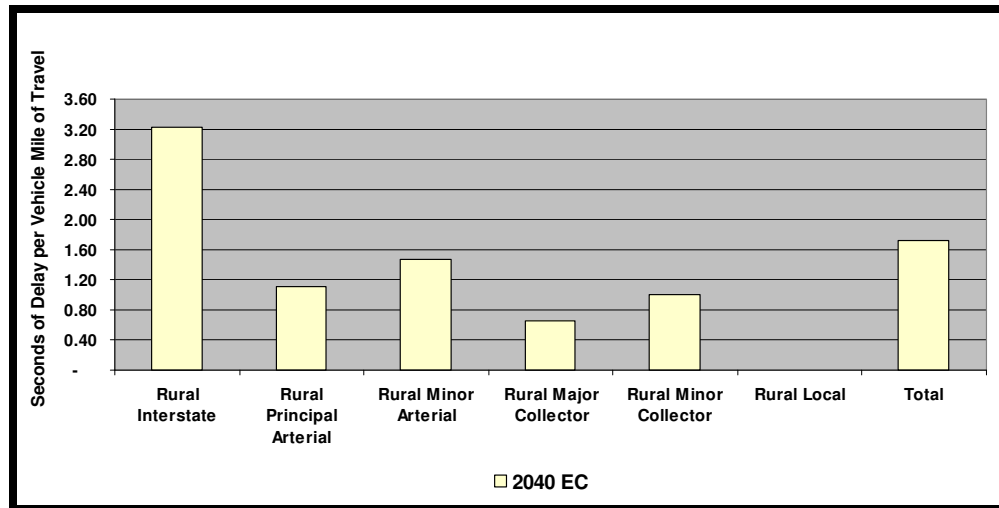
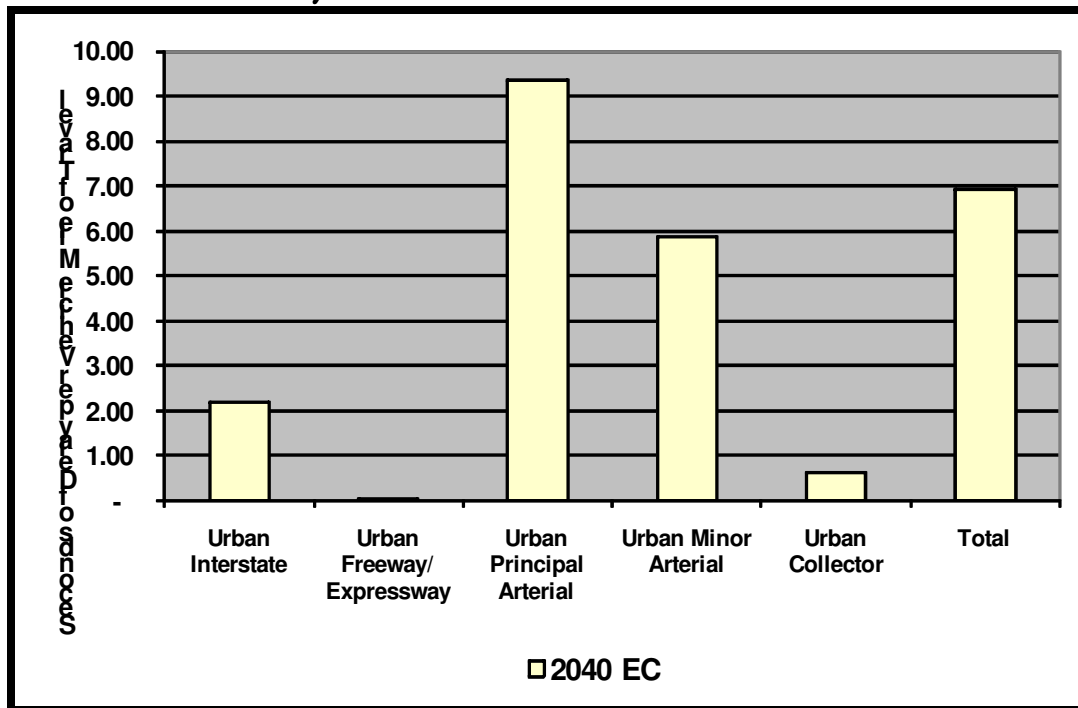


Figure 3.5.2.12  
Seconds of Delay per Vehicle Mile of Travel in 2040 E+C  
By Urban Functional Classification





## Southwest Georgia Interstate Study

# Travel Conditions and Patterns

## Future Conditions

Accessibility to interstate facilities is reflected in Table 3.5.2.8. There are three interstate facilities (I-75, I-185, and I-10) that are accessible to residents and workers in the study area. Almost all of the study area is within one hour access to an interstate facility in 2006 with the exception of the western middle area of Early, Baker, Clay, Calhoun and Randolph counties. In comparing the 2006 network to the 2040 E+C network, the travel time to I-75 increased by 15 percent from Albany and by ten (10) percent from Quitman and Thomasville. Travel time from Lumpkin, Tifton, and Valdosta to I-185 increased over ten (10) percent. Travel times from Georgia cities to I-10 in Florida by far show the highest percentage of increase in travel times during the study period with Bainbridge and Thomasville showing the largest percentage increase at 40 percent or higher. Table 3.5.2.8 shows travel time calculations to the three interstates for many of the urban areas within the study area.

**Table 3.5.2.8**  
**Access Time to Interstate Facility in 2006 and on 2040 E+C Network**  
**(in Minutes)**

| City        | I-75 |      |            | I-185 |      |            | I-10 |      |            |
|-------------|------|------|------------|-------|------|------------|------|------|------------|
|             | 2006 | 2040 | % Increase | 2006  | 2040 | % Increase | 2006 | 2040 | % Increase |
| Albany      | 49   | 56   | 15%        | 96    | 105  | 9%         | 118  | 143  | 21%        |
| Americus    | 42   | 43   | 3%         | 81    | 86   | 6%         | 169  | 198  | 17%        |
| Bainbridge  | 95   | 101  | 6%         | 142   | 144  | 1%         | 61   | 86   | 40%        |
| Blakely     | 117  | 125  | 7%         | 103   | 107  | 4%         | 112  | 139  | 24%        |
| Buena Vista | 82   | 83   | 1%         | 46    | 50   | 8%         | 197  | 219  | 11%        |
| Camilla     | 72   | 73   | 2%         | 129   | 140  | 9%         | 81   | 104  | 28%        |
| Columbus    | 117  | 122  | 5%         | 0     | 0    | 0%         | 205  | 236  | 15%        |
| Cordele     | 0    | 0    | 0%         | 117   | 122  | 5%         | 133  | 140  | 5%         |
| Cuthbert    | 92   | 93   | 1%         | 64    | 69   | 8%         | 145  | 170  | 17%        |
| Dawson      | 64   | 65   | 2%         | 71    | 75   | 6%         | 145  | 175  | 21%        |
| Georgetown  | 121  | 122  | 1%         | 66    | 71   | 7%         | 175  | 203  | 16%        |
| Lumpkin     | 93   | 94   | 1%         | 49    | 54   | 11%        | 167  | 191  | 15%        |
| Moultrie    | 33   | 33   | 1%         | 147   | 159  | 8%         | 79   | 98   | 24%        |
| Oglethorpe  | 46   | 47   | 2%         | 85    | 87   | 2%         | 175  | 182  | 4%         |
| Quitman     | 24   | 26   | 10%        | 185   | 198  | 7%         | 76   | 82   | 8%         |
| Thomasville | 48   | 53   | 10%        | 159   | 171  | 8%         | 50   | 71   | 42%        |
| Tifton      | 0    | 0    | 0%         | 139   | 156  | 12%        | 101  | 107  | 6%         |
| Valdosta    | 0    | 0    | 0%         | 181   | 202  | 12%        | 61   | 65   | 6%         |



## Southwest Georgia Interstate Study

# Travel Conditions and Patterns

## Future Conditions

### 3.5.3 Crash Analysis

The primary purpose of the crash analysis is to identify above average probability crash locations for year 2006 in the study area. This information will be used in the study to aid in determining potentially feasible limited access transportation corridors as well as identifying areas where countermeasures could possibly address potential safety issues. In addition, it will be used to rank potentially feasible freeway corridors in terms of their relative effectiveness toward overall crash reduction. A secondary utility of the above average crash location analysis findings is to provide Georgia DOT District offices and local public works officials with a list of highway sections whose three-year crash experience from 2004 to 2006 exceeds average or ordinary crash rate, total crash frequency or fatal crash frequency experience. Details related to the existing crash locations, methodology, and analysis can be found in the *Existing Conditions Technical Memorandum* and the *Crash Analysis Technical Memorandum*.

The projected number of crashes for the 2040 E+C network was calculated using the rates in Table 3.5.3.1. The table was developed using GDOT's crash rates for 2007 as no data was available for 2006. It was assumed that the 2007 rates were sufficiently close to 2006 rates. The rates were specific to a roadway's functional classifications and in the unit of accidents per 100 million vehicle mile of travel. Assuming the crash rates stay constant over time, the estimated number of crashes was calculated based on VMTs from the travel demand models for 2006 and 2040 E+C network and crash rates for each roadway functional classification. In using this method, safety benefit can be measured across the different alternatives by comparing the total number of forecasted crashes and their severity. Tables 3.5.3.2 and 3.5.3.3 summarize the 2006 total crashes and the projected total crashes on the 2040 E+C System.

**Table 3.5.3.1**  
**Crash Rates**

| 2007 GDOT Crash Rates (Accidents/100 MVMT) |                     |       |        |                 |
|--------------------------------------------|---------------------|-------|--------|-----------------|
| Area                                       | Facility Type       | Fatal | Injury | Property Damage |
| Rural                                      | Interstates         | 0.82  | 17     | 40              |
|                                            | Principal Arterials | 1.99  | 47     | 96              |
|                                            | Minor Arterials     | 2.33  | 62     | 122             |
|                                            | Major Collectors    | 3.24  | 72     | 128             |
|                                            | Minor Collectors    | 1.35  | 33     | 57              |
|                                            | Locals              | 1.87  | 57     | 109             |





# Southwest Georgia Interstate Study

## Travel Conditions and Patterns

### Future Conditions

Table 3.5.3.1 (continued)  
Crash Rates

| 2007 GDOT Crash Rates (Accidents/100 MVMT) |                     |       |        |                 |
|--------------------------------------------|---------------------|-------|--------|-----------------|
| Area                                       | Facility Type       | Fatal | Injury | Property Damage |
| Urban                                      | Interstates         | 0.52  | 43     | 142             |
|                                            | Principal Arterials | 1.46  | 133    | 415             |
|                                            | Minor Arterials     | 1.34  | 126    | 387             |
|                                            | Collectors          | 1.25  | 114    | 360             |
|                                            | Locals              | 1.87  | 57     | 109             |

Source: Crash rates are from GDOT Statewide Mileage, Travel & Accident Data – 2007

It is estimated that approximately 8,300 crashes occurred in the study area in the 2006. Crashes with fatalities accounted for less than one percent of all the crashes while crashes with injuries account for 30 percent of all of the crashes. Crashes with property damage accounted for 70 percent of the crashes. Almost 60 percent of the crashes took place on the functionally classified rural facilities. The majority of the crashes occurred on the arterial facilities.

Table 3.5.3.2  
Total Crashes in 2006

| Area  | Functional Class         | Type Crash |        |                 |       |
|-------|--------------------------|------------|--------|-----------------|-------|
|       |                          | Fatal      | Injury | Property Damage | Total |
| Rural | Rural Interstate         | 8          | 165    | 383             | 555   |
|       | Rural Principal Arterial | 21         | 495    | 1,011           | 1,527 |
|       | Rural Minor Arterial     | 19         | 493    | 972             | 1,483 |
|       | Rural Major Collector    | 21         | 460    | 815             | 1,296 |
|       | Rural Minor Collector    | 0          | 10     | 17              | 27    |
|       | Rural Local              | 0          | 3      | 6               | 10    |
|       | Total                    | 69         | 1,627  | 3,204           | 4,899 |



## Southwest Georgia Interstate Study

# Travel Conditions and Patterns

# Future Conditions

Table 3.5.3.2 (continued)  
Total Crashes in 2006

| Area        | Functional Class         | Type Crash |        |                 |       |
|-------------|--------------------------|------------|--------|-----------------|-------|
|             |                          | Fatal      | Injury | Property Damage | Total |
| Urban       | Urban Interstate         | 1          | 73     | 241             | 314   |
|             | Urban Freeway            | 0          | 8      | 27              | 35    |
|             | Urban Principal Arterial | 7          | 594    | 1,852           | 2,452 |
|             | Urban Minor Arterial     | 2          | 142    | 437             | 581   |
|             | Urban Collector          | 0          | 1      | 3               | 4     |
|             | Total                    | 9          | 817    | 2,560           | 3,386 |
| Grand Total |                          | 78         | 2,444  | 5,764           | 8,285 |

Source: Crash rates are from GDOT Statewide Mileage, Travel & Accident Data – 2007 and Southwest Georgia Travel Demand Model

Table 3.5.3.3 lists the total crashes forecasted for the 2040 E+C network. It is forecasted that total crashes will increase by 42.1 percent or by 3,500 between 2006 and the 2040 E+C scenario. Although it is forecasted that crashes with fatalities will increase by 41.0 percent, this translates to an increase of only 32 between 2006 and 2040. Again the largest number of crashes will involve property damage and will take place on the arterial facilities.

Table 3.5.3.3  
Total Crashes on 2040 E+C Network

| Area  | Functional Class         | Type Crash |        |                 |       |
|-------|--------------------------|------------|--------|-----------------|-------|
|       |                          | Fatal      | Injury | Property Damage | Total |
| Rural | Rural Interstate         | 12         | 244    | 567             | 822   |
|       | Rural Principal Arterial | 35         | 820    | 1,673           | 2,527 |
|       | Rural Minor Arterial     | 25         | 660    | 1,300           | 1,984 |
|       | Rural Major Collector    | 25         | 565    | 1,002           | 1,593 |
|       | Rural Minor Collector    | 0          | 11     | 19              | 30    |
|       | Rural Local              | 0          | 4      | 8               | 13    |
|       | Total                    | 97         | 2,304  | 4,568           | 6,969 |

Table 3.5.3.3 (continued)



# Southwest Georgia Interstate Study

## Travel Conditions and Patterns

### Future Conditions

#### Total Crashes on 2040 E+C Network

| Area        | Functional Class         | Type Crash |        |                 |        |
|-------------|--------------------------|------------|--------|-----------------|--------|
|             |                          | Fatal      | Injury | Property Damage | Total  |
| Urban       | Urban Interstate         | 1          | 109    | 361             | 471    |
|             | Urban Freeway            | 0          | 11     | 39              | 50     |
|             | Urban Principal Arterial | 9          | 849    | 2,648           | 3,506  |
|             | Urban Minor Arterial     | 2          | 188    | 577             | 768    |
|             | Urban Collector          | 0          | 2      | 6               | 8      |
|             | Total                    | 13         | 1,159  | 3,631           | 4,802  |
| Grand Total |                          | 110        | 3,462  | 8,199           | 11,771 |

Source: Crash rates are from GDOT Statewide Mileage, Travel & Accident Data – 2007 and Southwest Georgia Travel Demand Model

#### 3.5.4 Summary

The results of the evaluation of travel conditions between 2006 and 2040 E+C conditions show that there will be a modest increase in daily VMT over the course of the 34 years. Accessibility to the key interstate corridor of I-75 for the study area will only decrease for three of the key urban areas by over 10 percent. The rest of the urban areas will only experience a slight increase in travel time to I-75. The LOS evaluation shows that the 2040 E+C road system will be able to accommodate this increase with the exception of some facilities in the urban areas and the SR 133 corridor between Albany and Valdosta.



## **Southwest Georgia Interstate Study**

# ***Recommendations***

# ***Evaluation of Alternatives***

### **4.7 Recommendations**

Based upon the analyses and evaluations conducted as part of this detailed investigation of the potential feasibility and desirability of construction of a new interstate facility in Southwest Georgia, the following are recommended:

- Do not pursue the construction of an interstate facility in Southwest Georgia;
- Focus of the available resources should be concentrated on completing the existing Governor's Road Improvement Program (GRIP) projects in the study area, especially in the key corridors of:
  - SR 133 from Albany to Valdosta, and
  - US 27;

Further analysis and evaluation of additional roadway upgrades and widenings, including:

- Shoulder widenings,
- Signage improvements,
- Minor widenings, passing lanes, and lane width standardization.
- Improvements through various towns/cities, and
- Evaluations for consistency of speed limits on major intercity highways.



## Southwest Georgia Interstate Study

# ***Initial Alternatives Development Evaluation of Alternatives***

### **4.0 Initial Alternatives Development**

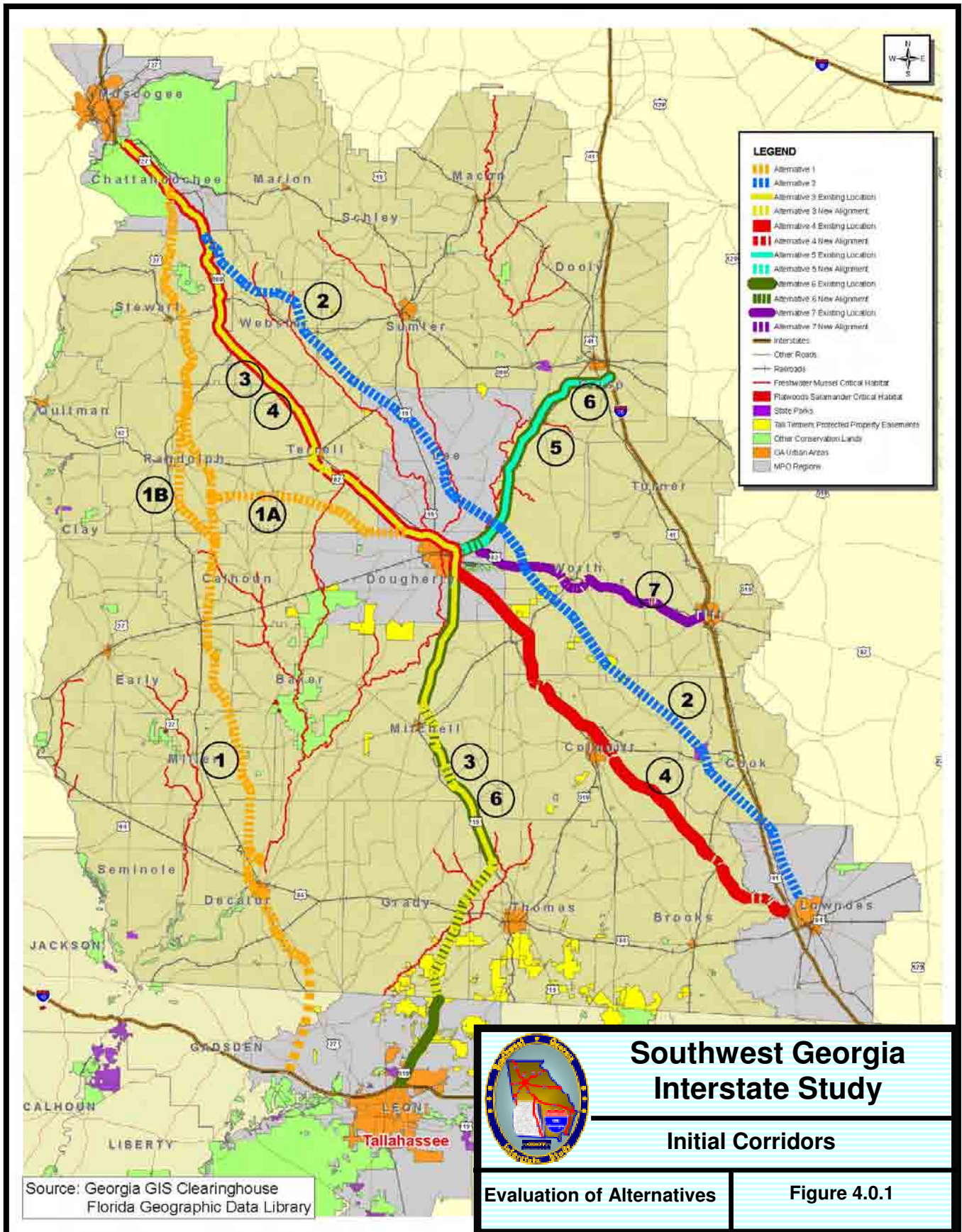
Consistent with the objectives of the Southwest Georgia Interstate Study, ten initial alternative corridors were developed to examine potential alignments for interstate facilities that would connect southwest Georgia to I-10, I-75, and I-185. The corridors were defined by looking at travel flows within the study area, potential competing roadway facilities, and the ability improve connections between cities in the study area while serving interstate travel. After evaluation of these ten initial alternative corridors, four corridors were identified for detailed evaluation.

The ten alternative corridors are shown in Figure 4.0.1, and include seven distinct corridors and three variants of Alternative 1. Figure 4.0.1 shows a number of environmental constraints that were examined in screening alternatives including: critical habitats, state parks and conservation areas, streams and creeks, and Tall Timbers protected property easements. Tall Timbers is a non-profit organization that assists private landowners in placing their property in conservation easements.

#### ***4.0.1 Description of Initial Alternatives***

- Alternative 1 is a north to south alignment from Columbus to I-10 paralleling US-27
- Alternative 1A is a north to south alignment from Columbus to south of Cuthbert in Randolph County where it continues east and south to Albany
- Alternative 1B is the same as Alternative 1 except that in the vicinity of Cuthbert the alignment comes much closer to Cuthbert
- Alternative 2 is a northwest to southeast diagonal from Columbus to I-75 north of Valdosta
- Alternative 3 is a northwest to southeast diagonal between Columbus and Albany, then continues south from Albany to I-10 near Tallahassee, FL
- Alternative 4 is a northwest to southeast diagonal from Columbus to Valdosta running through Albany
- Alternative 5 is a northeast to southwest diagonal from I-75 south of Cordele to Albany
- Alternative 6 is a northeast to southwest alignment from Cordele to Albany and then a north to south alignment from Albany to I-10 near Tallahassee, FL
- Alternative 7 is a west to east alignment from Albany to I-75 at Tifton







## Southwest Georgia Interstate Study

# Initial Alternatives Development Evaluation of Alternatives

### 4.0.2 Alternatives Screening

Alternatives were screened against criteria in Table 4.0.2.1 below taken from the *Performance Measures Technical Memorandum*.

Table 4.0.2.1  
Criteria for Screening of Initial Alignments

| Category                    | Criteria                                     |
|-----------------------------|----------------------------------------------|
| Mobility Impacts            | 1. Highway travel demand                     |
|                             | 2. Safety                                    |
|                             | 3. Accessibility                             |
|                             | 4. Connectivity                              |
| Social and Cultural Impacts | 1. Effects on cultural environment           |
|                             | 2. Effects on historic sites                 |
| Environmental Impacts       | 1. Effects on natural environment            |
|                             | 2. Effects on land use                       |
| Other Factors               | 1. Consistency with local and regional plans |
|                             | 2. Construction effects                      |
|                             | 3. Constructability                          |

The initial screening measures focus on the assessment of the nine initial alignments at a broad brush level according to general qualitative criteria that allow selection of the four alignments that show the most promise for implementation for later detailed analysis.

Each of the alternatives was reviewed by project team members with expertise in the relevant evaluation categories. All alternatives were evaluated for “fatal flaws” which are severe constraints or combinations of constraints that affect alternatives such that they do not appear to be viable alternatives in addressing improved interstate access within the study area. Examples of fatal flaws related to the environmental concerns could include the taking of endangered species habitat, or public parklands, or impacts to historic sites on the National Register. Often for these impacts, mitigation costs are extremely high or amending the alternative is so impractical as to call into question feasibility of the alternative.

This evaluation of fatal flaws allows differentiation between alternatives to allow focus on those that have the best chance for success. Table 4.0.2.2 shows the evaluation of each alternative against the screening criteria and provides a key for the ratings given for each criteria.



# Southwest Georgia Interstate Study

## Initial Alternatives Development

### Evaluation of Alternatives

Figure 4.0.2.2  
Screening of Initial Alignments

| Screening CategoryCriteriaCriteria Description |    |                                           | Alternative |    |    |    |    |    |    |    |    |
|------------------------------------------------|----|-------------------------------------------|-------------|----|----|----|----|----|----|----|----|
|                                                |    |                                           | 1           | 1A | 1B | 2  | 3  | 4  | 5  | 6  | 7  |
| Mobility Impacts                               | 1  | Highway travel demand                     | --          | -- | -- | +  | ++ | +  | ++ | ++ | ++ |
|                                                | 2  | Safety                                    | +           | +  | +  | ++ | +  | ++ | +  | +  | +  |
|                                                | 3  | Accessibility                             | -           | -  | -  | +  | +  | +  | -  | +  | -  |
|                                                | 4  | Connectivity                              | -           | -- | -  | +  | +  | ++ | -- | +  | 0  |
| Social and Cultural Impacts                    | 5  | Effects on cultural environment           | -           | -  | -  | -- | -  | -  | -  | -  | -  |
|                                                | 6  | Effects on historic sites                 | 0           | -  | 0  | 0  | 0  | 0  | -  | 0  | -  |
| Environmental Impacts                          | 7  | Effects on natural environment            | -           | -  | -  | -- | -  | 0  | 0  | -  | 0  |
|                                                | 8  | Effects on land use                       | +           | 0  | +  | -  | -  | -  | +  | +  | +  |
| Other Factors                                  | 9  | Consistency with local and regional plans | +           | +  | +  | +  | -  | +  | +  | -  | +  |
|                                                | 10 | Construction effects                      | -           | -  | -  | +  | -  | 0  | -  | -  | -  |
|                                                | 11 | Constructability                          | -           | 0  | -  | -  | 0  | +  | +  | 0  | +  |

| Key          |    |
|--------------|----|
| Excellent    | ++ |
| Good         | +  |
| Fair         | 0  |
| Poor         | -  |
| Unacceptable | -- |



## **Southwest Georgia Interstate Study**

# ***Initial Alternatives Development Evaluation of Alternatives***

Based on the screening of initial alignments, alignments 1, 1A, 1B, 2 and 5 were eliminated from consideration for detailed analysis and assessment because they each had one or more unacceptable measure on an evaluation criteria. Alternative 1, 1A and 1B showed relatively little travel demand, and Alternative 1A does little to improve connectivity to the study area. Alternative 2 was considered to have negative impacts on the natural and cultural environment as the alternative that had the greatest distance over previously little impacted lands and environmentally sensitive areas, furthest from cities within the study area. Alternative 5 parallels GA 300 and so provides little additional accessibility, and it is entirely incorporated in Alternative 6 which provides greater accessibility and connectivity.

Alternatives 3, 4, 6, and 7 all show relatively high travel demand and generally provide higher accessibility and safety benefits than the other alternatives. And none of these alternatives were thought to have fatal flaws that put their development in question. Based on this initial screening assessment, these alternatives were chosen for further detailed study and development.



# Southwest Georgia Interstate Study

## ***Final Alternatives Development Evaluation of Alternatives***

### 4.1 Final Studied Alternatives

Figure 4.1.1 depicts the final four alternatives used for the detailed evaluation of hypothetical interstate alignments in the Southwest Georgia Interstate Study. The numbering of alternatives changed from the initial alternatives studied to keep the final four alternatives numbered 1 through 4. Table 4.1.1 shows the renumbering of the initial alternatives and notes differences from the initial alternative to the final alternative.

**Table 4.1.1**  
**Initial Alternative to Final Alternative Numbering**

| <b>Initial Alternative</b> | <b>Final Alternative</b> | <b>Differences</b>               |
|----------------------------|--------------------------|----------------------------------|
| 3                          | 1                        |                                  |
| 4                          | 2                        |                                  |
| 6                          | 3                        |                                  |
| 7                          | 4                        | Extended from Albany to Columbus |

Alternatives 1 and 3 have alternate corridors that vary the alignment from the initial alignments. Alternative 1A and 3A bring the corridor closer to Cairo, GA to encourage economic development impacts in that location. The detailed analysis of these four alignments are summarized in the following sections.

#### ***4.1.1 Description of the Studied Alternative Corridors***

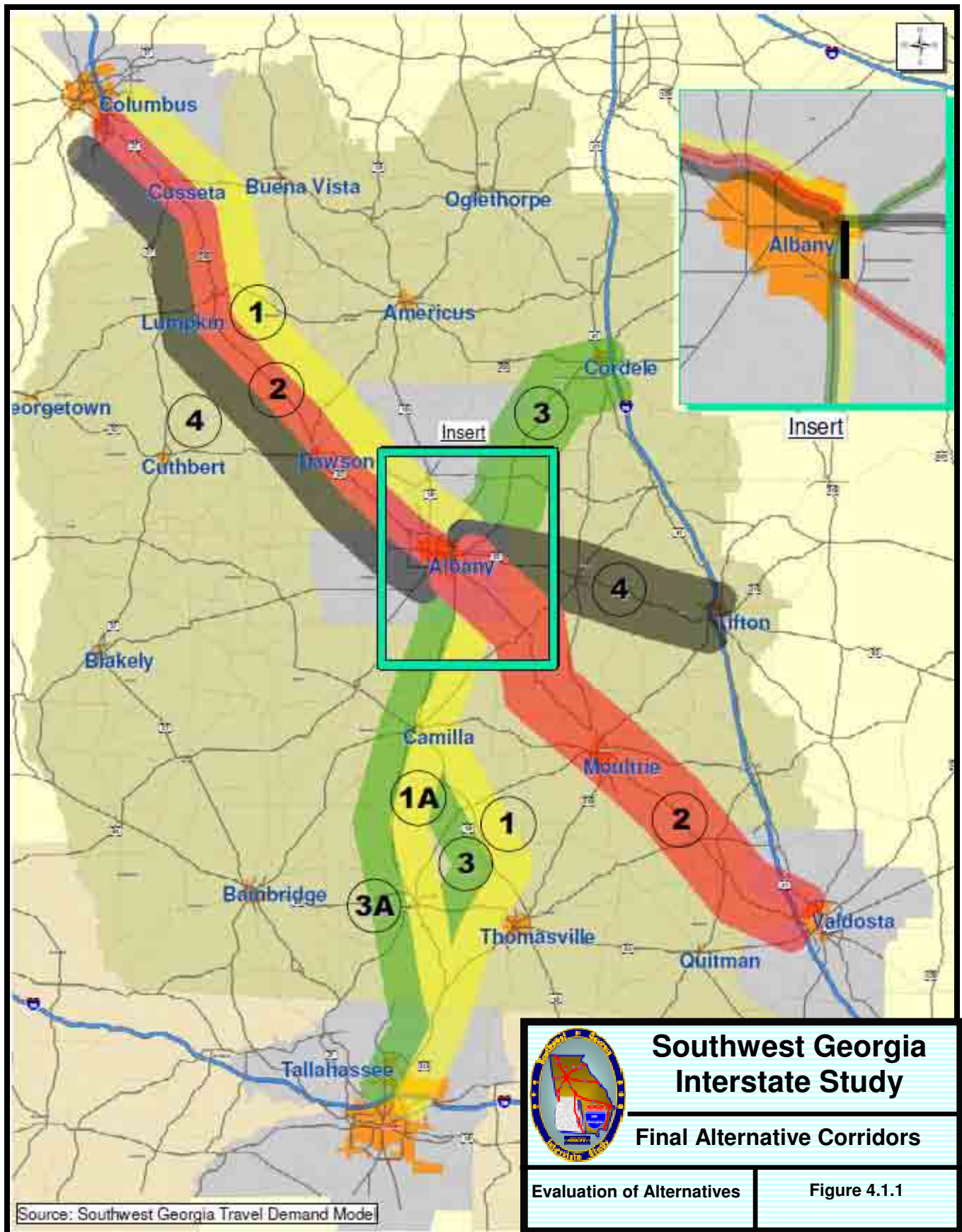
All of the studied alternatives are assumed to be on a new alignment roughly paralleling existing roads. Right-of-way to accommodate development of a new Interstate facility is assumed to be 300 feet wide. The Southwest Georgia Interstate Study Alternatives are displayed in Figure 4.1.1.1.

Alternative 1 is from I-185 in Columbus to I-10 in Tallahassee, FL. From Columbus to Albany it parallels GA 520, travels on Liberty Expressway within Albany, then south to Tallahassee first paralleling US 19/GA 300 and then US 319/GA 35. An alternate alignment 1A for the section between Camilla and Tallahassee would first parallel GA 112 and 93 and then US 319/GA 35 near Moncrief, Georgia.

Alternative 2 is from I-185 in Columbus to I-75 in Valdosta. It has the same alignment as Alternative 1 from Columbus through Albany but then continues southeast paralleling GA 133 to I-75 at Valdosta.

Alternative 3 is from I-75 in Cordele to I-10 in Tallahassee. It runs southwest from I-75 at Cordele paralleling GA 300 to Albany then follows the same alignment as Alternative 1 from







# Southwest Georgia Interstate Study

## ***Final Alternatives Development Evaluation of Alternatives***

Albany to I-10 in Tallahassee. An alternate alignment 3A would follow the same alignment as Alternative 1A.

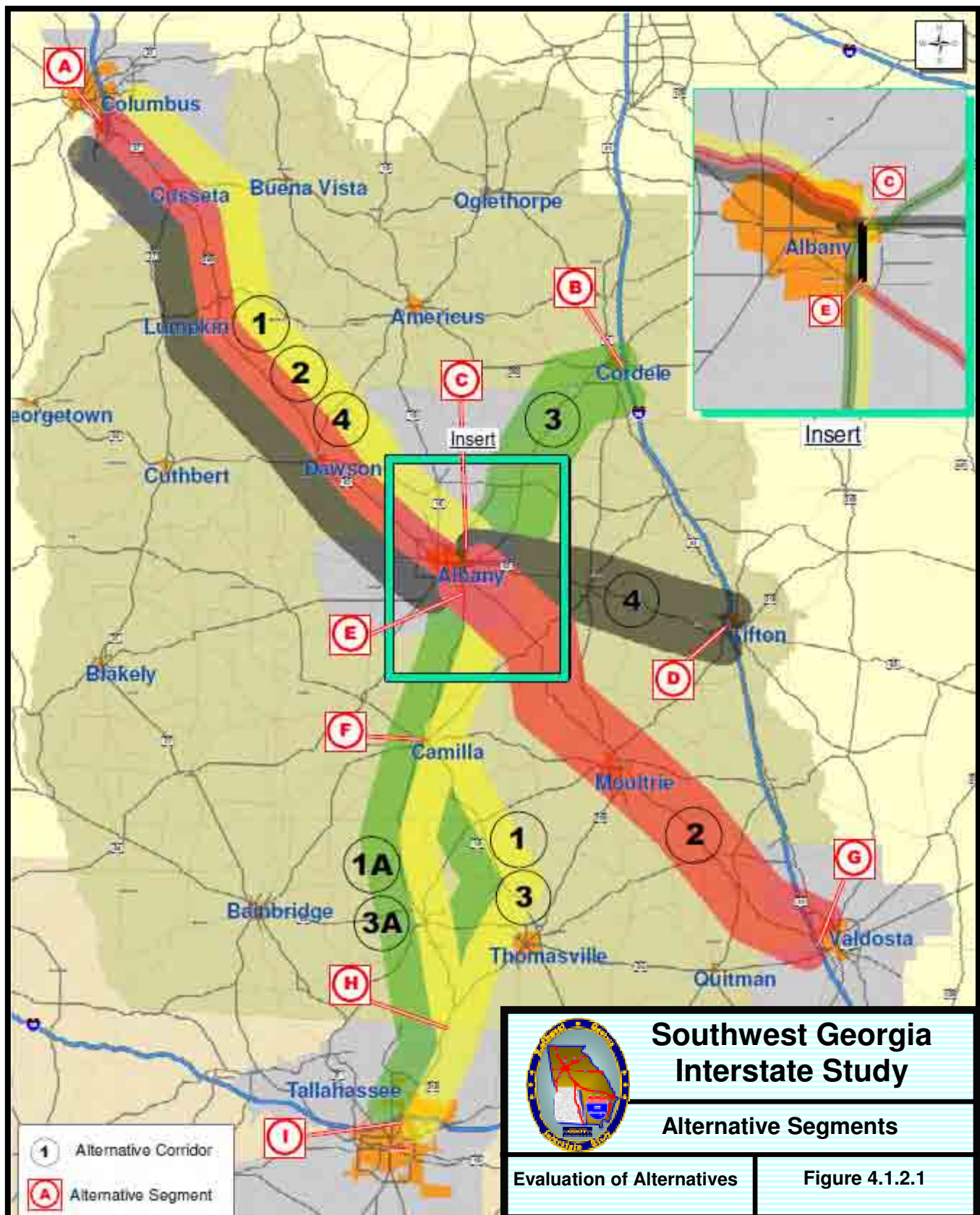
Alternative 4 is from I-185 in Columbus to I-75 at Tifton. It has the same alignment as Alternative 1 from Columbus through Albany but then continues southeast paralleling US 82/GA 520 to I-75 at Tifton.

### ***4.1.2 Segments***

Each alternative was divided into segments which are identified in Figure 4.1.2.1 and listed in Table 4.1.2.1. These segments were defined to allow a further break down of alternatives which could be combined for additional analysis (to mix and match between different portions of alternatives). Most of the analysis on the alternatives was performed at both the alternative and segment level.

**Table 4.1.2.1**  
**Alternative Segments**

| <b>Segment</b> | <b>Limits</b>                              | <b>Studied Corridors</b> |
|----------------|--------------------------------------------|--------------------------|
| A-C            | Columbus to Albany                         | 1, 2, & 4                |
| B-C            | Cordele to Albany                          | 3                        |
| C-E            | North Albany to South Albany               | 1, 2, 3 & 4              |
| F              | Albany to Camilla                          | 1 & 3                    |
| E-D            | Albany to Tifton                           | 4                        |
| F-H (East)     | Camilla to Florida/Georgia County Line     | 1 & 3                    |
| F-H (West)     | Camilla to Florida/Georgia County Line     | 1A & 3A                  |
| H-I            | Florida/Georgia County Line to Tallahassee | 1, 1A, 3 & 3A            |







## **Southwest Georgia Interstate Study**

# **Environmental Assessment**

### **Evaluation of Alternatives**

## **4.2 Environmental Assessment**

The four studied alternatives were assessed for impacts to natural resources including wetlands, streams, known protected species critical habitat (designated by the United States Fish and Wildlife Service (USFWS)), and various conservation lands including GA State Parks, Wildlife Management Areas, Natural Areas, and Tall Timbers Protected Property Easements. Tall Timbers is a non-profit organization that assists private landowners in placing their property in conservation easements. Wetland polygons were obtained from the USFWS National Wetland Inventory (NWI) GIS layers; stream layers were part of the National Hydrography Dataset (NHD). Preliminary stream and wetland impacts were calculated within a 300' buffer centered on each preliminary corridor. The environmental screening was performed at both corridor and segment level.

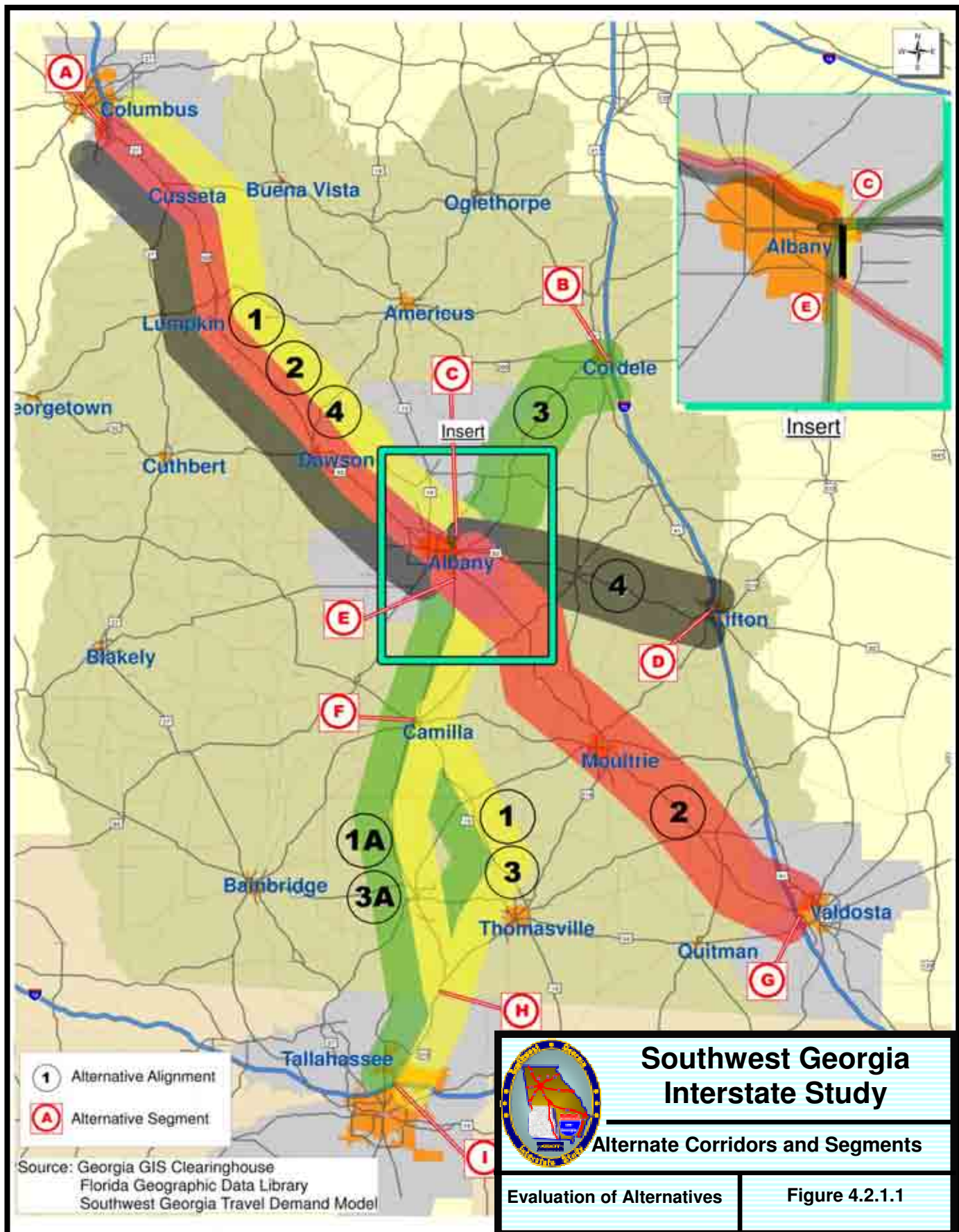
### ***4.2.1 Alternative Corridor Assessments***

The alternative corridors and segments are shown in Figure 4.2.1.1. There are four alternative corridors. Two of the corridors, Alternatives 1 and 3 have alternate routing between Camilla and the Georgia/Florida state line.

#### **4.2.1.1 Alternative Corridor 1**

This alternative corridor begins southeast of Columbus within the Ft. Benning Military Preserve property which harbors significant long-leaf pine habitat for the protected red-cockaded woodpecker. It then approximately follows the ridgeline between the Middle Chattahoochee and Kinchafoonee-Muckalee Creek watersheds greatly reducing the potential for stream and wetland impacts in this area. Continuing southeast, this alignment enters the northern limits of the Ichawaynochaway watershed crossing Chickasawhatchee Creek, designated critical habitat for five protected freshwater mussels (fat threeridge, purple bankclimber, shinyrayed pocketbook, oval pigtoe, and Gulf moccasinshell) and several of its headwater tributaries. As Alignment 1 approaches the northern border of Albany, it enters the juncture of three major watersheds: the Kinchafoonee-Muckalee Creek, the Middle Flint-Lake Blackshear, and the Lower Flint, forming Lake Chehaw, a Georgia Power Reservoir. Alignments here have a high potential for wetland and stream impacts due to the large confluence of these watersheds with altered hydrology and the high density of floodplain wetlands. All three of the major streams entering Lake Chehaw are also designated critical habitat for the aforementioned freshwater mussels. Beyond this convergence of watersheds, the proposed alignment turns south along the eastern border of Albany.

Beginning at the eastern edge of Albany, this alternative travels south into the Lower Flint watershed and roughly parallels the Flint River to the west (also designated freshwater mussel critical







## **Southwest Georgia Interstate Study**

# ***Environmental Assessment Evaluation of Alternatives***

habitat), crossing perpendicularly over multiple perennial tributaries to this river including Dry Creek and Raccoon Creek as it approaches the City of Camilla. A large portion of this Flint River subbasin in the Coastal Plain is underlain by carbonate rocks, forming a region of karst topography consisting of sinkholes, ephemeral streams, and caverns. The principle source of water for this area of the state originates from the limestone-dominated Upper Floridan Aquifer meaning fewer surficial stream systems; however, open water wetlands are common creating an increased risk for impact to protected wood stork nesting and foraging habitat. Beginning approximately 2 miles north of the City of Camilla, this alignment bypasses this town to either the east (alternative 1) or the west (alternative 1A) and turns south towards Florida.

Following Alternative 1A, the northern third of this corridor follows the eastern edge of the Lower Flint watershed and its distinctive karst topography discussed above before entering the Upper Ochlockonee watershed. This area is within the known range of the state and federally protected eastern indigo snake and state protected gopher tortoise. Eastern indigo snakes generally occupy the sandy upland areas between wetlands during the colder months where they utilize the burrows of gopher tortoises for refuge. The gopher tortoises can be found in sandhills, flatwoods, and turkey oak scrub, but are being forced to expand their ranges into more anthropogenic habitats due to the loss of their characteristic longleaf pine-wiregrass habitat which is rapidly declining. As alternative 1A continues south, it crosses several tributaries to the Ochlockonee River, and eventually the river itself, which is known critical habitat for four protected freshwater mussels. This region also supports a vast system of floodplain wetlands around its stream network due to the relatively level topography common in the southern Coastal Plain. Just south of the Ochlockonee River is a large collection of conservation areas that are part of the Tall Timbers protected property easements. These lands encompass a significant percentage of the property near the Georgia/Florida border. This proposed alternative then turns southeast into the Lower Ochlockonee watershed before reaching the state line.

Following Alternative 1 begins with an eastern bypass around Camilla, travelling approximately south within the Lower Flint watershed (see alternative 1A narrative for a description of this area). Continuing south into the Upper Ochlockonee watershed, this alternative crosses (or intersects tributaries to) Little Ochlockonee Creek, Barnett's Creek, and the Ochlockonee River, all designated critical habitat for protected freshwater mussels. This stretch has one of the highest impact estimates for streams and the highest for wetlands due to the vast network of riparian corridors throughout the Upper Ochlockonee watershed. Like its parallel alignment (alternative 1A), this alignment enters an area just south of the Ochlockonee River near the Georgia/Florida border that is comprised of multiple Tall Timbers protected property easements.



## **Southwest Georgia Interstate Study**

# **Environmental Assessment Evaluation of Alternatives**

Upon entering Florida, Alternative 1 must cross through a dense portion of Tall Timbers protected property easements just south of the state line and continue to the Tallahassee city limits. Also in this area of the Lower Ochlockonee watershed are two major environmentally sensitive resources between which the alignment is proposed to pass: Lake Imonia to the west and a large wetland system to the east known as Foshalee Slough. Both of these features are potential habitat for the protected bald eagle and wood stork. As the alternative approaches Tallahassee, it enters the Apalachee Bay-St. Marks watershed and passes just east of Alfred P. Malay Gardens State Park before tying in with I-10. Due to the width of the required corridor for the proposed corridor, it would be difficult to navigate this segment through this portion of Florida without intersecting a Tall Timbers property.

### **4.2.1.2 Alternative Corridor 2**

This corridor also begins southeast of Columbus within the Ft. Benning Military Preserve property and follows the same path as Alternative Corridor 1 to the eastern border of Albany. Alternative corridor 2 then travels south along the eastern border of Albany into the Lower Flint watershed before turning southeast towards Moultrie. Just outside Albany city limits, the alternative passes adjacent to the southwestern corner of the Albany Military Base. Near the southeast corner of the Dougherty County line, it intersects Dry Creek and its adjacent Dry Creek Swamp Preserve before skirting the southwestern boundary of a Tall Timbers property. Alternative 2 then crosses into the Upper Ochlockonee watershed and turns south before passing adjacent to the Doerun Pitcherplant Bog Natural Area just south of the town of Doerun. There are several known populations of protected pitcherplant within a few miles radius of this Natural Area that can generally be found in high quality low areas within pine flatwoods. Near Moultrie, the alternative enters the Withlacoochee River watershed and continues southeast along this basin's eastern boundary. Just before exiting Colquitt County, Alternative 2 runs adjacent to an outlier easement of the Eufaula National Wildlife Refuge, also a potential habitat for the protected wood stork. Approximately midway between Moultrie and Valdosta, the alignment crosses into the Little River watershed where it continues southeast roughly paralleling the Little River drainage to the south. The alternative briefly traverses the Little River and the Withlacoochee River at the juncture of their respective watersheds before connecting with I-75 just west of Valdosta city limits.

### **4.2.1.3 Alternative Corridor 3**

Beginning at I-75 just south of Cordele city limits, this corridor heads west then southwest towards Albany and is wholly contained within the Middle Flint-Lake Blackshear watershed roughly paralleling the Flint River to the east for most of its distance. Continuing southwest, paralleling Lake Blackshear, Alternative 3 crosses several small tributaries to the Flint River and their associated floodplains. While this segment does not cross the Flint River, it does perpendicularly traverse several of its major tributaries including Mill Creek, Abrams Creek, Jones Creek, and Swift



## **Southwest Georgia Interstate Study**

# ***Environmental Assessment Evaluation of Alternatives***

Creek, all designated as critical habitat for protected freshwater mussels. Near the confluence of Mill Creek and the Flint River, this segment passes just east of a Tall Timbers property. This segment also crosses a branch of Lake Blackshear formed by the backup of Swift Creek to the east of the Flint River. While this area of the lake is primarily residential bordered by agriculture, there is potential protected bald eagle foraging habitat within this area. This segment does not intersect any known conservation lands.

Beginning at the eastern edge of Albany, Alternative 3 travels south into the Lower Flint watershed and roughly parallels the Flint River to the west (also designated a freshwater mussel critical habitat), crossing perpendicularly over multiple perennial tributaries to this river including Dry Creek and Raccoon Creek as it approaches the City of Camilla. A large portion of this Flint River subbasin in the Coastal Plain is underlain by carbonate rocks, forming a region of karst topography consisting of sinkholes, ephemeral streams, and caverns. The principle source of water for this area of the state originates from the limestone-dominated Upper Floridan Aquifer meaning fewer surficial stream systems; however, open water wetlands are common creating an increased risk for impact to protected wood stork nesting and foraging habitat. Beginning approximately 2 miles north of the City of Camilla, this alternative bypasses this town to either the east (Alternative 3) or the west (Alternative 3A) and turns south towards Florida.

Following Alternative 3A, the northern third of this corridor follows the eastern edge of the Lower Flint watershed and its distinctive karst topography discussed above before entering the Upper Ochlockonee watershed. This area is within the known range of the state and federally protected eastern indigo snake and state protected gopher tortoise. Eastern indigo snakes generally occupy the sandy upland areas between wetlands during the colder months where they utilize the burrows of gopher tortoises for refuge. The gopher tortoises can be found in sandhills, flatwoods, and turkey oak scrub, but are being forced to expand their ranges into more anthropogenic habitats due to the loss of their characteristic longleaf pine-wiregrass habitat which is rapidly declining. As Alternative 3A continues south, it crosses several tributaries to the Ochlockonee River, and eventually the river itself, which is known critical habitat for four protected freshwater mussels. This region also supports a vast system of floodplain wetlands around its stream network due to the relatively level topography common in the southern Coastal Plain. Just south of the Ochlockonee River is a large collection of conservation areas that are part of the Tall Timbers protected property easements. These lands encompass a significant percentage of the property near the Georgia/Florida border. This proposed alignment then turns southeast into the Lower Ochlockonee watershed before reaching the state line.

Following Alternative 3 begins with an eastern bypass around Camilla, travelling approximately south within the Lower Flint watershed (see alternative 3A narrative for a description of this area).



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# **Environmental Assessment Evaluation of Alternatives**

Continuing south into the Upper Ochlockonee watershed, this alternative crosses (or intersects tributaries to) Little Ochlockonee Creek, Barnett's Creek, and the Ochlockonee River, all designated critical habitat for protected freshwater mussels. This stretch has one of the highest impact estimates for streams and the highest for wetlands due to the vast network of riparian corridors throughout the Upper Ochlockonee watershed. Like its parallel alignment (alternative 3A), this alignment enters an area just south of the Ochlockonee River near the Georgia/Florida border that is comprised of multiple Tall Timbers protected property easements.

Upon entering Florida, Alternative 3 must cross through a dense portion of Tall Timbers protected property easements just south of the state line and continue to the Tallahassee city limits. Also in this area of the Lower Ochlockonee watershed are two major resources between which the alternative is proposed to pass: Lake Imonia to the west and a large wetland system to the east known as Foshalee Slough. Both of these features are potential habitat for the protected bald eagle and wood stork. As the alignment approaches Tallahassee, it enters the Apalachee Bay-St. Marks watershed and passes just east of Alfred P. Malay Gardens State Park before tying in with I-10. Due to the width of the required corridor for the proposed alignment, it would be difficult to navigate this segment through this portion of Florida without intersecting a Tall Timbers property.

#### **4.2.1.4 Alternative Corridor 4**

This alternative, like Alternatives 1 and 2, begins southeast of Columbus within the Ft. Benning Military Preserve property and follows their same path to the eastern border of Albany.

From the eastern border of Albany, Alternative 4 heads east within the Middle Flint-Lake Blackshear watershed along the Piney Woods Creek drainage. It bypasses the Albany Marine Base to the north and continues east into the Little River watershed. While the incidence of riparian floodplain wetlands is lower in this region, the multitude of streams greatly increases the impact estimates for this alignment. Most of the perennial stream corridors in this watershed, however, flow roughly north to south meaning a west to east crossing would allow for more perpendicular crossings, thus minimizing potential natural resource impacts. Alternative 4 passes just south of an outlier conservation easement, east of the town of Sylvester, for the Eufaula National Wildlife Refuge in Alabama; this property contains high quality bottomland-forested riparian wetlands and is known habitat for protected wood storks. As the alternative continues east, it crosses the Little River and its riparian floodplain wetland system before connecting with I-75 just west of the city limits of Tifton.

#### **4.2.1.5 Summary of Alternative Corridor Assessment**

Table 4.2.1.5.1 summarizes the potential impact the alternative corridors would have on environmentally sensitive lands and various land uses. Alternative 1 would have the most impact on



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streams while Alternative 3 would have the most impact on wetlands. Alternative 1A would have the second most impact on streams while Alternatives 1 and 3A would have second most impact on wetlands. Alternative 3A would have the least impact on streams while Alternative 4 would have the least impact on wetlands.

All of the alternatives would have significant impact on forest and agricultural land uses. Alternatives 1 and 1A would have the most impact on forest lands while Alternative 2 would have the most impact on agricultural lands. Alternatives 3A and 4 would have the least impact on forest lands while Alternatives 3, 3A and 4 would have the least impact on agricultural lands.

All of the alternatives would not have as dramatic an impact on commercial and residential land uses. The potential impact on commercial land use ranges from 85 to 186 acres. Alternative 3 would have the least impact on commercial land uses while Alternative 1A would have the most potential impact. All of the alternatives would have a greater impact on residential land uses than commercial land uses. Alternative 1 and 4 would have the most impact on potential residences while Alternatives 3 and 3A would have the least impact.

Table 4.2.1.5.1  
Alternative Corridor Environmental Assessment Summary

| Ecology     |               |          | Land        |            |         |              |
|-------------|---------------|----------|-------------|------------|---------|--------------|
|             | Streams       | Wetlands | Residential | Commercial | Forest  | Agricultural |
| Alternative | (Linear Feet) | (Acres)  | (Acres)     | (Acres)    | (Acres) | (Acres)      |
| 1           | 56,506        | 276      | 584         | 170        | 2,455   | 1,802        |
| 1A          | 49,137        | 203      | 609         | 186        | 2,353   | 1,856        |
| 2           | 47,500        | 140      | 539         | 152        | 1,755   | 2,439        |
| 3           | 42,177        | 346      | 294         | 85         | 1,781   | 1,398        |
| 3A          | 34,808        | 273      | 319         | 101        | 1,679   | 1,452        |
| 4           | 39,890        | 100      | 628         | 163        | 1,610   | 1,416        |





## **Southwest Georgia Interstate Study**

# **Environmental Assessment Evaluation of Alternatives**

### ***4.2.2 Alternative Segment Assessments***

The potential impact on environmentally sensitive lands and various land uses were also assessed by segment. The segments by corridor were also shown in Figure 4.2.1.1 on page 4-12. The purpose of this assessment is to determine which segments of the alternative corridors have the potential to have most impact.

#### **4.2.2.1 Segment AC from Columbus to Albany**

This segment begins southeast of Columbus within the Ft. Benning Military Preserve property which harbors significant long-leaf pine habitat for the protected red-cockaded woodpecker. The segment then approximately follows the ridgeline between the Middle Chattahoochee and Kinchafoonee-Muckalee Creek watersheds greatly reducing the potential for stream and wetland impacts in this area. Continuing southeast, this segment enters the northern limits of the Ichawaynochaway watershed crossing Chickasawhatchee Creek, designated critical habitat for five protected freshwater mussels (fat threeridge, purple bankclimber, shinyrayed pocketbook, oval pigtoe, and Gulf moccasinshell) and several of its headwater tributaries. As this segment approaches the northern border of Albany, it enters the juncture of three major watersheds: the Kinchafoonee-Muckalee Creek, the Middle Flint-Lake Blackshear, and the Lower Flint, forming Lake Chehaw, a Georgia Power Reservoir. Segment crossings here have a high potential for wetland and stream impacts due to the large confluence of these watersheds with altered hydrology and the high density of floodplain wetlands. All three of the major streams entering Lake Chehaw are also designated critical habitat for the aforementioned freshwater mussels. Beyond this convergence of watersheds, the proposed segment turns south along the eastern border of Albany. This segment does not intersect any known conservation lands.

#### **4.2.2.2 Segments CE and EF from Albany to Camilla**

Beginning from the eastern edge of Albany, this alignment segment travels south into the Lower Flint watershed and roughly parallels the Flint River to the west (also designated freshwater mussel critical habitat), crossing perpendicularly over multiple perennial tributaries to this River including Dry Creek and Raccoon Creek as it approaches the City of Camilla. A large portion of this Flint River subbasin in the Coastal Plain is underlain by carbonate rocks, forming a region of karst topography consisting of sinkholes, ephemeral streams, and caverns. The principle source of water for this area originates from the limestone-dominated Upper Floridan Aquifer meaning fewer surficial stream systems; however, open water wetlands are common creating an increased risk for impact to protected wood stork nesting and foraging habitat. This segment does not intersect any known conservation lands.

#### **4.2.2.3 Segment F-H West from Camilla to the Georgia/Florida State Line**



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Beginning approximately 2 miles north of the City of Camilla, this segment bypasses this town to the west and turns south towards Florida. The northern third of this segment follows the eastern edge of the Lower Flint watershed and its distinctive karst topography discussed above before entering the Upper Ochlockonee watershed. This area is within the known range of the state and federally protected eastern indigo snake and state protected gopher tortoise. Eastern indigo snakes generally occupy the sandy upland areas between wetlands during the colder months where they utilize the burrows of gopher tortoises for refuge. The gopher tortoises can be found in sandhills, flatwoods, and turkey oak scrub, but are being forced to expand their ranges into more anthropogenic habitats due to the loss of their characteristic longleaf pine-wiregrass habitat which is rapidly declining. As this segment continues south, it crosses several tributaries to the Ochlockonee River, and eventually the river itself, which is known critical habitat for four protected freshwater mussels. This region also supports a vast system of floodplain wetlands around its stream network due to the relatively level topography common in the southern Coastal Plain. Just south of the Ochlockonee River is a large collection of conservation areas that are part of the Tall Timbers protected property easements. These lands encompass a significant percentage of the property near the Georgia/Florida border. This segment of proposed alignment then turns southeast into the Lower Ochlockonee watershed before reaching the state line. The southern end of this segment would be difficult to navigate off of existing roadways without impacting one the Tall Timbers properties.

#### **4.2.2.4 Segment F-H East from Camilla to the Georgia/Florida State Line**

This segment begins with an eastern bypass around Camilla, travelling approximately south within the Lower Flint watershed (see previous segment of alternatives 1 & 3 for a description of this area). Continuing south into the Upper Ochlockonee watershed, this segment crosses (or intersects tributaries to) Little Ochlockonee Creek, Barnett's Creek, and the Ochlockonee River, all designated critical habitat for protected freshwater mussels. This segment has one of the highest impact estimates for streams and the highest for wetlands due to the vast network of riparian corridors throughout the Upper Ochlockonee watershed. Like its parallel segment (F-H West), this segment enters an area just south of the Ochlockonee River near the Georgia/Florida border that is comprised of multiple Tall Timbers protected property easements. No other known conservation lands would be intersected by this segment.

#### **4.2.2.5 Segment H-I from the Georgia/Florida State Line to Tallahassee**

Upon entering Florida, this segment must cross through a dense portion of Tall Timbers protected property easements just south of the state line and continues to the Tallahassee city limits. Also in this area of the Lower Ochlockonee watershed are two major resources between which the segment is proposed to pass: Lake Lomonia to the west and a large wetland system to the east known as Foshalee Slough. Both of these features are potential habitat for the protected bald eagle and wood stork. As the segment approaches Tallahassee, it enters the Apalachee Bay-St. Marks watershed and



## **Southwest Georgia Interstate Study**

# **Environmental Assessment Evaluation of Alternatives**

passes just east of Alfred P. Malay Gardens State Park before tying in with I-10. Due to the width of the required corridor for the proposed alignment, it would be difficult to navigate this segment through this portion of Florida without intersecting a Tall Timbers property.

### **4.2.2.6 Segment C-B from Cordele to Albany**

Beginning near the eastern border of Albany, this segment heads northeast and is wholly contained within the Middle Flint-Lake Blackshear watershed roughly paralleling the Flint River to the east for most of its distance. While this segment does not cross the Flint River, it does perpendicularly traverse several of its major tributaries including Mill Creek, Abrams Creek, Jones Creek, and Swift Creek, all designated as critical habitat for protected freshwater mussels. Near the confluence of Mill Creek and the Flint River, this segment passes just east of a Tall Timbers property. This segment also crosses a branch of Lake Blackshear formed by the backup of Swift Creek to the east of the Flint River. While this area of the lake is primarily residential bordered by agriculture, there is potential protected bald eagle foraging habitat within this area. This segment continues northeast paralleling Lake Blackshear, crossing additional smaller tributaries to the Flint River and their associated floodplains, before turning east to join with I-75 south of Cordele city limits. This segment does not intersect any known conservation lands.

### **4.2.2.7 Segment C-D from Albany to Tifton**

This segment begins near the eastern border of Albany heading east within the Middle Flint-Lake Blackshear watershed along the Piney Woods Creek drainage. It bypasses the Albany Marine Base to the north and continues east into the Little River watershed. While the incidence of riparian floodplain wetlands is lower in this region, the multitude of streams greatly increases the impact estimates for this segment. Most of the perennial stream corridors in this watershed, however, flow roughly north to south meaning a west to east crossing would allow for more perpendicular crossings, thus minimizing potential natural resource impacts. This segment passes just south of an outlier conservation easement, east of the town of Sylvester, for the Eufaula National Wildlife Refuge in Alabama; this property contains high quality bottomland-forested riparian wetlands and is known habitat for protected wood storks. As the alignment continues east, it crosses the Little River and its riparian floodplain wetland system before connecting with I-75 just west of the city limits of Tifton. This segment does not intersect any known conservation lands.

### **4.2.2.8 Segments C-E and E-G from Albany to Valdosta**

These segments travel south along the eastern border of Albany into the Lower Flint watershed before turning southeast towards Moultrie. Just outside Albany city limits, the segments pass adjacent to the southwestern corner of the Albany Military Base. Near the southeast corner of the Dougherty County line, it intersects Dry Creek and its adjacent Dry Creek Swamp Preserve before skirting the southwestern boundary of a Tall Timbers property. The segments then cross into the Upper Ochlockonee watershed and turns south before passing adjacent to the Doerun Pitcherplant



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Bog Natural Area just south of the town of Doerun. There are several known populations of protected pitcherplant within a few mile radius of this Natural Area that can generally be found in high quality low areas within pine flatwoods. Near Moultrie, the segments enter the Withlacoochee River watershed and continue southeast along this basin's eastern boundary. Just before crossing out of Colquitt County, the segments run adjacent to an outlier easement of the Eufaula National Wildlife Refuge, also potential habitat for the protected wood stork. Approximately midway between Moultrie and Valdosta, the segments cross into the Little River watershed where they continue southeast roughly paralleling the Little River drainage to the south. The segments briefly traverse the Little River and the Withlacoochee River at the juncture of their respective watersheds before connecting with I-75 just west of Valdosta city limits.

### 4.2.2.9 Summary of Corridor Segments Assessment

Table 4.2.2.9.1 lists the potential impact the individual segments could have on environmentally sensitive lands and various land uses. Segments A-C, F-H East and C-E & E-G have the most potential impact on streams while the segment F-H East would have the most impact on most significant impact on wetlands. Segment A-C from Columbus to Albany would have the most impact on forest lands while the segments C-E & E-G from Albany to Valdosta would have most impact on agricultural lands. The segment H-I from the Georgia/Florida state line to Tallahassee would have the least impact on both forest and agricultural lands. An assessment on the impact on residential and commercial land uses show that segment A-C from Columbus to Albany would also have the most impact.

Table 4.2.2.9.1  
Alternative Segment Environmental Assessment Summary

| Ecology              |               |          | Land        |            |         |              |
|----------------------|---------------|----------|-------------|------------|---------|--------------|
|                      | Streams       | Wetlands | Residential | Commercial | Forest  | Agricultural |
| Segment              | (Linear Feet) | (Acres)  | (Acres)     | (Acres)    | (Acres) | (Acres)      |
| <b>A-C</b>           | 23,100        | 20       | 390         | 100        | 1,100   | 930          |
| <b>C-E &amp; E-F</b> | 2,700         | 20       | 90          | 40         | 330     | 240          |
| <b>F-H West</b>      | 14,900        | 160      | 100         | 20         | 630     | 620          |
| <b>F-H East</b>      | 22,300        | 230      | 70          | 1          | 730     | 570          |



# **Southwest Georgia Interstate Study** **Environmental Assessment** **Evaluation of Alternatives**

Table 4.2.2.9.1 (continued)  
 Alternative Segment Environmental Assessment Summary

| Ecology   |               |          | Land        |            |         |              |
|-----------|---------------|----------|-------------|------------|---------|--------------|
|           | Streams       | Wetlands | Residential | Commercial | Forest  | Agricultural |
| Segment   | (Linear Feet) | (Acres)  | (Acres)     | (Acres)    | (Acres) | (Acres)      |
| H-I       | 8,400         | 10       | 30          | 30         | 260     | 50           |
| C-B       | 8,800         | 90       | 100         | 20         | 460     | 530          |
| C-D       | 16,800        | 90       | 240         | 60         | 460     | 480          |
| C-E & E-G | 24,400        | 130      | 150         | 50         | 620     | 1,500        |





# Assessment for Land Use & Community Benefits Evaluation of Alternatives

## 4.3 Assessment for Land Use & Community Benefits

The Georgia Department of Transportation (GDOT) is evaluating multiple alignments for a potential new interstate in southwest Georgia. Possible land use impacts and community benefits resulting from the alternatives were evaluated. The study area boundary and the alternative corridors are depicted in Figure 4.3.1.1, as well as corridor segments which will be discussed in more detail later in this section. The project team evaluated high-level impacts of each segment on land use and community benefits by applying rankings for specific performance measures.

The impact of the segment on its context according to a particular performance measure was ranked *positive*, *mixed impact*, or *negative*. Ranking conclusions were achieved through the use of GIS data, review of planning documents and maps, input from public meetings, or a combination of these sources. The 16 rankings for each segment were then blended into an overall result for that segment.

### 4.3.1 Purpose & Methods

The purpose of this section is to describe how potential interstate alignments were evaluated in light of land use impacts and community benefits, and summarize final results which are the product of detailed data collection efforts. The detailed data which supports this Technical Memorandum can be found in Appendices B-F. The detailed analysis focused on the impacts on the sections of the alternatives in Georgia. Some data was collected for the areas in Florida but not at the level of detail as was the data for Georgia. If an alternative to Florida was recommended for further study or analysis, some of the data would be revisited.

The interstate segments were evaluated through the use of 16 performance measures. The selected performance measures were designed to reveal, individually or in concert with one another, high level potential impacts of an interstate to the broad categories of (1) land use and planning, and (2) community benefits. Community benefits were evaluated using a series of sub-categories including: access to services, social and environmental justice, and historic and cultural resources. The performance measures utilized are listed below.

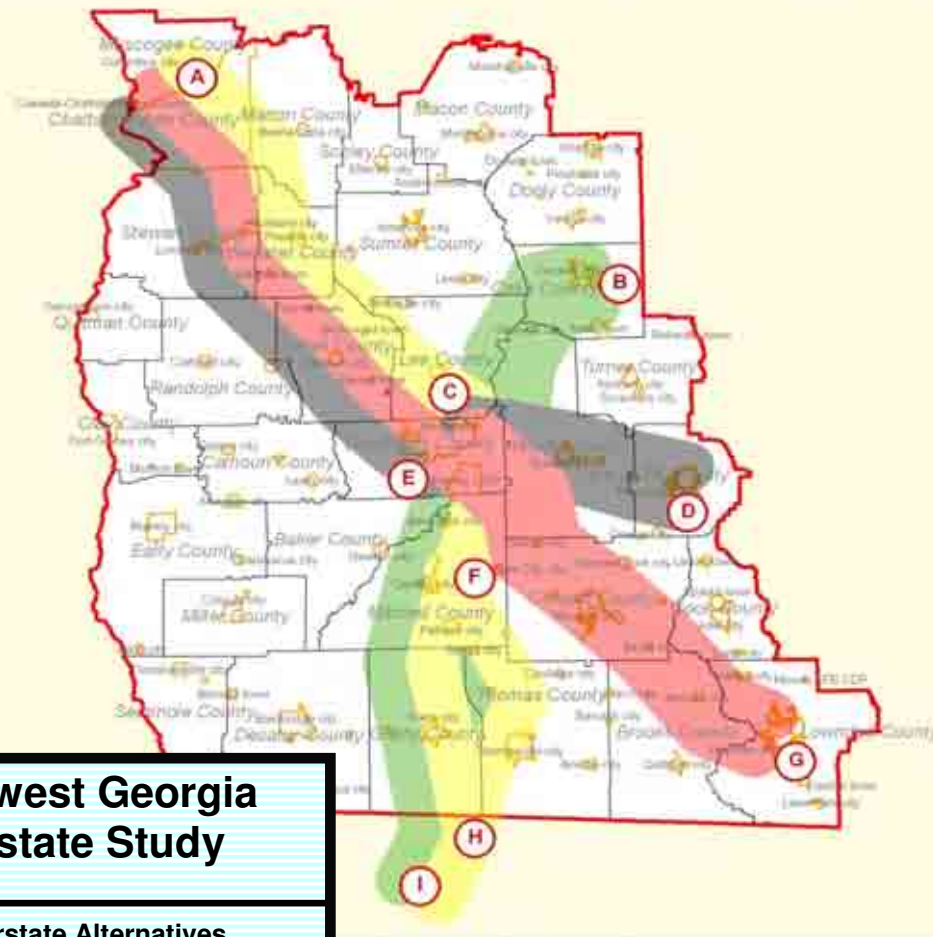
#### 4.3.1.1 Performance Measures

##### Land Use & Planning (7 measures were analyzed)

For the land use and planning analysis, the degree to which the alignment segments were consistent with the following criteria were evaluated.

- Consistent with Land Use Policies
- Consistent with Transportation Policies
- Consistent with Economic Development Policies

## Potential Interstate Alignments Southwest Georgia Interstate Study



### Southwest Georgia Interstate Study

Potential Interstate Alternatives

Evaluation of  
Alternatives

Figure 4.3.1.1



*Final Report*



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- Consistent with Zoning
- Compatibility with Adjacent Existing Land Uses
- Compatibility with Regional Context
- Impact on Prime Agricultural Lands

### **Prime Agricultural Lands (1 measure was analyzed)**

For prime agricultural lands, the alignment's potential impact on the lands was considered.

### **Community Benefits (9 measures were analyzed)**

For the community benefits analysis, the degree to which the alignment segments provided access to services, impacted social and environmental justice populations, and impacted historic and cultural resources was considered.

- Access to Services (3 measures)
  - Access to Healthcare Facilities
  - Access to Job Training Facilities
  - Access to Employment Centers
- Social and Environmental Justice (5 measures)
  - Impact on Residential Areas within ½ mile of Route
  - Impact on Populations in Poverty
  - Impact on Elderly Population
  - Impact on Population without High School Diploma
  - Creation of Geographically Isolated Neighborhoods
- Historic and Cultural Resources (1 measure)
  - Impact on Historic and Cultural Assets

Eight possible alignment segments were evaluated, as denoted in Figure 4.3.1.1

- Albany-Columbus (Segment AC)
- Albany-Cordele (Segment BC)
- Albany-Tifton (Segment CD)
- Connector within Albany (Segment CE)
- Albany-Valdosta (Segment EG)
- Albany-Camilla (Segment EF)
- Camilla-Beachton through Grady County (Segment FH West)
- Camilla-Beachton through Thomas County (Segment FH East)



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#### **4.3.1.2 Detailed Scoring Inputs on Land Use Categories**

Consistency with policies for land use, transportation, economic development, zoning, adjacent land uses, and regional context were scored for each location using relevant policy and locational themes.

For land use, rankings considered the policy stance on: maintaining rural character, environmental concerns, desire to prevent disruption to small towns or inhabited areas, controlling growth, and decline of town centers. For transportation, rankings considered the policy stance on: better connections, highway construction or expansion, alternative transportation modes rather than roadway expansion or improvement. For economic development, rankings considered the policy stance on: industrial development, desire to create regional hub, desire to promote tourism. For zoning, rankings considered whether or not there is an appropriate highway-oriented policy in place. For consistency with adjacent land uses, rankings considered compatibility with the existing land uses that the alignment is running through (residential, commercial, industrial, agricultural, forested) as well as whether the alignment is bisecting or isolating portions of an urban core. For consistency with regional context, rankings considered the alignments' compatibility with regionally significant projects, regional infrastructure goals, regionally identified natural and cultural resources, regional concerns about land use including sprawl, and regional economic development goals.

#### **4.3.1.3 Detailed Scoring Inputs on Community Benefits Categories**

Community benefits measures within the categories of access to services, social and environmental justice, and historic and cultural assets were scored for each location using GIS data to determine potential impacts. Maps were generated based on the performance measures, and potential impacts were derived in terms of raw aggregate numbers of assets or persons possibly impacted within the potential impact area. "Potential impact area" is defined as the area enclosed by an offset of a half mile on either side of the alignment, i.e. it is a mile-wide swath running along the centerline of the alignment. This swath was used to determine potential impacts in lieu of an actual alignment, which has not yet been defined.

After these segments were analyzed in light of the land use and community benefits measures through evaluation of policy documents, GIS data, and public input, each segment was ranked in terms of its relative overall positive, negative, or mixed impact. Rankings for each segment based on the evaluation of land use and community benefits performance measure are documented in a matrix (see Appendix B-1, *Land Use and Community Benefits Performance Measures*). Green cells indicate a positive impact, yellow indicates a mixed impact (i.e. an approximate equal number of positive and negative impacts), and red cells indicate a negative impact. For example, under segment AC (Albany-Columbus), the performance measure "Access to Healthcare Facilities" has a positive



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(green) ranking. This means that possible interstate segment AC is projected to have a positive impact on healthcare access (due to the relatively high number of healthcare facilities near the possible interstate segment, which would increase access to healthcare).

#### ***4.3.2 Limitations and Intent of the Study***

The study was undertaken on the premise that each possible segment was to be evaluated on its own merits, not in comparison to other segments, with all impacts being measured in raw aggregate numbers. Examining alignment segments using raw numbers (such as the number of historic and cultural assets potentially impacted by a segment) yielded a picture of the overall total impact a possible interstate would have on effected populations and/or resources. This means that the 81-mile long segment AC (Albany-Columbus) will naturally be perceived as having greater potential impact than the 2-mile long CE (Albany) connector segment.

This method of evaluation was purposely undertaken to provide an understanding of the real potential impacts of each individual segment over a comparative method that would equalize all segments on a “per mile” basis. The “per mile” method of evaluation seemed questionable to the team because the actual alignments are not known. The evaluation looked at wide swaths from 1 to 5 miles wide, wherein the alignment could take many paths. It was therefore deemed more useful to look at aggregate numbers of potential impact within the swath rather than on a per mile basis for a specific alignment that is unknown (as whatever alignment which would be chosen would undoubtedly shift within the swath).

If a potential alignment were to become a real alignment, additional study would be required to determine an actual route and real impacts. The current study serves as a tool for flagging potential high level, regional problems, guiding decision-makers, and identifying areas of concern for future planning.

#### ***4.3.3 Summary of Findings***

Final results show that the Albany-Cordele segment (BC) has an overall positive impact on land use and provides community benefits. The Albany-Valdosta segment (EG) and the Albany-Tifton (CD) alignment have an overall slightly positive impact. The Albany-Camilla segment (EF), the Camilla-Beachton segment through Thomas County (FH East), and the connector segment within Albany (CE) have overall mixed impacts. The Albany-Columbus segment (AC) and the Camilla-Beachton segment through Grady County (FH West) have an overall negative impact on land use and do not provide many community benefits.





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An overview of the results reveals that “*negative*” rankings were typically due to impacts on historic or cultural assets, land use (either conflicts with prime agriculture or inconsistencies with existing land use plans), or social justice. “*Positive*” rankings were typically associated with transportation, economic development, zoning, regional context, and access to services. “*Mixed*” rankings indicate that positive and negative outcomes are relatively equivalent with regard to land use and community benefits.

Table 4.3.2.1 provides a summary of the final results, by segment, for the land use and community benefits analysis. Rankings are presented on a color scale with dark green (*overall positive*), light green (*overall slightly positive*), yellow (*overall mixed impact*), light red (*overall slightly negative*) or dark red (*overall negative*). This final overall impact ranking per segment can be found at the bottom of each segment column in the row titled “Final Results.”



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Table 4.3.2.1  
Land Use and Community Benefits Performance Measures, Final Segment Results

|                                                | Segment AC | Segment BC | Segment CD | Segment CE | Segment EG | Segment EF | Segment FH West | Segment FH East |
|------------------------------------------------|------------|------------|------------|------------|------------|------------|-----------------|-----------------|
| Consistent with Land Use Policies              | —          | —          | —          | 0          | —          | —          | —               | —               |
| Consistent with Transportation Policies        | 0          | +          | 0          | +          | +          | +          | +               | 0               |
| Consistent with Economic Development Policies  | 0          | +          | +          | +          | +          | +          | +               | 0               |
| Consistent with Zoning                         | 0          | +          | +          | +          | +          | +          | +               | +               |
| Compatibility with Adjacent Existing Land Uses | 0          | 0          | —          | 0          | —          | 0          | —               | 0               |
| Compatibility with Regional Context            | +          | +          | +          | +          | 0          | 0          | —               | 0               |
| Access to Healthcare Facilities                | +          | +          | +          | 0          | +          | 0          | 0               | 0               |
| Access to Higher Education Facilities          | +          | 0          | +          | 0          | +          | 0          | —               | —               |
| Access to Job Training Facilities              | 0          | +          | 0          | 0          | +          | 0          | —               | —               |
| Access to Employment Centers                   | +          | 0          | +          | 0          | +          | 0          | 0               | 0               |
| Access to Residential Population Areas         | +          | +          | +          | 0          | +          | 0          | 0               | 0               |
| Impact on Populations in Poverty               | —          | —          | —          | —          | —          | 0          | 0               | 0               |
| Impact on Minority Population                  | —          | —          | —          | —          | —          | 0          | 0               | 0               |
| Impact on Elderly Population                   | —          | —          | —          | 0          | —          | 0          | 0               | 0               |
| Impact on Population without HS Diploma        | +          | +          | +          | 0          | +          | 0          | 0               | 0               |
| Impact on Cities / Villages / Subdivisions     | —          | —          | —          | 0          | —          | 0          | +               | 0               |
| Impact on Historic and Cultural Assets         | —          | 0          | —          | +          | —          | +          | 0               | 0               |
| Impact on Prime Agricultural Lands             | —          | 0          | 0          | +          | —          | 0          | —               | —               |
| Final Results                                  | —          | +          | +          | 0          | +          | 0          | —               | 0               |

|     |   |                                  |
|-----|---|----------------------------------|
| Key | + | Overall Positive Impact          |
|     | + | Overall Slightly Positive Impact |
|     | 0 | Overall Mixed Impact             |
|     | — | Overall Slightly Negative Impact |
|     | — | Overall Negative Impact          |



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## ***4.3.4 Detailed Findings by Segment***

The following presents an overview of the main findings per alignment segment. The segments along with the planning regions are displayed on Figure 4.3.1.2. For complete details, see Appendices A-E, which provides the full analysis of land use impacts and community benefits.

### **4.3.4.1 Albany-Columbus (AC)**

Segment AC is approximately 81 miles long and passes through six counties (Dougherty, Webster, Terrell, Stewart, Chattahoochee, and Muscogee) and three planning regions: Southwest Georgia (Albany), Middle Flint, and Lower Chattahoochee (Columbus). The segment has negligible impact from a regional perspective on Middle Flint. Impacts in Lower Chattahoochee and Southwest Georgia are both positive and negative, as discussed below.

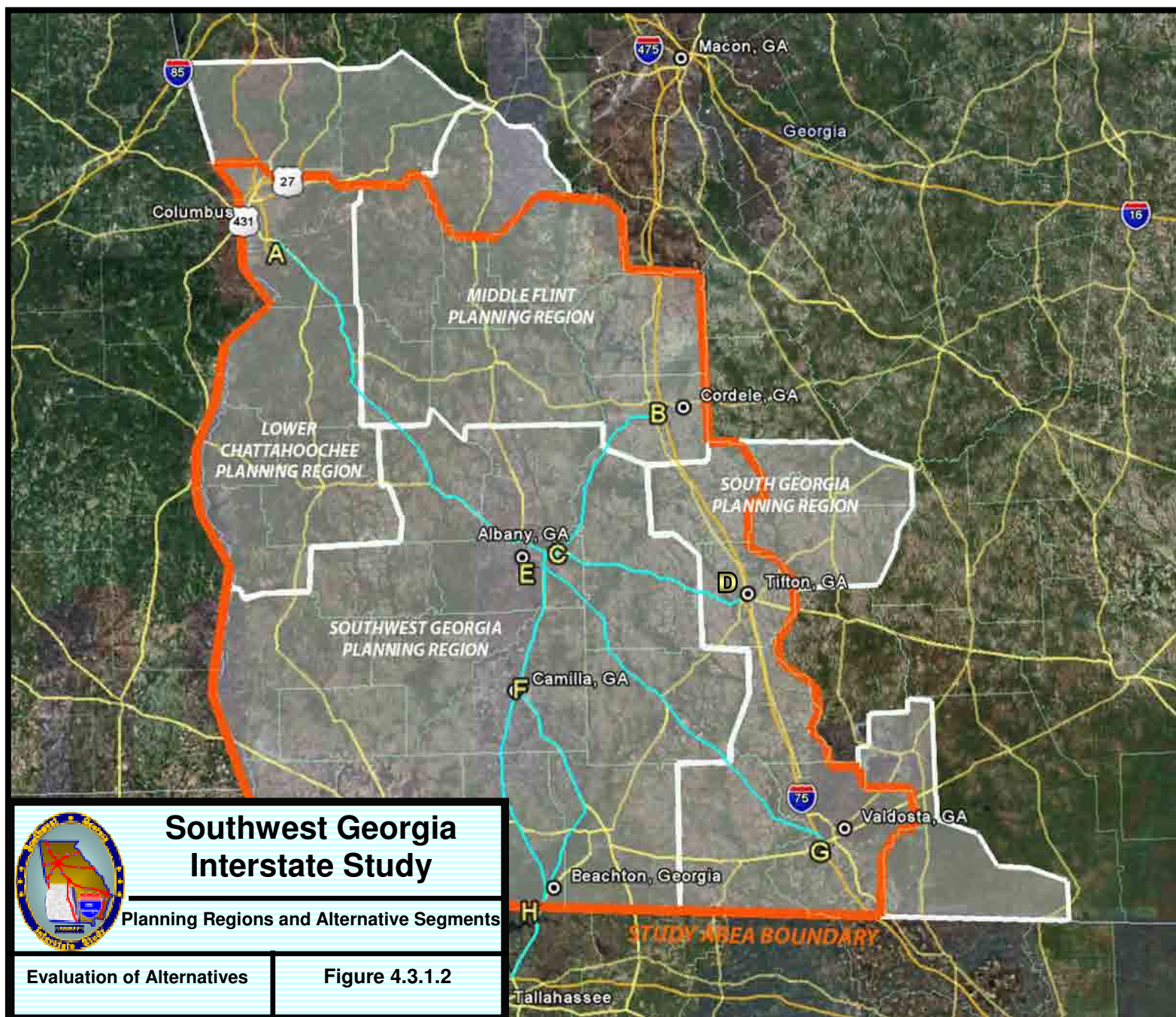
Taking all land use and community benefits performance measures into consideration, final results show a somewhat negative (light red) impact for segment AC. Its most positive aspects are related to regional economic development goals and increasing accessibility to services; however it presents challenges with regard to land use, social justice and historic and cultural assets.

#### **4.3.4.1.1 Land Use & Planning**

The AC segment supports regional industrial clusters and economic goals in both the Albany and Columbus areas. The alignment is consistent with Dougherty County's goals for retaining and growing more business, including Albany's desire to become a regional business and tourist hub. It is possible that the alignment could serve to enhance opportunities for Stewart County (lower Chattahoochee region) and Terrell County (Southwest Georgia region), which have been identified within their regional contexts as counties in need of economic development. The segment is also consistent with regional transportation policy: the Southwest Georgia regional plan identifies US 19 in the Albany area as a corridor in need of widening, which seems to reflect a capacity need that is consistent with the AC alignment. Segment AC is consistent with projected future freight capacity needs linking Albany and Columbus.

On the downside, the segment conflicts with land use policy in multiple counties. It will contribute to substantial loss of prime farmland, and may exacerbate suburban sprawl around Albany and Columbus. It may conflict with the policy of protecting residential areas from incompatible uses in several counties, and could potentially impact other valued natural resources that the region seeks to protect, such as long leaf pine acreage. The segment passes nearby a regionally significant natural feature and habitat, the Swamp of Toa, and interstate-related development and growth could potentially impact this resource. The alignment seems to conflict with conservation land in







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Chattahoochee County, and may negatively impact the county's goal to maintain rural character. Also, much of the alignment is crossing regionally identified "significant groundwater recharge" areas; however recharge areas appear to be plentiful in the affected counties, in some cases covering the majority of the county's land.

It was estimated that some elements would have a mixed impact based on future planning of a potential actual alignment: The Southwest Georgia region seeks to stimulate development, protection, and flood management around Lake Kinchafoonee; the alignment could either help or hinder this goal. Additionally, the alignment has the potential to conflict with the north-south running "Chattahoochee Trace" route in the Lower Chattahoochee region - an identified regional and state bike and pedestrian corridor.

### **4.3.4.1.2 Community Benefits**

Segment AC would have a very positive impact on accessibility to employment centers, hospitals and higher education facilities. The segment would link eight cities and 11 major employers.

In total the alignment could impact 28 populated places, whether cities, villages, or subdivisions – more than any other segment (though this is perhaps in part due to its greater length).

On the downside, this alignment has the highest potential negative impact of any segment on historic and cultural assets. According to GIS analysis, there are 481 historic and cultural assets in the potential impact area. "Potential impact area" is defined as the area enclosed by an offset of a half mile on either side of the alignment, resulting in a mile-wide swath running along the centerline of the alignment. Segment AC's 481 assets are substantially more than the 66 assets in the potential impact area of the next highest segment measure in this category, segment CD (Albany-Tifton). Segment CD is approximately 39 miles long; AC is therefore two times longer than CD but has seven times the number of assets potentially impacted, which indicates that the high number of assets potentially impacted along segment AC is more than a simple function of its greater length.

The segment may also encounter challenges with regard to social justice. Using data from block groups that intersect the alignment within a half mile on either side, it is estimated that 19.5% of the affected population is living below the poverty line. However it performs reasonably well in comparison to other segments. Segment CE (connector within Albany) had the greatest impact at 32.3%; segment EG (Albany-Valdosta) the least at 18.4%. Minority populations may also be negatively impacted: slightly less than half (45.5%) of residents in the affected block groups are minorities. There are three segments that present a greater impact on minority populations (BC [Albany-Cordele], CD [Albany-Tifton], and CE [connector with Albany]). Segment AC could also have a negative impact on the elderly population, who number approximately 2,600 within the block groups analyzed.





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In summary, the final results show a somewhat negative (light red) impact for segment AC (Albany-Columbus).

### **4.3.4.2 Albany-Cordele (BC)**

Segment BC is approximately 37 miles long and passes through three counties (Dougherty, Worth, and Crisp) and two planning regions: Southwest Georgia (Albany) and Middle Flint (Cordele).

Final results show a positive (dark green) overall impact for segment BC. The segment has a positive impact for both planning regions, as well as localized benefits. However, the segment does present challenges with regard to social justice. This is discussed below under Community Benefits.

#### **4.3.4.2.1 Land Use & Planning**

The BC segment supports planning goals in both Albany and Cordele. This route is anticipated to become a major truck freight corridor, a trend which will be enhanced by the construction of an interstate. In Albany, the city's goal to retain and attract new employers and to be a regional hub for both business and tourism is likely to be bolstered by an interstate connection. The Middle Flint RDC plan outlines an important regional initiative siting a large industrial corridor north of Cordele in Crisp County. The plan suggests that such a development would have positive repercussions throughout the planning region. This industrial corridor is sited to take advantage of I-75, but could benefit from being at the intersection of two interstates. The alignment is consistent with future projections for growing freight flows along this corridor. Also, Crisp County seeks to extend GA 300 to I-75, indicating a desire to connect to the interstate system.

On the downside, the segment conflicts with land use policies in Crisp and Worth Counties. Land use policies are defined as those policies intended to preserve rural character, protect the environment, protect town centers, or avoid uncontrolled growth. In Crisp County, the alignment as currently routed appears to conflict with Lake Blackshear, cutting through the southern portion of the lake. Lake Blackshear is an important regional energy and recreational resource with residential growth expected to occur around it. It abuts Georgia Veterans Memorial State Park, home to a championship-quality golf course. The regional plan calls the course "a major contributing factor to the park earning the title as Georgia's most visited state park." In 2003, visitors to the park exceeded one million.

In Worth County, the alignment may conflict with the protected Flint River corridor, may have negative impacts on the communities it bisects in the county, and may exacerbate an already existing problem of residential sprawl from Albany. Worth County's Comprehensive Plan seeks to "preserve the rural character of the area" and protect from "encroaching development." Agriculture and



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forestry are considered base economies for the county. On the other hand, Worth is identified by the Southwest Georgia planning region as a county in need of economic development, which may be enhanced by an interstate. Industrial uses are being encouraged there, which would be well served by an interstate. If segment BC were ever to be built, it would be important for planners to balance the pros and cons in planning the route to achieve the best outcome.

### **4.3.4.2.2 Community Benefits**

Segment BC is expected to increase accessibility to hospitals and technical schools, and appears to have almost no impact on historic and cultural assets, which is a positive. While this segment would link three cities, it does not provide access to any major employers.

In total the alignment could impact 15 populated places, whether cities, villages, or subdivisions.

On the downside, there may be challenges with regard to social justice. Using data from block groups that intersect the alignment within a half mile on either side, it is estimated that 29.6% of the affected population is living below the poverty line. Minority populations may also be negatively impacted: more than half (58.9%) of residents in the affected block groups are minorities. It could also have a negative impact on the elderly population, who number approximately 2,600 within the affected block groups.

In summary, the final results show a positive (dark green) impact for segment BC (Albany-Cordele).

### **4.3.4.3 Albany-Tifton (CD)**

Segment CD is approximately 39 miles long and passes through three counties (Dougherty, Worth, and Tift) and two planning regions: Southwest Georgia (Albany) and South Georgia (Tifton).

Final results show a slightly positive (light green) impact for segment CD. The segment is consistent with transportation and economic goals, and has both positive and negative potential impacts for land use and planning. It presents some challenges with regard to social justice and historic and cultural assets.

#### **4.3.4.3.1 Land Use & Planning**

The CD segment is consistent with transportation policies in Tift and Worth Counties. The alignment accurately reflects the projected growth of truck freight along this route, and would contribute to the goal to site industrial development in Sylvester (Worth County). The alignment is consistent with the goal of supporting agribusiness and attracting high quality business parks in Tift County. It would also support Dougherty County's goal to retain and attract new employers, and the



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City of Albany's desire to become a regional business and tourist hub. The alignment would serve the Southwest Georgia region's largest employer, the Marine Corps Logistics Base in Albany. The Southwest Georgia Regional Development Commission (RDC) plan considers it to be one of the highest need corridors for public infrastructure and services in the Southwest Georgia region.

On the downside, the segment presents several conflicts with land use policies. Land use policies are defined as those policies intended to preserve rural character, protect the environment, protect town centers, or avoid uncontrolled growth. The Worth County Comprehensive plan seeks to "preserve the rural character of the area" and protect from "encroaching development." Segment CD may exacerbate the trend of sprawl from Albany into Worth County. In Tift County, there are concerns about losing prime agriculture as well as protecting sensitive wetland environments along SR 82. The alignment may also negatively impact the protected Little River corridor near Tifton. Uncontrolled growth is a concern in the City of Tifton, which is a regional growth center. The alignment may also conflict with an identified regional and state bike and pedestrian corridor, i.e. the "Wiregrass" route.

#### **4.3.4.3.2 Community Benefits**

Segment CD would increase access to services including hospitals and higher education facilities. It would link seven cities and five major employers. In total the alignment could impact 19 populated places, whether cities, villages, or subdivisions.

On the downside, there may be challenges with regard to social justice. Using data from block groups that intersect the alignment within a half mile on either side, it is estimated that 25.6% of the affected population is living below the poverty line. Minority populations may also be negatively impacted: more than half (52.2%) of residents in the affected block groups are minorities. It could also have a negative impact on the elderly population, who number approximately 3,600 within the affected block groups.

Regarding impacts upon historic features, segment CD crosses old pioneer roads and must be evaluated for impact to possible centennial family farms. According to GIS analysis, there are 50 historic sites, 11 churches, and five cemeteries within a half mile of the alignment which could potentially be impacted.

In summary, the final results show a slightly positive (light green) impact for segment CD (Albany-Tifton).



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#### **4.3.4.4 Connector within Albany (CE)**

Segment CE is approximately two miles long and lies within the City of Albany in Dougherty County, in the Southwest Georgia planning region.

Final results show a mixed (yellow) impact for segment CE. The segment is ranked either neutral or positive in most categories; however it receives a negative ranking and presents significant challenges with regard to social justice, particularly with regard to populations in poverty and minority populations. The alignment also faces possible, but perhaps avoidable, land use conflicts in the protected Flint River area.

##### **4.3.4.4.1 Land Use & Planning**

The CE segment is consistent with Dougherty County's goals for retaining and growing more business, including Albany's desire to become a regional business and tourist hub. Segment CE is identified as one of the highest need corridors for public infrastructure and services in the Southwest Georgia planning region.

On the downside, the segment may present a conflict with land use policies with regard to environmental protection at a regional scale. Development associated with an interstate may negatively impact the nearby protected Flint River corridor.

##### **4.3.4.4.2 Community Benefits**

As a two-mile connector segment, CE would have no notable impact on accessibility to services. It would serve one city (Albany) and one major employer; according to Georgia Department of Community Affairs (DCA) information (see Appendix F for more detail).

In total the alignment could impact eight populated places, whether city, village, or subdivision.

On the downside, there are significant challenges with regard to social justice along this segment. Using data from block groups that intersect the alignment within a half mile on either side, it is estimated that 32.3% of the affected population is living below the poverty line. This is the highest percentage of any segment in this category. Minority populations would also be negatively impacted: more than three-quarters (77.2%) of residents in the affected block groups are minorities. This again is the highest percentage of any segment. However, since segment CE is so short, these high percentages do not translate into higher actual counts of persons affected when compared to other segments. Still, the higher percentage may reflect a higher density of population and therefore requires further study to assess real impacts.



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In summary, the final results show a mixed (yellow) impact for segment CE (connector with Albany).

### **4.3.4.5 Albany-Valdosta (EG)**

Segment EG is approximately 70 miles long and passes through five counties (Dougherty, Worth, Colquitt, Brooks, and Lowndes) and two planning regions: Southwest Georgia (Albany) and South Georgia (Valdosta).

Final results show a slightly positive (light green) impact for segment EG. The segment has some strongly positive aspects, particularly in the categories of increasing accessibility. It is also consistent with some stated infrastructure needs at a regional scale. However the alignment is hindered by substantial challenges with regard to social justice and impacts to historic and cultural assets.

#### **4.3.4.5.1 Land Use & Planning**

The EG segment is consistent with stated infrastructure goals for the Southwest Georgia planning region and more locally in Colquitt County. Both place importance on a project to widen GA-133, which reflects a capacity need that is consistent with the alignment of segment EG. Brooks and Lowndes are less explicit about the need for widening GA-133, likely due to their better proximity to I-75. The segment is consistent with economic policies in Colquitt County, where industrial development is desired along GA-133, and potentially in Brooks County, where higher wage jobs and retail opportunities are desired. Lowndes has little need for an additional interstate connection, but from a regional perspective the alignment could be beneficial. Lowndes is part of a tri-county initiative, “Triple Crown Hometowns,” intended to attract retirees to the area in order to diversify the economy. Easier access to Albany may benefit that effort.

On the downside, the segment may present a land use policy conflict with regard to impacts on prime agriculture and rural character. Colquitt and Brooks Counties both express a desire to maintain rural character in their comprehensive plans. The Worth County comprehensive plan seeks to “preserve the rural character of the area” and protect from “encroaching development.” Segment EG may exacerbate the trend of sprawl from Albany into Worth County. In Lowndes, sprawl is a major concern, where rural and city lines are becoming increasingly blurred. However whether this would be exacerbated by the alignment is unclear; the Valdosta area is currently growing to the northeast into Lanier and Echols County, not to the northwest in the direction of the segment alignment.

#### **4.3.4.5.2 Community Benefits**

Segment EG would greatly increase access to all services studied including hospitals, technical schools, and higher education facilities. It would link seven cities and five major employers. It is





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projected to positively impact populations without a high school diploma as access to training facilities would be increased.

In total the alignment could impact 16 populated places, whether cities, villages, or subdivisions.

On the downside, it has the potential to negatively impact and potentially isolate some populated areas, and could negatively impact populations in poverty, minorities, and the elderly. The segment could also potentially impact historic and cultural assets. According to GIS analysis, there are 26 historic sites and 25 churches within a half mile of the alignment along its length. Brooks County may demonstrate resistance to an interstate due to the county's inclusion of natural and cultural resource protection as a qualifier in their transportation policy.

In summary, the final results show a slightly positive (light green) impact for segment EG (Albany-Valdosta).

### **4.3.4.6 Albany-Camilla (EF)**

Segment EF is approximately 20 miles long and passes through two counties (Dougherty and Mitchell). It lies within the Southwest Georgia planning region.

Final results show a mixed (yellow) impact for segment EF. It has positive impacts with regard to transportation and economic policies, but faces environmental and land use challenges. The community benefits it would provide are negligible.

#### **4.3.4.6.1 Land Use & Planning**

The EF segment is consistent with transportation and economic policies in Mitchell County. For example, the county is interested in extending I-185 (near Columbus) into the county. The county has a positive stance on interstate development in general, and more specifically seeks to promote industrial development and alleviate heavy truck congestion in Camilla. The alignment is also consistent with regional transportation policy. The Southwest Georgia RDC considers this route from Albany to Camilla to be one of the highest need corridors for public infrastructure and services in the region. The route would serve the Southwest Georgia Regional Airport, which is a regionally significant passenger and cargo airport with expected growth in its freight traffic services.

On the downside, segment EF may have an impact on the protected Flint River corridor in Dougherty County and wetlands south of Albany. This route from Albany to Camilla is considered a "scenic byway" in the Southwest Georgia regional plan. This reflects a position of protectiveness with regard to this corridor that would not seem to be consistent with an interstate. The alignment



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crosses “significant groundwater recharge” areas; however these groundwater recharge areas appear to be plentiful and the impact may be negligible.

### **4.3.4.6.2 Community Benefits**

Compared to other alternatives, segment EF has negligible impacts with regard to social justice, accessibility to services, and impacts to populated places. It would link four cities and one major employer.

In total the alignment could impact seven populated places, whether cities, villages, or subdivisions.

In summary, the final results show a mixed (yellow) impact for segment EF (Albany-Camilla).

### **4.3.4.7 Camilla-Beachton through Grady County (FH West)**

Segment FH West is approximately 44 miles long and passes through two counties in the study area (Mitchell and Grady). It lies within the Southwest Georgia planning region.

Final results show a slightly negative (light red) impact for segment FH West. This is one of two potential alignments for a connection between Camilla and Beachton. The other, FH East, received a mixed impact ranking.

#### **4.3.4.7.1 Land Use & Planning**

The FH West segment does not conflict with transportation policies in Mitchell County, but falls short of being consistent with them. Although the county is interstate friendly, the express desire in their transportation policy is for an interstate connection north to I-185, not south to Beachton. However, the segment may still address some issues, such as where the comprehensive plan seeks to alleviate heavy truck congestion in Camilla. In Grady County, the City of Cairo has a debt problem which could possibly be alleviated through tax revenues associated with interstate development. It could also contribute to the economic development goal of promoting industrial development in the southern area of Cairo. From the perspective of the Southwest Georgia planning region, FH West is designated as a high need corridor for public infrastructure and services – however, the region places more importance on FH East, which it considers among the highest need corridors in the region.

On the downside, segment FH West presents significant challenges with regard to land use policy and compatibility with adjacent existing land uses both Mitchell and Grady Counties. Protecting sensitive natural and cultural resources is a primary concern of Grady County’s plan. Grady has reported occurrences of the Gopher Tortoise, a federally threatened species. The Ochlocknee River corridor, which runs near the proposed alignment, is emphasized as an important habitat and



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cultural resource to be protected. The alignment crosses the historic Red Hills area in Grady County, a regionally significant cultural and ecological resource. There are a high number of centennial farms in this area, which is considered by the Southwest Georgia planning region to be a potential destination for tourism. The alignment would also have a very significant negative impact on prime farmland in both counties, when measured in the number of acres potentially impacted. Finally, the segment could potentially contribute to a trend of sprawl around the City of Camilla in Mitchell County - a problem which is identified by both the county's comprehensive plan and the Southwest Georgia planning region. The alignment may also negatively impact wetlands in Mitchell County, south of Camilla, judging from Southwest Georgia regional planning maps. The segment demonstrates incompatibility with the regional context due to its potentially negative impact on key resources identified in the Southwest Georgia regional plan - natural, cultural, and touristic.

### **4.3.4.7.2 Community Benefits**

The impact of segment FH West on social justice populations is both positive and negative, and therefore ranked "mixed impact." FH West would serve two cities and two major employers.

It is the only segment with no apparent potential for impacting populated places (cities, villages, and subdivisions), which is considered very positive.

On the downside, the segment contributes almost nothing with regard to increasing access to services (all segments other than FH East contribute more).

In summary, the final results show a slightly negative (light red) impact for segment FH West (Camilla-Beachton through Grady County).

### **4.3.4.8 Camilla-Beachton through Thomas County (FH East)**

Segment FH East is approximately 46 miles long and passes through two counties in the study area (Mitchell and Thomas). It lies within the Southwest Georgia planning region.

Final results show a mixed impact for segment FH East. This is one of two potential alignments for a connection between Camilla and Beachton. The other, FH West, received a slightly negative (light red) impact ranking.

#### **4.3.4.8.1 Land Use & Planning**

The FH East segment has both positive and negative impacts across almost all categories evaluated, yielding mixed results. This ranking was in zoning, and reflects that there are measures in place that demonstrate a policy position that anticipates or allows for highway uses. FH East is considered by



## ***Assessment for Land Use & Community Benefits Evaluation of Alternatives***

the Southwest Georgia planning region to be one of the highest need corridors for public infrastructure and services in the region. However this observation must be qualified by the fact that the segment runs along a regionally designated “scenic byway.” This reflects a position of protectiveness on the part of the Southwest Georgia planning region with regard to this corridor that would not seem to be consistent with an interstate. As with FH West, the FH East segment does not conflict with transportation policies in Mitchell County, but falls short of being consistent with them (see 3.7.1). The alignment would serve a state correctional facility in Mitchell County.

On the downside, segment FH East presents conflicts with economic development policies in Thomas County and land use policies in both Thomas and Mitchell Counties. Thomas County’s economic development goals are focused on tourism, with an emphasis on the Ochlocknee and Aucilla Rivers, Red Hills area, and low-intensity land-extensive activities such as plantation hunting. Disruption to these natural features or prime hunting areas would have a very negative impact. The alignment would also have a very significant negative impact on prime farmland in both counties: the potential disturbance to prime farmland in this 46-mile segment is nearly equivalent to the potential disturbance in the 81-mile length of segment AC (Albany-Columbus) when measured in the number of acres potentially impacted. As is the case with FH West, the segment could potentially contribute to a trend of sprawl around the City of Camilla in Mitchell County - a problem which is identified by both the county’s comprehensive plan and the Southwest Georgia planning region.

### **4.3.4.8.2 Community Benefits**

Segment FH East has both positive and negative aspects on social justice populations, and therefore is ranked “mixed impact.” FH East would serve four cities and one major employer. In total the alignment could impact five populated places, whether cities, villages, or subdivisions.

On the downside, the segment contributes almost nothing with regard to increasing access to services (all other segments including FH West contribute more).

In summary, the final results show a slightly negative (light red) impact for segment FH East (Camilla-Beachton through Thomas County).

### **4.3.5 Conclusions**

These conclusions are reached with an acknowledgment of certain limitations, which are outlined under section 4.3.2 *Limitations and Intent of the Study*. Conclusions are presented with these limitations as an underlying premise.

### **4.3.6 Summary of Rankings**



## ***Assessment for Land Use & Community Benefits Evaluation of Alternatives***

Final results show that the Albany-Cordele segment (BC) has an overall positive impact on land use and community benefits. Of all of the alignments, this segment has the most “overall positive” rankings in the categories studied. It presents challenges with regard to social justice, but demonstrates consistency with regional context and transportation policy, increases accessibility to services, and has limited impact to historical and cultural assets and prime agriculture. It does not have a significant impact with regard to connecting major employers, although it links three cities.

The Albany-Valdosta (EG) and the Albany-Tifton (CD) alignments have an overall slightly positive impact. Both present challenges with regard to social justice and impacts to historic and cultural assets. Segment EG also negatively impacts prime agriculture. However both demonstrate consistency and positive impacts in the areas of regional context, economic development policy, and increasing accessibility to services. Segment CD connects five major employers and seven cities. The only segment with a greater number of job center connections is AC (Albany-Columbus). Segment EG ranks higher than segment CD in the categories of access to job training and consistency with transportation policies.

The Albany-Camilla segment (EF), the Camilla-Beachton segment through Thomas County (FH East), and the connector segment within Albany (CE) have overall mixed impacts. Segment CE performed very well with regard to its limited impacts to both prime agriculture and historic and cultural assets. However it presented significant challenges with regard to social justice - although it is a short 2-mile connector segment within Albany, it travels through a much more densely populated area than most other segments. Segment FH East is consistent with economic development policies, but performs poorly in the categories of increasing access to services and impacts to prime agriculture. It also reflects inconsistency with land use, and may be challenging from a regional perspective due to potential impacts to the Red Hills historic area. Segment EF is consistent with economic development and transportation policies, and performs very well with regard to historic and cultural assets impacts. However it is inconsistent with land use policies and has limited benefits with regard to increasing accessibility or job center connectivity due to the lower population it would serve compared to other alignments.

The Albany-Columbus segment (AC) and the Camilla-Beachton segment through Grady County (FH West) have an overall negative impact on land use and provision of community benefits. FH West performs poorly with regard to increasing access to services, and has a very negative impact on prime agriculture. The FH West alignment also performs poorly in terms of the regional context, as it may negatively impact the Red Hills historic area and habitat of a federally threatened species. On the positive side, FH West is the only alignment that did not present conflicts with existing cities, villages, and subdivisions. Segment AC performs well with regard to connecting job centers. It connects the most cities and major employers of any segment, in part because of its greater length. For this reason, it also performs well in the category of increasing accessibility to services. Segment





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AC has a very negative impact with regard to multiple social justice performance measures, on prime agriculture, and on existing cities, villages, and subdivisions. Segment AC also has an extremely high likelihood of negative impacts to historic and cultural assets, with approximately four times more assets potentially impacted as any other segment.

### ***4.3.7 Summary of Findings by Segment***

Bigger impacts, either significantly more positive or significantly more negative than other segments in the same category, were observed in the following segments: Albany-Columbus (AC), Albany-Cordele (BC), Albany-Tifton (CD), and Albany-Valdosta (EG). The bigger impacts in these segments, which occurred across several performance measures, is presumably due to the fact that these segments affect the largest areas of population. Affected population was measured by census blocks intersected by the segment swaths, which are offset a half mile on either side of the potential alignment. These segments each affected a population over 30,000, with the highest population (just over 83,000) affected by segment AC. Notable results include:

- Segments AC, BC, CD, and EG were ranked among the most negative with regard to impacting existing cities, villages and subdivisions, populations in poverty, elderly populations, and minority populations. Segments AC, CD, and EG were ranked the most negative with regard to impacting historic and cultural assets.
- Segments AC, BC, CD, and EG were evaluated as having positive outcomes as they run through highly populated areas – most notably with regard to serving a larger population with greater access to services, including access to hospitals, educational facilities, and employment centers. AC, CD, and EG create very positive outcomes with regard to connecting people to jobs. CD and EG connect five major employers and seven cities each. AC connects 11 major employers and eight cities.

The Albany-Camilla segment (EF) had mixed impacts in almost every category. Compared to other alignments, the impacts to community benefits are negligible. Although Camilla is interstate friendly, the region considers this route to be a “scenic byway,” which suggests a level of protectiveness of the corridor that would not be consistent with an interstate. (Refer to Appendix D for additional details.)

The Camilla-Beachton segments (FH East and FH West), with the same origin and destination, should be considered as either/or alternatives. With regard to community benefits, the two ranked equivalently in all but one category: FH East performed much better with regard to impacting existing cities, villages and subdivisions. In land use categories, FH West ranked lower than FH East on many fronts, and received a lower overall ranking as a result. However one important distinguishing factor is apparent at the regional scale. A key concern in this area from the perspective of the Southwest Georgia planning region is stewardship of the historic Red Hills area



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and protection of federally threatened species, both of which are primarily located within Grady County and would be impacted most negatively by FH West (making FH East a better choice from a regional perspective).

Segment CE (connector with Albany) must be viewed as something of an outlier in this study due to its much shorter length (two miles) in comparison to the other segments, which range from approximately 20 to 80 miles in length. Because impacts were measured in raw numbers (number of historic assets impacted, number of persons impacted), segment CE's true impacts are somewhat hidden by the fact that as a shorter segment, it will affect numerically fewer people and places. However, because it runs through a densely populated area (Albany), its true impacts would be substantial. If this segment was to move forward toward reality, it would require further study (as would all segments).

### ***4.3.8 Overview of Results***

An overview of the results reveals that negative rankings were typically due to impacts on historic or cultural assets, land use (either conflicts with prime agriculture or inconsistencies with existing land use plans), or social justice. Positive rankings were typically associated with transportation, economic development, zoning, regional context, and access to services.



## **Southwest Georgia Interstate Study**

# ***Travel Patterns and Demand Evaluation of Alternatives***

### **4.4 Evaluation of Travel Patterns and Demand**

The current and future travel patterns within the study area were analyzed in detail for the four alternative corridors. An extensive list of information was collected to assist with the analysis of existing (2006) travel patterns and conditions within the study area. The travel patterns were analyzed at several levels, study area and corridor where possible. This information was also used to develop a travel demand model to evaluate both existing and future travel conditions within the study area. The detailed summary on the development of the inputs to the travel demand model and the model itself is contained in the following technical memorandums.

- Highway Network Development
- Traffic Analysis Zone Development
- Model Development

The model was then used to evaluate existing plus future year conditions in the study area without any transportation improvements. The results from these analyses as well as the future land use assumptions and demographic forecasts are documented in the following technical memorandums.

- Existing Conditions
- Future Conditions

#### ***4.4.1 Future Highway Network***

The four detailed alternatives are compared against a future year 2040 transportation network that includes only the system that exists today and projects that have committed funding in the GDOT Construction Work Program (CWP) for construction and/or right of way in the next few years. This definition resulted with the term E+C to represent the future base year network. This allows an assessment of how each of the alternatives improves the southwest Georgia highway system relative to what we expect will be available by the year 2040, and a thorough assessment of the mobility, accessibility, cultural, environmental, land use and economic aspects of the proposed alternatives.

Each of the four alternatives is modeled using the travel demand model, developed specifically for this study. Highway networks reflecting the improvements associated with each alternative were prepared and assigned traffic flows based on network characteristics and the estimated 2040 trip table – the number and type of trips between locations. Results of this modeling in terms of the evaluation factors adopted for the study and their interpretation are presented in the body of this technical memorandum.



## **Southwest Georgia Interstate Study**

# ***Travel Patterns and Demand Evaluation of Alternatives***

The 2040 network used to compare the hypothetical Interstate Alternatives is the existing road network plus committed projects or “E+C” network. Committed projects are those roadway capacity projects that are funded, all or in part, for construction or right-of-way acquisition in the July 2008 GDOT Construction Work Program. Capacity projects are the only type considered because they are the only projects likely to have significant impact on travel demand. Projects were reviewed against the on-line GDOT Transportation Explorer (TREX) system and by GDOT staff to ensure accuracy.

These committed projects represent those that will likely be completed in the next few years and, in conjunction with the existing southwest Georgia roadway system, represent the minimum road network to be expected in future years. Using the E+C network as a comparison allows evaluation of the hypothetical Interstate Alternatives in a way which should maximize their expected impacts. Table 4.4.2.1 lists the committed projects added to the existing network to derive the E+C network. Figure 4.4.2.1 shows the location of these projects within the study area.

### ***4.4.2 Evaluation of the Alternatives***

A variety of transportation performance measures were evaluated for the alternatives. The initial set of transportation performance measures for the study were developed and documented in *Performance Measures - Technical Memorandum*. The performance measures for transportation include mobility, accessibility, livability, and sustainability, and are described for each alternative in the sections below. In addition, the travel patterns were summarized and analyzed.

#### **4.4.2.1 Travel Patterns**

The examination of the ten preliminary alternatives identified travel patterns within southwest Georgia most likely to be served by a new Interstate facility because of their significant inter-state origins and destinations for both passenger cars and trucks and overall travel volumes. The three primary markets being served by the four alternatives are southeast between Columbus/I-185 and I-75, south from Columbus/I-185 to I-10, and southwest from I-75 to I-10. All four alternatives run through Albany.



## Southwest Georgia Interstate Study

# Travel Patterns and Demand Evaluation of Alternatives

**Table 4.4.2.1**  
**Committed Road Capacity Projects in the E+C Network**

| PROJ_ID | ROAD                             | FROM                      | TO                       | IMPROVEMENT             | COUNTY   | LENGTH (MI) |
|---------|----------------------------------|---------------------------|--------------------------|-------------------------|----------|-------------|
| 311445  | I-185                            | SR520                     | St. Marys Rd             | Widen from 4 to 6 lanes | Muscogee | 2.83        |
| 410520  | I-75                             | SR37                      | CR246/Kinard Bridge Rd   | Widen from 4 to 6 lanes | Cook     | 9.47        |
| 410530  | I-75                             | CR 246/Kinard Bridge Rd   | Tift CO line             | Widen from 4 to 6 lanes | Cook     | 3.99        |
| 410260  | I-75                             | SR300                     | Dooly CO line            | Widen from 4 to 6 lanes | Crisp    | 6.56        |
| 410500  | I-75                             | North of SR133            | Cook CO line             | Widen from 4 to 6 lanes | Lowndes  | 13.60       |
| 0006073 | I-75                             | Cook CO line              | CR204/Southwell Blvd     | Widen from 4 to 6 lanes | Tift     | 6.24        |
| 0006016 | I-75                             | SR32                      | SR159                    | Widen from 4 to 6 lanes | Turner   | 5.49        |
| 410245  | I-75                             | Tift CO line              | SR32                     | Widen from 4 to 6 lanes | Turner   | 5.58        |
| 0006472 | Schatulga Rd (Eastern Connector) | Red Arrow Rd/Cargo Rd     | Chattsworth Rd           | New 4 lane road         | Muscogee | 1.16        |
| 422215  | SR1/US27                         | CR279/Damascus-Hilton Rd  | Blakely Bypass           | Widen from 2 to 4 lanes | Early    | 7.00        |
| 422210  | SR1/US27                         | West City Limits Colquitt | CR279/Damascus-Hilton Rd | Widen from 2 to 4 lanes | Miller   | 9.50        |
| 350880  | SR22SP/Macon Rd                  | Reese Rd                  | Woodruff Farm Rd         | Widen from 2 to 4 lanes | Muscogee | 1.67        |
| 462395  | SR3/SR49/US19                    | North of CR151            | Sumter CO line           | Widen from 2 to 4 lanes | Lee      | 8.98        |
| 322195  | SR3/SR49/US19                    | Lee CO Line               | CR42/Sumter              | Widen from 2 to 4 lanes | Sumter   | 5.33        |
| 322190  | SR3/SR49/US19                    | CR42                      | 0.3 Mi North of US-280   | Widen from 2 to 4 lanes | Sumter   | 6.34        |
| 322420  | SR3/US19                         | Angelica Creek/Sumter     | SR271                    | Widen from 2 to 4 lanes | Schley   | 6.73        |
| 322730  | SR3/US19                         | SR271                     | SR240                    | Widen from 2 to 4 lanes | Schley   | 10.85       |
| 322720  | SR3/US19                         | SR240                     | CR201/Cooper Rd/Taylor   | Widen from 2 to 4 lanes | Schley   | 6.81        |
| 0000352 | SR38/US84                        | Alabama State Line        | SR370                    | Widen from 2 to 4 lanes | Early    | 1.29        |
| 350790  | St. Marys Rd                     | Buena Vista Rd            | Robin Dr                 | Widen from 2 to 4 lanes | Muscogee | 1.50        |

All projects from the GDOT Construction Work Program as of July, 2008, TREX, and GDOT review







## **Southwest Georgia Interstate Study**

# ***Travel Patterns and Demand Evaluation of Alternatives***

Figures 4.4.3.1 through 4.4.3.6 illustrate projected travel flows for each of the four alternatives and two variants (1A and 3A) in comparison to projected no-build travel flows for 2040. Projected travel flows are shown for both total traffic and truck traffic.

All of the alternatives show an increase in traffic from the E+C travel flows, and result in some reduction of travel in the I-75 corridor north of Valdosta. Alternative 2 produces the largest increase in travel in the corridor between Columbus and Albany, and Albany and Valdosta, and the largest increase in estimated truck traffic. Alternative 1 and 1A produce the largest increase in estimated total and truck volumes between Albany and Tallahassee. Alternative 3 and 3A produce the largest increase in estimated total and truck travel between Cordele and Albany. Alternative 4 produces the largest increase in estimated total travel and truck travel between Albany and Tifton.

### ***4.4.3 Mobility***

Mobility is the ease with which people and goods move about. For the purposes of this study five (5) measures of mobility were defined and examined, these are: total vehicles miles of travel (VMT), VMT by facility type (i.e. freeway/expressway, arterial, collector), VMT by facility type under congested conditions, VMT, vehicle hours of delay (VHT) and truck VMT by segment, and the percent increase or decrease in VMT by facility type.

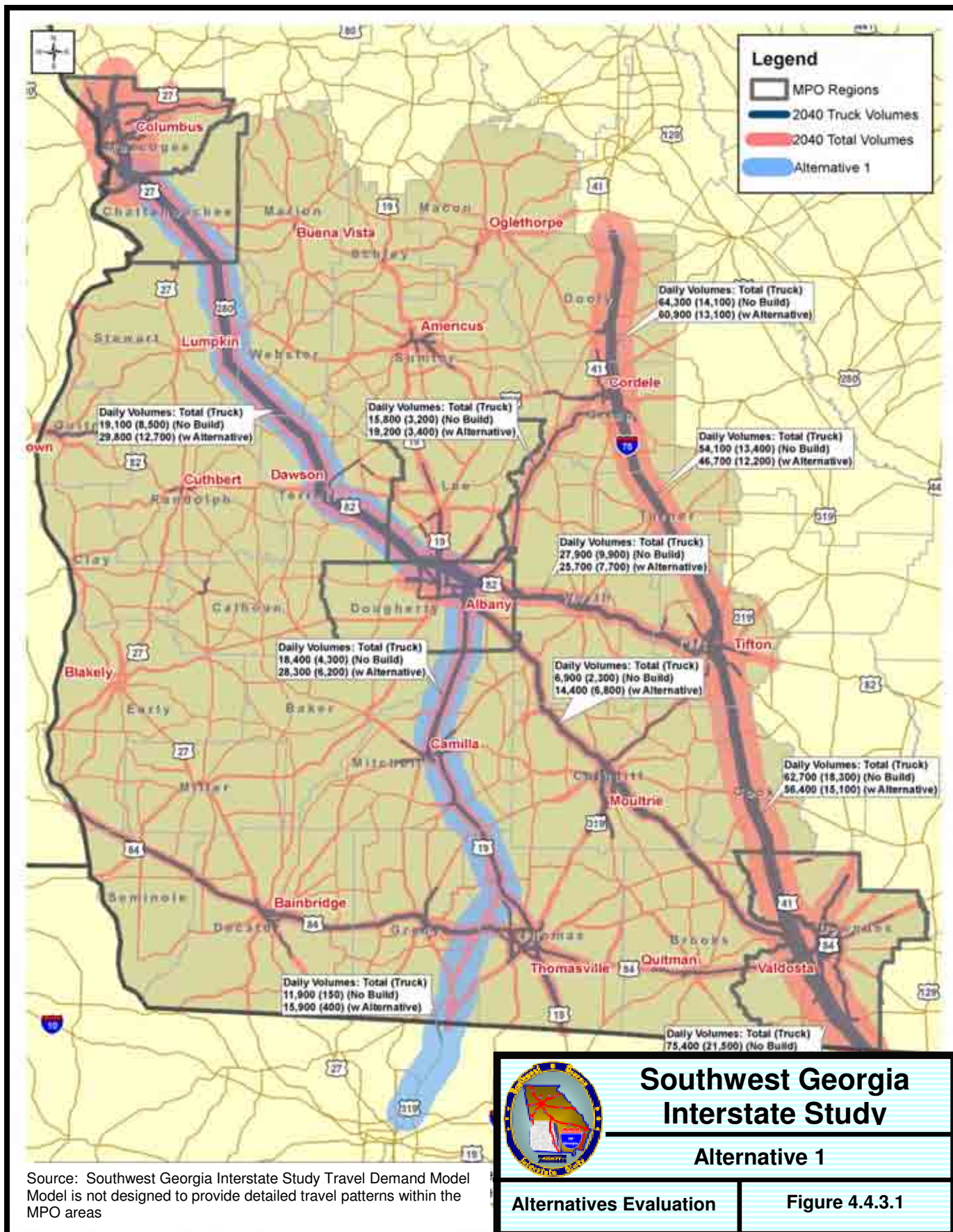
#### **4.4.3.1 Total VMT and VMT by Facility Type**

Total VMT is a measure of the amount of travel, or vehicular activity, by all vehicles in an area. For a given area it is typically derived by estimating the amount of travel on each road segment, multiplying that by the length of the road segment, and summing the result for all road segments. Table 4.4.3.1.1 shows the estimated 2040 VMT for the study area for each alternative.

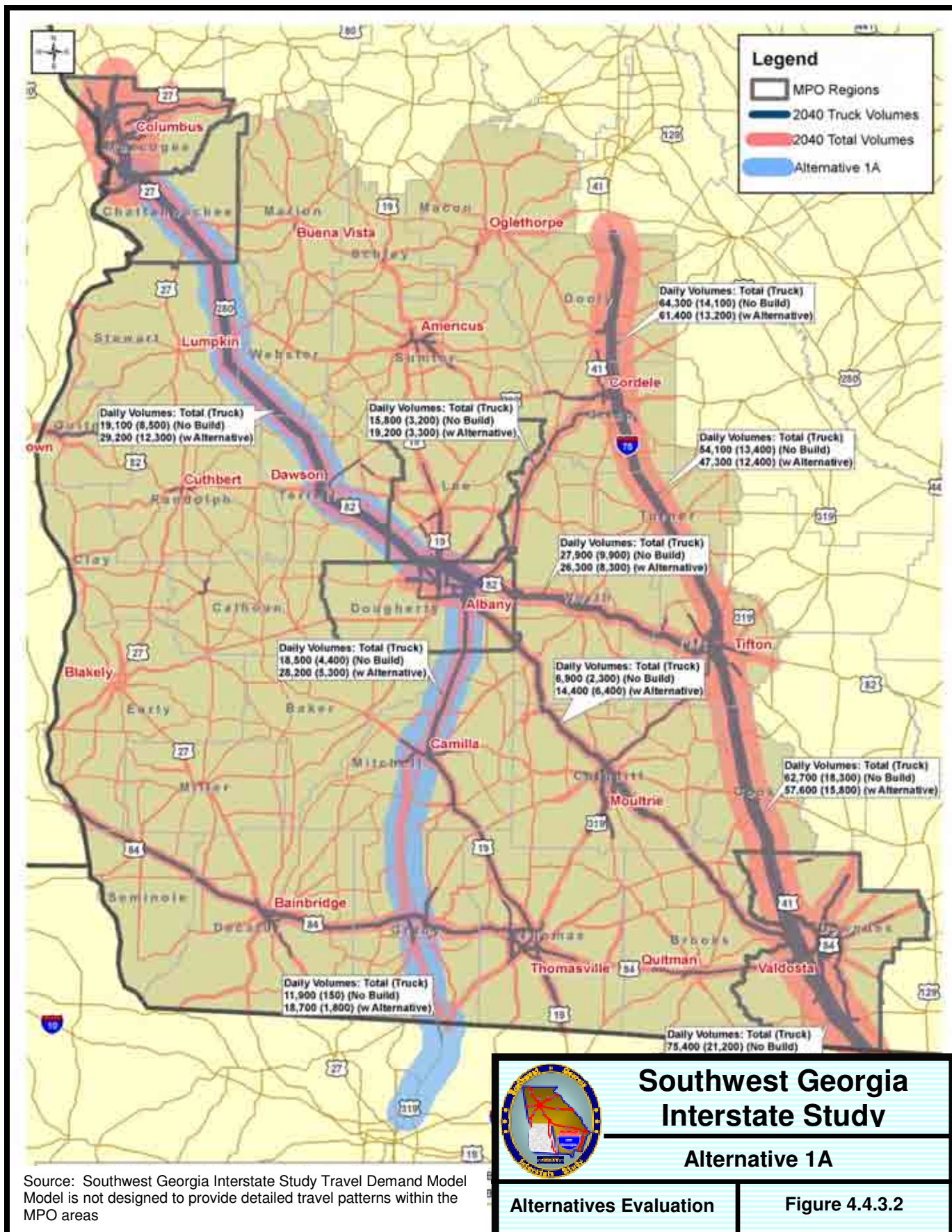
As expected, all alternatives have higher VMT than the E+C because they encourage longer trips – by drawing trips away from slower competing facilities -- and rerouting of some trips through the study area that would otherwise have gone outside the study area.

VMT by facility type is a measure of the distribution of travel across different types of roadways i.e. freeways, arterials, etc. This is important because facility types have varying average accident rates, capacities, speeds, and design characteristics. Table 4.4.3.1.1 shows VMT by facility type for all travel and travel by trucks within the study area forecast for 2040.

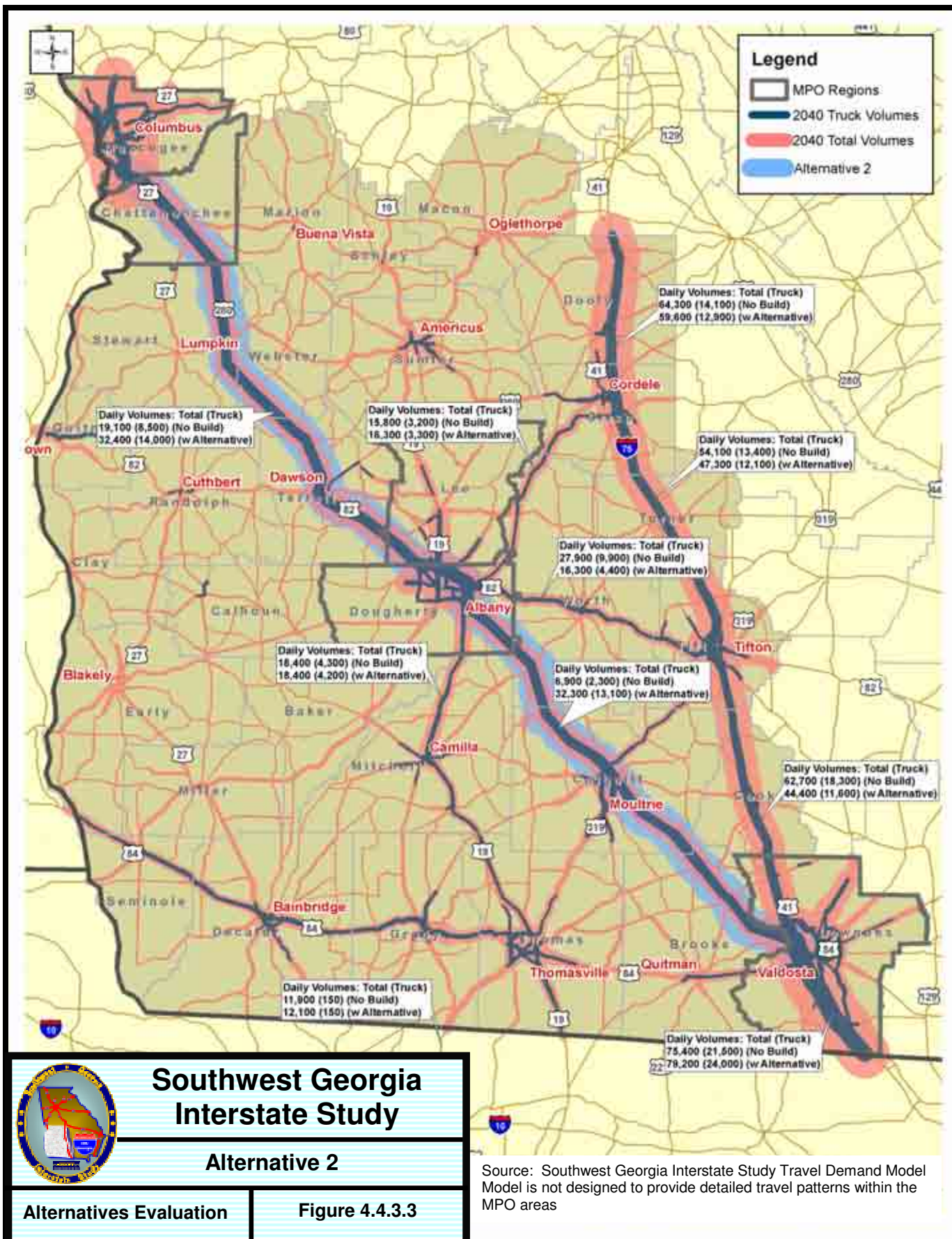




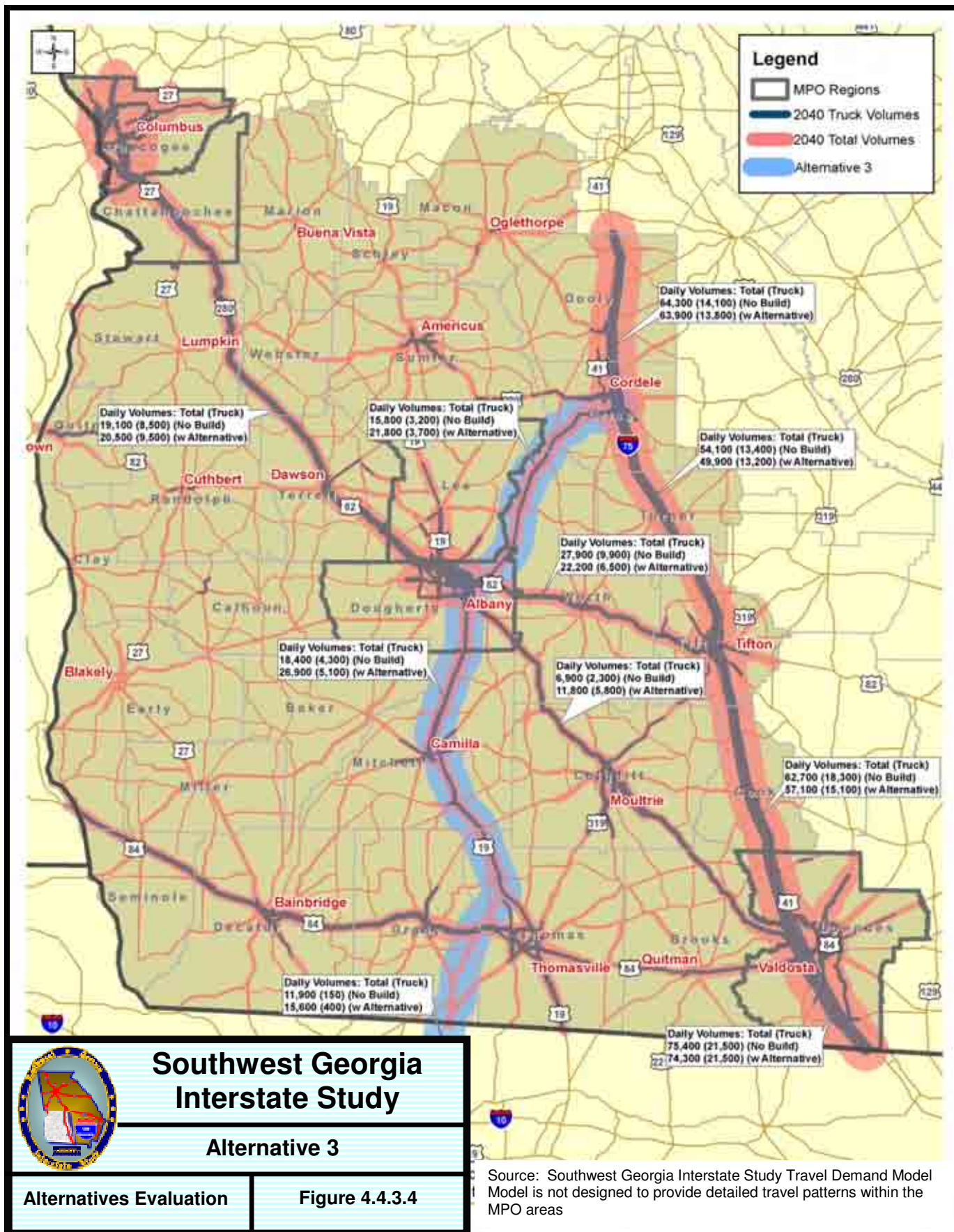




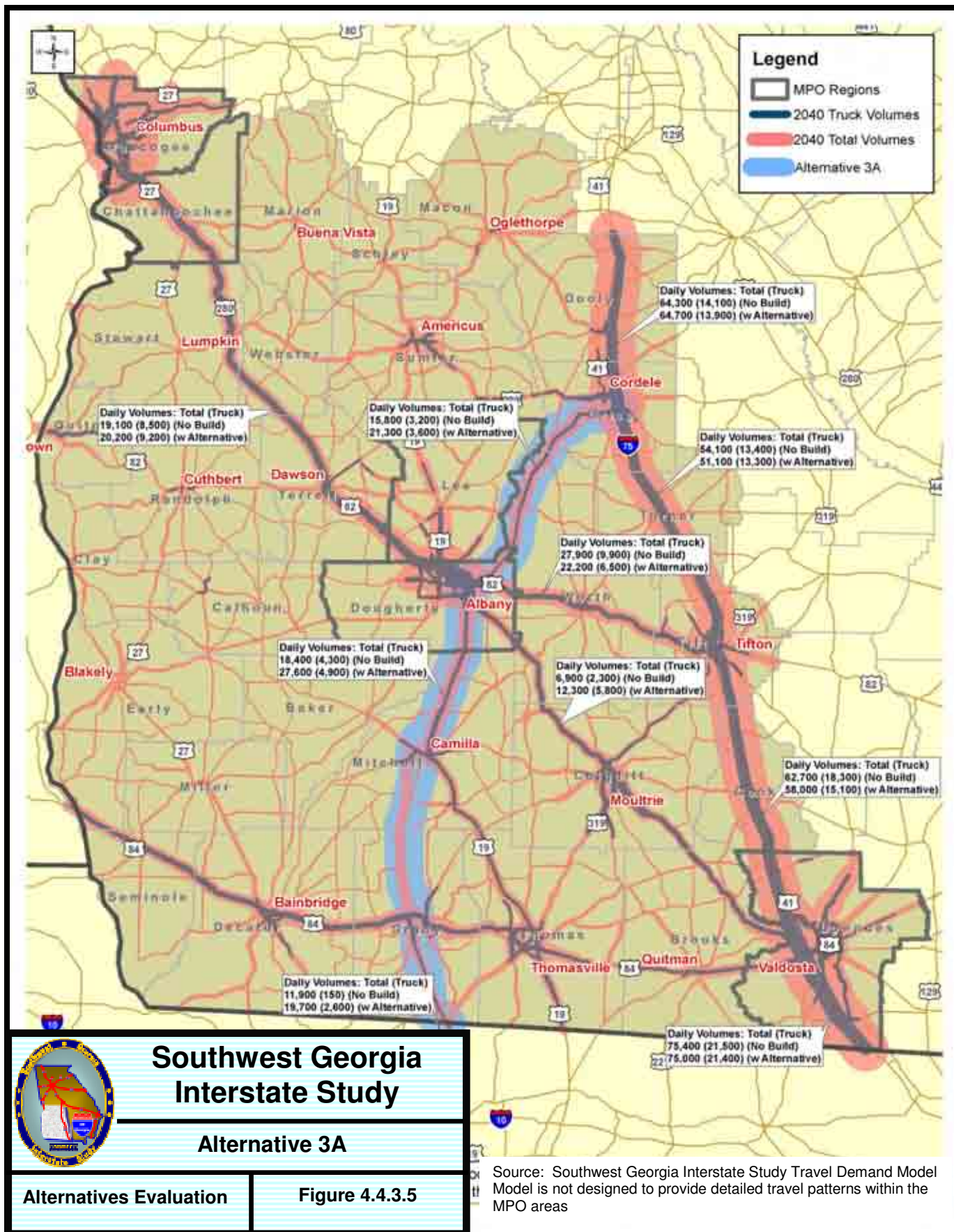




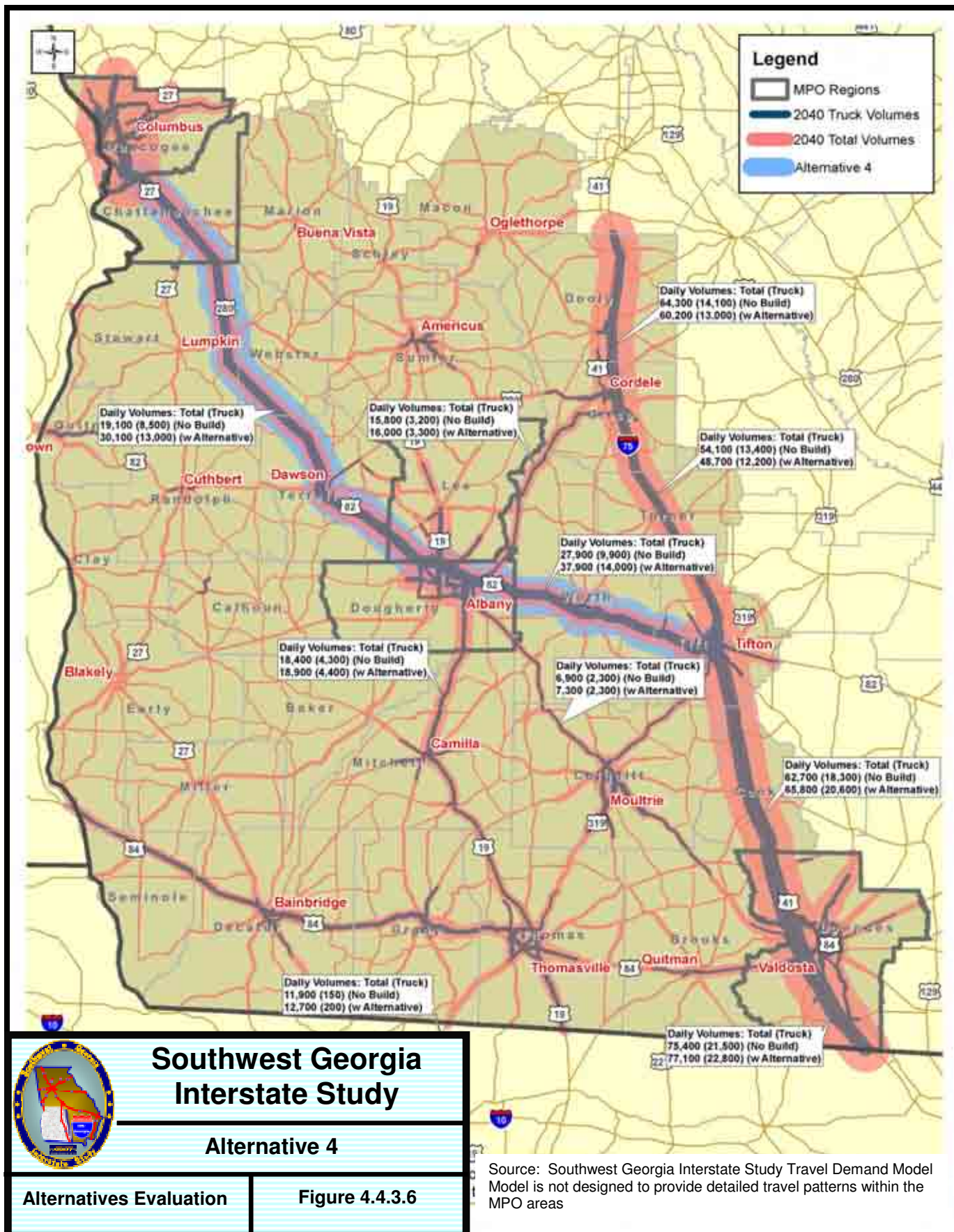














# Southwest Georgia Interstate Study

## Travel Patterns and Demand

### Evaluation of Alternatives

Table 4.4.3.1.1  
2040 VMT by Facility Type by Alternative for the Study Area

| 2040 Total VMT |            |            |            |            |            |            |            |
|----------------|------------|------------|------------|------------|------------|------------|------------|
| Total VMT      | 2040 E+C   | Alt 1      | Alt 1A     | Alt 2      | Alt 3      | Alt 3A     | Alt 4      |
| Interstate     | 5,623,000  | 7,443,000  | 7,436,000  | 8,087,000  | 6,569,000  | 6,706,000  | 7,880,000  |
| Arterial       | 12,067,000 | 10,775,000 | 10,817,000 | 10,253,000 | 11,375,000 | 11,394,000 | 10,373,000 |
| Collector      | 2,735,000  | 2,659,000  | 2,669,000  | 2,646,000  | 2,655,000  | 2,664,000  | 2,658,000  |
| Total          | 20,425,000 | 20,877,000 | 20,922,000 | 20,986,000 | 20,599,000 | 20,764,000 | 20,911,000 |

| 2040 Total VMT (% Distribution) |          |       |        |       |       |        |       |
|---------------------------------|----------|-------|--------|-------|-------|--------|-------|
| Total VMT                       | 2040 E+C | Alt 1 | Alt 1A | Alt 2 | Alt 3 | Alt 3A | Alt 4 |
| Interstate                      | 28%      | 36%   | 36%    | 39%   | 32%   | 32%    | 38%   |
| Arterial                        | 59%      | 52%   | 52%    | 49%   | 55%   | 55%    | 50%   |
| Collector                       | 13%      | 13%   | 13%    | 13%   | 13%   | 13%    | 13%   |
| Total                           | 100%     | 100%  | 100%   | 100%  | 100%  | 100%   | 100%  |

| 2040 Truck VMT |           |           |           |           |           |           |           |
|----------------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|
| Total VMT      | 2040 E+C  | Alt 1     | Alt 1A    | Alt 2     | Alt 3     | Alt 3A    | Alt 4     |
| Interstate     | 1,370,000 | 2,013,000 | 1,946,000 | 2,487,000 | 1,484,000 | 1,480,000 | 2,372,000 |
| Arterial       | 3,409,000 | 3,020,000 | 3,038,000 | 2,589,000 | 3,413,000 | 3,398,000 | 2,672,000 |
| Collector      | 835,000   | 820,000   | 823,000   | 820,000   | 820,000   | 823,000   | 822,000   |
| Total          | 5,614,000 | 5,853,000 | 5,807,000 | 5,896,000 | 5,717,000 | 5,701,000 | 5,866,000 |

| 2040 Truck VMT (% Distribution) |          |       |        |       |       |        |       |
|---------------------------------|----------|-------|--------|-------|-------|--------|-------|
| Total VMT                       | 2040 E+C | Alt 1 | Alt 1A | Alt 2 | Alt 3 | Alt 3A | Alt 4 |
| Interstate                      | 24%      | 34%   | 34%    | 42%   | 26%   | 26%    | 40%   |
| Arterial                        | 61%      | 52%   | 52%    | 44%   | 60%   | 60%    | 46%   |
| Collector                       | 15%      | 14%   | 14%    | 14%   | 14%   | 14%    | 14%   |
| Total                           | 100%     | 100%  | 100%   | 100%  | 100%  | 100%   | 100%  |

| 2040 % Truck VMT |          |       |        |       |       |        |       |
|------------------|----------|-------|--------|-------|-------|--------|-------|
| Total VMT        | 2040 E+C | Alt 1 | Alt 1A | Alt 2 | Alt 3 | Alt 3A | Alt 4 |
| Interstate       | 24%      | 27%   | 26%    | 31%   | 23%   | 22%    | 30%   |
| Arterial         | 28%      | 28%   | 28%    | 25%   | 30%   | 30%    | 26%   |
| Collector        | 31%      | 31%   | 31%    | 31%   | 31%   | 31%    | 31%   |
| Total            | 27%      | 28%   | 28%    | 28%   | 28%   | 27%    | 28%   |



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# ***Travel Patterns and Demand Evaluation of Alternatives***

Total VMT is estimated at approximately 20.5 million VMT per day with 59% of this VMT occurring on the arterial system for the E+C Network. Truck VMT is estimated at approximately 5.6 million VMT per day, or about 25% of all VMT. On the 2040 E+C network, the arterial system carries over 60% of all truck VMT.

All of the alternatives have a slight increase in total VMT with Alternative 2 showing the largest increase in total VMT; an increase of approximately 0.4 million VMT. The percentage of total VMT on interstates increases for all alternatives in comparison to the E+C; with the increase coming from the arterial system and VMT on collectors remaining constant. Arterial system VMT drops from 59% of total VMT under E+C to 49% under Alternative 2, a reduction of more than 17%.

There is a slightly larger shift in truck VMT from arterials to the interstate system. Under the E+C scenario, 61% of truck VMT is on the arterial system while for Alternative 2 this drops to 44%, a reduction of nearly 28%. Moving traffic to higher level facilities typically reduces accidents and is considerably preferable for handling long haul trucks both from a design perspective and to maintain truck speeds.

#### **4.4.3.2 Change in Vehicle Miles of Travel (VMT) by Alternate**

Table 4.4.3.2.1 shows the change in 2040 Total Daily VMT for each Alternate in comparison to the E+C network by different levels of geography. For each alternative the change in VMT is shown for the Alternative Corridor, the I-75 Corridor from Dooly County south to Lowndes County, and for the 32 county Study Area. Alternative Corridor total Daily VMT increases range from 50.0% to 111.4%. This is because more travelers are attracted to the corridor to utilize the new facility. The diversion of traffic to utilize the alternative facilities leads to the reduction in traffic on the I-75 Corridor. This reduction ranged from 3.9% to 19.9%. Overall there was a small increase in VMT in the Study Area due to addition of the interstate facility. Daily VMT increases dramatically within the alternative corridors, decreases in the I-75 Corridor and increases slightly within the entire study area.

Alternative 2 has the largest impact on total daily VMT; it reduces VMT within the I-75 Corridor by nearly 20% while increasing VMT within the Alternative 2 Corridor by over 100% and overall Study Area VMT by 2.7%. Alternative 3 has the least impact on VMT within the Study Area, increasing average daily VMT by less than 1%.





## Southwest Georgia Interstate Study

# Travel Patterns and Demand Evaluation of Alternatives

**Table 4.4.3.2.1**  
**Percent Change in 2040 Daily VMT from E+C**

| <b>Alternate</b> | <b>Alternate<br/>Corridor</b> | <b>I-75 Corridor</b> | <b>Study Area</b> |
|------------------|-------------------------------|----------------------|-------------------|
| 1                | 55.6                          | -11.1                | 2.2               |
| 1A               | 55.8                          | -9.5                 | 2.4               |
| 2                | 111.4                         | -19.9                | 2.7               |
| 3                | 53.1                          | -6.6                 | 0.8               |
| 3A               | 64.3                          | -4.6                 | 1.6               |
| 4                | 50.0                          | -3.9                 | 2.3               |

Table 4.4.3.2.2 shows the change in 2040 Daily Truck VMT for each Alternate in comparison to the E+C network. The overall pattern of estimated change in Daily Truck VMT is similar to that for Total Daily VMT with some exceptions. The Alternatives tend to increase Daily Truck VMT more within the Study Area more than Total Daily VMT; ranging from 1.5% to 4.3%. Reductions in I-75 Corridor Daily Truck VMT, tends to be higher ranging from 8.0% to 25.2% for all alternatives except Alternative 4 which increases I-75 Corridor Truck VMT by slightly.

As with Total Daily VMT, Alternative 2 has the largest impact on Truck VMT generating the largest increase in Study Area and Alternate Corridor VMT, at 4.8% and over 135% respectively, and the largest reduction in I-75 Corridor Daily Truck VMT of 25.2%.

**Table 4.4.3.2.2**  
**Percent Change in 2040 Daily Truck VMT from E+C**

| <b>Alternate</b> | <b>Alternate<br/>Corridor</b> | <b>I-75 Corridor</b> | <b>Study Area</b> |
|------------------|-------------------------------|----------------------|-------------------|
| 1                | 55.6                          | -13.1                | 4.1               |
| 1A               | 50.0                          | -10.5                | 3.3               |
| 2                | 135.3                         | -25.2                | 4.8               |
| 3                | 23.5                          | -8.6                 | 1.8               |
| 3A               | 43.7                          | -8.0                 | 1.5               |
| 4                | 56.2                          | -0.6                 | 4.3               |



## **Southwest Georgia Interstate Study**

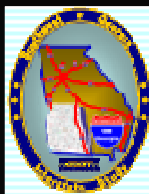
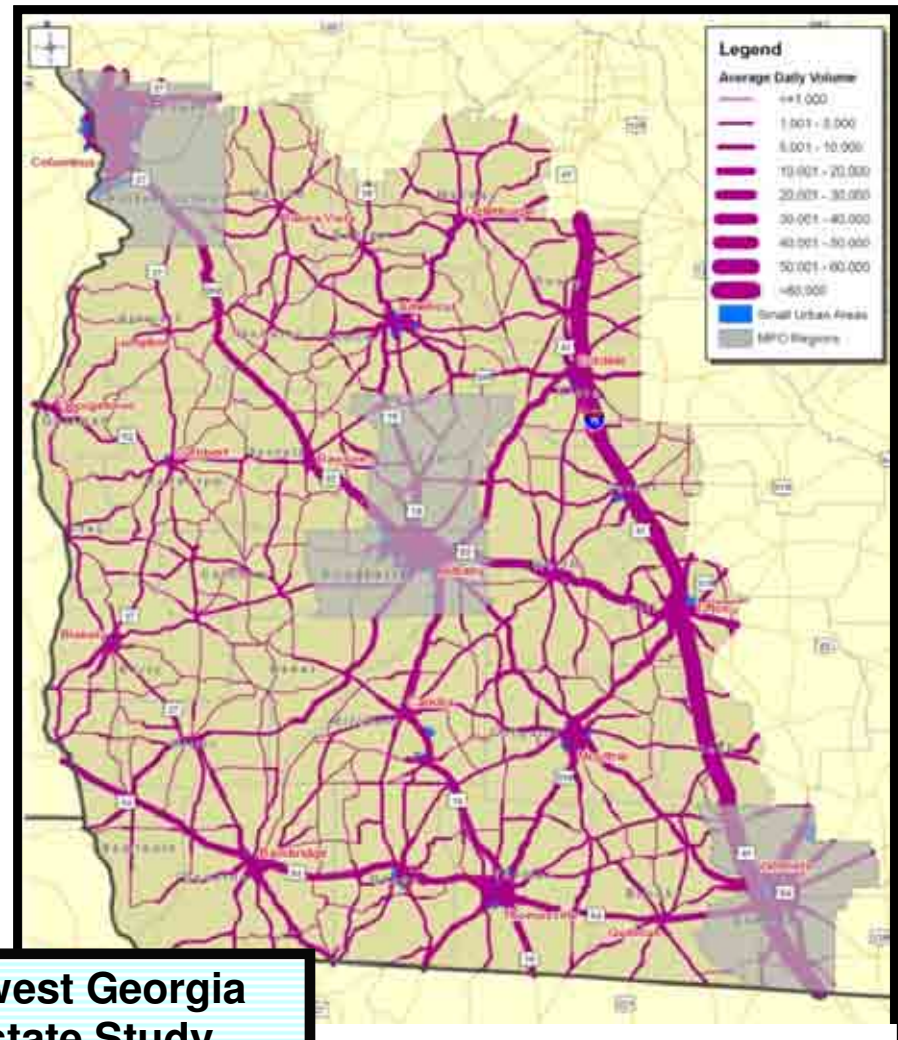
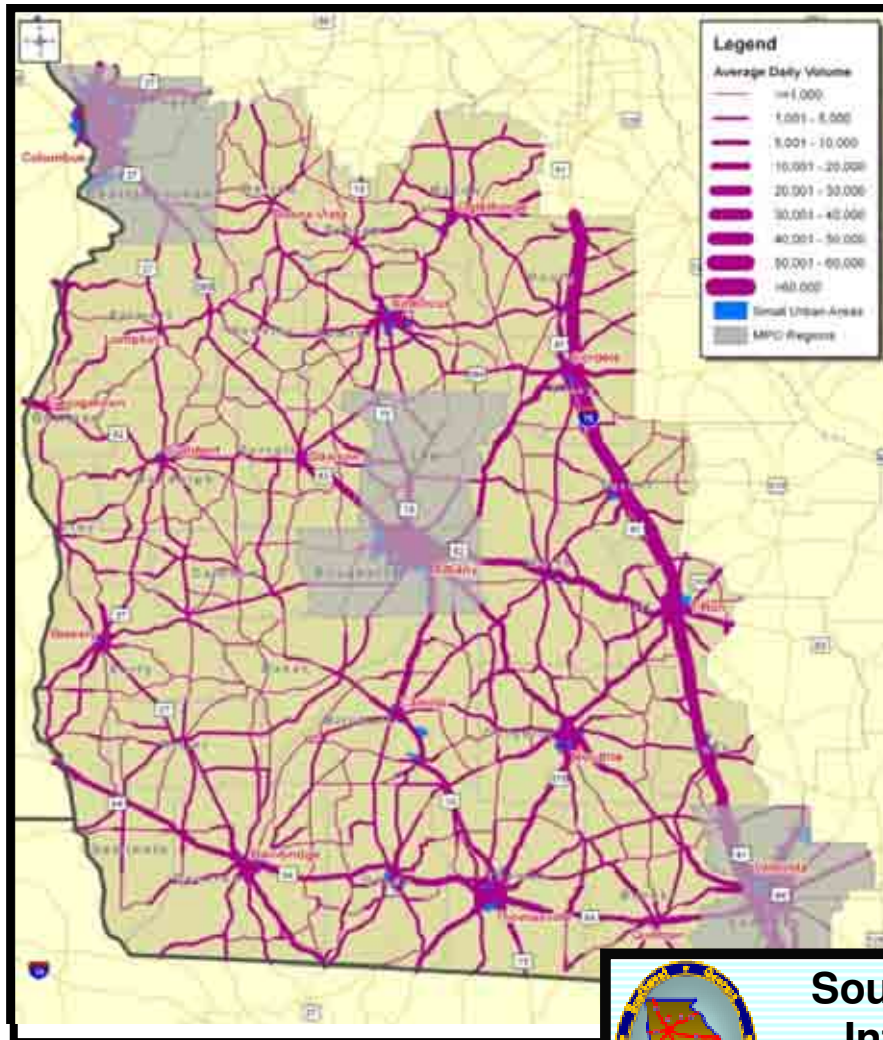
### ***Travel Patterns and Demand Evaluation of Alternatives***

Figure 4.4.3.2.1 shows Total Traffic Volumes on the Southwest Georgia road network for the 2006 base year and 2040 future year E+C network. As can be seen, total daily traffic volumes in 2040 are higher overall but the pattern of traffic volumes is generally consistent, with the highest volumes in the I-75 corridor. I-75 is assumed to have six through lanes throughout the study area by 2040.

Figure 4.4.3.2.2 shows the Level-of-Service (LOS) Analysis for the Southwest Georgia road network for the 2006 base year and 2040 E+C network. The analysis shows few roads operating at level of service D, moderate congestion, or worse within the study area, outside the MPO regions, in 2006. For 2040 this is still generally the case, although there begin to be a few more road segments with poor level of service, typically within or adjacent to small urban areas and cities in the study area. An exception to this is GA 133 through Colquitt County and the City of Moultrie which has some sections forecast to operate at LOS D and E. The LOS forecast shown for GA 133 within Colquitt County is taken from the Colquitt County Multi-Modal Study, which are based on a county specific travel demand model.

Base Year (2006)

Future Year (2040) E+C



## Southwest Georgia Interstate Study

### Total Daily Traffic Volumes

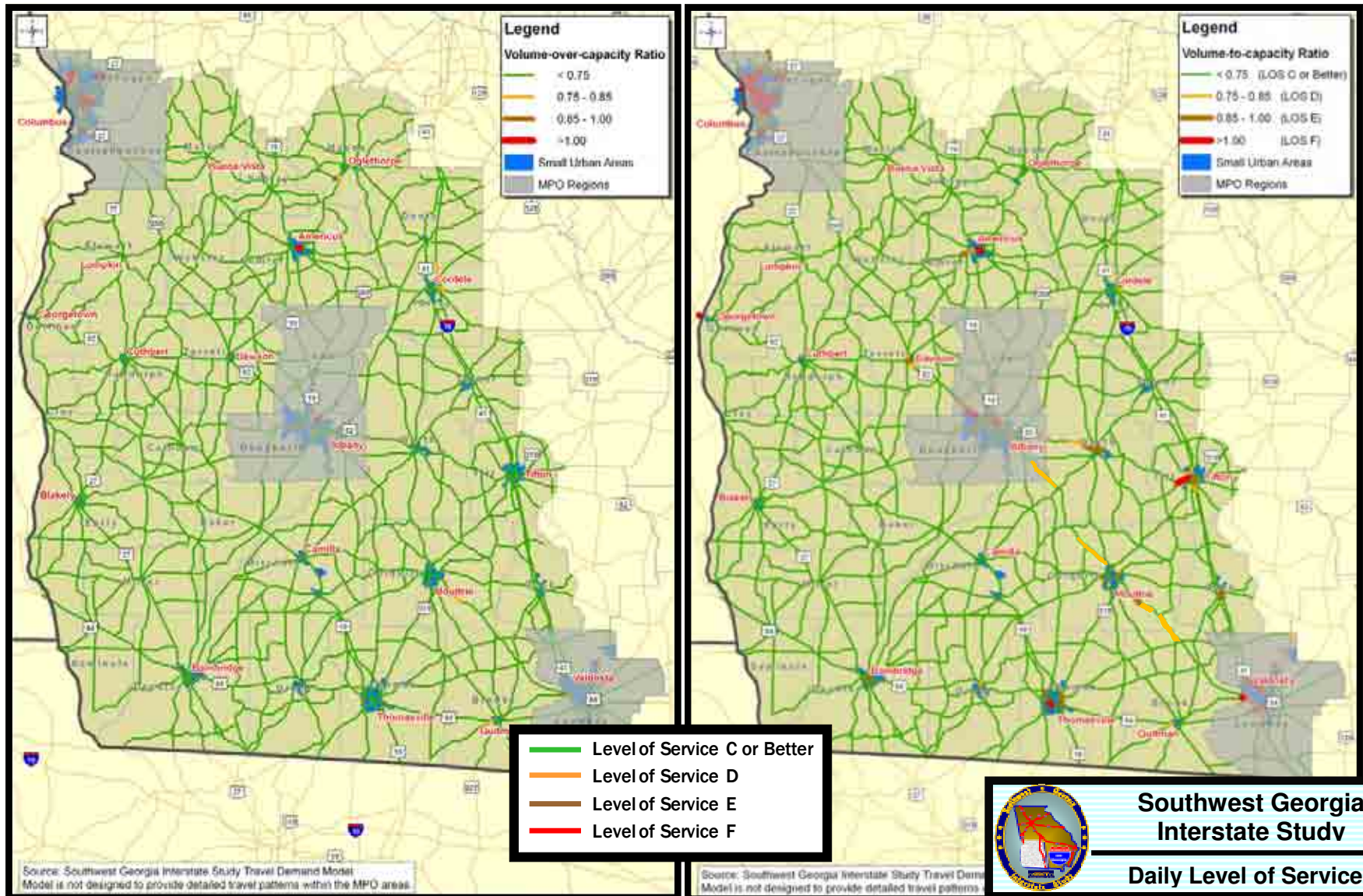
Alternatives Evaluation

Figure 4.4.3.2.1



Base Year (2006)

Future Year (2040) E+C







## Southwest Georgia Interstate Study

# Travel Patterns and Demand Evaluation of Alternatives

### 4.4.4 VMT by Facility Type under Congested Conditions

This measure evaluates the amount of travel occurring under congested conditions by facility type. This is an important measure of evaluation because it indicates the overall percent of travel that is subject to congestion and the extent to which the various alternatives reduce that congestion. Table 4.4.4.1 shows the number and percentage of lane miles operating in congested conditions by facility type, and the amount and percentage of VMT operating in congested conditions by facility type. The definition for congested conditions is where the volume to capacity (V/C) ratio exceeds .70.

**Table 4.4.4.1**  
**2040 Road Congestion**  
**Percentage of Congested Lane Miles and VMT by Road Type**

| Percent of Congested Lane-Miles |      |       |        |       |       |        |       |
|---------------------------------|------|-------|--------|-------|-------|--------|-------|
|                                 | E+C  | Alt 1 | Alt 1A | Alt 2 | Alt 3 | Alt 3A | Alt 4 |
| <b>Interstate</b>               | 7.3% | 0.0%  | 0.0%   | 0.0%  | 0.0%  | 0.0%   | 8.0%  |
| <b>Arterial</b>                 | 2.4% | 2.2%  | 2.2%   | 1.2%  | 1.8%  | 2.0%   | 1.0%  |
| <b>Collector</b>                | 0.0% | 0.2%  | 0.2%   | 0.0%  | 0.0%  | 0.0%   | 0.0%  |
| <b>Total</b>                    | 1.6% | 1.1%  | 1.1%   | 0.6%  | 0.9%  | 1.0%   | 1.2%  |
| Percent of Congested VMT        |      |       |        |       |       |        |       |
|                                 | E+C  | Alt 1 | Alt 1A | Alt 2 | Alt 3 | Alt 3A | Alt 4 |
| <b>Interstate</b>               | 8.8% | 0.6%  | 0.6%   | 0.0%  | 0.7%  | 0.7%   | 11.3% |
| <b>Arterial</b>                 | 6.7% | 7.5%  | 7.5%   | 3.9%  | 5.3%  | 6.2%   | 3.5%  |
| <b>Collector</b>                | 0.8% | 0.9%  | 0.8%   | 0.8%  | 0.8%  | 0.8%   | 0.8%  |
| <b>Total</b>                    | 6.5% | 4.2%  | 4.2%   | 2.0%  | 3.3%  | 3.7%   | 6.1%  |

| Key |                 |
|-----|-----------------|
| ##% | Greater than 5% |
| ##% | Between 2-5%    |
| ##% | Less than 2%    |

The table shows that for all facility types less than 10% of the lane miles are congested (operating at a volume to capacity ratio, or V/C, greater than .70) and less than 10% of the VMT operates under congested conditions on the 2040 E+C network. So there isn't much congestion in general within the 2040 SWGIS network, very little of it is severe congestion, and not much of the travel (VMT) is



## Southwest Georgia Interstate Study

# Travel Patterns and Demand Evaluation of Alternatives

subject to congested conditions. Cells of the table are color coded so that percentages greater than 5% are colored green and percentages from 2 to 5% are colored yellow.

All alternatives reduce the total percentage of lane miles with  $V/C > .7$ , though Alternative 4 has a slightly higher percentage of congested Interstate lane-miles. All alternatives reduce the percentage of congested VMT, however, Alternative 4 which has a greater percentage of congested Interstate VMT than E+C, and Alternative 1 and 1A have a higher percentage of congested arterial VMT than E+C.

### 4.4.5 Vehicle Hours of Delay

Delay is time spent traveling at less than posted/free-flow speeds, and is a measure associated both with system inefficiency and necessary traffic operations controls. Table 4.4.5.1 shows the Total Vehicle Hours of Delay (VHD) associated with the E+C network and the reduction of VHD for each alternative by facility type. The table cells are colored green when there is a reduction in delay of 50% or more, and yellow when there is a reduction in delay of between 20 and 50%, to denote significant reduction in delay. As can be seen in Table 4.4.5.1, Alternative 2 results in the most reduction in delay from E+C, reducing overall delay by nearly half and reducing delay on most roadway types.

Table 4.4.5.1  
2040 Road Congestion  
Change in Percentage of Delay by Area and Road Type

|       |                  | Hours of Delay | Percent Reduction from 2040 E+C |        |        |        |        |        |
|-------|------------------|----------------|---------------------------------|--------|--------|--------|--------|--------|
| Area  | Functional Class | 2040 E+C       | Alt 1                           | Alt 1A | Alt 2  | Alt 3  | Alt 3A | Alt 4  |
|       | Rural Interstate | 4,270          | -37.0%                          | -33.5% | -44.0% | -33.3% | -26.5% | 5.2%   |
|       | Rural Arterial   | 3,260          | -28.8%                          | -26.7% | -69.9% | -52.5% | -52.5% | -73.0% |
|       | Rural Collectors | 510            | -17.6%                          | -19.6% | -19.6% | -13.7% | -17.6% | -19.6% |
|       | Rural Local Road | 0              | 0.0%                            | 0.0%   | 0.0%   | 0.0%   | 0.0%   | 0.0%   |
|       | Total            | 8,040          | -32.5%                          | -29.9% | -53.0% | -39.8% | -36.4% | -28.1% |
| Urban | Urban Interstate | 510            | -37.3%                          | -29.4% | -68.6% | -13.7% | -3.9%  | 33.3%  |
|       | Urban Arterial   | 6,340          | -12.6%                          | -12.9% | -42.7% | -15.1% | -16.9% | -41.6% |
|       | Urban Collector  | 0              | 0.0%                            | 0.0%   | 0.0%   | 0.0%   | 0.0%   | 0.0%   |
|       | Total            | 6,850          | -14.5%                          | -14.2% | -44.7% | -15.0% | -15.9% | -36.1% |
|       | Grand Total      | 14,890         | -24.2%                          | -22.6% | -49.2% | -28.4% | -27.0% | -31.8% |



## Southwest Georgia Interstate Study

# ***Travel Patterns and Demand Evaluation of Alternatives***

**Table 4.4.5.1 (continued)**  
**2040 Road Congestion**  
**Change in Percentage of Delay by Area and Road Type**

|     |                  |
|-----|------------------|
| ##% | Greater than 50% |
| ##% | Between 20 - 50% |
| ##% | Less than 20%    |

### ***4.4.5.1 Change in Daily Vehicle Hours of Delay and Vehicle Hours of Travel by Alternate***

Table 4.4.5.1.1 shows the forecast change in 2040 Daily Vehicle Hours of Delay (VHD) from the E+C network for each alternative by the Alternate Corridor, I-75 Corridor from Dooly to Lowndes County, and for the 32 county Study Area. VHD is calculated by subtracting the total hours of free-flow travel from the total hours of travel leaving the hours of travel that occur under non free-flow conditions. The table shows that all alternatives result in significant reduction in VHD within their corridor and for the Study Area, and most – with the exception of Alternative 4 – significantly reduce VHD in the I-75 Corridor. Alternative 2 provides the most overall reduction in VHD.

**Table 4.4.5.1.1**  
**Percent Change in 2040 Daily VHD from E+C**

| <b>Alternate</b> | <b>Alternate Corridor</b> | <b>I-75 Corridor</b> | <b>Study Area</b> |
|------------------|---------------------------|----------------------|-------------------|
| 1                | -62.2                     | -85.9                | -32.0             |
| 1A               | -63.0                     | -68.2                | -29.3             |
| 2                | -67.9                     | -187.2               | -96.9             |
| 3                | -55.8                     | -45.8                | -39.8             |
| 3A               | -54.6                     | -32.1                | -37.1             |
| 4                | -84.9                     | -4.1                 | -46.7             |

Table 4.4.5.1.2 show the forecast change in 2040 Daily Vehicle Hours of Travel (VHT) from the E+C network for each alternative by the Alternate Corridor, I-75 Corridor from Dooly to Lowndes County, and for the 32 county Study Area. As can be seen in the table, each of the alternatives increases forecast VHT from the E+C network within the Alternate Corridor, as travel is drawn to the new high level roadway. Increases in Alternate Corridor VHT range from 8.9% to 58.1% with Alternate 2 exhibiting the highest increase and Alternate 3 the lowest increase. Each of the alternatives reduces VHT within the I-75 Corridor and within the Study Area. Reduction in forecast VHT within the I-75 Corridor ranges from 3.7%, for Alternate 4, to 19.3%, for Alternate



## Southwest Georgia Interstate Study

# ***Travel Patterns and Demand Evaluation of Alternatives***

2. Reduction in forecast VHT within the Study Area ranges from 1.4%, for Alternate 1 and 1A, to 2.5%, for Alternate 2.

**Table 4.4.5.1.2**  
**Percent Change in 2040 Daily VHT from E+C**

| <b>Alternate</b> | <b>Alternate Corridor</b> | <b>I-75 Corridor</b> | <b>Study Area</b> |
|------------------|---------------------------|----------------------|-------------------|
| 1                | 12.8                      | -12.0                | -1.4              |
| 1A               | 12.0                      | -10.0                | -1.4              |
| 2                | 58.1                      | -19.3                | -2.5              |
| 3                | 8.9                       | -7.6                 | -2.2              |
| 3A               | 14.2                      | -5.5                 | -1.8              |
| 4                | 12.3                      | -3.7                 | -1.9              |

### ***4.4.6 Accessibility***

Accessibility is the ease of access or approach to an area and is usually a measure of time. It determines the choice of trip destination based on mode and land use. It relates the linkages between the transportation system and land use patterns. The following measures as used to evaluate the change in accessibility for each of the alternatives: access to interstate travel times, accessibility index for work trips, a comparison of travel times between southwest Georgia cities, and travel time contours (isochrones) from Albany.

### ***4.4.7 Access to Interstate Travel Times***

Table 4.4.7.1 shows Interstate travel times from selected cities in southwest Georgia to I-75, I-10, and I-185 for each alternative in comparison to the E+C. In general all cities see some improvement in travel times to interstates as a result of the alternative networks; however there are some exceptions for certain trips and the improvements are uneven. The largest improvements in access time for I-75 tend to come from Alternative 4. The largest improvements in access time for I-10 are from Alternatives 1 and 3. Access times for I-185 are improved most by alternatives 1, 2 and 4. There are minor differences in access time improvements between Alternative 1 and 1A, and 3 and 3A.





# Southwest Georgia Interstate Study

## Travel Patterns and Demand

### Evaluation of Alternatives

**Table 4.4.7.1**  
**2040 Interstate Access Time in Minutes**  
**By City by Alternative and Change in Percent from E+C**

|                    | I-75    |            |          | I-185   |            |          | I-10    |            |          |
|--------------------|---------|------------|----------|---------|------------|----------|---------|------------|----------|
|                    | 2040 EC | 2040 Alt 1 | % Change | 2040 EC | 2040 Alt 1 | % Change | 2040 EC | 2040 Alt 1 | % Change |
| <b>Albany</b>      | 56      | 54         | -4%      | 105     | 86         | -18%     | 143     | 115        | -19%     |
| <b>Americus</b>    | 43      | 38         | -11%     | 86      | 74         | -14%     | 198     | 168        | -15%     |
| <b>Bainbridge</b>  | 101     | 100        | -1%      | 144     | 135        | -6%      | 86      | 82         | -4%      |
| <b>Blakely</b>     | 125     | 123        | -2%      | 107     | 98         | -8%      | 139     | 135        | -3%      |
| <b>Buena Vista</b> | 83      | 78         | -6%      | 50      | 45         | -9%      | 219     | 190        | -13%     |
| <b>Camilla</b>     | 73      | 73         | -1%      | 140     | 115        | -18%     | 104     | 93         | -10%     |
| <b>Columbus</b>    | 122     | 106        | -14%     | 0       | 0          | 0%       | 236     | 197        | -17%     |
| <b>Cordele</b>     | 0       | 0          | 0%       | 122     | 106        | -14%     | 140     | 138        | -1%      |
| <b>Cuthbert</b>    | 93      | 87         | -6%      | 69      | 64         | -8%      | 170     | 155        | -9%      |
| <b>Dawson</b>      | 65      | 59         | -9%      | 75      | 65         | -14%     | 175     | 140        | -20%     |
| <b>Georgetown</b>  | 122     | 113        | -7%      | 71      | 70         | -1%      | 203     | 190        | -7%      |
| <b>Lumpkin</b>     | 94      | 84         | -11%     | 54      | 49         | -9%      | 191     | 167        | -13%     |
| <b>Moultrie</b>    | 33      | 33         | 0%       | 159     | 131        | -18%     | 98      | 93         | -6%      |
| <b>Oglethorpe</b>  | 47      | 46         | -1%      | 87      | 84         | -3%      | 182     | 180        | -1%      |
| <b>Quitman</b>     | 26      | 26         | 0%       | 198     | 167        | -16%     | 82      | 82         | 0%       |
| <b>Thomasville</b> | 53      | 52         | 0%       | 171     | 138        | -19%     | 71      | 65         | -8%      |
| <b>Tifton</b>      | 0       | 0          | 0%       | 156     | 134        | -14%     | 107     | 106        | -2%      |
| <b>Valdosta</b>    | 0       | 0          | 0%       | 202     | 179        | -12%     | 65      | 65         | 0%       |



# Southwest Georgia Interstate Study

## Travel Patterns and Demand

### Evaluation of Alternatives

Table 4.4.7.1  
2040 Interstate Access Time  
By City by Alternative and Change in Percent from E+C (continued)

|             | I-75    |             |          | I-185   |             |          | I-10    |             |          |
|-------------|---------|-------------|----------|---------|-------------|----------|---------|-------------|----------|
|             | 2040 EC | 2040 Alt 1A | % Change | 2040 EC | 2040 Alt 1A | % Change | 2040 EC | 2040 Alt 1A | % Change |
| Albany      | 56      | 55          | -3%      | 105     | 85          | -19%     | 143     | 114         | -20%     |
| Americus    | 43      | 38          | -11%     | 86      | 74          | -14%     | 198     | 167         | -16%     |
| Bainbridge  | 101     | 99          | -2%      | 144     | 134         | -6%      | 86      | 78          | -9%      |
| Blakely     | 125     | 124         | -1%      | 107     | 98          | -9%      | 139     | 130         | -6%      |
| Buena Vista | 83      | 78          | -6%      | 50      | 45          | -10%     | 219     | 189         | -14%     |
| Camilla     | 73      | 73          | -1%      | 140     | 114         | -18%     | 104     | 82          | -21%     |
| Columbus    | 122     | 106         | -14%     | 0       | 0           | 0%       | 236     | 195         | -17%     |
| Cordele     | 0       | 0           | 0%       | 122     | 106         | -14%     | 140     | 138         | -1%      |
| Cuthbert    | 93      | 87          | -6%      | 69      | 64          | -8%      | 170     | 154         | -9%      |
| Dawson      | 65      | 59          | -9%      | 75      | 64          | -15%     | 175     | 139         | -21%     |
| Georgetown  | 122     | 113         | -7%      | 71      | 70          | -2%      | 203     | 189         | -7%      |
| Lumpkin     | 94      | 84          | -11%     | 54      | 49          | -10%     | 191     | 166         | -13%     |
| Moultrie    | 33      | 33          | 0%       | 159     | 130         | -18%     | 98      | 95          | -4%      |
| Oglethorpe  | 47      | 46          | -1%      | 87      | 84          | -3%      | 182     | 180         | -1%      |
| Quitman     | 26      | 26          | -1%      | 198     | 172         | -13%     | 82      | 82          | 0%       |
| Thomasville | 53      | 52          | -1%      | 171     | 145         | -15%     | 71      | 67          | -6%      |
| Tifton      | 0       | 0           | 0%       | 156     | 134         | -14%     | 107     | 106         | -1%      |
| Valdosta    | 0       | 0           | 0%       | 202     | 179         | -12%     | 65      | 65          | 0%       |

|             | I-75    |            |          | I-185   |            |          | I-10    |            |          |
|-------------|---------|------------|----------|---------|------------|----------|---------|------------|----------|
|             | 2040 EC | 2040 Alt 2 | % Change | 2040 EC | 2040 Alt 2 | % Change | 2040 EC | 2040 Alt 2 | % Change |
| Albany      | 56      | 51         | -10%     | 105     | 86         | -18%     | 143     | 142        | -1%      |
| Americus    | 43      | 38         | -12%     | 86      | 74         | -13%     | 198     | 196        | -1%      |
| Bainbridge  | 101     | 99         | -1%      | 144     | 135        | -6%      | 86      | 86         | 0%       |
| Blakely     | 125     | 120        | -4%      | 107     | 98         | -8%      | 139     | 138        | 0%       |
| Buena Vista | 83      | 78         | -6%      | 50      | 45         | -9%      | 219     | 216        | -1%      |
| Camilla     | 73      | 73         | -1%      | 140     | 120        | -15%     | 104     | 104        | 0%       |
| Columbus    | 122     | 106        | -13%     | 0       | 0          | 0%       | 236     | 221        | -6%      |
| Cordele     | 0       | 0          | 0%       | 122     | 106        | -13%     | 140     | 138        | -1%      |
| Cuthbert    | 93      | 87         | -6%      | 69      | 64         | -7%      | 170     | 165        | -3%      |
| Dawson      | 65      | 59         | -9%      | 75      | 65         | -14%     | 175     | 167        | -5%      |
| Georgetown  | 122     | 113        | -7%      | 71      | 70         | -1%      | 203     | 199        | -2%      |
| Lumpkin     | 94      | 84         | -11%     | 54      | 49         | -9%      | 191     | 186        | -3%      |
| Moultrie    | 33      | 33         | -1%      | 159     | 122        | -23%     | 98      | 98         | 0%       |
| Oglethorpe  | 47      | 46         | -1%      | 87      | 84         | -3%      | 182     | 180        | -1%      |
| Quitman     | 26      | 26         | -1%      | 198     | 159        | -20%     | 82      | 83         | 2%       |
| Thomasville | 53      | 52         | -1%      | 171     | 150        | -12%     | 71      | 71         | 0%       |
| Tifton      | 0       | 0          | 0%       | 156     | 131        | -16%     | 107     | 107        | -1%      |
| Valdosta    | 0       | 0          | 0%       | 202     | 159        | -21%     | 65      | 66         | 2%       |



# Southwest Georgia Interstate Study

## Travel Patterns and Demand

### Evaluation of Alternatives

Table 4.4.7.1  
2040 Interstate Access Time  
By City by Alternative and Change in Percent from E+C (continued)

|             | I-75    |            |          | I-185   |            |          | I-10    |            |          |
|-------------|---------|------------|----------|---------|------------|----------|---------|------------|----------|
|             | 2040 EC | 2040 Alt 3 | % Change | 2040 EC | 2040 Alt 3 | % Change | 2040 EC | 2040 Alt 3 | % Change |
| Albany      | 56      | 52         | -7%      | 105     | 106        | 1%       | 143     | 115        | -19%     |
| Americus    | 43      | 38         | -11%     | 86      | 83         | -3%      | 198     | 170        | -14%     |
| Bainbridge  | 101     | 101        | 0%       | 144     | 140        | -2%      | 86      | 82         | -4%      |
| Blakely     | 125     | 121        | -3%      | 107     | 104        | -3%      | 139     | 135        | -3%      |
| Buena Vista | 83      | 78         | -5%      | 50      | 50         | 1%       | 219     | 192        | -12%     |
| Camilla     | 73      | 73         | -1%      | 140     | 137        | -2%      | 104     | 93         | -10%     |
| Columbus    | 122     | 115        | -6%      | 0       | 0          | 0%       | 236     | 218        | -8%      |
| Cordele     | 0       | 0          | 0%       | 122     | 115        | -6%      | 140     | 138        | -1%      |
| Cuthbert    | 93      | 84         | -9%      | 69      | 70         | 1%       | 170     | 161        | -5%      |
| Dawson      | 65      | 56         | -13%     | 75      | 76         | 1%       | 175     | 148        | -16%     |
| Georgetown  | 122     | 113        | -8%      | 71      | 70         | -1%      | 203     | 195        | -4%      |
| Lumpkin     | 94      | 85         | -10%     | 54      | 55         | 2%       | 191     | 178        | -7%      |
| Moultrie    | 33      | 33         | -1%      | 159     | 152        | -4%      | 98      | 93         | -6%      |
| Oglethorpe  | 47      | 47         | 0%       | 87      | 86         | -1%      | 182     | 181        | -1%      |
| Quitman     | 26      | 26         | 0%       | 198     | 189        | -5%      | 82      | 82         | 0%       |
| Thomasville | 53      | 52         | 0%       | 171     | 161        | -6%      | 71      | 65         | -8%      |
| Tifton      | 0       | 0          | 0%       | 156     | 152        | -3%      | 107     | 106        | -2%      |
| Valdosta    | 0       | 0          | 0%       | 202     | 198        | -2%      | 65      | 64         | 0%       |

|             | I-75    |             |          | I-185   |             |          | I-10    |             |          |
|-------------|---------|-------------|----------|---------|-------------|----------|---------|-------------|----------|
|             | 2040 EC | 2040 Alt 3A | % Change | 2040 EC | 2040 Alt 3A | % Change | 2040 EC | 2040 Alt 3A | % Change |
| Albany      | 56      | 52          | -7%      | 105     | 105         | 0%       | 143     | 114         | -20%     |
| Americus    | 43      | 38          | -11%     | 86      | 82          | -4%      | 198     | 169         | -15%     |
| Bainbridge  | 101     | 99          | -1%      | 144     | 140         | -3%      | 86      | 78          | -9%      |
| Blakely     | 125     | 121         | -3%      | 107     | 103         | -3%      | 139     | 130         | -6%      |
| Buena Vista | 83      | 78          | -5%      | 50      | 50          | 1%       | 219     | 191         | -13%     |
| Camilla     | 73      | 73          | -1%      | 140     | 136         | -3%      | 104     | 82          | -21%     |
| Columbus    | 122     | 114         | -6%      | 0       | 0           | 0%       | 236     | 217         | -8%      |
| Cordele     | 0       | 0           | 0%       | 122     | 114         | -6%      | 140     | 138         | -1%      |
| Cuthbert    | 93      | 84          | -9%      | 69      | 69          | 1%       | 170     | 157         | -7%      |
| Dawson      | 65      | 56          | -13%     | 75      | 76          | 1%       | 175     | 147         | -16%     |
| Georgetown  | 122     | 113         | -8%      | 71      | 70          | -2%      | 203     | 190         | -6%      |
| Lumpkin     | 94      | 85          | -10%     | 54      | 55          | 1%       | 191     | 177         | -7%      |
| Moultrie    | 33      | 33          | -1%      | 159     | 152         | -5%      | 98      | 94          | -4%      |
| Oglethorpe  | 47      | 47          | 0%       | 87      | 86          | -1%      | 182     | 181         | -1%      |
| Quitman     | 26      | 26          | 0%       | 198     | 194         | -2%      | 82      | 82          | 0%       |
| Thomasville | 53      | 52          | -1%      | 171     | 167         | -2%      | 71      | 67          | -6%      |
| Tifton      | 0       | 0           | 0%       | 156     | 152         | -3%      | 107     | 106         | -1%      |
| Valdosta    | 0       | 0           | 0%       | 202     | 198         | -2%      | 65      | 65          | 0%       |



# Southwest Georgia Interstate Study

## Travel Patterns and Demand

### Evaluation of Alternatives

**Table 4.4.7.1**  
**2040 Interstate Access Time**  
**By City by Alternative and Change in Percent from E+C (continued)**

|                    | I-75    |            |          | I-185   |            |          | I-10    |            |          |
|--------------------|---------|------------|----------|---------|------------|----------|---------|------------|----------|
|                    | 2040 EC | 2040 Alt 4 | % Change | 2040 EC | 2040 Alt 4 | % Change | 2040 EC | 2040 Alt 4 | % Change |
| <b>Albany</b>      | 56      | 43         | -24%     | 105     | 86         | -18%     | 143     | 143        | 0%       |
| <b>Americus</b>    | 43      | 38         | -11%     | 86      | 74         | -14%     | 198     | 197        | -1%      |
| <b>Bainbridge</b>  | 101     | 100        | -1%      | 144     | 135        | -6%      | 86      | 86         | 0%       |
| <b>Blakely</b>     | 125     | 112        | -11%     | 107     | 98         | -8%      | 139     | 139        | 0%       |
| <b>Buena Vista</b> | 83      | 78         | -6%      | 50      | 45         | -9%      | 219     | 217        | -1%      |
| <b>Camilla</b>     | 73      | 72         | -2%      | 140     | 120        | -14%     | 104     | 104        | 0%       |
| <b>Columbus</b>    | 122     | 106        | -14%     | 0       | 0          | 0%       | 236     | 222        | -6%      |
| <b>Cordele</b>     | 0       | 0          | 0%       | 122     | 106        | -14%     | 140     | 141        | 1%       |
| <b>Cuthbert</b>    | 93      | 87         | -6%      | 69      | 64         | -7%      | 170     | 165        | -2%      |
| <b>Dawson</b>      | 65      | 59         | -9%      | 75      | 65         | -14%     | 175     | 168        | -4%      |
| <b>Georgetown</b>  | 122     | 113        | -7%      | 71      | 70         | -1%      | 203     | 199        | -2%      |
| <b>Lumpkin</b>     | 94      | 84         | -11%     | 54      | 49         | -9%      | 191     | 187        | -2%      |
| <b>Moultrie</b>    | 33      | 33         | -1%      | 159     | 131        | -17%     | 98      | 98         | 0%       |
| <b>Oglethorpe</b>  | 47      | 46         | -1%      | 87      | 84         | -3%      | 182     | 183        | 0%       |
| <b>Quitman</b>     | 26      | 26         | 0%       | 198     | 176        | -11%     | 82      | 82         | 1%       |
| <b>Thomasville</b> | 53      | 52         | -1%      | 171     | 151        | -12%     | 71      | 71         | 0%       |
| <b>Tifton</b>      | 0       | 0          | 0%       | 156     | 121        | -22%     | 107     | 109        | 1%       |
| <b>Valdosta</b>    | 0       | 0          | 0%       | 202     | 168        | -17%     | 65      | 65         | 1%       |

#### 4.4.8 Accessibility Index

The accessibility index is a measure of access to jobs that relates travel time to the number of jobs within reach of an area. The higher the index number the more jobs are accessible to a given area. The categories of excellent, good, fair, and poor are based on the distribution of the index values under E+C. The accessibility index is applied at the TAZ level within the SWGIS travel demand model. Table 4.4.8.1 indicates the populations within each category and the overall change in the category of accessibility between alternatives.

As can be seen in the table, more than 85% the residents of the study area are expected to have good or excellent job accessibility in 2040 based on the forecast distribution of population and employment. This percentage increases by 2 to 3% under all the alternatives, by shifting population from the poor and fair categories into the good or excellent categories. The largest reduction of people in the poor job accessibility category is under Alternative 1 and 1A.





## Southwest Georgia Interstate Study

# Travel Patterns and Demand Evaluation of Alternatives

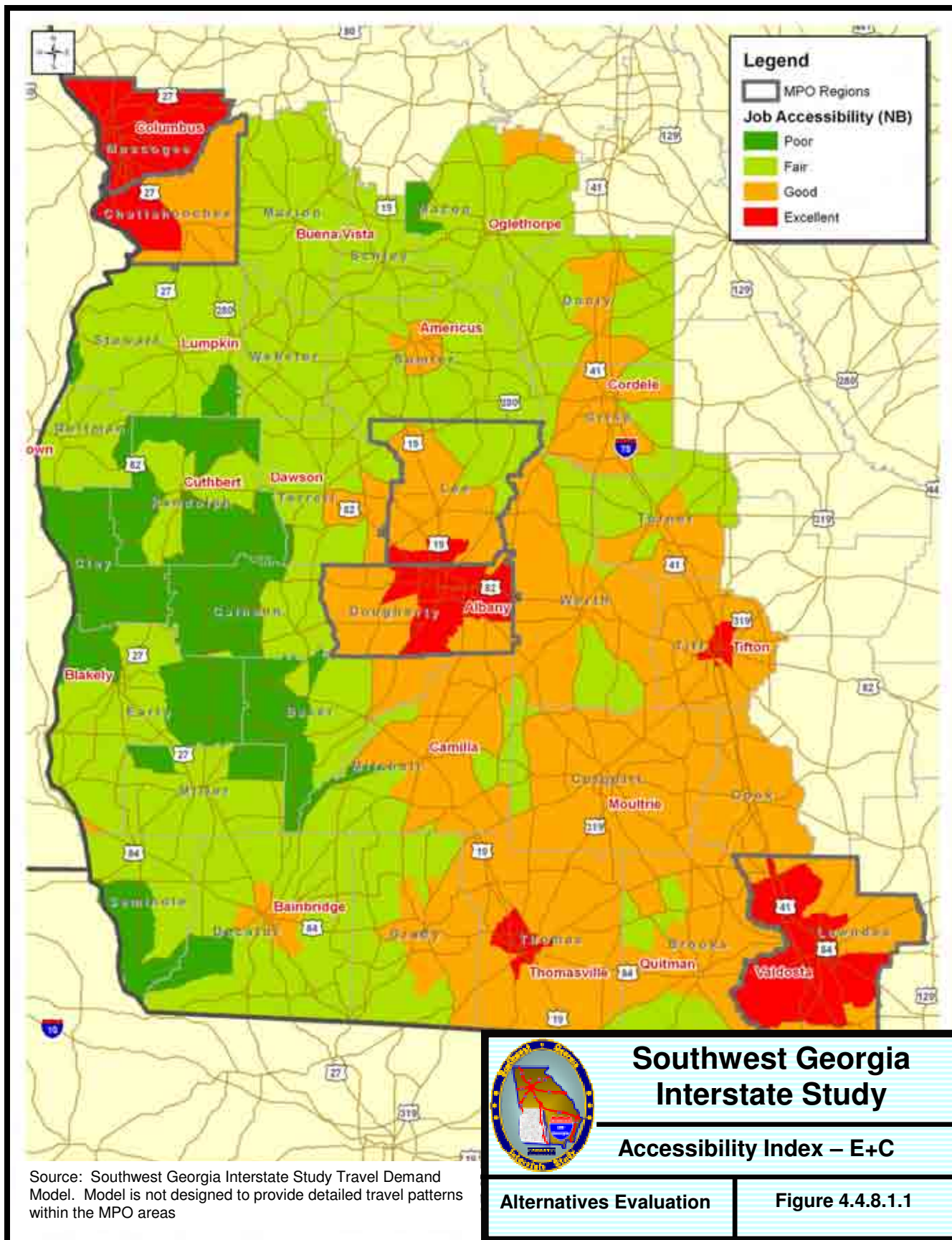
**Table 4.4.8.1**  
**2040 Job Accessibility Index**  
 by Alternative by Category and Change in Percent from E+C  
 Based on Projected 2040 Population

|             | Accessibility Index |         |         |           |           |
|-------------|---------------------|---------|---------|-----------|-----------|
| Alternative | Poor                | Fair    | Good    | Excellent | Total     |
| E+C         | 17,570              | 128,258 | 375,640 | 501,306   | 1,022,774 |
| Alt. 1      | 14,414              | 115,977 | 378,498 | 513,885   | 1,022,774 |
| Alt. 1A     | 14,414              | 108,697 | 385,778 | 513,885   | 1,022,774 |
| Alt. 2      | 14,505              | 117,007 | 364,494 | 526,768   | 1,022,774 |
| Alt. 3      | 17,128              | 117,886 | 373,875 | 513,885   | 1,022,774 |
| Alt. 3A     | 17,128              | 109,032 | 382,729 | 513,885   | 1,022,774 |
| Alt. 4      | 14,505              | 118,536 | 375,754 | 513,979   | 1,022,774 |

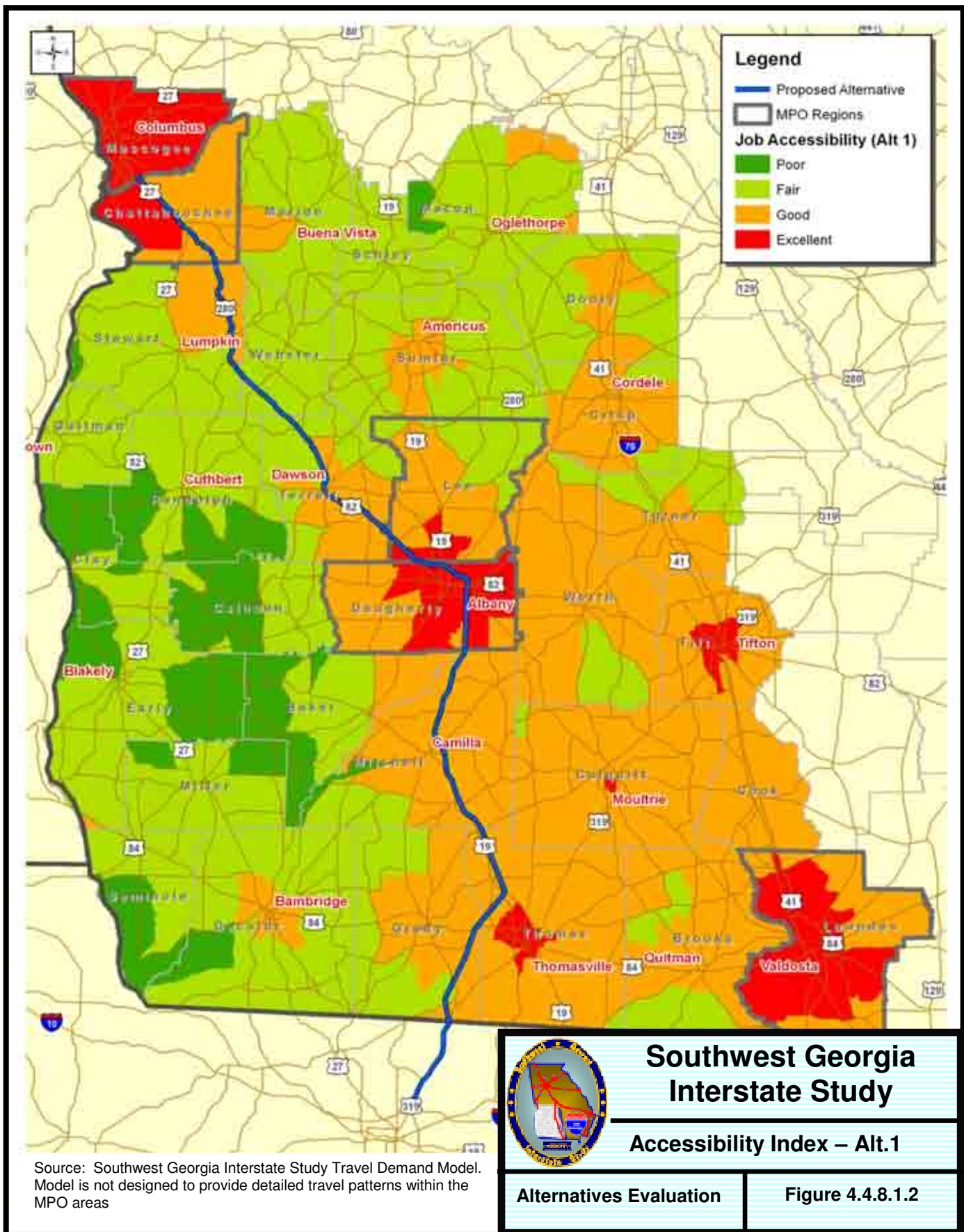
|             | Percent Change in Accessibility Index |       |       |           |        |
|-------------|---------------------------------------|-------|-------|-----------|--------|
| Alternative | Poor                                  | Fair  | Good  | Excellent | Total  |
| E+C%        | 1.7%                                  | 12.5% | 36.7% | 49.0%     | 100.0% |
| Alt.1 Δ%    | -0.3%                                 | -1.2% | 0.3%  | 1.2%      | 0.0%   |
| Alt. 1A Δ%  | -0.3%                                 | -1.9% | 1.0%  | 1.2%      | 0.0%   |
| Alt. 2 Δ%   | -0.3%                                 | -1.1% | -1.1% | 2.5%      | 0.0%   |
| Alt. 3 Δ%   | 0.0%                                  | -1.0% | -0.2% | 1.2%      | 0.0%   |
| Alt. 3A Δ%  | 0.0%                                  | -1.9% | 0.7%  | 1.2%      | 0.0%   |
| Alt. 4 Δ%   | -0.3%                                 | -1.0% | 0.0%  | 1.2%      | 0.0%   |

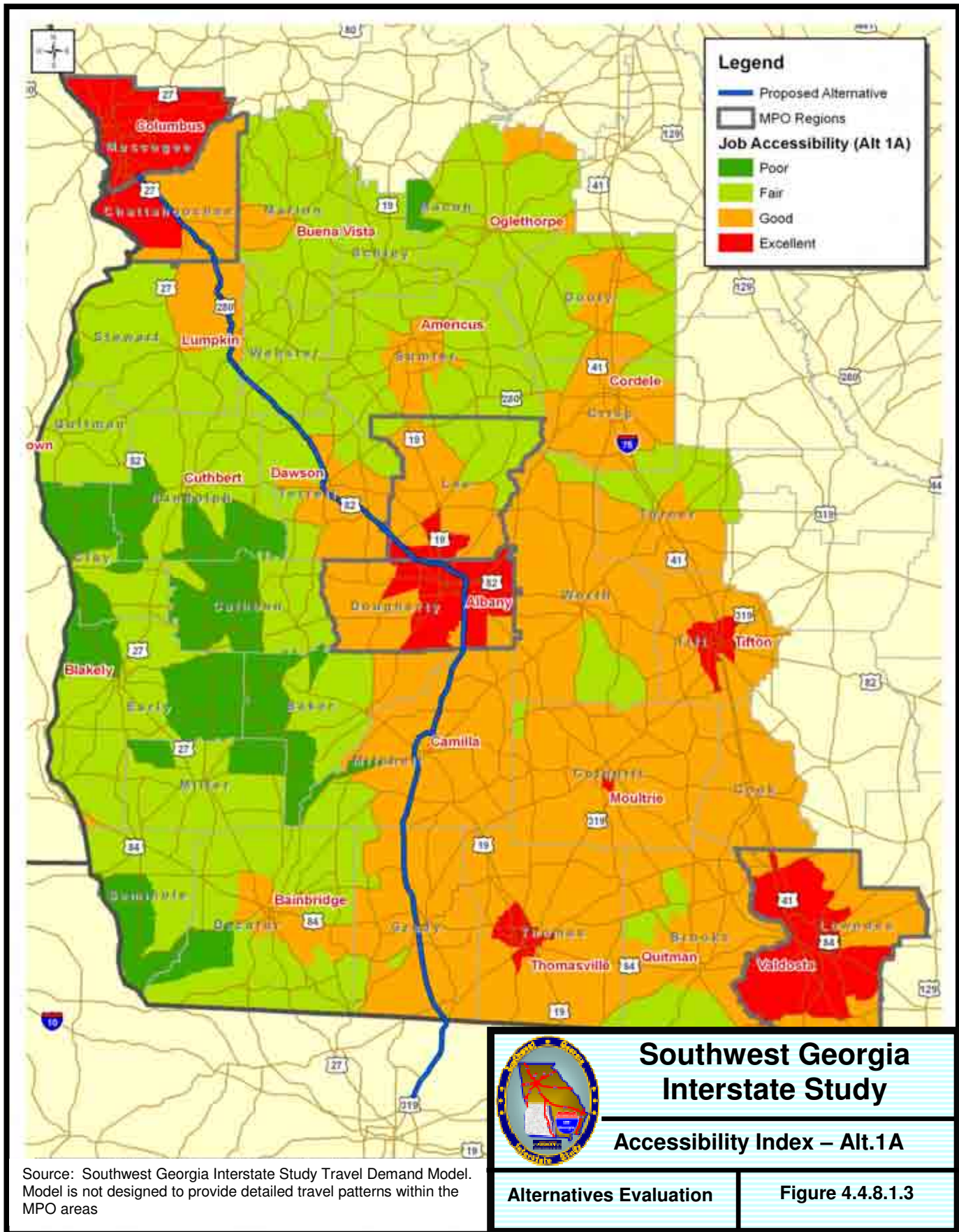
### 4.4.8.1 Accessibility Index Maps

Figures 4.4.8.1.1 through 4.4.8.1.7 illustrate the accessibility index for the E+C and each alternative at the TAZ level. Generally the closer the TAZ is to a given alternative the more likely that the job accessibility index improved.

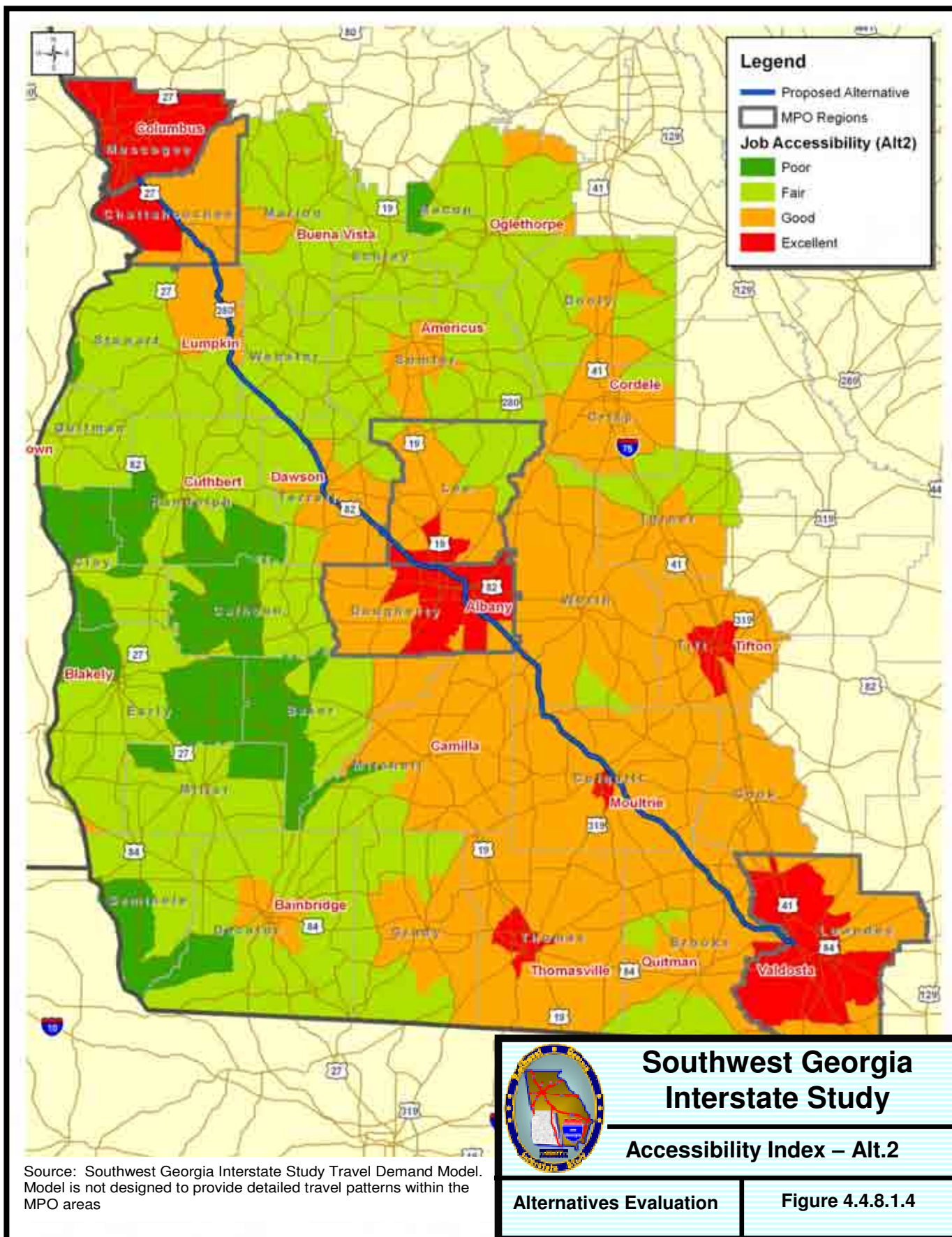


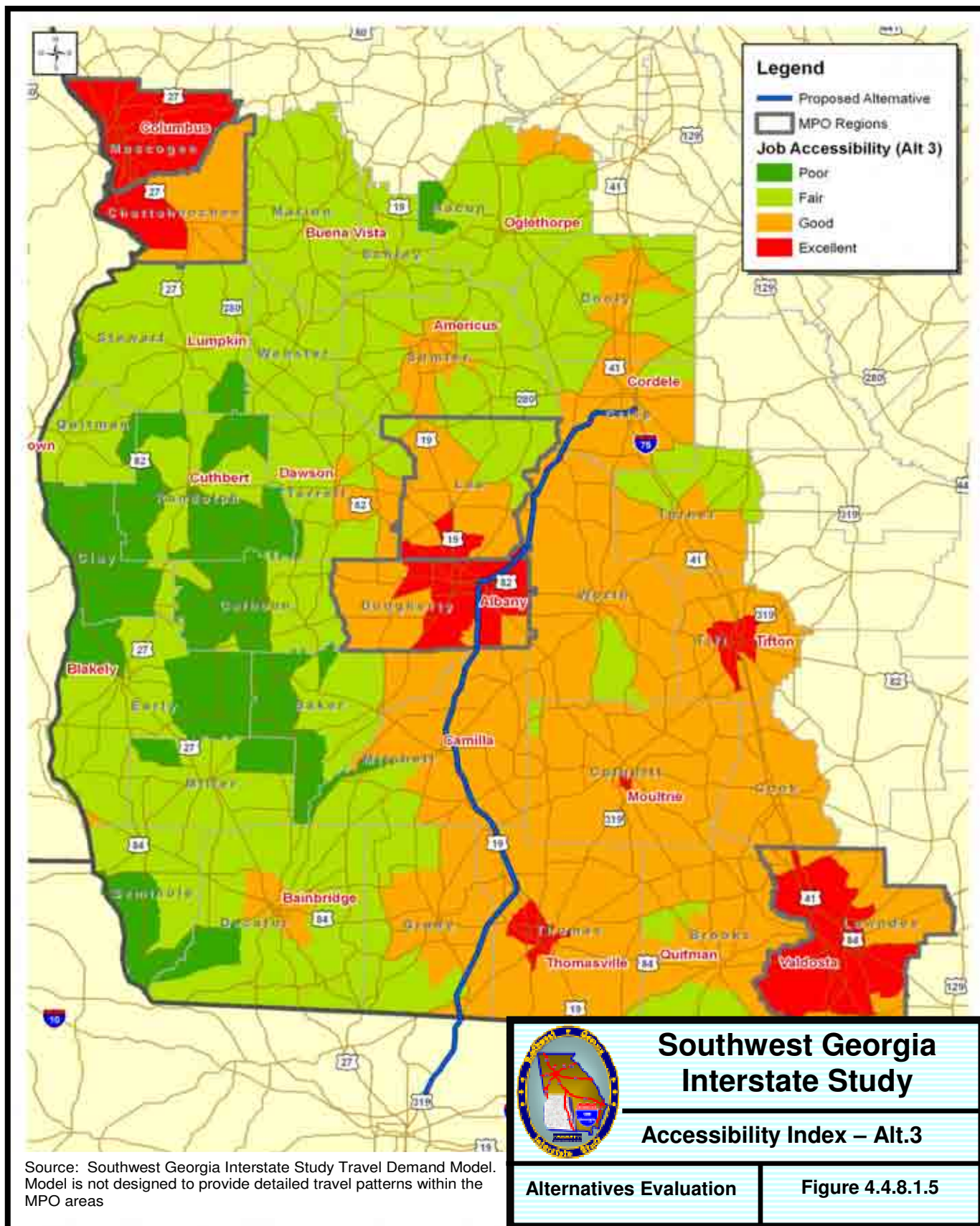




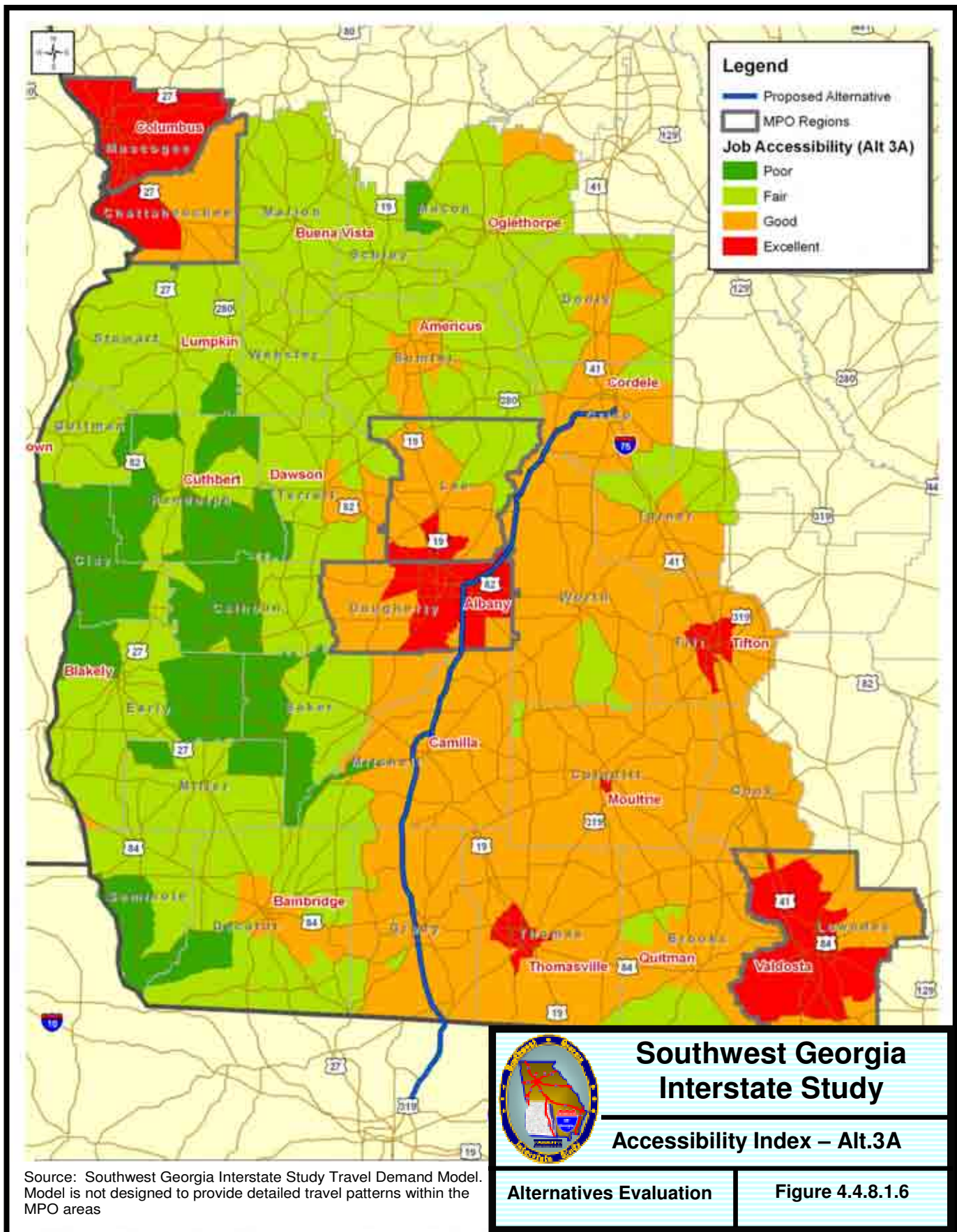


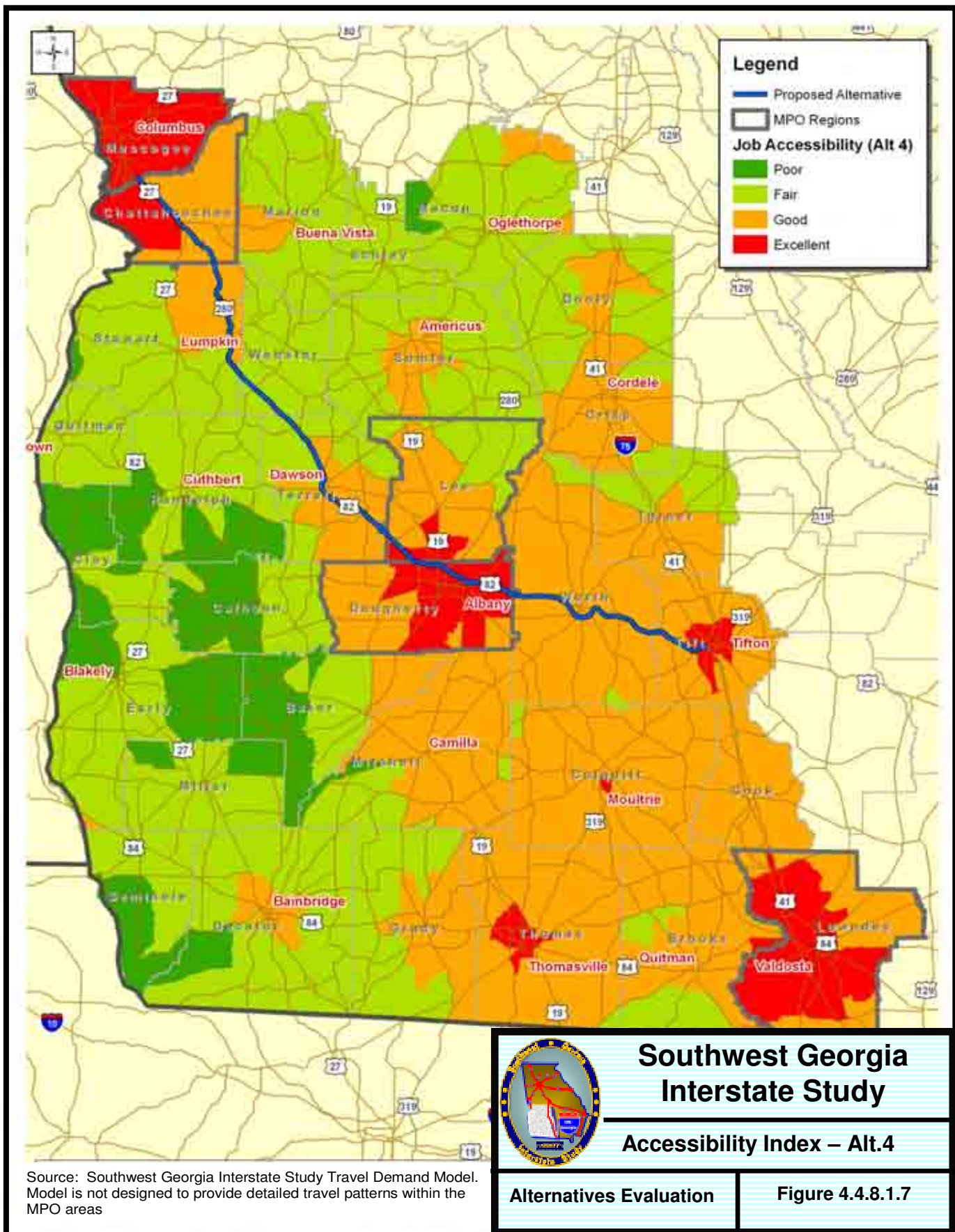
















## **Southwest Georgia Interstate Study**

# ***Travel Patterns and Demand Evaluation of Alternatives***

### ***4.4.9 Comparative Travel Times between Southwest Georgia Cities***

Table 4.4.9.1 shows the travel time between cities for each of the alternatives. The table is color coded to show relative improvement in travel times between alternatives. Yellow indicates a time savings of 10 to 20 minutes per trip. Green indicates a savings of 20 to 30 minutes per trip. Orange indicates a savings of more than 30 minutes per trip.

As can be seen in the table, travel time savings vary significantly by location and alternative. All of the alternatives produce some travel time savings between cities. Columbus and Valdosta see the most improvement in travel times because they are at the periphery of the study area, and so have the longest trips and travel times to areas within and on the other side of the study area. Blakely has the least improvement in travel times of those cities tabulated, and is furthest from the alternative corridors.



Table 4.4.9.1  
2040 Travel Time Between Selected Cities by Alternative in Minutes

Travel time in Minutes from Albany, GA to:

| Alternative | Albany | Americus | Bainbridge | Blakely | Buena Vista | Camilla | Columbus | Cordele | Cuthbert | Dawson | Georgetown | Lumpkin | Moultrie | Oglethorpe | Quitman | Thomasville | Tifton | Valdosta |
|-------------|--------|----------|------------|---------|-------------|---------|----------|---------|----------|--------|------------|---------|----------|------------|---------|-------------|--------|----------|
| E+C         | 0      | 51       | 79         | 72      | 86          | 35      | 105      | 45      | 59       | 30     | 89         | 73      | 54       | 80         | 97      | 70          | 57     | 102      |
| Alt.1       | 0      | 50       | 75         | 72      | 85          | 32      | 86       | 44      | 51       | 24     | 80         | 62      | 48       | 79         | 87      | 58          | 54     | 98       |
| Alt.1A      | 0      | 50       | 70         | 72      | 85          | 32      | 85       | 44      | 51       | 24     | 80         | 62      | 48       | 79         | 93      | 66          | 55     | 98       |
| Alt.2       | 0      | 50       | 78         | 72      | 85          | 35      | 86       | 44      | 51       | 24     | 80         | 62      | 39       | 79         | 78      | 69          | 51     | 77       |
| Alt.3       | 0      | 50       | 75         | 72      | 86          | 32      | 106      | 40      | 59       | 30     | 88         | 72      | 48       | 79         | 87      | 58          | 52     | 96       |
| Alt.3A      | 0      | 50       | 70         | 72      | 86          | 32      | 105      | 40      | 59       | 30     | 88         | 72      | 48       | 79         | 93      | 66          | 52     | 96       |
| Alt.4       | 0      | 50       | 79         | 72      | 85          | 35      | 86       | 44      | 51       | 24     | 80         | 62      | 47       | 79         | 94      | 70          | 43     | 89       |

Travel time in Minutes from Bainbridge, GA to:

| Alternative | Albany | Americus | Bainbridge | Blakely | Buena Vista | Camilla | Columbus | Cordele | Cuthbert | Dawson | Georgetown | Lumpkin | Moultrie | Oglethorpe | Quitman | Thomasville | Tifton | Valdosta |
|-------------|--------|----------|------------|---------|-------------|---------|----------|---------|----------|--------|------------|---------|----------|------------|---------|-------------|--------|----------|
| E+C         | 79     | 128      | 0          | 49      | 141         | 47      | 141      | 116     | 79       | 99     | 107        | 101     | 74       | 154        | 78      | 42          | 104    | 101      |
| Alt.1       | 75     | 121      | 0          | 49      | 140         | 47      | 135      | 110     | 78       | 96     | 105        | 100     | 73       | 147        | 78      | 42          | 104    | 100      |
| Alt.1A      | 70     | 117      | 0          | 49      | 140         | 43      | 134      | 106     | 78       | 92     | 105        | 100     | 73       | 142        | 77      | 41          | 104    | 99       |
| Alt.2       | 78     | 125      | 0          | 49      | 140         | 47      | 135      | 114     | 78       | 97     | 105        | 100     | 73       | 152        | 77      | 42          | 104    | 99       |
| Alt.3       | 75     | 124      | 0          | 49      | 140         | 47      | 140      | 106     | 79       | 99     | 105        | 100     | 74       | 148        | 78      | 43          | 104    | 101      |
| Alt.3A      | 70     | 119      | 0          | 49      | 140         | 43      | 140      | 101     | 79       | 97     | 105        | 100     | 73       | 143        | 77      | 42          | 104    | 99       |
| Alt.4       | 79     | 127      | 0          | 49      | 140         | 47      | 135      | 116     | 78       | 98     | 105        | 100     | 74       | 153        | 77      | 42          | 104    | 100      |

Travel time in Minutes from Blakely, GA to:

| Alternative | Albany | Americus | Bainbridge | Blakely | Buena Vista | Camilla | Columbus | Cordele | Cuthbert | Dawson | Georgetown | Lumpkin | Moultrie | Oglethorpe | Quitman | Thomasville | Tifton | Valdosta |
|-------------|--------|----------|------------|---------|-------------|---------|----------|---------|----------|--------|------------|---------|----------|------------|---------|-------------|--------|----------|
| E+C         | 72     | 102      | 49         | 0       | 104         | 75      | 104      | 113     | 43       | 63     | 70         | 64      | 107      | 128        | 123     | 92          | 126    | 146      |
| Alt.1       | 72     | 100      | 49         | 0       | 103         | 75      | 98       | 113     | 42       | 63     | 69         | 64      | 106      | 127        | 123     | 91          | 123    | 145      |
| Alt.1A      | 72     | 100      | 49         | 0       | 103         | 75      | 98       | 113     | 42       | 63     | 69         | 64      | 106      | 127        | 122     | 91          | 124    | 144      |
| Alt.2       | 72     | 100      | 49         | 0       | 103         | 75      | 98       | 113     | 42       | 63     | 69         | 64      | 106      | 127        | 122     | 91          | 120    | 142      |
| Alt.3       | 72     | 101      | 49         | 0       | 103         | 75      | 104      | 108     | 42       | 63     | 69         | 64      | 106      | 128        | 123     | 92          | 121    | 146      |
| Alt.3A      | 72     | 101      | 49         | 0       | 103         | 75      | 103      | 108     | 42       | 63     | 69         | 64      | 106      | 128        | 122     | 91          | 121    | 145      |
| Alt.4       | 72     | 100      | 49         | 0       | 103         | 75      | 98       | 113     | 42       | 63     | 69         | 64      | 106      | 127        | 123     | 91          | 112    | 145      |

Travel time in Minutes from Columbus, GA to:

| Alternative | Albany | Americus | Bainbridge | Blakely | Buena Vista | Camilla | Columbus | Cordele | Cuthbert | Dawson | Georgetown | Lumpkin | Moultrie | Oglethorpe | Quitman | Thomasville | Tifton | Valdosta |
|-------------|--------|----------|------------|---------|-------------|---------|----------|---------|----------|--------|------------|---------|----------|------------|---------|-------------|--------|----------|
| E+C         | 105    | 86       | 141        | 104     | 50          | 141     | 0        | 121     | 69       | 76     | 71         | 55      | 158      | 87         | 198     | 171         | 156    | 203      |
| Alt.1       | 86     | 74       | 135        | 98      | 45          | 115     | 0        | 106     | 64       | 65     | 70         | 49      | 131      | 84         | 167     | 138         | 134    | 179      |
| Alt.1A      | 85     | 74       | 134        | 98      | 45          | 114     | 0        | 106     | 64       | 64     | 70         | 49      | 130      | 84         | 172     | 145         | 134    | 179      |
| Alt.2       | 86     | 74       | 135        | 98      | 45          | 120     | 0        | 106     | 64       | 65     | 70         | 49      | 122      | 84         | 159     | 150         | 131    | 159      |
| Alt.3       | 106    | 83       | 140        | 104     | 50          | 137     | 0        | 115     | 70       | 76     | 70         | 55      | 152      | 86         | 189     | 161         | 152    | 198      |
| Alt.3A      | 105    | 82       | 140        | 103     | 50          | 136     | 0        | 114     | 69       | 76     | 70         | 55      | 152      | 86         | 194     | 167         | 152    | 198      |
| Alt.4       | 86     | 74       | 135        | 98      | 45          | 120     | 0        | 106     | 64       | 65     | 70         | 49      | 131      | 84         | 176     | 151         | 121    | 168      |

Travel time in Minutes from Cordele, GA to:



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| Alternative | Albany | Americus | Bainbridge | Blakely | Buena Vista | Camilla | Columbus | Cordele | Cuthbert | Dawson | Georgetown | Lumpkin | Moultrie | Oglethorpe | Quitman | Thomasville | Tifton | Valdosta |
|-------------|--------|----------|------------|---------|-------------|---------|----------|---------|----------|--------|------------|---------|----------|------------|---------|-------------|--------|----------|
| E+C         | 45     | 42       | 116        | 113     | 81          | 75      | 121      | 0       | 93       | 65     | 122        | 93      | 67       | 47         | 99      | 99          | 39     | 87       |
| Alt.1       | 44     | 38       | 110        | 113     | 78          | 70      | 106      | 0       | 87       | 59     | 113        | 84      | 66       | 46         | 97      | 94          | 38     | 85       |
| Alt.1A      | 44     | 38       | 106        | 113     | 78          | 70      | 106      | 0       | 87       | 59     | 113        | 84      | 66       | 46         | 98      | 99          | 38     | 85       |
| Alt.2       | 44     | 38       | 114        | 113     | 78          | 74      | 106      | 0       | 87       | 59     | 113        | 84      | 66       | 46         | 97      | 99          | 38     | 84       |
| Alt.3       | 40     | 38       | 106        | 108     | 78          | 65      | 115      | 0       | 84       | 56     | 113        | 85      | 66       | 47         | 98      | 89          | 38     | 85       |
| Alt.3A      | 40     | 38       | 101        | 108     | 78          | 65      | 114      | 0       | 84       | 56     | 113        | 85      | 67       | 47         | 98      | 97          | 38     | 85       |
| Alt.4       | 44     | 38       | 116        | 113     | 78          | 76      | 106      | 0       | 87       | 59     | 113        | 84      | 66       | 46         | 99      | 99          | 38     | 87       |

Travel time in Minutes from Thomasville, GA to:

| Alternative | Albany | Americus | Bainbridge | Blakely | Buena Vista | Camilla | Columbus | Cordele | Cuthbert | Dawson | Georgetown | Lumpkin | Moultrie | Oglethorpe | Quitman | Thomasville | Tifton | Valdosta |
|-------------|--------|----------|------------|---------|-------------|---------|----------|---------|----------|--------|------------|---------|----------|------------|---------|-------------|--------|----------|
| E+C         | 70     | 117      | 42         | 92      | 151         | 39      | 171      | 99      | 120      | 100    | 147        | 138     | 33       | 141        | 31      | 0           | 62     | 53       |
| Alt.1       | 58     | 103      | 42         | 91      | 138         | 36      | 138      | 94      | 104      | 80     | 133        | 115     | 33       | 131        | 32      | 0           | 62     | 52       |
| Alt.1A      | 66     | 111      | 41         | 91      | 145         | 39      | 145      | 99      | 111      | 87     | 140        | 122     | 33       | 138        | 31      | 0           | 62     | 52       |
| Alt.2       | 69     | 115      | 42         | 91      | 149         | 39      | 150      | 99      | 115      | 92     | 144        | 126     | 33       | 140        | 31      | 0           | 62     | 52       |
| Alt.3       | 58     | 106      | 43         | 92      | 140         | 36      | 161      | 89      | 114      | 89     | 143        | 128     | 33       | 132        | 31      | 0           | 62     | 52       |
| Alt.3A      | 66     | 113      | 42         | 91      | 147         | 39      | 167      | 97      | 119      | 96     | 146        | 134     | 33       | 139        | 31      | 0           | 62     | 52       |
| Alt.4       | 70     | 116      | 42         | 91      | 150         | 39      | 151      | 99      | 116      | 93     | 145        | 127     | 33       | 140        | 31      | 0           | 62     | 52       |

Travel time in Minutes from Tifton, GA to:

| Alternative | Albany | Americus | Bainbridge | Blakely | Buena Vista | Camilla | Columbus | Cordele | Cuthbert | Dawson | Georgetown | Lumpkin | Moultrie | Oglethorpe | Quitman | Thomasville | Tifton | Valdosta |
|-------------|--------|----------|------------|---------|-------------|---------|----------|---------|----------|--------|------------|---------|----------|------------|---------|-------------|--------|----------|
| E+C         | 57     | 80       | 104        | 126     | 119         | 73      | 156      | 39      | 112      | 86     | 141        | 125     | 33       | 82         | 64      | 62          | 0      | 50       |
| Alt.1       | 54     | 76       | 104        | 123     | 115         | 73      | 134      | 38      | 100      | 75     | 128        | 111     | 33       | 80         | 63      | 62          | 0      | 49       |
| Alt.1A      | 55     | 76       | 104        | 124     | 115         | 73      | 134      | 38      | 100      | 76     | 129        | 111     | 33       | 80         | 64      | 62          | 0      | 49       |
| Alt.2       | 51     | 76       | 104        | 120     | 115         | 73      | 131      | 38      | 96       | 72     | 125        | 107     | 33       | 80         | 63      | 62          | 0      | 48       |
| Alt.3       | 52     | 76       | 104        | 121     | 116         | 73      | 152      | 38      | 107      | 79     | 135        | 120     | 33       | 81         | 63      | 62          | 0      | 49       |
| Alt.3A      | 52     | 76       | 104        | 121     | 116         | 73      | 152      | 38      | 107      | 79     | 135        | 120     | 33       | 81         | 64      | 62          | 0      | 49       |
| Alt.4       | 43     | 76       | 104        | 112     | 115         | 72      | 121      | 38      | 87       | 63     | 115        | 98      | 33       | 81         | 65      | 62          | 0      | 51       |

Travel time in Minutes from Valdosta, GA to:

| Alternative | Albany | Americus | Bainbridge | Blakely | Buena Vista | Camilla | Columbus | Cordele | Cuthbert | Dawson | Georgetown | Lumpkin | Moultrie | Oglethorpe | Quitman | Thomasville | Tifton | Valdosta |
|-------------|--------|----------|------------|---------|-------------|---------|----------|---------|----------|--------|------------|---------|----------|------------|---------|-------------|--------|----------|
| E+C         | 102    | 124      | 101        | 146     | 165         | 93      | 203      | 87      | 157      | 132    | 187        | 171     | 58       | 128        | 26      | 53          | 50     | 0        |
| Alt.1       | 98     | 119      | 100        | 145     | 160         | 91      | 179      | 85      | 144      | 120    | 173        | 155     | 54       | 126        | 26      | 52          | 49     | 0        |
| Alt.1A      | 98     | 119      | 99         | 144     | 161         | 92      | 179      | 85      | 144      | 120    | 173        | 155     | 55       | 126        | 26      | 52          | 49     | 0        |
| Alt.2       | 77     | 117      | 99         | 142     | 157         | 87      | 159      | 84      | 124      | 100    | 153        | 135     | 46       | 125        | 26      | 52          | 48     | 0        |
| Alt.3       | 96     | 120      | 101        | 146     | 161         | 91      | 198      | 85      | 152      | 125    | 181        | 165     | 54       | 127        | 26      | 52          | 49     | 0        |
| Alt.3A      | 96     | 120      | 99         | 145     | 162         | 92      | 198      | 85      | 152      | 125    | 181        | 165     | 54       | 127        | 26      | 52          | 49     | 0        |
| Alt.4       | 89     | 121      | 100        | 145     | 162         | 92      | 168      | 87      | 133      | 109    | 162        | 144     | 53       | 128        | 26      | 52          | 51     | 0        |

Key

|               |    |  |    |  |    |  |
|---------------|----|--|----|--|----|--|
| Minutes Saved | 10 |  | 20 |  | 30 |  |
|---------------|----|--|----|--|----|--|



## **Southwest Georgia Interstate Study**

### ***Travel Patterns and Demand Evaluation of Alternatives***

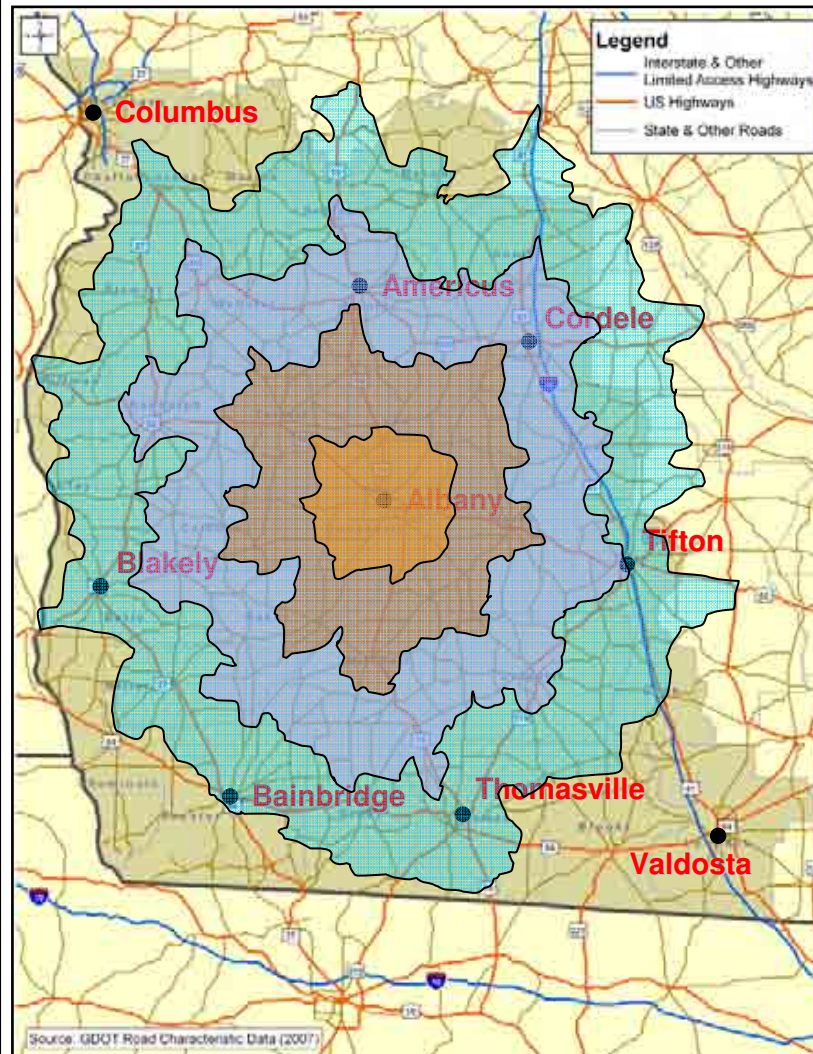
#### ***4.4.10 Travel Time Isochrones for Albany***

Figures 4.4.10.1 through 4.4.10.6 depict the change in travel times from Albany for each of the alternatives compared to the 2040 E+C network. The graphics show the relative improvement in travel times from Albany to other locations in southwest Georgia.

As can be seen in Figures 4.4.10.1 through 4.4.10.6, improvements in travel time from the E+C alternative generally follow the alignment of the new interstate in each alternative. Alternative 1 and 3 shows the most improvement in travel times from Albany towards Tallahassee, FL. Alternative 2 shows the most improvement in travel times between Albany and Valdosta. Alternative 4 shows the most improvement in travel times from Albany to I-75 and areas east of I-75. Alternatives 1, 2 and 4 show improved travel times between Albany and Columbus.



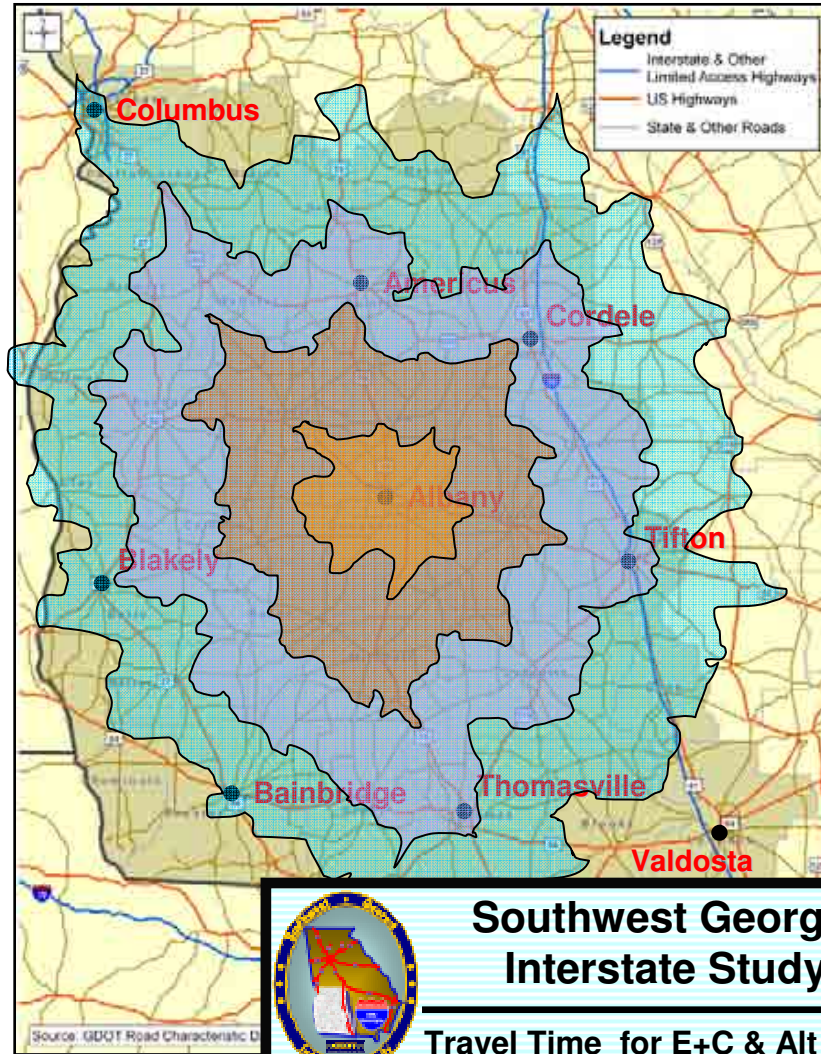
Travel Time from Albany – E+C



Minutes



Travel Time from Albany – Alternative 1



## Southwest Georgia Interstate Study

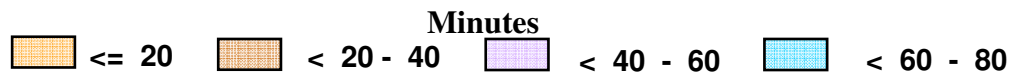
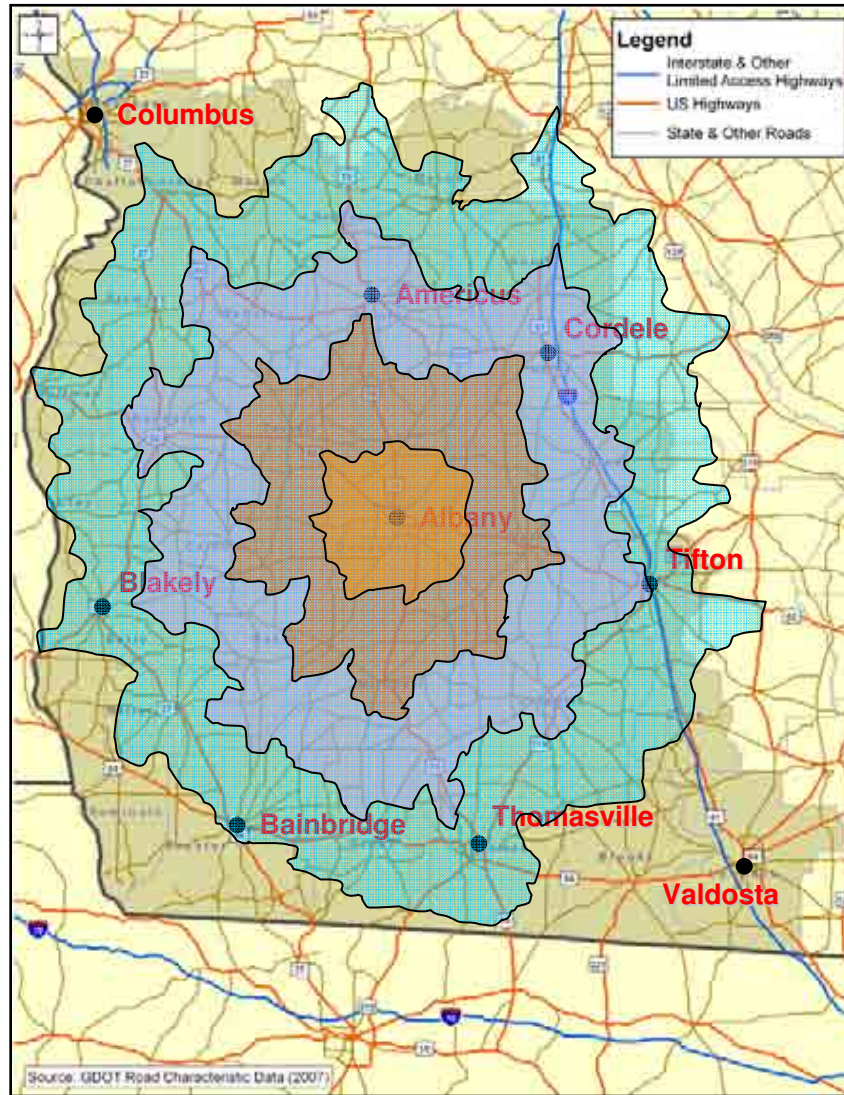
Travel Time for E+C & Alt 1

Alternatives Evaluation

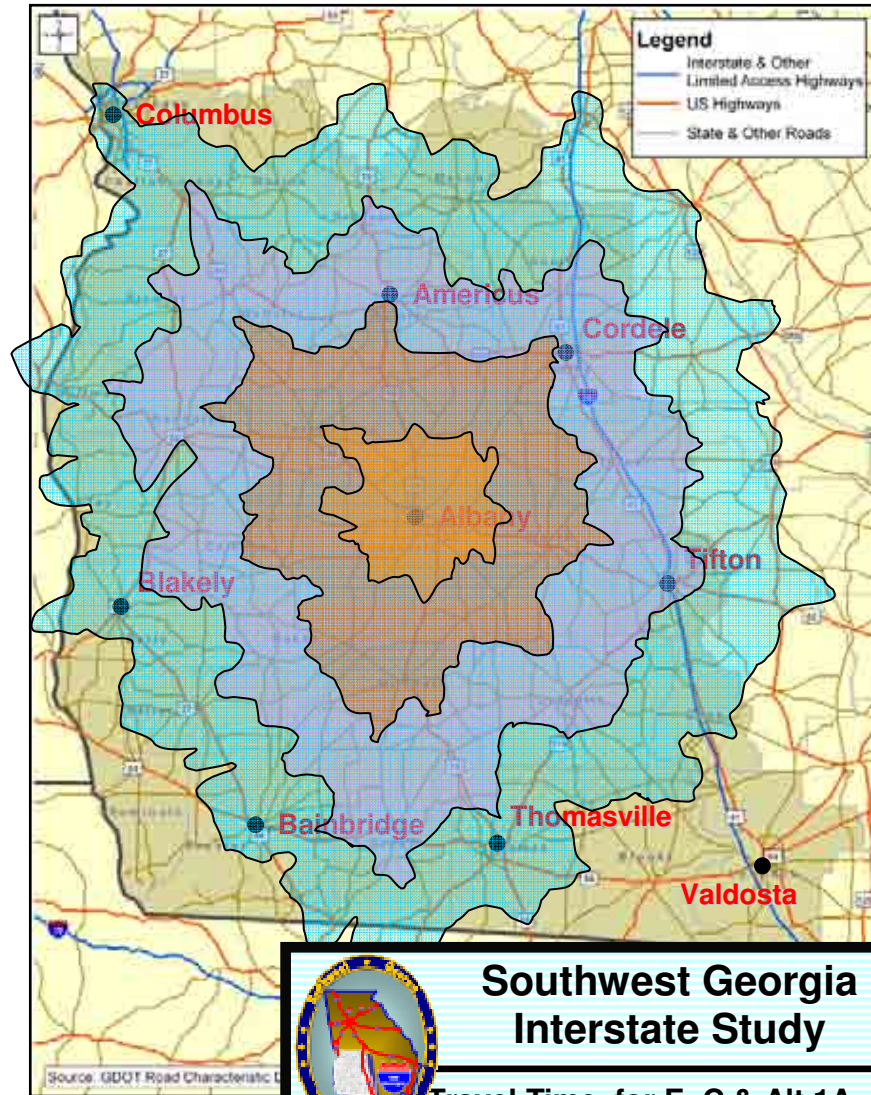
Figure 4.4.10.1



## Travel Time from Albany – E+C



## Travel Time from Albany – Alternative 1A



### Southwest Georgia Interstate Study

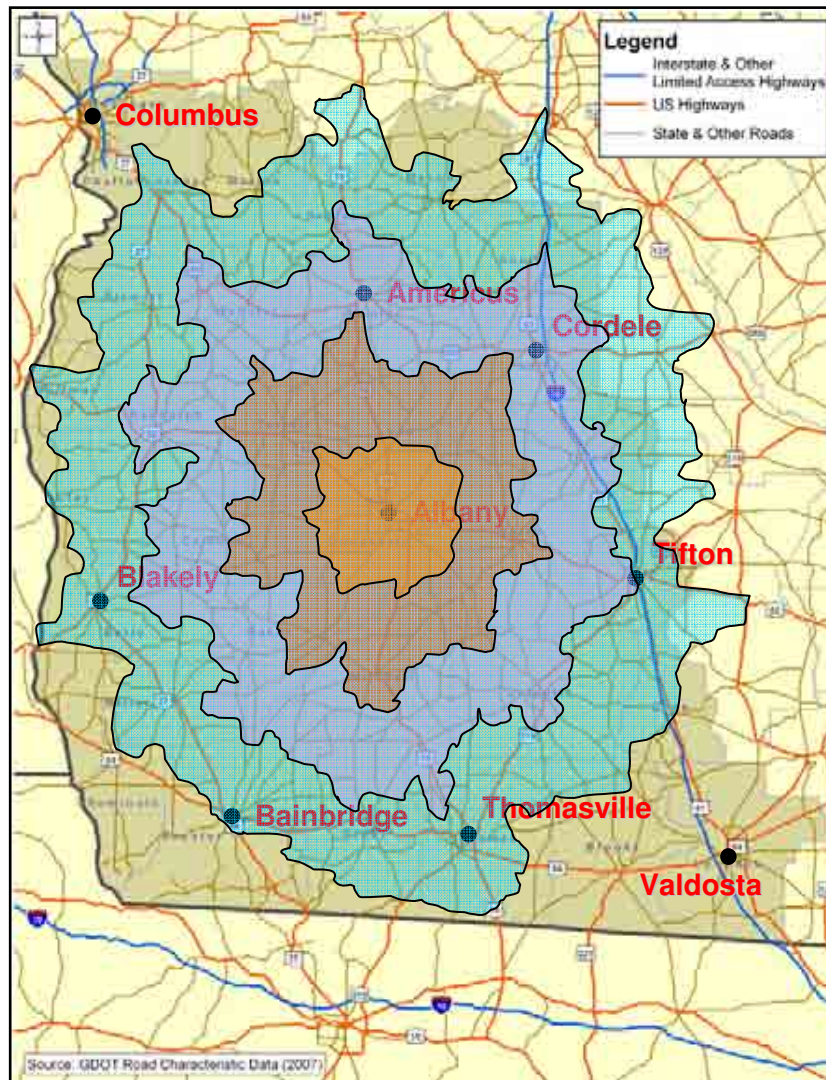
#### Travel Time for E+C & Alt 1A

Alternatives Evaluation

Figure 4.4.10.2



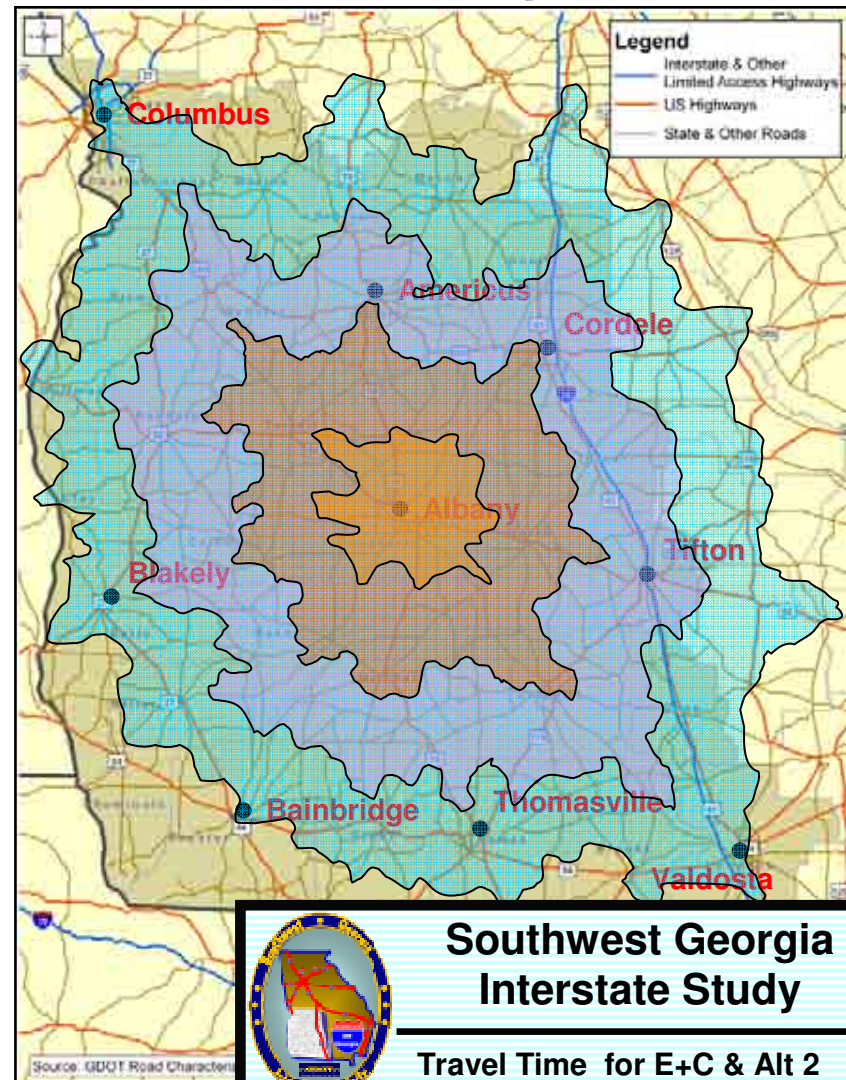
### Travel Time from Albany – E+C



Minutes



### Travel Time from Albany – Alternative 2



**Southwest Georgia  
Interstate Study**

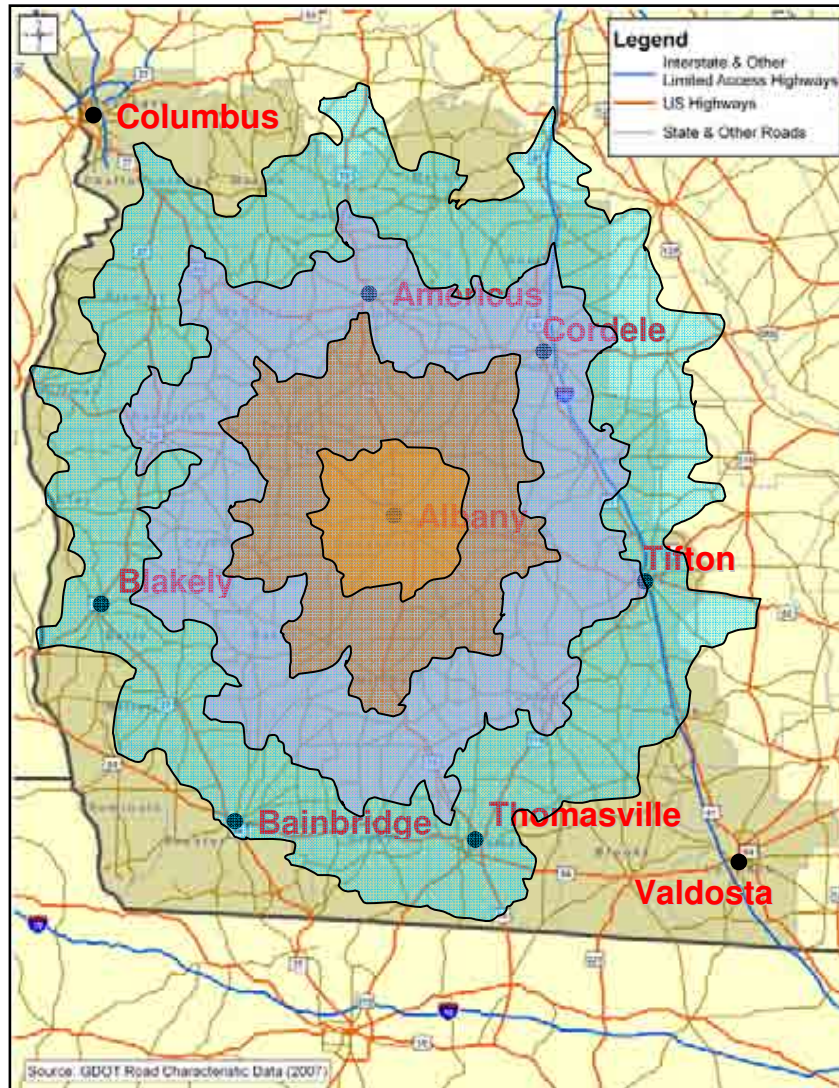
Travel Time for E+C & Alt 2

Alternatives Evaluation

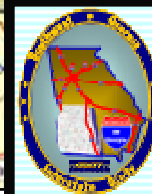
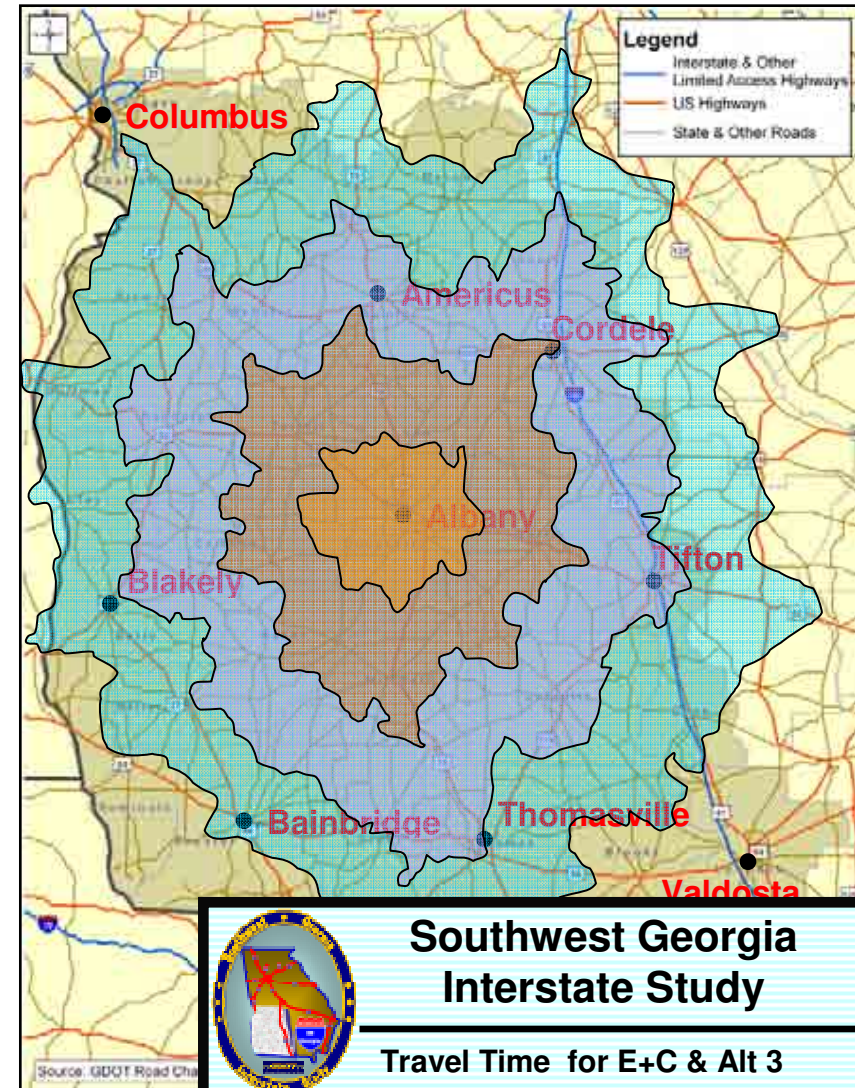
Figure 4.4.10.3



Travel Time from Albany – E+C



Travel Time from Albany – Alternative 3



## Southwest Georgia Interstate Study

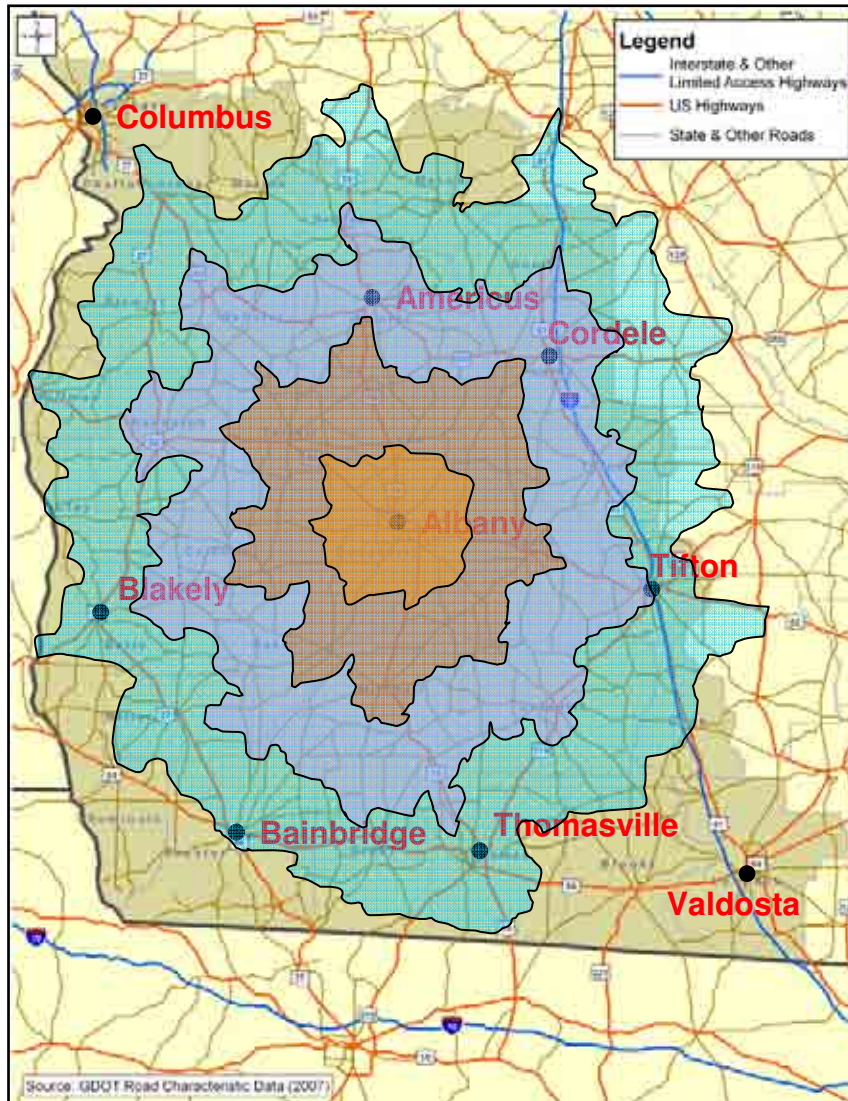
Travel Time for E+C & Alt 3

Alternatives Evaluation

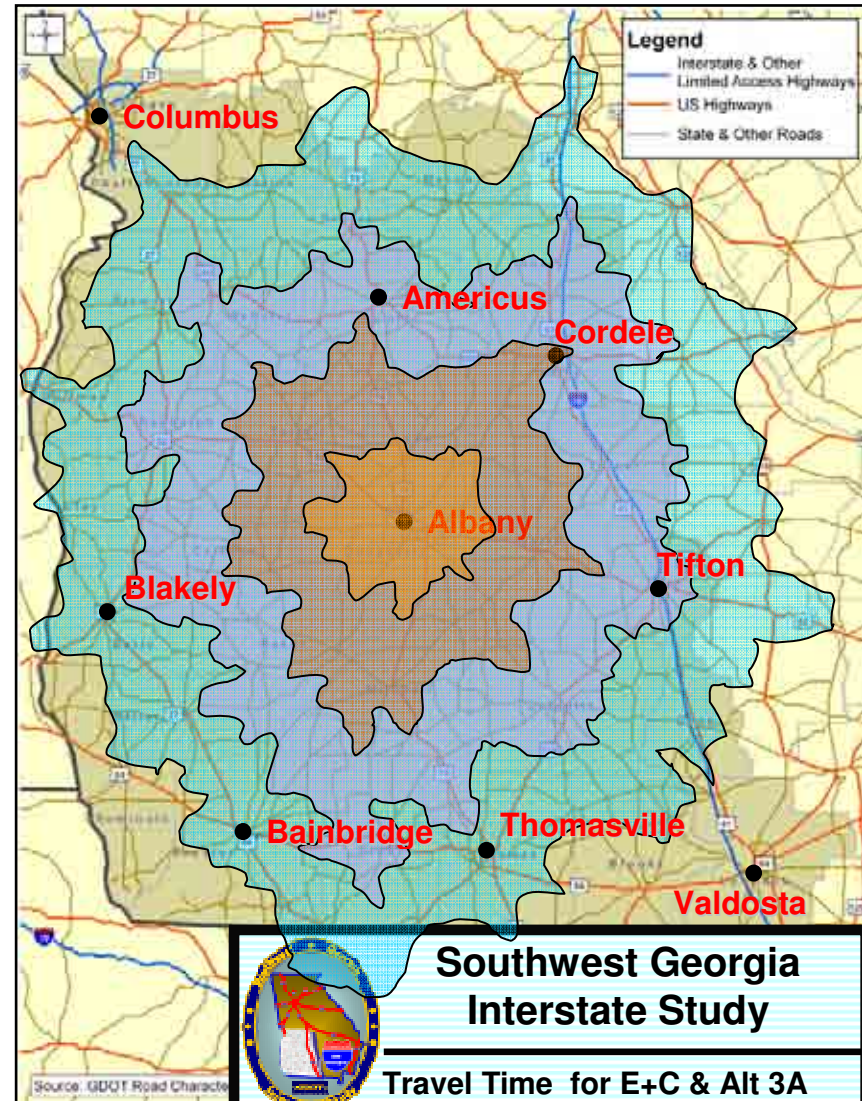
Figure 4.4.10.4



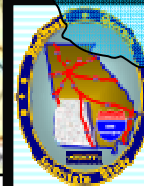
Travel Time from Albany – E+C



Travel Time from Albany – Alternative 3A



≤ 20
  < 20 - 40
  < 40 - 60
  < 60 - 80



**Southwest Georgia  
Interstate Study**

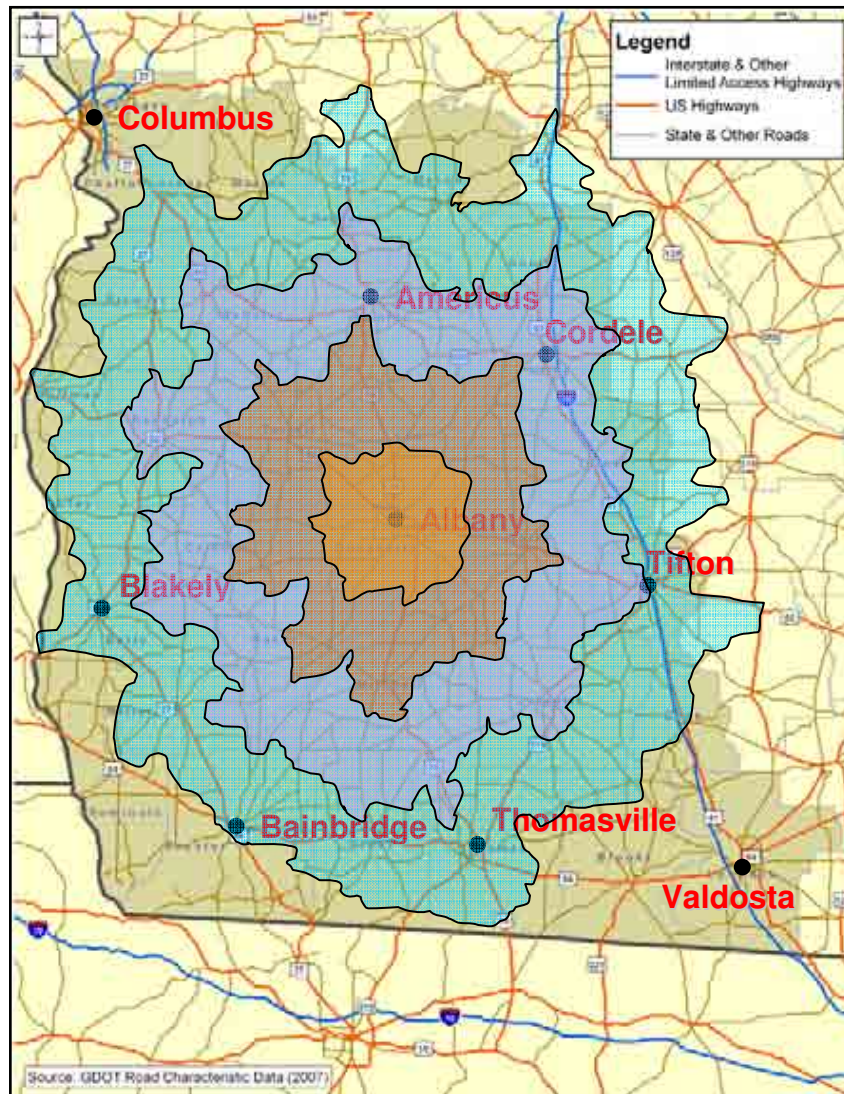
Travel Time for E+C & Alt 3A

Alternatives Evaluation

Figure 4.4.10.5



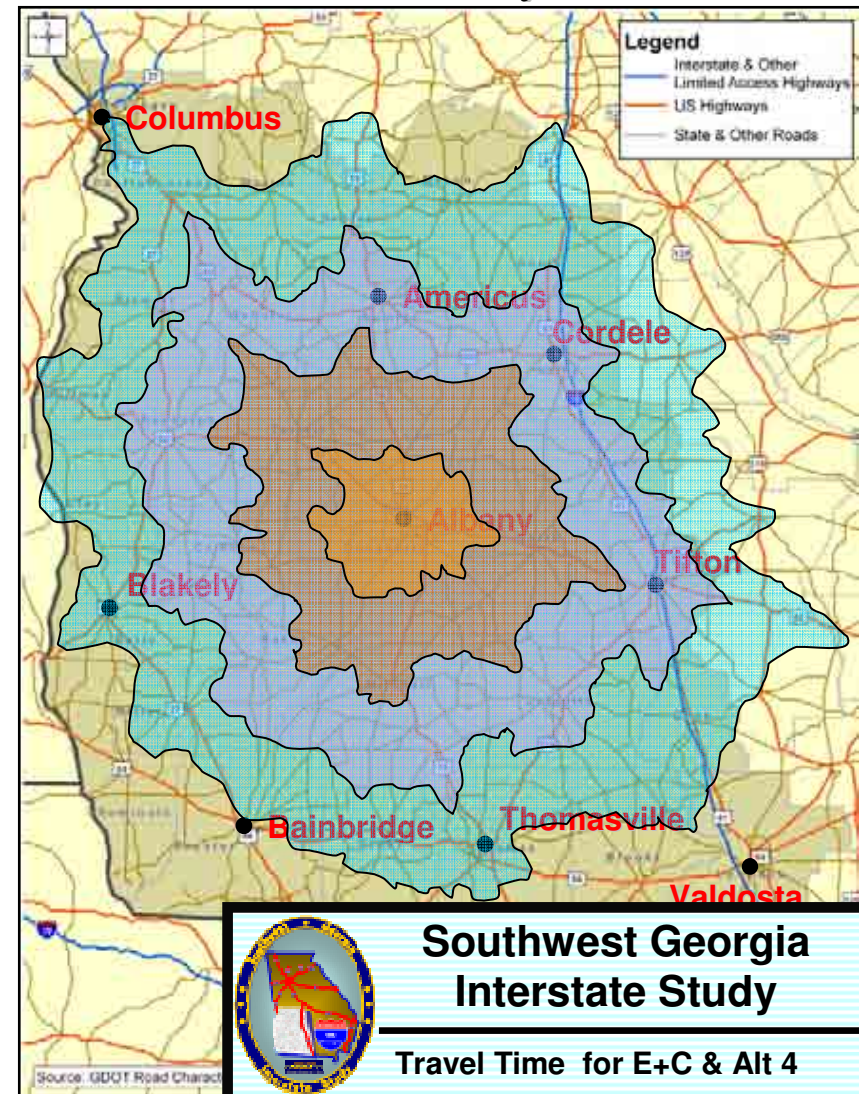
## Travel Time from Albany – E+C



Minutes



## Travel Time from Albany – Alternative 4



**Southwest Georgia  
Interstate Study**

Travel Time for E+C & Alt 4

Alternatives Evaluation

Figure 4.4.10.6



## **Southwest Georgia Interstate Study**

# ***Travel Patterns and Demand Evaluation of Alternatives***

### **4.4.11      *Select Link Analysis***

Using the SWGIS travel demand model, selected sections of roadway were analyzed for each alternative in comparison to the E+C network. These sections of roadway are called “select links”. “Select link” analysis allows display of the travel shed – where trips are coming from or destined to – for a specific link. This type of analysis allows an understanding of how travel patterns change for a given section of road in relation to each of the proposed alternatives.

Eight (8) select link locations are displayed for each of the six (6) alternatives. This allows some understanding of how travel patterns are affected by each alternative on other roads within the study area. The select link locations are:

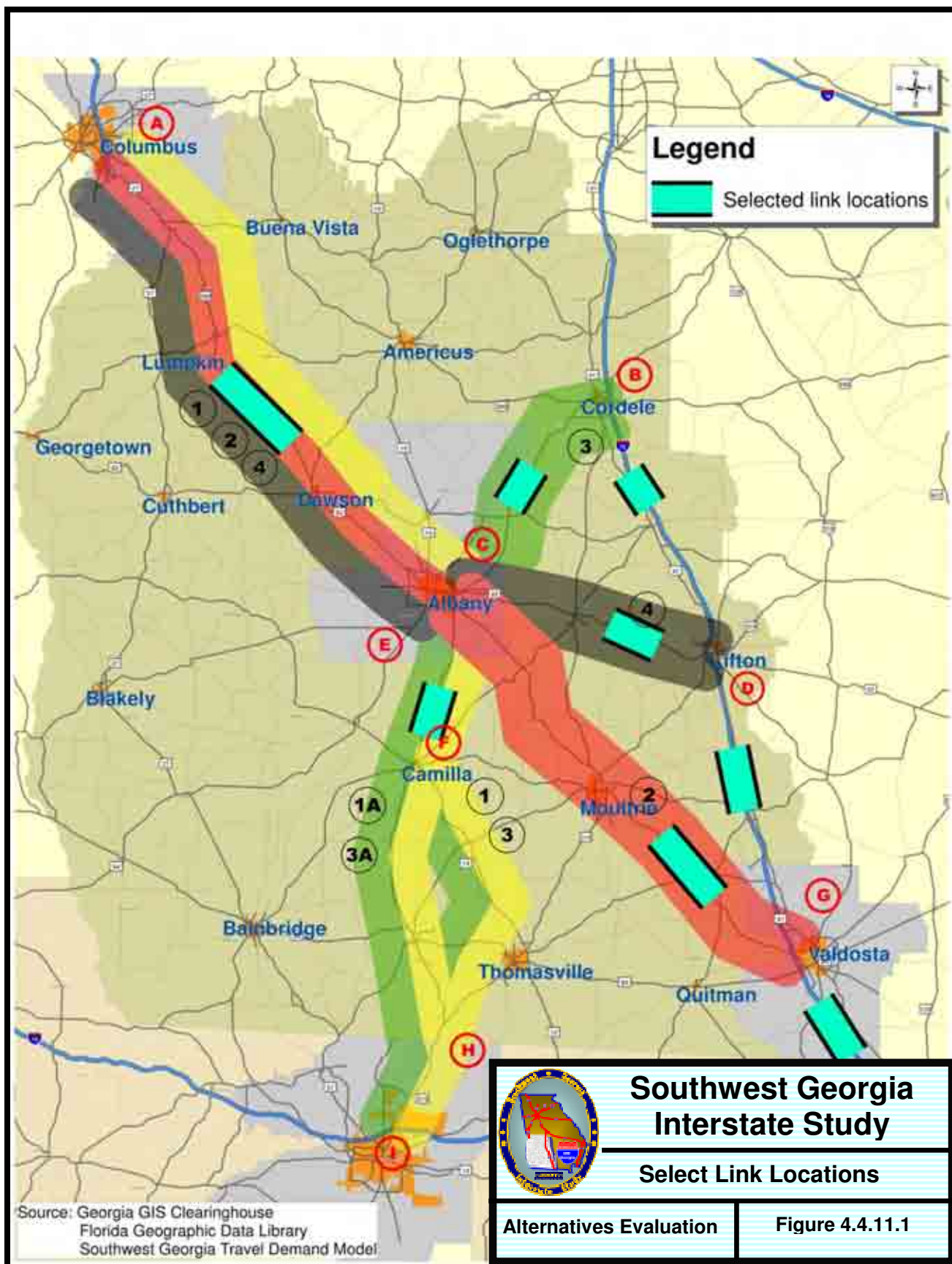
- SR 520 between Columbus and Albany
- SR 133 between Albany and Valdosta
- US 19 between Albany and Camilla
- I-75 between Tifton and Valdosta
- I-75 between Cordele and Tifton
- I-75 between Valdosta and the Florida state line
- SR 300 between Cordele and Albany
- US 82 between Albany and Tifton

The select link locations are depicted in Figure 4.4.11.1.

All alternatives other than E+C show some increase in trips coming through the study area as a result of the new interstate alternatives, and some rerouting of trips within the study area, as trips take advantage of the higher and consistent speeds and design of the proposed facility.

Table 4.11.1 presents information on total volumes and truck volumes for each of the select link locations under each of the alternatives. Boxes that are highlighted in yellow show where the select link volume is a combined corridor volume for the existing facility and the new interstate facility, in that alternative, in instances where the old and new roads run in parallel.









## Southwest Georgia Interstate Study

# Travel Patterns and Demand Evaluation of Alternatives

### 4.4.12 *Select Link Travel Patterns – Total Daily Volumes*

As can be seen in Table 4.4.12.1, all alternatives reduce traffic volumes on I-75 between Cordele and Tifton. All alternatives increase volumes on SR 520, SR 133, US 19, and SR 300 but generally with those alternatives in which the proposed interstate runs parallel to the facility generating the highest increase in daily total traffic volumes.

SR 133 sees the highest increase in the percentage of daily total traffic; except under alternative 4. Traffic volumes within the SR 133 corridor increase by over 400% -- to 31,300 from 6,000 – under alternative 2.

Alternative 2 also sees the largest estimated increase in travel on SR 520 between Columbus and Albany, 63.6%, and produces the largest reduction in modeled average daily volumes of 28.3% on I-75 between Tifton and Valdosta. Alternative 2 also produces the largest estimated reduction in average daily volumes on US 82 between Albany and Tifton of 52.0%.

Total model daily traffic volumes on SR 520 increase by 2% to 64%, with alternatives 1, 2 and 4 all producing increases over 47.5%, while alternative 3 produces estimated increases of only 2 to 3.5% over the E+C alternative.

Alternatives 1 and 3 produce the largest estimated increase in modeled volume in the US 19 corridor, consistent with the alignment of the proposed interstate for those alternatives. Alternative 3 produces the largest estimated increase in modeled volume in the SR 300 corridor, consistent with the alignment of the proposed interstate for these alternatives. Alternative 3 also produces the only decrease in model volumes for I-75 between Valdosta and the Florida state line.

Alternative 4 is the only alternative under which modeled daily volumes increase on US 82 between Albany and Tifton, again, consistent with the alignment of the proposed interstate facility for this alternative.



# Southwest Georgia Interstate Study

## Travel Patterns and Demand

### Evaluation of Alternatives

Table 4.4.12.1  
Select Link Patterns by Alternative for All Vehicles

| Select Link                       | Alternative<br>E+C         | Alt. 1  | Alt. 1A | Alt. 2   | Alt. 3  | Alt. 3A | Alt. 4  |
|-----------------------------------|----------------------------|---------|---------|----------|---------|---------|---------|
| SR520 between Columbus and Albany | 19,800                     | 29,800  | 29,200  | 32,400   | 20,500  | 20,200  | 30,100  |
| SR133 between Albany and Valdosta | 6,000                      | 13,600  | 13,600  | 31,300   | 11,100  | 11,600  | 6,500   |
| US19 between Albany and Camilla   | 18,400                     | 28,300  | 28,200  | 18,400   | 26,900  | 27,600  | 18,900  |
| I-75 between Tifton and Valdosta  | 63,600                     | 57,400  | 58,600  | 45,600   | 57,900  | 59,100  | 66,600  |
| I-75 between Cordele and Tifton   | 54,100                     | 46,700  | 47,300  | 47,300   | 49,900  | 51,100  | 48,700  |
| I-75 between Valdosta and Florida | 75,400                     | 75,400  | 75,800  | 79,200   | 74,300  | 75,000  | 77,100  |
| SR300 between Cordele and Albany  | 15,800                     | 19,200  | 19,200  | 16,300   | 21,800  | 21,300  | 16,000  |
| US82 between Albany and Tifton    | 22,300                     | 20,000  | 20,700  | 10,700   | 16,600  | 16,600  | 32,100  |
| Select Link                       | Difference from E+C<br>E+C | Alt. 1  | Alt. 1A | Alt. 2   | Alt. 3  | Alt. 3A | Alt. 4  |
| SR520 between Columbus and Albany | 0                          | 10,000  | 9,400   | 12,600   | 700     | 400     | 10,300  |
| SR133 between Albany and Valdosta | 0                          | 7,600   | 7,600   | 25,300   | 5,100   | 5,600   | 500     |
| US19 between Albany and Camilla   | 0                          | 9,900   | 9,800   | 0        | 8,500   | 9,200   | 500     |
| I-75 between Tifton and Valdosta  | 0                          | (6,200) | (5,000) | (18,000) | (5,700) | (4,500) | 3,000   |
| I-75 between Cordele and Tifton   | 0                          | (7,400) | (6,800) | (6,800)  | (4,200) | (3,000) | (5,400) |
| I-75 between Valdosta and Florida | 0                          | 0       | 400     | 3,800    | (1,100) | (400)   | 1,700   |
| SR300 between Cordele and Albany  | 0                          | 3,400   | 3,400   | 500      | 6,000   | 5,500   | 200     |
| US82 between Albany and Tifton    | 0                          | (2,300) | (1,600) | (11,600) | (5,700) | (5,700) | 9,800   |
| Select Link                       | % Change from E+C<br>E+C   | Alt. 1  | Alt. 1A | Alt. 2   | Alt. 3  | Alt. 3A | Alt. 4  |
| SR520 between Columbus and Albany | 0.0%                       | 50.5%   | 47.5%   | 63.6%    | 3.5%    | 2.0%    | 52.0%   |
| SR133 between Albany and Valdosta | 0.0%                       | 126.7%  | 126.7%  | 421.7%   | 85.0%   | 93.3%   | 8.3%    |
| US19 between Albany and Camilla   | 0.0%                       | 53.8%   | 53.3%   | 0.0%     | 46.2%   | 50.0%   | 2.7%    |
| I-75 between Tifton and Valdosta  | 0.0%                       | -9.7%   | -7.9%   | -28.3%   | -9.0%   | -7.1%   | 4.7%    |
| I-75 between Cordele and Tifton   | 0.0%                       | -13.7%  | -12.6%  | -12.6%   | -7.8%   | -5.5%   | -10.0%  |
| I-75 between Valdosta and Florida | 0.0%                       | 0.0%    | 0.5%    | 5.0%     | -1.5%   | -0.5%   | 2.3%    |
| SR300 between Cordele and Albany  | 0.0%                       | 21.5%   | 21.5%   | 3.2%     | 38.0%   | 34.8%   | 1.3%    |
| US82 between Albany and Tifton    | 0.0%                       | -10.3%  | -7.2%   | -52.0%   | -25.6%  | -25.6%  | 43.9%   |

\* note: when a select link is within an alternatives corridor the volumes reflect both the existing facility and the new interstate



## Southwest Georgia Interstate Study

# ***Travel Patterns and Demand Evaluation of Alternatives***

### ***4.4.13 Select Link Travel Patterns – Total Daily Truck Volumes***

The patterns for 2040 modeled truck travel are generally consistent with those of modeled 2040 total daily volumes, however there are some differences. As can be seen in Table 4.4.12.2, the increase in truck volumes on SR 133 is higher than for passenger cars for all alternatives except alternative 2, suggesting higher demand in this corridor for truck trips. US 19 shows lower percentages for increase in modeled truck trips under all alternatives than for total modeled daily volume, and shows a slight reduction in truck trips under alternative 2. Similarly, SR 300 shows a lower increase in modeled truck trips under all alternatives than for modeled total daily volumes, except under alternative 4. As with modeled daily total volume, on I-75 north of Valdosta modeled truck trips decline under all alternatives, particularly for the portion of I-75 between Tifton and Valdosta. All alternatives, except alternative 4, result in a reduction in modeled truck trips for US 82 between Albany and Tifton.



# Southwest Georgia Interstate Study

## Travel Patterns and Demand

### Evaluation of Alternatives

Table 4.4.12.2  
Select Link Patterns by Alternative for Trucks

#### Select Link

SR520 between Columbus and Albany  
SR133 between Albany and Valdosta  
US19 between Albany and Camilla  
I-75 between Tifton and Valdosta  
I-75 between Cordele and Tifton  
I-75 between Valdosta and Florida  
SR300 between Cordele and Albany  
US82 between Albany and Tifton

#### Alternative

| E+C    | Alt. 1 | Alt. 1A | Alt. 2 | Alt. 3 | Alt. 3A | Alt. 4 |
|--------|--------|---------|--------|--------|---------|--------|
| 8,500  | 12,700 | 12,300  | 14,000 | 9,500  | 9,200   | 13,000 |
| 2,700  | 7,400  | 6,900   | 13,600 | 6,300  | 6,300   | 2,900  |
| 4,300  | 6,200  | 5,300   | 4,200  | 5,100  | 4,900   | 4,400  |
| 17,900 | 14,500 | 15,200  | 11,000 | 14,600 | 14,600  | 20,100 |
| 13,400 | 12,200 | 12,400  | 12,100 | 13,200 | 13,300  | 12,200 |
| 21,500 | 21,500 | 22,100  | 24,100 | 21,500 | 21,400  | 22,800 |
| 3,200  | 3,400  | 3,300   | 3,300  | 3,700  | 3,600   | 3,300  |
| 8,500  | 6,300  | 6,900   | 3,000  | 5,100  | 5,000   | 12,500 |

#### Select Link

SR520 between Columbus and Albany  
SR133 between Albany and Valdosta  
US19 between Albany and Camilla  
I-75 between Tifton and Valdosta  
I-75 between Cordele and Tifton  
I-75 between Valdosta and Florida  
SR300 between Cordele and Albany  
US82 between Albany and Tifton

#### Difference from E+C

| E+C | Alt. 1  | Alt. 1A | Alt. 2  | Alt. 3  | Alt. 3A | Alt. 4  |
|-----|---------|---------|---------|---------|---------|---------|
| 0   | 4,200   | 3,800   | 5,500   | 1,000   | 700     | 4,500   |
| 0   | 4,700   | 4,200   | 10,900  | 3,600   | 3,600   | 200     |
| 0   | 1,900   | 1,000   | (100)   | 800     | 600     | 100     |
| 0   | (3,400) | (2,700) | (6,900) | (3,300) | (3,300) | 2,200   |
| 0   | (1,200) | (1,000) | (1,300) | (200)   | (100)   | (1,200) |
| 0   | 0       | 600     | 2,600   | 0       | (100)   | 1,300   |
| 0   | 200     | 100     | 100     | 500     | 400     | 100     |
| 0   | (2,200) | (1,600) | (5,500) | (3,400) | (3,500) | 4,000   |

#### Select Link

SR520 between Columbus and Albany  
SR133 between Albany and Valdosta  
US19 between Albany and Camilla  
I-75 between Tifton and Valdosta  
I-75 between Cordele and Tifton  
I-75 between Valdosta and Florida  
SR300 between Cordele and Albany  
US82 between Albany and Tifton

#### % Change from E+C

| E+C  | Alt. 1 | Alt. 1A | Alt. 2 | Alt. 3 | Alt. 3A | Alt. 4 |
|------|--------|---------|--------|--------|---------|--------|
| 0.0% | 49.4%  | 44.7%   | 64.7%  | 11.8%  | 8.2%    | 52.9%  |
| 0.0% | 174.1% | 155.6%  | 403.7% | 133.3% | 133.3%  | 7.4%   |
| 0.0% | 44.2%  | 23.3%   | -2.3%  | 18.6%  | 14.0%   | 2.3%   |
| 0.0% | -19.0% | -15.1%  | -38.5% | -18.4% | -18.4%  | 12.3%  |
| 0.0% | -9.0%  | -7.5%   | -9.7%  | -1.5%  | -0.7%   | -9.0%  |
| 0.0% | 0.0%   | 2.8%    | 12.1%  | 0.0%   | -0.5%   | 6.0%   |
| 0.0% | 6.3%   | 3.1%    | 3.1%   | 15.6%  | 12.5%   | 3.1%   |
| 0.0% | -25.9% | -18.8%  | -64.7% | -40.0% | -41.2%  | 47.1%  |

\* note: when a select link is within an alternatives corridor the volumes reflect both the existing facility and the new interstate





## **Southwest Georgia Interstate Study**

# ***Travel Patterns and Demand Evaluation of Alternatives***

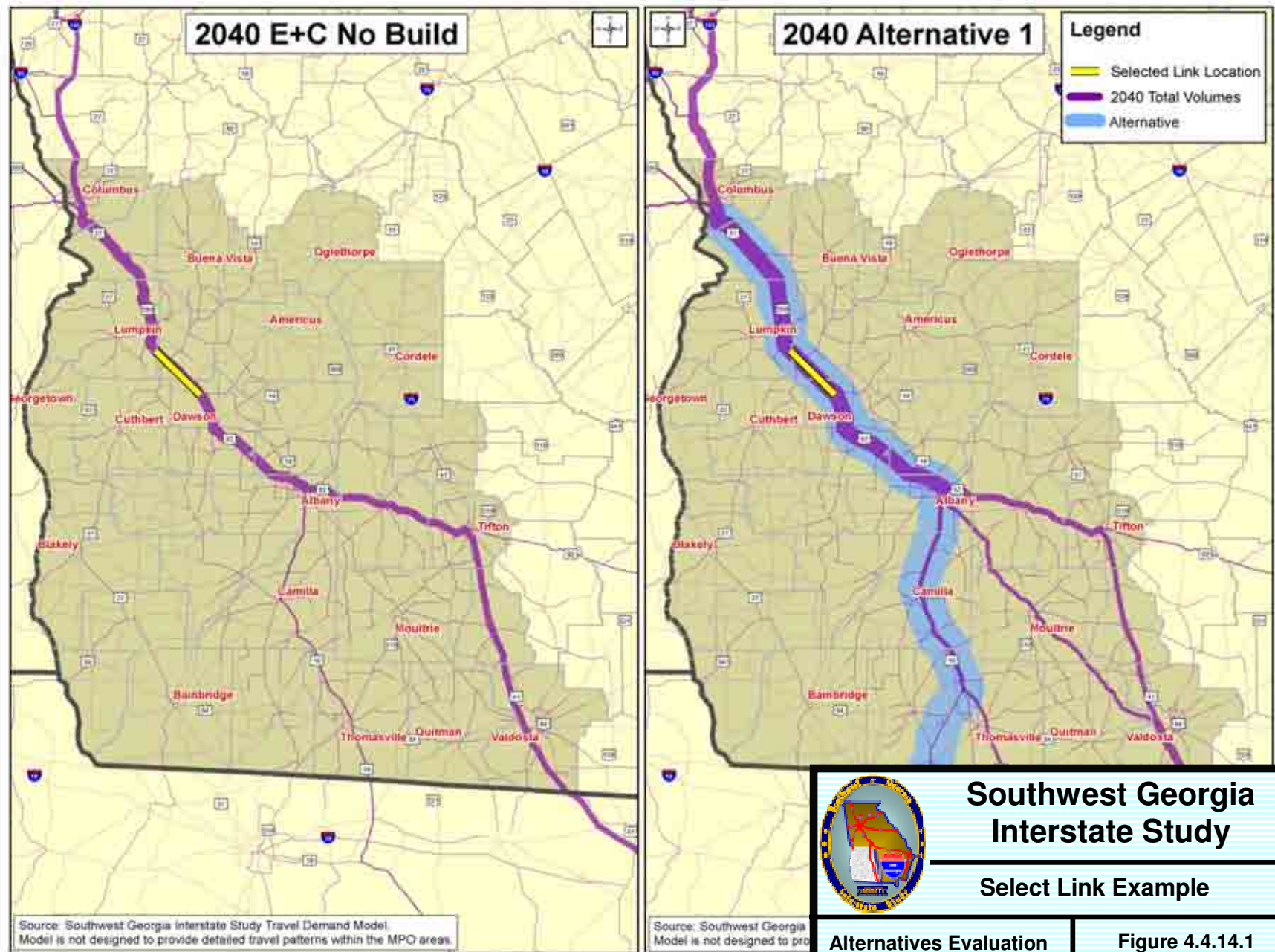
### ***4.4.14 Select Link Travel Patterns – Maps***

Figure 4.4.14.1 shows a select link, and both the 2040 E+C pattern of travel for that link and the estimated travel pattern for the same link under an alternative. In addition to the volume on the select link, when the link is parallel to a proposed interstate alternative, the volume shown is the sum of the existing link and the new interstate facility. Several locations on other facilities have been highlighted to show the associated change in trips on those facilities that use the select link.

For example, in looking at a select link on SR 520 between Columbus and Albany we see that in the E+C network it has a daily total volume of 19,100 vehicles of which 8,500 are trucks. This grows by 56% to an estimated 29,800 total vehicles and 12,700 trucks as a result of the new interstate facility in alternative 1.

Looking at the highlighted locations on other facilities we see that there is an increase of 4,800 vehicles using the select link from US 19, an increase of 6,850 using the select link from SR 133, and a decrease of 1,600 vehicles using the select link from US 82. From this we can presume that the new interstate facility in alternative 1 shifts some trips away from US 82 east of Albany, while increasing traffic on US 19 and SR 133 that use SR 520 between Columbus and Albany.

For a complete set of all 48 select link analysis graphics, and summary information describing the relevant changes from the E+C network for each select link location for each alternative, see Appendix G.





## Southwest Georgia Interstate Study

# Travel Patterns and Demand Evaluation of Alternatives

### 4.4.15 Crash Analysis

Table 4.4.15.1 provides the results of a crash analysis for each of the alternative networks versus the 2040 E+C network. The analysis shows the expected number of accidents by type of accident: fatal, injury, and property damage, for the various road types. The analysis is based on average crash rates per VMT for each road type. The crash rates applied were obtained from GDOT and are for 2006, the most recent available data.

The results show that total crashes decline slightly for all alternatives versus the E+C. However, there is more expected reduction in injury and property damage crashes than for fatalities. Alternative 4 produces the largest expected decline in crashes from the E+C.

**Table 4.4.15.1**  
**2040 Estimated Crashes by Type by Facility Type by Alternative**

| Annual Average Fatal Crashes |                     |     |       |        |       |       |        |       |
|------------------------------|---------------------|-----|-------|--------|-------|-------|--------|-------|
|                              |                     | EC  | Alt 1 | Alt 1A | Alt 2 | Alt 3 | Alt 3A | Alt 4 |
| Rural                        | Interstates         | 6   | 14    | 14     | 16    | 10    | 10     | 14    |
|                              | Principal Arterials | 26  | 15    | 16     | 15    | 21    | 22     | 14    |
|                              | Minor Arterials     | 13  | 17    | 16     | 12    | 16    | 15     | 14    |
|                              | Major Collectors    | 10  | 10    | 10     | 10    | 10    | 10     | 10    |
|                              | Minor Collectors    | 0   | 0     | 0      | 0     | 0     | 0      | 0     |
|                              | Locals              | 0   | 0     | 0      | 0     | 0     | 0      | 0     |
|                              | Total               | 55  | 55    | 56     | 53    | 56    | 57     | 52    |
| Urban                        | Interstates         | 4   | 5     | 5      | 5     | 4     | 4      | 5     |
|                              | Freeways            | 0   | 0     | 0      | 0     | 0     | 0      | 0     |
|                              | Principal Arterials | 37  | 35    | 35     | 35    | 35    | 35     | 35    |
|                              | Minor Arterials     | 4   | 4     | 4      | 4     | 4     | 4      | 4     |
|                              | Collectors          | 0   | 0     | 0      | 0     | 0     | 0      | 0     |
|                              | Total               | 45  | 44    | 44     | 44    | 44    | 44     | 44    |
|                              | Grand Total         | 100 | 99    | 100    | 97    | 100   | 100    | 95    |



# Southwest Georgia Interstate Study

## Travel Patterns and Demand

### Evaluation of Alternatives

Table 4.4.15.1 (Continued)  
2040 Estimated Crashes by Type by Facility Type by Alternative

| Annual Average Injury Crashes |                     |       |       |        |       |       |        |       |
|-------------------------------|---------------------|-------|-------|--------|-------|-------|--------|-------|
|                               |                     | EC    | Alt 1 | Alt 1A | Alt 2 | Alt 3 | Alt 3A | Alt 4 |
| Rural                         | Interstates         | 129   | 285   | 283    | 340   | 198   | 204    | 290   |
|                               | Principal Arterials | 607   | 355   | 383    | 359   | 497   | 517    | 337   |
|                               | Minor Arterials     | 349   | 439   | 422    | 318   | 413   | 401    | 361   |
|                               | Major Collectors    | 219   | 217   | 219    | 214   | 217   | 219    | 216   |
|                               | Minor Collectors    | 1     | 1     | 1      | 1     | 1     | 1      | 1     |
|                               | Locals              | 1     | 1     | 0      | 1     | 1     | 0      | 1     |
|                               | Total               | 1,306 | 1,298 | 1,309  | 1,233 | 1,326 | 1,343  | 1,205 |
| Urban                         | Interstates         | 316   | 406   | 407    | 382   | 356   | 362    | 394   |
|                               | Freeways            | 64    | 38    | 38     | 40    | 65    | 65     | 43    |
|                               | Principal Arterials | 3,358 | 3,190 | 3,187  | 3,179 | 3,201 | 3,191  | 3,165 |
|                               | Minor Arterials     | 366   | 375   | 369    | 373   | 375   | 368    | 379   |
|                               | Collectors          | 2     | 2     | 2      | 2     | 2     | 2      | 2     |
|                               | Total               | 4,106 | 4,012 | 4,003  | 3,976 | 3,999 | 3,987  | 3,983 |
|                               | Grand Total         | 5,412 | 5,310 | 5,311  | 5,209 | 5,325 | 5,330  | 5,189 |

| Annual Average Property Damage Crashes |                     |        |        |        |        |        |        |        |
|----------------------------------------|---------------------|--------|--------|--------|--------|--------|--------|--------|
|                                        |                     | EC     | Alt 1  | Alt 1A | Alt 2  | Alt 3  | Alt 3A | Alt 4  |
| Rural                                  | Interstates         | 300    | 662    | 658    | 791    | 459    | 475    | 675    |
|                                        | Principal Arterials | 1,239  | 725    | 781    | 733    | 1,014  | 1,056  | 687    |
|                                        | Minor Arterials     | 688    | 866    | 832    | 626    | 813    | 790    | 710    |
|                                        | Major Collectors    | 388    | 385    | 389    | 379    | 385    | 388    | 383    |
|                                        | Minor Collectors    | 2      | 2      | 2      | 2      | 2      | 2      | 2      |
|                                        | Locals              | 1      | 1      | 1      | 1      | 1      | 1      | 1      |
|                                        | Total               | 2,618  | 2,641  | 2,662  | 2,532  | 2,675  | 2,711  | 2,459  |
| Urban                                  | Interstates         | 1,046  | 1,345  | 1,348  | 1,266  | 1,180  | 1,198  | 1,306  |
|                                        | Freeways            | 226    | 134    | 133    | 140    | 229    | 228    | 150    |
|                                        | Principal Arterials | 10,474 | 9,952  | 9,939  | 9,917  | 9,985  | 9,952  | 9,872  |
|                                        | Minor Arterials     | 1,124  | 1,152  | 1,134  | 1,146  | 1,151  | 1,131  | 1,164  |
|                                        | Collectors          | 6      | 6      | 6      | 6      | 6      | 6      | 6      |
|                                        | Total               | 12,876 | 12,588 | 12,562 | 12,474 | 12,550 | 12,515 | 12,499 |
|                                        | Grand Total         | 15,494 | 15,229 | 15,223 | 15,006 | 15,225 | 15,226 | 14,958 |





## Southwest Georgia Interstate Study

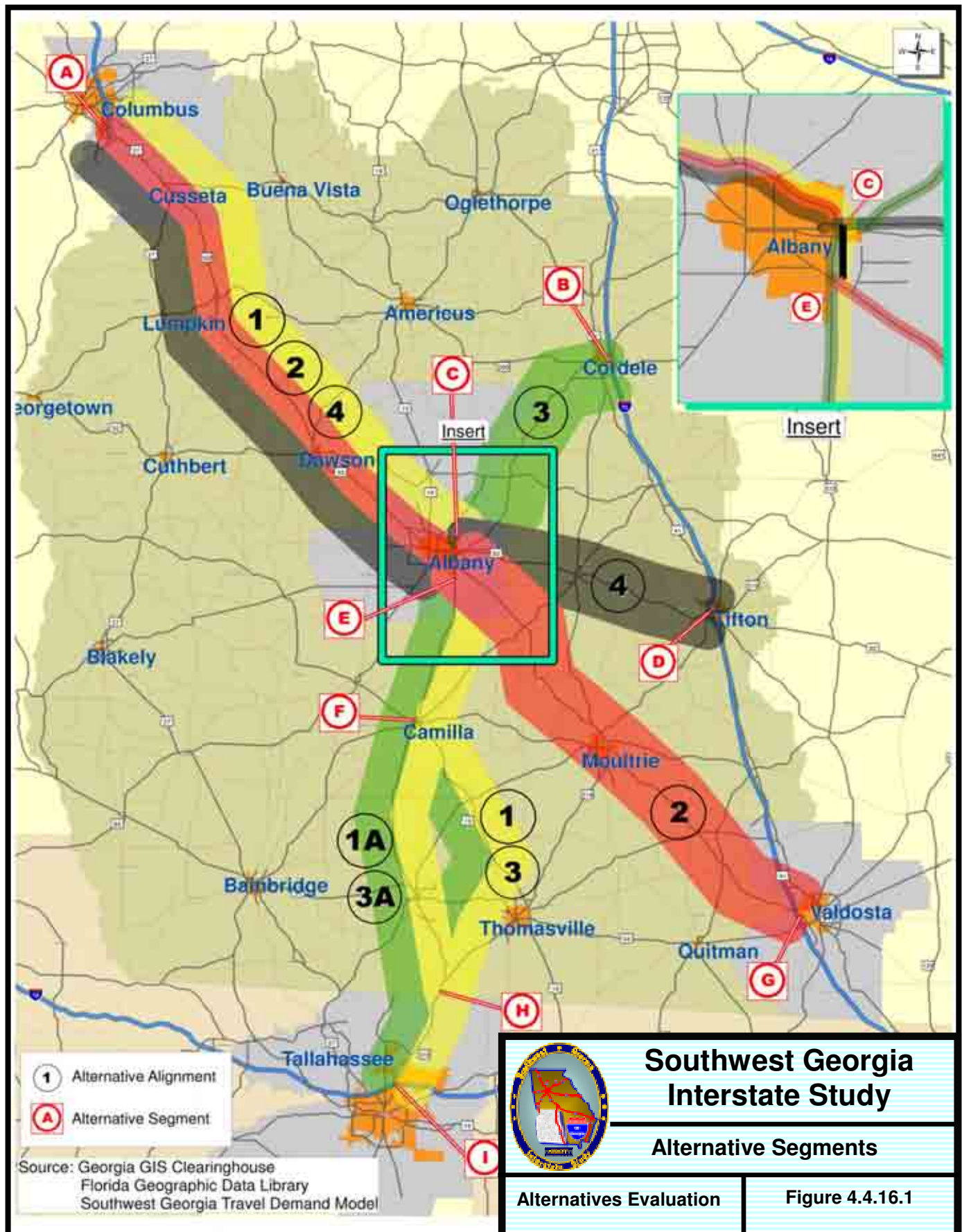
# ***Travel Patterns and Demand Evaluation of Alternatives***

### ***4.4.16 Alternative Segments***

Figure 4.4.16.1 shows both the Alternative alignments and segments that the alternatives have been subdivided by to permit more detailed comparisons, and allow for mixing and matching segments between alternatives.

Table 4.4.16.1 shows a summary of VMT, Truck VMT, VHD and Truck VMT as a percentage of total VMT by segment for each of the alternatives and the 2040 E+C network. Segment information is provided for each alternative that contains that segment to facilitate comparison across alternatives by segment. It is important to note that Table 4.4.16.1 only shows these variables by corridor – not for the entire study area. The corridor information by alternative is for both the hypothetical Interstate facility and any existing parallel roadways. For the E+C alternative the information is only provided for existing and committed road improvements as described earlier.

As can be seen in Table 4.4.16.1, VMT and truck VMT is highest for segment AC, between Columbus and Albany. The average percentage of truck VMT is highest for Alternative 2. The greatest increase in VMT is forecast for segment EG, between Albany and Valdosta; this segment also is forecast to have the highest percentage of truck VMT. Delay is reduced under all alternatives when compared to the E+C alternative. Reduction in delay is highest for segments AC, CD, and HI. VHT increases with VMT in corridors as travelers are drawn to the hypothetical new interstate facility in each alternative.





# Southwest Georgia Interstate Study

## Travel Patterns and Demand

### Evaluation of Alternatives

Table 4.4.16.1  
2040 Summary of VMT, Truck VMT, VHD, VHT, and Truck% by Corridor for New and Existing Roads

| Segment         |           |         |           |         |           |         |         |         |         |           |
|-----------------|-----------|---------|-----------|---------|-----------|---------|---------|---------|---------|-----------|
| Alternative     | AC        | BC      | CD        | CE      | EG        | EF      | FH West | FH East | HI      | TOTAL     |
| <b>No Build</b> |           |         |           |         |           |         |         |         |         |           |
| VMT             | 2,046,471 | 516,871 | 972,887   | 73,348  | 671,513   | 455,452 | 232,580 | 306,467 | 392,830 | 5,668,419 |
| VHD             | 4,641     | 161     | 3,337     | 395     | 1,379     | 293     | 131     | 48      | 9,562   | 19,947    |
| Truck VMT       | 752,967   | 116,648 | 340,761   | 23,037  | 197,461   | 107,847 | 58,466  | 100,504 | 3,216   | 1,700,907 |
| VHT             | 40,402    | 9,409   | 21,519    | 1,813   | 15,988    | 8,374   | 5,021   | 6,041   | 18,036  | 126,603   |
| Truck VMT %     | 36.8%     | 22.6%   | 35.0%     | 31.4%   | 29.4%     | 23.7%   | 25.1%   | 32.8%   | 0.8%    | 30.0%     |
| <b>Alt. 1</b>   |           |         |           |         |           |         |         |         |         |           |
| VMT             | 3,090,780 | -       | -         | 157,007 | -         | 647,642 | -       | 709,665 | 488,678 | 5,093,772 |
| Truck VMT       | 1,178,601 | -       | -         | 52,852  | -         | 141,470 | -       | 156,234 | 7,067   | 1,536,224 |
| VHD             | 969       | -       | -         | 56      | -         | 15      | -       | 12      | 4,592   | 5,644     |
| VHT             | 46,775    | -       | -         | 2,622   | -         | 10,097  | -       | 11,084  | 13,676  | 84,254    |
| Truck VMT %     | 38.1%     | -       | -         | 33.7%   | -         | 21.8%   | -       | 22.0%   | 1.4%    | 30.2%     |
| <b>Alt. 1A</b>  |           |         |           |         |           |         |         |         |         |           |
| VMT             | 2,995,930 | -       | -         | 155,240 | -         | 659,682 | 648,913 | -       | 526,524 | 4,986,289 |
| Truck VMT       | 1,111,538 | -       | -         | 48,475  | -         | 129,020 | 102,211 | -       | 26,817  | 1,418,061 |
| VHD             | 789       | -       | -         | 55      | -         | 18      | 53      | -       | 4,645   | 5,560     |
| VHT             | 45,205    | -       | -         | 2,594   | -         | 10,313  | 10,055  | -       | 14,339  | 82,506    |
| Truck VMT %     | 37.1%     | -       | -         | 31.2%   | -         | 19.6%   | 15.8%   | -       | 5.1%    | 28.4%     |
| <b>Alt. 2</b>   |           |         |           |         |           |         |         |         |         |           |
| VMT             | 3,288,894 | -       | -         | 183,411 | 2,497,114 | -       | -       | -       | -       | 5,969,419 |
| Truck VMT       | 1,254,385 | -       | -         | 66,984  | 969,618   | -       | -       | -       | -       | 2,290,987 |
| VHD             | 1,359     | -       | -         | 127     | 572       | -       | -       | -       | -       | 2,058     |
| VHT             | 50,048    | -       | -         | 3,116   | 38,842    | -       | -       | -       | -       | 92,006    |
| Truck VMT %     | 38.1%     | -       | -         | 36.5%   | 38.8%     | -       | -       | -       | -       | 38.4%     |
| <b>Alt. 3</b>   |           |         |           |         |           |         |         |         |         |           |
| VMT             | -         | 766,163 | -         | 135,639 | -         | 616,248 | -       | 670,216 | 482,893 | 2,671,159 |
| Truck VMT       | -         | 136,635 | -         | 39,260  | -         | 119,139 | -       | 131,740 | 6,891   | 433,665   |
| VHD             | -         | 38      | -         | 54      | -         | 11      | -       | 10      | 4,513   | 4,626     |
| VHT             | -         | 11,605  | -         | 2,309   | -         | 9,642   | -       | 10,513  | 13,493  | 47,562    |
| Truck VMT %     | -         | 17.8%   | -         | 28.9%   | -         | 19.3%   | -       | 19.7%   | 1.4%    | 16.2%     |
| <b>Alt. 3A</b>  |           |         |           |         |           |         |         |         |         |           |
| VMT             | -         | 748,445 | -         | 138,831 | -         | 644,993 | 673,703 | -       | 539,477 | 2,745,449 |
| Truck VMT       | -         | 131,911 | -         | 38,413  | -         | 119,617 | 116,297 | -       | 38,078  | 444,316   |
| VHD             | -         | 30      | -         | 52      | -         | 14      | 54      | -       | 4,634   | 4,784     |
| VHT             | -         | 11,339  | -         | 2,352   | -         | 10,086  | 10,417  | -       | 14,506  | 48,700    |
| Truck VMT %     | -         | 17.6%   | -         | 27.7%   | -         | 18.5%   | 17.3%   | -       | 7.1%    | 16.2%     |
| <b>Alt. 4</b>   |           |         |           |         |           |         |         |         |         |           |
| VMT             | 3,091,489 | -       | 1,438,838 | -       | -         | -       | -       | -       | -       | 4,530,327 |
| Truck VMT       | 1,173,668 | -       | 534,936   | -       | -         | -       | -       | -       | -       | 1,708,604 |
| VHD             | 983       | -       | 225       | -       | -         | -       | -       | -       | -       | 1,208     |
| VHT             | 46,830    | -       | 22,738    | -       | -         | -       | -       | -       | -       | 69,568    |
| Truck VMT %     | 38.0%     | -       | 37.2%     | -       | -         | -       | -       | -       | -       | 37.7%     |



## **Southwest Georgia Interstate Study**

# **Development of Project Costs**

# **Evaluation of Alternatives**

### **4.5 Development of Project Costs**

The various costs of each alternative by type were developed. These costs reflect the general construction, right-of-way, utilities and preliminary engineering costs for each alternative. The methodology used to develop the costs by type as well as the comparison of the costs by alternative are discussed in this section.

#### **4.5.1 Construction Costs**

Construction cost estimates by segment for the various alternates were compiled based on eleven (11) categories. These categories were chosen due to their relative ease of estimation based on comparable projects in scope and magnitude. All item costs were based on current 2009 prices from GDOT's Detailed Estimate program. These costs reflect late 2008-early 2009 material and construction prices. The techniques and assumptions used in estimating each category are discussed individually.

##### **4.5.1.1 Clearing and Grubbing**

Based on the proposed typical section, 4-lane divided with 64 ft median, a 300 ft wide proposed R/W was used for estimating purposes. It was assumed that 80% of this R/W would require clearing and grubbing. The remaining 20% was assumed to be already cleared or would lie outside of grading limits where existing vegetation could be carefully preserved. The typical price encountered for clearing and grubbing on a small scale project, less than a mile in length, is \$10,000 per acre. Two factors that would not normally be encountered on a smaller project resulted in a higher estimate for the unit price. First, demolition of existing structures is included in this category. Second, cleared vegetation would have to be hauled considerable distances on many of these segments due to the rural location of the proposed alignment. The clearing and grubbing unit price was assumed to be \$15,000 per acre. This cost also reflects the economies of scale which assumes that all of the clearing and grubbing will be performed in large quantities. GDOT's unit for reporting clearing and grubbing is Lump Sum so an accurate cost per acre is impossible to gather using currently reported prices.

##### **4.5.1.2 Earthwork**

Since there are no detailed alignments for the alternatives, a project of similar scope and design was chosen to assist with the calculation of earthwork costs. The costs from the SR 316 grade separation at Collins Hill Rd and SR 20(Buford Drive) in Gwinnett County were utilized. This project reconstructs the existing SR 316 roadbed and converts existing at grade intersections of Collins Hill Rd and SR 20(Buford Drive) into grade separated facilities. The overall earthwork quantities for this project were divided into a per mile basis and then applied to each segment. Using late 2008-early 2009 unit prices for Unclassified Excavation and Borrow Excavation from





## **Southwest Georgia Interstate Study**

### ***Development of Project Costs***

### ***Evaluation of Alternatives***

GDOT's Detailed Estimate program the earthwork unit price was determined to be \$760,000 per mile.

#### **4.5.1.3 Drainage**

To estimate drainage costs on this study, some assumptions were made based on the topography and rural cross section. Culverts and major stream/river crossings that would require bridges were not included in this category, please see Waterways under the Structures section. The following are the assumptions made regarding quantities for drainage:

- 100 lin. ft. of 18 in. side drain pipe for every 400 lin. ft. of roadway
- 100 lin. ft. of 24 in. side drain pipe for every 500 lin. ft. of roadway
- 220 lin. ft. of 36 in. side drain pipe for every 400 lin. ft. of roadway
- 220 lin. ft. of 48 in. side drain pipe for every 800 lin. ft. of roadway

These assumptions equaled a unit price of \$460,000 per mile. This unit price was based upon late 2008-early 2009 unit prices from GDOT's Detailed Estimate program.

#### **4.5.1.4 Erosion Control**

Using the proposed typical section, 4 lane divided with 64 ft median, and the proposed R/W width of 300 ft the disturbed area was calculated to be 17 acres per mile. The disturbed area was then used to calculate the following items:

- Temporary grassing
- Mulch
- Permanent grassing
- Agricultural lime
- Liquid Lime
- Fertilizer mixed grade
- Fertilizer nitrogen content

The following are the assumptions used to quantify the structural BMP's:

- Silt Fence Type "C" – 21,120 lin. ft. per mile
- Maintenance of Silt Fence Type "C" – 10,560 lin. ft. per mile
- Construction Exit – 6 each per mile
- Maintenance of Construction Exit – 6 each per mile
- Erosion Control Mats – 21,120 sq. yd. per mile
- Rip Rap Ditch Check – 3.5 each per 150 lin. ft. of roadway



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### ***Development of Project Costs***

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- Maintenance of Rip Rap Ditch Check - 3.5 each per 150 lin. ft. of roadway
- Misc. Rip Rap (incl.) Filter Fabric – 70 sq. yd. per outlet, with 12 outlets per mile

These assumptions equaled a unit price of \$313,000 per mile. This unit price was based upon late 2008-early 2009 unit prices from GDOT's Detailed Estimate program.

#### **4.5.1.5 Pavement**

The pavement section for the proposed roadway was assumed as 12 in. of Continuously Reinforced Concrete, 3 in. of 25 mm Recycled Asphalt Pavement and 12 in. of Graded Aggregate Base. Through cost life cycle analysis this pavement section has been shown to be the most economical pavement section. The pavement unit price was calculated as \$5,064,000 per mile. This unit price was based upon late 2008-early 2009 unit prices from GDOT's Detailed Estimate program.

#### **4.5.1.6 Structures**

Costs were developed for a variety of structures that would be used in the construction of the alternatives.

##### **Roadway**

The roadway structure was assumed to be a local road, state road etc. that crossed the proposed roadway. These structures were assumed to be aerial based on the logic that it would be easier to reconstruct a state route on a new offset alignment. A generic typical section was chosen for each roadway structure, 4 lane with 20 ft. raised median. These bridges were therefore 46 ft. wide with a span of 172 ft. Bridges were estimated to cost \$150 per sq. ft. This unit price reflects current prices. The unit price per roadway bridge is \$1,200,000. The number of roadway bridges was based on aerial photography and the proposed alternatives pathway. No existing roadways were assumed to be closed or re-routed.

##### **Railroad**

The railroad structure was assumed to be at grade for the proposed roadway. This assumption is based on the fact that railways are not modified, so the proposed roadway would be over the existing railway. The railway crossing was quantified as 2 parallel bridges 46 ft. wide with a span of 70 ft. at a cost of \$150 per sq. ft. This unit price reflects current prices. The unit price per railroad crossing is \$1,000,000. The number of railroad crossings was based on aerial photography and the proposed alternatives pathway.

##### **Waterway**

A composite bridge length was calculated using aerial photography and the proposed alternatives pathway. Each waterway crossing was given an approximate span length. Several segments were estimated in this manner. Then each segments total bridge length was divided by number of



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# ***Development of Project Costs Evaluation of Alternatives***

crossings. The average span length was determined to be 330 ft. The waterway crossing was quantified as 2 parallel bridges 46 ft. wide with a span of 330 ft. at a cost of \$150 per sq. ft. This unit price reflects current prices. The unit price per railroad crossing is \$4,600,000. Then each segment was evaluated for number of waterway crossings. No culverts were estimated for waterway crossings.

### **Interchanges**

The unit price per interchange was assumed to be \$15,000,000. This price includes grading and drainage, pavement, bridge, approximately 3,500 lin. ft. of side road re-alignment, earthwork, maintenance of traffic, erosion control, signing and pavement markings necessary for a rural diamond interchange.

### **Traffic Control and Safety Devices/Maintenance of Traffic**

The unit prices for the categories of Traffic Control and Safety Devices and Maintenance of Traffic were assumed to be \$200,000 per mile. This reflects an approximate 2% cost per mile based on the sum of all other categories.

#### **4.5.1.7 Summary of Unit Construction Costs**

The unit cost per construction element is summarized in Table 4.5.1.7.1.

**Table 4.5.1.7.1  
Unit Cost per Construction Element  
(in Millions of 2008 Dollars)**

| <b>Type</b>                        | <b>Unit</b> | <b>Unit Cost</b> |
|------------------------------------|-------------|------------------|
| Clearing and Grubbing              | mile        | 0.32             |
| Earthwork                          | mile        | 0.76             |
| Drainage                           | mile        | 0.46             |
| Erosion Control                    | mile        | 0.32             |
| Pavement                           | mile        | 5.07             |
| Structures                         |             |                  |
| Roadway                            | each        | 2.40             |
| Railroad                           | each        | 1.00             |
| Waterways                          | each        | 4.60             |
| Interchanges                       | each        | 15.00            |
| Traffic Control and Safety Devices | mile        | 0.20             |
| Maintenance of Traffic             | mile        | 0.20             |

Source: Southwest Georgia Construct Cost Estimates



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### ***Development of Project Costs***

### ***Evaluation of Alternatives***

Table 4.5.1.7.2 lists the assumptions that were made for each of the alternatives for the number of interchanges, sideroad bridges, railroad bridges and waterway bridges. Alternative 1 is the longest alternative while Alternative 4 is the shortest. Alternatives 1, 1A and 2 have the highest number of interchanges while Alternative 4 has the least number. Alternatives 1 and 1A have the highest number of sideroad bridges while Alternative 4 has the least. All of the alternatives with the exception of Alternative 4 have four (4) railroad bridges. Alternative 2 has the highest number of waterway bridges while again Alternative 1 has the least.

**Table 4.5.1.7.2**  
**Assumptions by Alternative**

| <b>Alternative</b> | <b>Total Length</b> | <b>Interchanges</b> | <b>Sideroad Bridges</b> | <b>Railroad Bridges</b> | <b>Waterway Bridges</b> |
|--------------------|---------------------|---------------------|-------------------------|-------------------------|-------------------------|
| Alternative 1      | 162.4               | 30                  | 142                     | 4                       | 30                      |
| Alternative 1A     | 160.6               | 31                  | 140                     | 4                       | 29                      |
| Alternative 2      | 153.5               | 29                  | 111                     | 4                       | 46                      |
| Alternative 3      | 118.5               | 23                  | 134                     | 4                       | 32                      |
| Alternative 3A     | 116.7               | 24                  | 132                     | 4                       | 31                      |
| Alternative 4      | 119.5               | 21                  | 76                      | 1                       | 19                      |

Source: Southwest Georgia Interstate Study

#### 4.5.1.8 Total Construction Costs

Table 4.5.1.8 lists the total construction costs by alternative. Alternatives 1, 1A and 2 have the highest construction costs ranging from 2.5 to 2.6 billion dollars. Alternatives 3 and 3A have slightly less cost while Alternative 4 has the smallest construction cost of almost 1.8 billion dollars.

**Table 4.5.1.8.1**  
**Construction Cost by Alternative**  
**(in 2008 Dollars)**

| <b>Alternative</b> | <b>Construction Costs</b> |
|--------------------|---------------------------|
| 1                  | 2,613,023,000             |
| 1A                 | 2,603,528,250             |
| 2                  | 2,511,715,625             |
| 3                  | 2,108,154,375             |
| 3A                 | 2,098,659,625             |
| 4                  | 1,786,148,125             |

Source: Southwest Georgia Interstate Study





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### ***Development of Project Costs***

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#### ***4.5.2 Preliminary Engineering Costs***

Preliminary engineering (PE) costs are those costs associated with designing the facility. Based on GDOT guidance, PE costs were assumed to be eight percent of the construction costs.

**Table 4.5.2.1**  
**Preliminary Engineering Cost by Alternative**  
**(in 2008 Dollars)**

| <b>Alternative</b> | <b>PE Costs</b> |
|--------------------|-----------------|
| 1                  | 209,041,840     |
| 1A                 | 208,282,260     |
| 2                  | 200,937,250     |
| 3                  | 168,652,350     |
| 3A                 | 167,892,770     |
| 4                  | 142,891,850     |

Source: Southwest Georgia Interstate Study

#### ***4.5.3 Utilities Costs***

Utilities costs are those costs associated with moving existing utilities such as electric lines and poles, gas lines and water lines. Based on GDOT guidance, the utilities costs were assumed to be \$504,800 per mile.

**Table 4.5.3.1**  
**Utilities Costs by Alternative**  
**(in 2008 Dollars)**

| <b>Alternative</b> | <b>Utilities Costs</b> |
|--------------------|------------------------|
| 1                  | 81,849,600             |
| 1A                 | 80,942,400             |
| 2                  | 77,364,000             |
| 3                  | 59,724,000             |
| 3A                 | 58,816,800             |
| 4                  | 60,228,000             |

Source: Southwest Georgia Interstate Study



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#### 4.5.4 Right of Way Costs

Right-of-way (ROW) costs are the hardest costs to estimate. They are based on current market conditions, local market costs and land use. ROW costs include the cost for the land and for any structures or relocation costs. The purpose of the land use is important in estimating ROW costs. For example, commercial land is more costly than forest or agricultural land. The costs were prepared in consultation with GDOT staff. It was assumed that there would be a 300 feet wide ROW path.

##### 4.5.4.1 Land Only Right-of-Way Costs

The land only costs were developed based on the costs for recent projects in the area. ROW costs were estimated for the following types of land uses.

- Agricultural
- Commercial
- Forest
- Residential
- Wetlands

Table 4.5.4.1.1 lists the ROW raw land only costs by land use type per mile. The costs were initially developed per acre and converted to per mile basis.

**Table 4.5.4.1.1**  
**Right-of-Way Raw Land Only Cost**  
**(in 2008 Dollars)**

| Land Use     | Cost per Mile |
|--------------|---------------|
| Agricultural | 5,000         |
| Commercial   | 435,600       |
| Forest       | 2,400         |
| Residential  | 9,000         |
| Wetlands     | 1,000         |

Source: Southwest Georgia Interstate Study

##### 4.5.4.2 Relocation Right-of-Way Costs

Relocation costs include the cost to relocate the structures on the land and any damages that would be associated with these relocations. These costs are based on the assumptions of how many and what type of structures exist per mile. Table 4.5.4.2.1 lists the assumptions that were utilized per



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### ***Development of Project Costs Evaluation of Alternatives***

mile for each alternative. Based on the rural nature of the study area, it was assumed that there would be more relocations of residential properties than commercial properties. The type and costs of the relocations were provided by GDOT staff.

**Table 4.5.4.2.1**  
**Right-of-Way Structures/Relocation Cost**  
**(in 2008 Dollars)**

| <b>Number of Improvement per mile</b> | <b>Type of Relocation</b> | <b>Total per mile</b> |
|---------------------------------------|---------------------------|-----------------------|
| 9                                     | Residences                | \$ 1,800,000.00       |
| 1                                     | Commercial Business       | \$ 500,000.00         |
| 2                                     | Misc Big Improvements     | \$ 100,000.00         |
| 2                                     | Misc Small Improvements   | \$ 40,000.00          |
| 1                                     | Billboards                | \$ 50,000.00          |
| 9                                     | Residential Relocation    | \$ 360,000.00         |
| 4                                     | Commercial Relocation     | \$ 100,000.00         |

Source: Southwest Georgia Interstate Study

In addition, 30% were added to these costs to account for damages based on GDOT methodology

#### **4.5.4.3 Total Right-of-Way Costs**

There are additional contingency and administrative costs applied to the ROW costs. The total ROW costs by Alternative are listed in Table 4.5.4.3.1. Alternatives 1, 1A, 2 and 4 have the highest ROW costs while Alternatives 3 and 3A have the lowest.

**Table 4.5.4.3.1**  
**Total Right-of-Way Cost**  
**(in 2008 Dollars)**

| <b>Alternative</b> | <b>Right-of-Way</b> |
|--------------------|---------------------|
| 1                  | 539,996,266         |
| 1A                 | 571,232,284         |
| 2                  | 514,072,136         |
| 3                  | 245,610,903         |
| 3A                 | 276,846,920         |
| 4                  | 502,440,828         |

Source: Southwest Georgia Interstate Study



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### 4.5.5 Alternative and Segment Costs

Table 4.5.5.1 shows the total estimated cost for each alternative and segment. The total estimated costs for the alternatives range between \$2.49 billion and \$3.46 billion. Alternative 1A has the highest overall cost at \$3.46 billion, or approximately \$29.6 million/mile. Alternative 4 has the lowest estimated total cost at \$2.49 billion, or approximately \$15.5 million per mile.

Alternative 1A has the highest estimated right-of-way cost at \$571 million. Alternative 3 has the lowest estimated right-of-way cost at \$246 million. Alternative 3 and 3A have significantly lower estimated right-of-way costs than the other alternatives.

**Table 4.5.5.1**  
**Total Costs by Type by Segment and Alternative**  
**(in 2008 Dollars)**

| Segment         | Length | Construction  | PE (8% of Construction) | Right-of-Way | Utilities  | Grand Total   |
|-----------------|--------|---------------|-------------------------|--------------|------------|---------------|
| Segment AC      | 80.6   | 1,133,678,250 | 90,694,260              | 358,736,019  | 40,622,400 | 1,623,730,929 |
| Segment BC      | 36.7   | 628,809,625   | 50,304,770              | 64,350,656   | 18,496,800 | 761,961,851   |
| Segment CD      | 38.9   | 652,469,875   | 52,197,590              | 143,704,809  | 19,605,600 | 867,977,874   |
| Segment CE      | 2.3    | 68,826,625    | 5,506,130               | 0            | 1,159,200  | 75,491,955    |
| Segment EG      | 70.6   | 1,309,210,750 | 104,736,860             | 155,336,117  | 35,582,400 | 1,604,866,127 |
| Segment EF      | 19.8   | 335,692,250   | 26,855,380              | 86,505,085   | 9,979,200  | 459,031,915   |
| Segment FH-West | 44.3   | 663,454,125   | 53,076,330              | 66,074,270   | 14,263,200 | 796,867,925   |
| Segment FH-East | 46.1   | 672,948,875   | 53,835,910              | 34,838,253   | 23,234,400 | 784,857,438   |
| Segment HI      | 13.6   | 401,877,000   | 32,150,160              | 59,916,909   | 6,854,400  | 500,798,469   |
|                 |        |               |                         |              |            |               |
| Alternative     | Length | Construction  | PE (8% of Construction) | Right-of-Way | Utilities  | Grand Total   |
| 1               | 162.4  | 2,613,023,000 | 209,041,840             | 539,996,266  | 81,849,600 | 3,443,910,706 |
| 1A              | 160.6  | 2,603,528,250 | 208,282,260             | 571,232,284  | 72,878,400 | 3,455,921,194 |
| 2               | 153.5  | 2,511,715,625 | 200,937,250             | 514,072,136  | 77,364,000 | 3,304,089,011 |
| 3               | 118.5  | 2,108,154,375 | 168,652,350             | 245,610,903  | 59,724,000 | 2,582,141,628 |
| 3A              | 116.7  | 2,098,659,625 | 167,892,770             | 276,846,920  | 50,752,800 | 2,594,125,115 |
| 4               | 119.5  | 1,786,148,125 | 142,891,850             | 502,440,828  | 60,228,000 | 2,491,708,803 |

Source: Southwest Georgia Interstate Study





## **Southwest Georgia Interstate Study**

# ***Benefit Cost Estimation Technical Memorandum***

### **4.6 Benefit Cost Estimation**

The Georgia Department of Transportation has undertaken the Southwest Georgia Interstate Study to examine feasible opportunities for locating an interstate facility in southwest Georgia. The motivation for this work is the perceived need for greater accessibility as a means to promote growth and development in this region of the State. As detailed in the Technical Memoranda for other parts of the study such as the Stakeholder and Public Involvement Plan and the Existing Conditions report, the economy of this part of the State has not prospered to the same degree as other parts of Georgia or the nation as a whole. As a means to narrow the gap in economic performance between the Southwest Georgia study area and the balance of the state, interstate highway investment has been identified as a possible means to spur economic development in this corner of the State.

The analysis supporting the Benefit Cost Assessment considers two classes of benefits—User Benefits and Economic Development benefits. User benefits have economic value. User benefits include time savings, vehicle operating cost savings, and savings associated with increased safety; that is, accidents and fatalities that are avoided. Economic development benefits reflect the market changes to capitalize on the provision of this new infrastructure asset. There are several channels by which road investment may yield economic development impacts. First, by improving local employers' connection to markets, firms are able to reach a larger market for the same investment of time and travel cost. Expansion of the customer base provides the opportunity for greater hiring and associated payrolls that support spending in the local economy.

Second, by expanding local firms' accessibility to input markets, they may achieve productivity gains as they are able to access more specialized services and a larger range of goods suppliers at their existing location, making them more competitive. This creates the opportunity to expand market share and take on new workers; it also supports business retention as firms are economically successful at their Southwest Georgia location. Finally, by improving accessibility, firms which might not have located in the region before the road investment may not relocate or expand in Southwest Georgia given the expanded market. Similarly, households have improved access to job opportunities supporting incomes and spending in the local economy. Although the provision of transportation infrastructure does not cause economic growth, it is an essential ingredient in the growth equation that unlocks the potential of other regional assets and advantages and improves the economy's competitive position.

Construction benefits are omitted from the Benefit Cost ratio as they are one-time benefits that are expenditure driven. Fiscal benefits are omitted here as they are derived from the Economic Development benefits (earnings) benefits reported here. For example, income and sales taxes are



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derived from earnings; to include both earnings and the tax revenues that are derived from them in the Benefit Cost ratio would be double counting.

The benefit cost ratio compares the combined value of all these types of benefits with the cost that it would take to achieve these benefits. If the ratio equals one, the benefits are just equal to the costs; this is the breakeven point. If the ratio is less than one, the benefits are less than the cost indicating that this is not a favorable investment unless there is some other non-quantifiable reason to make the investment. If the ratio is greater than one, the benefits exceed the cost and the investment yields a positive return. The higher the ratio, the more favorable the investment. For very large investments such as those contemplated here, a higher B/C ratio is desired given the number of uncertainties. A value of 1.5 is often used as a benchmark for larger projects.

Throughout the analysis described below, the design year is 2040 and a 25-year span of operation is applied in the analysis. Put another way, the alternative build scenarios assume that construction of the new road facility would be completed by 2015 and the new highway is available for use beginning in 2016, yielding a 25-year evaluation period spanning 2016 through 2040. **Both the stream of “benefits” and “costs” are discounted back to a present value at a discount rate of 7 percent,** providing a consistent comparison for the evaluation of the scenarios and a means to rank those alternatives that best achieve the project’s economic development objectives. The cost estimates reflected in the B/C analysis differ from the “true” cost estimates discussed in Chapter 5, because they have been discounted by 7% per year over 25 years.

### ***4.6.1 Project Assumptions***

Increases in mobility and reductions in congestion provide benefits to users of the network. In order to compare the value of these user benefits to the value of investment needed to realize them, they are quantified in dollar terms, to the extent possible. In some cases, benefits are costs avoided, such as congestion, accidents, travel expenses, etc. The following represents the various categories of benefits (and costs avoided) to be included in this analysis:

- Travel time savings (difference in time and \$ cost between use of the existing and new routes)
- Travel cost savings
- Value of incident reduction such as accidents

As noted above, the travel demand model provides the inputs for the user benefit analysis; the exhibit below summarizes the Vehicle Hours of Delay, the accidents avoided, and the change (increase) in Vehicle Miles Traveled associated with each of the alternatives for the 2040 design year. The table below shows the changes associated with each build alternative relative to the E+C baseline.



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A more detailed breakout by segment is provided in Appendix H.

**Table 4.6.1.1**  
**Transportation Input Summary for the Study Area**

|                                     | <b>E+C</b> | <b>Alt 1</b>  | <b>Alt 1</b>  | <b>Alt 2</b>  | <b>Alt 3</b> | <b>Alt 3A</b> | <b>Alt 4</b>  |
|-------------------------------------|------------|---------------|---------------|---------------|--------------|---------------|---------------|
| <b>2040 Travel Time Savings VHD</b> | -          | 902,750       | 845,000       | 1,833,000     | 1,059,750    | 1,007,500     | 1,185,000     |
| Auto VHD – Leisure                  | -          | 454,792       | 427,354       | 922,737       | 535,991      | 511,668       | 596,872       |
| Auto VHD – Work                     | -          | 194,911       | 183,152       | 395,459       |              | 219,286       | 255,802       |
|                                     | <b>E+C</b> | <b>Alt 1</b>  | <b>Alt 1</b>  | <b>Alt 2</b>  | <b>Alt 3</b> | <b>Alt 3A</b> | <b>Alt 4</b>  |
| <b>Accident Reduction 2040</b>      |            |               |               |               |              |               |               |
| PDO                                 | -          | 265           | 271           | 488           | 269          | 268           | 537           |
| Injury                              | -          | 102           | 101           | 203           | 87           | 82            | 224           |
| Fatal                               | -          | 1             | 0             | 3             | 0            | -1            | 5             |
| <i>Total</i>                        | -          | 368           | 372           | 694           | 356          | 349           | 765           |
|                                     | <b>E+C</b> | <b>Alt 1</b>  | <b>Alt 1</b>  | <b>Alt 2</b>  | <b>Alt 3</b> | <b>Alt 3A</b> | <b>Alt 4</b>  |
| <b>2040 Change in VMT</b>           | -          | (113,015,750) | (123,881,000) | (140,127,750) | (43,673,500) | (84,279,500)  | (121,482,250) |
| Auto                                | -          | (53,175,750)  | (75,649,750)  | (69,816,250)  | (17,898,250) | (62,739,000)  | (58,549,500)  |
| Truck                               | -          | (59,840,000)  | (48,231,250)  | (70,311,500)  | (25,775,250) | (21,540,500)  | (62,932,750)  |

As the table shows, there is a reduction in vehicle hours of delay and in accidents, but an increase in vehicle miles traveled. This initially counterintuitive result reflects that the access controlled interstate facility permits higher speeds and safer trips relative to non-access controlled facilities, but that travelers driver longer distances in order to use the interstate facility, leading to a net increase in vehicle miles traveled. Although the magnitudes vary, this overall pattern holds for all of the build alternatives. The physical alignment, costs and traffic characteristics of these alternatives are described in detail in Section 4. As a consequence, the transportation benefits are mixed. VMT rises relative to the E +C baseline as travelers drive further to get on the new facility. The increase in VMT raises vehicle operating costs which is a negative benefit. Offsetting this, VHD falls as travelers save time by using the new facility. The value of time saved is a positive benefit. Similarly, the value of accidents avoided as drivers divert to safer roads is a positive benefit as well.

### **4.6.2 Project Costs**

The project team identified nine component road segments that are combined to create the six major corridor alignments evaluated as part of this study. Table 4.6.2.1 below summarizes the project costs by segment, expenditure type, and by aggregate alignment. A description of how the segments combine to create the aggregate alignment alternatives is provided in the note below the table. All costs are shown in 2008 dollars. Based on the project costs, every alternative considered would qualify as a national megaproject.



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Table 4.6.2.1  
Summary of Total Project Costs by Segment and Alternative, \$2008

|                    | Length        | Construction        | PE (8% of Construction)        | Right-of-Way        | Utilities        | Grand Total        |
|--------------------|---------------|---------------------|--------------------------------|---------------------|------------------|--------------------|
| <b>Segment</b>     |               |                     |                                |                     |                  |                    |
| Segment AC         | 80.6          | 1,133,678,250       | 90,694,260                     | 358,736,019         | 40,622,400       | 1,623,730,929      |
| Segment BC         | 36.7          | 628,809,625         | 50,304,770                     | 64,350,656          | 18,496,800       | 761,961,851        |
| Segment CD         | 38.9          | 652,469,875         | 52,197,590                     | 143,704,809         | 19,605,600       | 867,977,874        |
| Segment CE         | 2.3           | 68,826,625          | 5,506,130                      | 0                   | 1,159,200        | 75,491,955         |
| Segment EG         | 70.6          | 1,309,210,750       | 104,736,860                    | 155,336,117         | 35,582,400       | 1,604,866,127      |
| Segment EF         | 19.8          | 335,692,250         | 26,855,380                     | 86,505,085          | 9,979,200        | 459,031,915        |
| Segment FH-West    | 44.3          | 663,454,125         | 53,076,330                     | 66,074,270          | 14,263,200       | 796,867,925        |
| Segment FH-East    | 46.1          | 672,948,875         | 53,835,910                     | 34,838,253          | 23,234,400       | 784,857,438        |
| Segment HI         | 13.6          | 401,877,000         | 32,150,160                     | 59,916,909          | 6,854,400        | 500,798,469        |
|                    | <b>Length</b> | <b>Construction</b> | <b>PE (8% of Construction)</b> | <b>Right-of-Way</b> | <b>Utilities</b> | <b>Grand Total</b> |
| <b>Alternative</b> |               |                     |                                |                     |                  |                    |
| 1                  | 162.4         | 2,613,023,000       | 209,041,840                    | 539,996,266         | 81,849,600       | 3,443,910,706      |
| 1A                 | 160.6         | 2,603,528,250       | 208,282,260                    | 571,232,284         | 72,878,400       | 3,455,921,194      |
| 2                  | 153.5         | 2,511,715,625       | 200,937,250                    | 514,072,136         | 77,364,000       | 3,304,089,011      |
| 3                  | 118.5         | 2,108,154,375       | 168,652,350                    | 245,610,903         | 59,724,000       | 2,582,141,628      |
| 3A                 | 116.7         | 2,098,659,625       | 167,892,770                    | 276,846,920         | 50,752,800       | 2,152,115          |
| 4                  | 119.5         | 1,786,148,125       | 142,891,850                    | 502,440,828         | 60,228,000       | 2,491,708,803      |

Source: PBSJ

Note: Alternative 1 is comprised of segments AC, CE, EF, FH East and HI; Alternative 1A is comprised of segments AC, CE, EF, FH West and HI; Alternative 2 is comprised of segments AC, CE, and EG; Alternative 3 is comprised of segments BC, CE, EF, FH East and HI; Alternative 3A is comprised of segments BC, CE, EF, FH West and HI; and Alternative 4 is comprised of segments AC and CD.

### 4.6.3 *User Benefit Estimation*

This section describes how the user benefits are monetized.

#### 4.6.3.1 *Travel Time*

The Travel Time benefits are broken into two components. Truck time is included in the VMT operating costs analysis as the truck operation is a commercial activity and the value of the delay is captured in the driver's labor cost. Auto time benefits, by contrast, are estimated based on the auto vehicle hours of delay that are avoided. These estimated travel time savings have been monetized by following the most recent Revised Departmental Guidance for the Valuation of Travel Time in Economic Analysis (USDOT, 2003) and additional federal guidance. Based on Federal guidance the hourly value of time is \$24.64 (2007\$). This value was escalated to a value of \$25.59 (2008\$) through application of the Consumer Price Index annual change.





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The value of travel time saved by the region's travelers rises over time, achieving the maximum value in 2040. The analysis assumes that the benefits increase in equal increments over the 25 year time horizon ending in 2040. This stream of benefits is summed over 25 years and discounted at 7 percent. The final results for each alternative are shown in summary Table 4.6.4.1.3 at the end of this memo.

### **4.6.3.2 Travel Cost**

In contrast to travel time savings, the project alternatives will yield a net increase in automobile and truck VMT as travelers lengthen their average trips to reach the new facility. This translates into increased operating costs in terms of fuel, maintenance, depreciation, and tires. For autos, these savings vary by the size of the car. The average cost per mile is 54 cents, according to AAA's 2009 Edition of "Your Driving Costs". This total is comprised of depreciation, insurance, fuel, and maintenance costs. Truck operating costs per mile are \$4.06 per mile based on data from "American Trucking Trends 2008-2009". The data are provided in 2006\$ and are escalated for this analysis to 2008\$ using PPI for General Freight Trucking.

The value of travel vehicle costs rises over time, achieving the maximum value in 2040. The analysis assumes that the increase is incurred in equal increments over the 25 year time horizon ending in 2040. This stream of benefits is summed over 25 years and discounted at 7 percent. The final results for each alternative are shown in the summary table below.

### **4.6.3.3 Safety**

The economic value of the accidents avoided is determined using research from the National Safety Council<sup>1</sup>. The Council publishes two sets of estimates. One set is for measuring the economic loss to a community resulting from past motor vehicle crashes. These losses are wage and productivity losses, medical expenses, administrative expenses, motor vehicle damage, and employers' uninsured costs. The Council cautions users, however, that these estimates of past losses are not appropriate for use in benefit cost analyses as they omit the value of what people are willing to pay for improved safety in order to live longer and to protect the quality of one's remaining life. In order to capture this important impact, the Council has developed a second set of motor vehicle cost estimates known as the "comprehensive cost" estimates for use in cost benefit applications. These comprehensive costs of motor vehicle costs include the economic cost components noted above (wage and productivity losses, medical expenses, administrative expenses, motor vehicle damage, and employers' uninsured costs) as well as a measure of the value of lost quality of life. The value of lost quality of life was

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<sup>1</sup> National Safety Council "Estimating the Costs of Unintentional Injuries, 2006" Available on the web at <http://www.nsc.org/resources/issues/estcost.aspx>



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developed by the Council through empirical studies of what people actually pay to reduce their safety and health risks.

The Council's last published estimates are for 2006. These were adjusted to 2008 dollars for consistent comparison with the project cost estimates. The Consumer Price Index for the South Region, published by the U.S. Bureau of Labor Statistics, was used for the conversion. As the CPI annual average for 2008 is not yet published, this analysis applied the 11-month average of the index as a proxy for the 2008 value. This is the most up-to-date data available at the time of this analysis.

Note that the average comprehensive costs shown in the exhibit below are on a per injured person basis as contrasted with a per crash basis. Thus, in the analyses discussed below, the costs are factored by an occupancy rate. National research has shown that vehicle occupancy rates vary by trip purpose—lower for commuting and rising for leisure and other non-work trips. The average occupancy rate across all trip purposes is reported as 1.6, according to data summarized from the 2001 National Household Travel Survey<sup>2</sup>. This is the factor that was applied to convert injury costs to accident costs. In addition, the National Safety Council provides values for three types of non-fatal injuries. Unit costs are escalated to 2008 dollars using US City Average CPI for all items. Injuries cost per person assumes the following distribution of injury accidents: 71.4% possible/minor injury, 23.8% moderate/non-incapacitating evident injury and 4.8% serious/incapacitating injury. The distribution of injuries by severity is based on GDOT Crash Analysis, Statistics, and Information Notebook 2008 data on "Motor Vehicle Crash Injuries" for 2006, p.5.

As with the other user benefit types, the value of accidents avoided rises over time, achieving the maximum value in 2040. The analysis assumes that the benefits increase steadily in equal benefits over the 25 year time horizon ending in 2040. This stream of benefits is summed over 25 years and discounted at 7 percent. The final results for each alternative are shown in the summary Table 4.6.3.3.1.

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<sup>2</sup> Hu, Pat and Timothy Reuscher. December 2004. "Summary of Travel Trends: 2001 National Household Travel Survey," FHWA, US Department of Transportation: Washington, DC.



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**Table 4.6.3.3.1**  
**Accident Cost Assumptions**

|                      | Average Comprehensive Cost per Person 2006 | Average Comprehensive Cost per Person 2008 | Units   | Average Number of Units per Accident | Total Cost per Accident |
|----------------------|--------------------------------------------|--------------------------------------------|---------|--------------------------------------|-------------------------|
| Property Damage Only | \$ 2,300                                   | \$ 2,388                                   | Persons | 1.6                                  | \$ 3,821                |
| Injuries             | \$ 40,713                                  | \$ 42,276                                  | Persons | 1.6                                  | \$ 67,641               |
| Fatalities           | \$ 4,100,000                               | \$ 4,257,422                               | Persons | 1.6                                  | \$ 6,811,874            |

Source: National Safety Council, National Household Travel Survey, and Bureau of Labor Statistics.

### 4.6.4 Economic Development Benefits

Aside from the User Benefits that accrue to the study area as travelers use the new facility, there is also the possibility that additional economic development will be attracted to the area by the improved market access afforded by the road investment. This section estimates the most likely expansion of market attributable to the road investment. It also estimates the amount of new development that would be required for the road to break even strictly on Benefit Cost terms, setting aside the user benefits.

Highway accessibility is an important site selection criteria for expanding and relocating business; it tops the most recent list in the Area Development Corporate Survey of Site Selection factors (2008). As the table below shows, over 95 percent of respondents reported that highway accessibility was “very important” or “important” in the relocation decision. The survey does not distinguish between interstate, four-lane divided, or other highway types.

**Table 4.6.4.1**  
**2008 Ranking of Site Selection Factors**

| Ranking | Factor                           | 2008 | 2007       |
|---------|----------------------------------|------|------------|
| 1       | Highway accessibility            | 95.4 | 96.9 (1)   |
| 2       | Labor costs                      | 91.4 | 92.3 (2)   |
| 3       | Occupancy and construction costs | 90.4 | 88.2 (5)   |
| 4       | Tax exemptions                   | 88.6 | 82.8 (10T) |
| 5       | Energy availability and costs    | 87.9 | 89.0 (3)   |
| 6       | Availability of skilled labor    | 87.7 | 88.7 (4)   |
| 7       | State and local incentives       | 87.2 | 83.4 (8)   |
| 8       | Corporate tax rate               | 85.3 | 83.8 (7)   |
| 9       | Low union profile                | 82.7 | 80.6 (13)  |
| 10      | Available land                   | 82.0 | 85.4 (6)   |

Source: Area Development Corporate Survey, January 2009

Note: Figures are percentages of respondents reporting that the factor is “very important” or “important.” Values in parens in the 2007 column are the 2007 ranking. Tax exemptions tied with Proximity to major markets in 2007; in the 2008 survey this factor ranked 12<sup>th</sup>.



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That said, highway accessibility is not the only important factor, underscoring that while highways accommodate growth, they do not cause it to happen. Transportation investment cannot overcome the economic disadvantages of a small labor pool, an unskilled or uneducated workforce, unreliable power or water supplies, nor can it attract industry where the requisite resources are not present<sup>3</sup>.

Of the site selection factors noted in Table 4.6.4.1, the greatest deficit is in skilled labor. The Economic Research Service of the US Department of Agriculture identified 23 of the region's 32 counties as Low-education counties. The definition of such a county is one where 25 percent or more of working aged adult residents (ages 25-64) had neither a high school diploma or GED in 2000. The low level of educational attainment is an important factor for the region's outlook as it reduces the likelihood that investments in other types of capital, such as infrastructure, will enjoy a positive rate of return. The low rate of educational attainment present in the region tempers the outlook for the return on the economic development highway investment that is being considered as employers considering relocation to the region may question the skills and training of the workforce even if the highway investment improves market access.

The skill level of the region's labor force has been identified as a factor hindering its economic development in research at Georgia Southwestern State University<sup>4</sup>. Specifically, the study concluded that "southwest Georgia may lose any advantage it has if entry-level employee preparedness does not improve." (p.100). This conclusion was based on the results of a survey of Southwest Georgia employers where three quarters of respondents felt that employee skills had deteriorated or remained the same over the past three years, 50 percent of area businesses had some or great difficulty in finding qualified workforce to fill area manager positions, and 70 percent of area businesses had some or great difficulty finding qualified workers for clerical and administrative positions (p. 92). Reasons for the difficulty included deficient technical and computer skills (72

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<sup>3</sup> The factors ranked 2 through 5 in Table 1.4 are all business cost factors. The factors ranked 7, 8, and 9 are also cost related. In addition to already having interstate access on the eastern side of the study area and good four-lane highway connections in several locations, Southwest Georgia stands out in terms of its cost structure, scoring well on seven of the top ten site selection factors. Using the Albany and Columbus metropolitan areas as barometers of the region's cost structure—the rural areas are unlikely to have higher costs than the region's metro economies—southwest Georgia has among the lowest costs of doing business in the nation. Moody's Economy.com estimates that the cost of doing business in Albany (a weighted average of energy costs, taxes, office rents, and labor costs adjusted for productivity) is 89 percent that of the US average cost.

<sup>4</sup> John G. Kooti and Randall Valentine. 2006.. "Workforce Capacity and Employer Satisfaction in Southwest Georgia: A Case Study in Rural Economic Development Needs," *Journal of Business for Entrepreneurs*, Volume 6 Issue 1, pp. 84-101. In this study, the survey included employers in Clay, Crisp, Dooly, Macon, Marion, Quitman, Randolph, Schley, Stewart, Sumter, Talbot, Taylor, and Webster counties.





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percent), oral and written communication skills (76 percent), and reading and writing skills (60 percent).

#### **4.6.4.1 Industries Likely to Benefit**

The initial step in estimating the economic development potential is to identify (1) those industries likely to benefit directly from the highway investment, and the (2) share of the industry likely to be most impacted. For example, goods-based industries are more likely to be impacted directly by road improvements because their production process yields a physical good that is shipped than service-based industries, all else held equal. That is not to say that services industries do not benefit from road improvements—but these benefits typically derive from the reduction of congestion and the ability to access workers and other specialized labor more readily; congestion is not currently nor projected to be a problem in the Southwest Georgia study area.

Consideration of the share of a particular local industry likely to be impacted is also important as some industry is typically serves a local market and is less likely to be impacted by the road improvement. Put another way, a region's economy can be divided into two parts: the local economic base and the export base. The local economic base serves local demand; the export base serves consumption outside the local area—an export to the economy beyond the study area. The identification of Southwest Georgia's export industries and the share that serves an economy beyond the local study area is estimated using Location Quotients. The Location Quotient compares an industry's share of the local economy to the same industry's share of the national economy. If the ratio equals "one" then the local share is equal to the national share—it is the share typically found nationwide. If the share is lower than "one" the region is considered an "importer" of the industry's good or service because it has invested less of its economy in the production of the good or service relative to the national average—the typical share found in the US. Thus, the region's residents must be purchasing these goods and services from producers outside their own local economy—importing these goods and services. Similarly, if the Location Quotient is greater than "one" the local economy is an exporting region for that industry—that is the economy has devoted a greater share of its economy to that particular industry and must be producing more than is needed for its own consumption.

In Southwest Georgia, the exporting industries are: farm, forestry, mining, utilities, manufacturing, retail trade, information, and management of companies. Government services are also exported but this analysis assumes that this industry's location is driven by factors other than highway access and it is not carried forward in the analysis.

The second column of Table 4.6.4.1.1 shows the share of the local industry devoted to exporting beyond the study area's demand.



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Table 4.6.4.1.1  
Summary of Employment Impacts by Exporting Industry

|                                                     | Total Employment<br>Before<br>Improvement | Share of<br>Economy<br>Exporting | Employment<br>Influenced by<br>Improvement | Alt 1 | Alt 1A | Alt 2  | Alt 3 | Alt 3A | Alt 4  | RIMS  | Alt 1 | Alt 1A | Alt 2 | Alt 3 | Alt 3A | Alt 4 |
|-----------------------------------------------------|-------------------------------------------|----------------------------------|--------------------------------------------|-------|--------|--------|-------|--------|--------|-------|-------|--------|-------|-------|--------|-------|
|                                                     |                                           |                                  |                                            | 12.6% | 12.6%  | 18.9%  | 2.5%  | 2.7%   | 18.6%  |       | 7646  | 7646   | 11469 | 1496  | 1662   | 11302 |
| Total Employment                                    | 487,296                                   |                                  | 64,452                                     | 8123  | 8123   | 12,184 | 1,589 | 1,766  | 12,088 |       |       |        |       |       |        |       |
| Farm employment                                     | 14,700                                    | 0.48                             | 7,089                                      | 988   | 988    | 1,342  | 178   | 144    | 1,323  | 1,722 | 1541  | 1541   | 2311  | 301   | 336    | 2278  |
| Nonfarm employment                                  | 472,596                                   |                                  | 0                                          | 0     | 0      |        |       |        |        |       |       |        |       |       |        |       |
| Private employment                                  | 370,845                                   |                                  | 0                                          | 0     | 0      |        |       |        |        |       |       |        |       |       |        |       |
| Forestry, fishing, related activities, and other 31 | 7,085                                     | 0.61                             | 4,233                                      | 546   | 546    | 819    | 102   | 119    | 807    | 2,050 | 1129  | 1129   | 1680  | 219   | 343    | 1895  |
| Mining                                              | 3,267                                     | 0.21                             | 715                                        | 90    | 90     | 135    | 16    | 20     | 138    | 2,217 | 300   | 300    | 295   | 30    | 43     | 295   |
| Utilities                                           | 5,034                                     | 0.69                             | 3,481                                      | 439   | 439    | 658    | 89    | 95     | 648    | 2,781 | 1220  | 1220   | 1830  | 290   | 265    | 1804  |
| Construction                                        | 24,752                                    |                                  | 0                                          | 0     | 0      |        |       |        |        |       |       |        |       |       |        |       |
| Manufacturing                                       | 45,791                                    | 0.15                             | 6,709                                      | 846   | 846    | 1,268  | 165   | 184    | 1,250  | 2,819 | 2452  | 2452   | 3678  | 480   | 533    | 3625  |
| Wholesale trade                                     | 14,525                                    |                                  | 0                                          | 0     | 0      |        |       |        |        |       |       |        |       |       |        |       |
| Retail trade                                        | 58,623                                    | 0.08                             | 4,695                                      | 592   | 592    | 888    | 116   | 129    | 875    | 1,426 | 845   | 845    | 1268  | 165   | 184    | 1249  |
| Transportation and warehousing                      | 12,709                                    |                                  | 0                                          | 0     | 0      |        |       |        |        |       |       |        |       |       |        |       |
| Information                                         | 3,805                                     | 0.03                             | 340                                        | 43    | 43     | 64     | 0     | 3      | 63     | 1,885 | 80    | 80     | 128   | 17    | 19     | 127   |
| Finance and insurance                               | 17,691                                    |                                  | 0                                          | 0     | 0      |        |       |        |        |       |       |        |       |       |        |       |
| Real estate and rental and leasing                  | 14,650                                    |                                  | 0                                          | 0     | 0      |        |       |        |        |       |       |        |       |       |        |       |
| Professional, scientific, and technical services    | 15,667                                    |                                  | 0                                          | 0     | 0      |        |       |        |        |       |       |        |       |       |        |       |
| Management of companies and enterprises             | 5,287                                     | 0.12                             | 705                                        | 89    | 89     | 132    | 17    | 19     | 131    | 2,052 | 102   | 102    | 274   | 36    | 40     | 270   |
| Administrative and waste services                   | 29,895                                    |                                  | 0                                          | 0     | 0      |        |       |        |        |       |       |        |       |       |        |       |
| Educational services                                | 6,303                                     |                                  | 0                                          | 0     | 0      |        |       |        |        |       |       |        |       |       |        |       |
| Health care and social assistance                   | 38,229                                    |                                  | 0                                          | 0     | 0      |        |       |        |        |       |       |        |       |       |        |       |
| Arts, entertainment, and recreation                 | 8,032                                     |                                  | 0                                          | 0     | 0      |        |       |        |        |       |       |        |       |       |        |       |
| Accommodation and food services                     | 31,482                                    |                                  | 0                                          | 0     | 0      |        |       |        |        |       |       |        |       |       |        |       |
| Other services, except public administration        | 26,740                                    |                                  | 0                                          | 0     | 0      |        |       |        |        |       |       |        |       |       |        |       |
| Government and government enterprises               | 101,201                                   | 0.38                             | 18,375                                     | 4584  | 4584   | 8,078  | 697   | 897    | 8,773  |       |       |        |       |       |        |       |
| Federal, civilian                                   | 10,305                                    | 0.38                             | 2,075                                      | 362   | 362    | 543    | 71    | 79     | 535    |       |       |        |       |       |        |       |
| Military                                            | 25,344                                    | 0.78                             | 13,047                                     | 2501  | 2501   | 3,752  | 489   | 544    | 3,698  |       |       |        |       |       |        |       |
| State and local                                     | 65,552                                    | 0.21                             | 13,253                                     | 1721  | 1721   | 2,881  | 337   | 374    | 2,514  |       |       |        |       |       |        |       |
| State government                                    | 19,336                                    | 0.20                             | 5,218                                      | 870   | 870    | 1,008  | 121   | 140    | 891    |       |       |        |       |       |        |       |
| Local government                                    | 46,216                                    | 0.11                             | 8,035                                      | 1051  | 1051   | 1,873  | 206   | 230    | 1,623  |       |       |        |       |       |        |       |
| Private Market Expansion                            |                                           |                                  |                                            | 3539  | 3539   | 5308   | 692   | 769    | 5231   |       | 7646  | 7646   | 11469 | 1496  | 1662   | 11302 |

Source: Bureau of Economic Analysis and AECOM calculations.



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The second consideration is the degree to which the market for these industries would likely expand. This assessment is made based on the travel time savings derived from the Travel Demand Model. Actual market expansion will vary with individual locations throughout the region. Table 4.6.4.1.2 below provides a typical short, medium and long trip savings for each of the alternatives. The average savings for each of the alternatives is applied as the market expansion factor. In other words, a shipper could travel 13 percent farther under the Investment Alternative 1, relative to the No Build for the same travel time. These expansion factors are applied to the export base to estimate the direct incremental employment gain associated with the market expansion.

**Table 4.6.4.1.2**  
**Typical Travel Time**

| Trip Length | Travel Times (minutes)        | No Build | Alt 1 | Alt 1A | Alt 2 | Alt 3 | Alt 3A | Alt 4 |
|-------------|-------------------------------|----------|-------|--------|-------|-------|--------|-------|
| Long Trip   | Columbus to Valdosta          | 203      | 179   | 179    | 139   | 198   | 198    | 168   |
|             | % diff relative to NB         |          | 12%   | 12%    | 22%   | 2%    | 2%     | 17%   |
| Medium Trip | Columbus to Albany            | 105      | 86    | 85     | 86    | 106   | 105    | 86    |
|             | % diff relative to NB         |          | 18%   | 19%    | 18%   | -1%   | 0%     | 18%   |
| Short Trip  | Albany to Tifton              | 57       | 54    | 55     | 51    | 52    | 52     | 43    |
|             | % diff relative to NB         |          | 5%    | 4%     | 11%   | 9%    | 9%     | 25%   |
|             |                               |          |       |        |       |       |        |       |
|             | Average % diff relative to NB |          | 13%   | 13%    | 19%   | 2%    | 3%     | 19%   |
|             | High                          |          | 15%   | 15%    | 21%   | 4%    | 5%     | 21%   |
|             | Low                           |          | 11%   | 11%    | 17%   | 0%    | 1%     | 17%   |

Source: PBSJ

Note: Percentages are rounded in table.

The firms and production activity associated with these new workers will support demand for goods and services across a range of industries; sparking a secondary round of economic development. This will either be accomplished by new firms entering the market to fulfill the new demand or expansion of existing firms. This expansion is estimated through the application of RIMS II multipliers. The multiplier for each industry is applied to the direct export employment estimate associated with the highway investment to estimate the total impact by industry.

The RIMS II regional multipliers are obtained from the Bureau of Economic Analysis (BEA) within the U.S. Department of Commerce. Derived from the Regional Input-Output Modeling System, the so-called RIMS II multipliers measure the total change (direct + indirect effects) in output, employment, value added and earnings that results from an exogenous and incremental change to a particular industry. The RIMS II model provides economic impacts from investments and operations in the following forms:



## Southwest Georgia Interstate Study

# Benefit Cost Estimation Evaluation of Alternatives

- Total final-demand multipliers for output, earnings, value added, and employment
- Total direct-effect multipliers for earnings and employment

The earnings associated with highway induced employment in Southwest Georgia are estimated by applying the average wage for the region to the total jobs estimate. This stream of earnings assumed to grow over time over 25 years in equal increments until the total impact is reached in the design year of 2040. The stream of earnings is discounted at 7 percent and summed to achieve the total benefit.

The costs and benefit estimates associated with the Southwest Georgia Interstate Study were discounted because they occur in the future, over a period extending from 2010 to 2040. A dollar today is worth more than a dollar in the future, even if inflation is excluded, because today's dollar can be used productively in the ensuing years, yielding a value greater than the initial dollar. Future benefits are discounted to reflect this fact. The purpose of discounting is to put all present and future benefits in a common metric, their present value. The seven percent discount rate is recommended by the Office of Management and Budget for impact studies.

Of special note, two of the benefit cost ratios are negative. This is a very unusual result, and it is driven by the large negative impact of travel cost increases. Because people drive out of their way to use the new facility, their driving costs increase. At the same time, the positive benefits of accidents avoided, value of time saved, and economic development is not sufficient in these two cases to offset the increase in travel costs. In short, the negative impacts outweigh the positive ones in the case of Alternatives 3 and 3A, yielding a negative benefit cost ratio.

**Table 4.6.4.1.3**  
**Summary of Benefits by Type and Alternative with Benefit Cost Ratio**

|                                                     | <b>Alt 1</b> | <b>Alt 1A</b> | <b>Alt 2</b> | <b>Alt 3</b> | <b>Alt 3A</b> | <b>Alt 4</b> |
|-----------------------------------------------------|--------------|---------------|--------------|--------------|---------------|--------------|
| 2016-2040 Discounted Benefits (2008\$)              |              |               |              |              |               |              |
| Safety                                              | \$ 37.43     | \$ 28.53      | \$ 107.42    | \$ 24.45     | \$ 9.36       | \$ 144.12    |
| Travel Time Savings                                 | \$ 49.77     | \$ 46.77      | \$ 100.98    | \$ 58.66     | \$ 55.99      | \$ 65.32     |
| Travel Cost Savings                                 | \$ (813.53)  | \$ (708.82)   | \$ (967.77)  | \$ (342.31)  | \$ (363.46)   | \$ (859.83)  |
| Economic Benefits                                   | \$ 885.23    | \$ 885.23     | \$ 1,327.85  | \$ 173.20    | \$ 192.44     | \$ 1,308.61  |
| Total (all types)                                   | \$ 158.91    | \$ 251.72     | \$ 568.48    | \$ (86.00)   | \$ (105.66)   | \$ 658.22    |
| Discounted Cost of Projects (2008\$)                | \$ 2,735.92  | \$ 2,745.46   | \$ 2,624.85  | \$ 2,051.31  | \$ 2,060.85   | \$ 1,979.47  |
| <b>Benefit Cost Ratio (without economic impact)</b> | -0.265       | -0.231        | -0.289       | -0.126       | -0.145        | -0.329       |
| <b>Benefit Cost Ratio (with economic benefits)</b>  | 0.058        | 0.092         | 0.217        | -0.042       | -0.051        | 0.333        |





## **Southwest Georgia Interstate Study**

# **Benefit Cost Estimation Evaluation of Alternatives**

All benefits and costs are in millions discounted at 7 percent; benefits represent the sum of the 25 year stream. Estimation assumes benefits received equally over the 2016 to 2040 time period.

As Table 4.6.4.1.3 shows, no Benefit Cost ratio comes close to crossing the break even value of “one.” This does not mean that the highway investment would not support economic development; rather it tells us that the projected amount of growth in this largely rural region is not sufficient to warrant the very large multi-billion dollar investment the project would require.

### **4.6.4.2 Breakeven Analysis**

There are many uncertainties in estimating the economic impact attributable to a highway investment in a rural area such as Southwest Georgia which already has interstate access in much of the study area. There are many unknowns – the largest of which is a firm relocation to the region. This would be an exogenous change to the region’s economy and would not be captured in an economic model approach such as the one described above. Recognizing that there are many unknowns and that pinpointing the precise industry likely to be attracted to the region is not possible, this analysis adds an additional estimation. It estimates the magnitude of economic growth needed to justify the project cost and then evaluates the probability of attaining that market expansion. Thus, the analysis presents a “most likely” growth scenario based on modeling analysis and a higher “break even” growth scenario.

The project costs vary by alternative. For this break even analysis we assume that construction occurs over six years and that construction costs are distributed evenly over the six-year period. These costs are then discounted back at 7 percent to ensure an “apples” to “apples” comparison between project costs and benefits.

In order to obtain a Benefit / Cost ratio for just the economic benefits that falls in the range of 1.5 to 2.0, the project alternatives would have to yield \$540 million in earnings in the opening year. Under these circumstances, the Benefit Cost ratio would be 1.53 for Alternative 1 (the lowest value) and range to a high of 2.1 for Alternative 4. At the region’s average wage, this implies immediate job creation of nearly 15,000 jobs. Every year of delay beyond the opening year increases the amount of job creation required in subsequent years.

This is a high hurdle to cross, suggesting that an investigation of lower cost alternatives might be warranted. Returning to the site selection factors identified in Table 1.4, highway access was ranked highly, but interstate highway was not specified. Development officials may choose to consider a collaborative approach to economic development, where investments of different types are bundled together to mitigate the region’s economic disadvantages. For example, road improvements to support a desirable employer in a targeted industry might be combined with workforce training



## **Southwest Georgia Interstate Study**

# ***Benefit Cost Estimation Evaluation of Alternatives***

tailored to the needs of the employer, and tax incentives to permit the new industry to take hold in the region, demonstrating its success in which can be marketed to other employers in the industry or to related industries. In this instance, road investment is part of a package of policies and investments that address the region's economic disadvantages; transportation investment is not the sole investment<sup>5</sup>.

In a follow up to a FHWA study of interstate's economic impact, the FHWA project manager writes that the data "leads to a conclusion that economic development success is related to the degree of access and connectivity improvement that the highway improvement provides as well as to the nature and strength of the non-highway economic development initiatives. It is also possible that the effects of improvements to highways without access control would not result in quite the effects of improvements to highways with access control."<sup>6</sup>

This latter observation suggests an evolution in thinking about how to use highway investment to foster growth. It suggests an incremental approach to highway improvements in locations where capacity is not a constraint such as in Southwest Georgia, and where the highway project's objective is economic development. Project sponsors might consider improvements to good quality non-interstate highways, investing in lower-cost access control improvements to achieve economic gains. The access control investments could be complemented by marketing the route as a commercial corridor, investments in ITS to serve freight and commercial traffic, and investments in complementary economic development policies to encourage workforce development and reliable non-transportation infrastructure. Such investments would be much lower in cost and would likely score more highly in terms of the benefit cost ratio.

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<sup>5</sup> This finding argues for Georgia's strategy of encouraging its state departments to collaborate and consult to foster prosperity—for example encouraging the Department of Transportation to collaborate with the state's economic development agency.

<sup>6</sup> FHWA 2005, cited above.



# Southwest Georgia Interstate Study

## Summary

### Stakeholder and Public Involvement

#### 5.0 Introduction to Stakeholder and Public Involvement

A key component of the study process was to engage stakeholders and the general public in a comprehensive program throughout the two year planning study period. A general summary of the stakeholder and public involvement activities are discussed below. For more detailed information, refer to the *Stakeholder and Public Involvement Final Report*.

At the onset of the study, a *Stakeholder and Public Involvement Plan (SPIP)* was developed to provide an overview of the regulatory requirements, goals, tasks, and timeline associated with the stakeholder and public involvement activities to be completed as a part of the Southwest Georgia Interstate Study. Goals outlined for the study are as follows:

- To consult with community stakeholders and gather their ideas for potential scenarios for evaluation.
- To inform and involve the public throughout the process.
- To respond to the public's request for information and on-going involvement.

#### 5.1 Stakeholder Advisory Committee Activities

The Southwest Georgia Interstate Study Stakeholder Advisory Committee (SAC) served as an essential component of community input to the study. The SAC was assembled by the GDOT Project Manager with assistance from the study team. The committee was comprised primarily of:

- Elected officials/local leaders from the 32-county study area;
- The Regional Commissions (River Valley, Southern Georgia, Southwest Georgia);
- Georgia State Legislature Representatives and Senators from study area districts;
- US Congressional Representatives and Senators from study area districts;
- Federal/State Agency Representatives (GEMA, FHWA-Georgia);
- Military Base Representatives (US Air Force, US Army-Fort Benning, Marine Corps Logistics Base);
- FDOT District 3 Office;
- GDOT State Transportation Board representing the 32-county study area; and
- GDOT District 3 and 4 Offices.

A SAC database was developed, verified, and updated throughout the study process to reflect personnel changes, organization changes and to include any new stakeholders identified.



# Summary

## Stakeholder and Public Involvement

### 5.1.1 Stakeholder Questionnaire

A stakeholder questionnaire was developed and mailed to all stakeholders prior to the stakeholder kick-off meeting held on March 27, 2008. The purpose of the questionnaire was to seek input on subjects and issues related to:

- Study area characteristics;
- Existing interstate access;
- Transportation concerns, constraints, and opportunities;
- Economic development goals, plans, and strategies;
- Public outreach opportunities and media outlets; and
- Opportunities for SAC member assistance in information dissemination and gathering.

The information gathered through the questionnaire exercise served as the basis for the discussion at the kick-off meeting. Members not completing the questionnaire prior to the first SAC meeting were given the opportunity to complete the questionnaire at the first meeting and for a period of time after the meeting.

A total of one hundred twenty-four (124) questionnaires were mailed to stakeholders representing the eighty-nine (89) jurisdictions/entities of the SAC. Thirty-eight (38) responses were received. Of the eighty-nine (89) local government/entities represented on the stakeholder advisory committee, twenty-seven (27) or thirty percent (30%) of the SAC jurisdictions/entities provided a response. It should be noted that in some cases, questionnaires were completed by additional personnel from a particular jurisdiction or from entities not specifically listed in the stakeholder database.

### 5.1.2 Stakeholder Advisory Committee Meetings

The purpose of the SAC meetings was to provide the stakeholders with an opportunity to voice their opinions and concerns about current and future transportation issues and travel activity in southwest Georgia. The stakeholder meeting format consisted of formal presentations, handouts, maps, and discussion. The dates/locations/times of the three rounds of meetings conducted over the course of the study are shown in Table 5.2.2.1. Three rounds of stakeholder advisory meetings were held throughout the course of the study, with two meetings held at each round. A total of ninety (90) individuals attended the six meetings.





# Southwest Georgia Interstate Study

## Summary

### Stakeholder and Public Involvement

Table 5.1.2.1  
Southwest Georgia Stakeholder Advisory Committee  
Meeting Schedule

| Meeting                               | Date/Time                   | Location                                                                                                                 |
|---------------------------------------|-----------------------------|--------------------------------------------------------------------------------------------------------------------------|
| Meeting 1<br>Study Kick-off           | March 27, 2008<br>10:00 AM  | Moultrie Technical College (Veterans Parkway Campus) 800 Veterans Parkway North – Conf. Center Sec. C<br>Moultrie, GA    |
|                                       | March 27, 2008<br>2:00 PM   | Terrell County Government Building<br>955 Forrester Drive<br>Dawson, Georgia                                             |
| Meeting 2<br>Existing Conditions      | August 28, 2008<br>9:30 AM  | Moultrie Technical College (Veterans Parkway Campus)<br>800 Veterans Parkway North - Conf. Center Sec. C<br>Moultrie, GA |
|                                       | August 28, 2008<br>2:30 PM  | South Georgia Technical College<br>Pope Center<br>900 South Georgia Tech Parkway<br>Americus, Georgia                    |
| Meeting 3<br>Study<br>Recommendations | October 14, 2009<br>9:00 AM | Colquitt County Agricultural Complex<br>350 Veterans Parkway North<br>Building 1, Room 132<br>Moultrie, Georgia          |
|                                       | October 14, 2009<br>3:00 PM | South Georgia Technical College<br>Pope Center<br>900 South Georgia Tech Parkway<br>Americus, Georgia                    |

Stakeholder meeting summaries were prepared after each meeting. The summaries provide an account of the logistics of the meeting, the notification strategy employed, a listing of individuals attending, a summary of the meeting discussion, and the comments received. Additional comments were relayed to the study team on occasion after a stakeholder meeting via email or fax. These comments, along with responses, if applicable, are also attached to their corresponding meeting summary.

#### *Stakeholder Meeting #1*

The Kick-off Meeting, held on March 27, 2008 in Moultrie and Dawson, served as the introductory meeting for the study. Included with the stakeholder invitation letter for this meeting was a



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### ***Stakeholder and Public Involvement***

questionnaire for stakeholders to complete prior to the meeting to serve as a basis for discussion. The purpose of the kick-off meeting was to:

- Introduce the study team and stakeholders;
- Present study objectives, the webpage, the study process, and schedule;
- Review stakeholder questionnaire responses received to date; and
- Engage in stakeholder group discussion.

The kick-off meeting was attended by forty (40) individuals, sixteen (16) at the Moultrie location and twenty-four (24) at the Dawson location.

Key input received at the Moultrie meeting is as follows:

- Truck activity between distribution centers, rail hubs, and existing interstates should be looked at in detail during the study.
- The study needs to collaborate with the Marine Corps Logistics Base, Fort Benning, and other military operation traffic routes and access.
- Access to the inland Port Authority in Cordele needs to be included in the study.
- The Hispanic and elderly populations need to be considered in the study as these populations are rapidly growing in the Southwest Georgia region. The Hispanic population tends to be severely undercounted in the Census.
- The study needs to examine safety.

Key input received at the Dawson meeting is as follows:

- Heavy truck traffic on two-lane roads is problematic in this region.
- Warehousing in Tifton, Valdosta, and Lake Park tied to ports needs to be considered.
- Access between this region and Dothan, Alabama should be looked at.
- East/west connectivity is needed.
- Fort Benning and the Marine Base in Albany will experience significant increases in truck traffic. Fort Benning population is expected to triple in the next five years.
- The current impression is that GDOT is going to extend I-185 along the SR 520 corridor.

#### *Stakeholder Meeting #2*

Stakeholder Meeting #2, held on August 28, 2008 in Moultrie and Americus, was conducted at the



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conclusion of the existing conditions analysis. The purpose of this meeting was to:

- Review study progress;
- Review the final summary of questionnaire results;
- Review the existing conditions and future existing conditions analysis; and
- Engage in stakeholder group discussion.

Meeting #2 was attended by eighteen (18) individuals, eleven (11) in Moultrie and seven (7) in Americus.

Key input/questions received at the Moultrie meeting is as follows:

- The study needs to consider Brunswick, Savannah, and I-10 freight movement and routes between military bases.
- Will the study recommend a specific route, is the study a continuation of the I-185 study, and what will be done with the recommendations?
- SR 133 should be evaluated for widening from two lanes to four lanes.

Key input received at the Americus meeting is as follows:

- SR 26 is a strategic corridor for truck traffic for Chattahoochee County, Macon County, and Marion County.
- SR 133 should also be identified as a key corridor. Albany considers it a key corridor as it has significance similar to US 280. The Marine Corps Logistics Base needs to move people and materials to Valdosta.
- US 19 is used as an alternative to I-75 from Atlanta.
- US 280 needs to be widened to four lanes between Americus and Cordele. It is important for economic development in this region.
- Rail activity may increase with high gas prices.

#### *Stakeholder Meeting #3*

Stakeholder Meeting #3 was held on October 14, 2009 once study alternatives had been examined and recommendations had been made. The agenda for this meetings was to:

- Present study findings and alternatives;



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- Present study recommendations; and
- Engage in stakeholder group discussion.

Meeting #3 was the final stakeholder meeting for the study and was attended by thirty-two (32) individuals, fifteen (15) in Moultrie and seventeen (17) in Americus.

Key input received at the Moultrie meeting is as follows:

- Speed limit adjustments need to be part of the study recommendations.
- Economic development and opportunities for distribution center business has been lost because of inadequate access. Widening SR 133 would improve this situation.
- US 27 and US 84 both need to be widened to four lanes for access to the Port of Savannah and to accommodate truck traffic.

Key input received at the afternoon Americus meeting is as follows:

- US 280 from Americus to Cordele, as part of the GRIP program, needs to be widened.
- It might be beneficial to limit access on certain routes through the use of strategic freight corridors and access management techniques.
- Federal transportation funds allocated to the Southwest Georgia region should be allocated to accomplish the greatest improvement. Allocating all to an interstate would mean other projects would not be done. Discussion centered around whether eliminating other projects (such as the widening of US 280) would increase the benefit/cost ratio for the interstate.
- Discussion regarding the study outcome to not build an interstate questioned whether the interstate option was eliminated and what will happen with the recommendations to complete US 27 and widen SR 133.

### **5.2 Public Involvement Activities**

Several traditional and targeted public involvement activities were conducted throughout the study period. The involvement effort consisted of conducting surveys at meetings, on-line, and through the local school systems; holding multiple public meetings; utilizing a study-specific website; and engaging local media to generate interest in the study.

#### ***5.2.1 Study Webpage and Survey***

At the onset of the study, a webpage ([www.swgainterstate.com](http://www.swgainterstate.com)) was developed to aid in communication with stakeholders and the public regarding the study status and findings. The





# Summary Stakeholder and Public Involvement

webpage contained the study fact sheet, a graphic of the 32-County study area, the study schedule, and stakeholder and public meeting dates and presentations. In addition, the webpage contained a list of Frequently Asked Questions (FAQs) and contact information for the GDOT Project Manager.

In order to learn more about transportation concerns in the Southwest Georgia area, a survey was available on the study webpage. From May 2008 through March 2009, sixty (60) survey forms were received.

The key input provided through the webpage survey is as follows:

- Access to the interstate needs improvement from Albany, Thomasville, and Columbus.
- Access to the interstate could improve the economy in Albany and Columbus.
- The completion of the four-laning of US 27 would improve needed access.
- The completion of the four-laning of SR 133 would improve needed access.
- Consistent speed limits and bypass of small towns would improve travel conditions (SR 300 between Albany and Cordele is mentioned frequently).
- Improved East-West connectivity is needed.
- Interstate 185 should be extended.
- An interstate facility is needed to encourage growth and commerce in southwest Georgia.
- The length of time it takes to get to an interstate facility needs to be reduced.
- The four lane highway system is adequate to meet needs.
- Improvement to US 80 is needed for freight movement.
- The widening of US 280 to four lanes from Americus to Cordele is needed.
- Concern was expressed about impacts to rural character and environmental resources.
- Better roads are needed to promote tourism.
- I-22 should run from Birmingham to the Georgia coast.

### 5.2.2 School Survey

In order to overcome the barriers of reaching low income and minority populations that may not attend traditional public meetings, the school systems in each of the counties and cities located within the study area were asked to participate in a *Needs Assessment Survey*. The survey was designed to gather public point of view on both the existing travel conditions and needed transportation improvements. Through engaging school students and by default their parents, GDOT was able to reach a large and diverse audience, which may otherwise have been missed using traditional public outreach techniques. Table 5.2.1.1 summarizes the participating counties/cities, the number of surveys sent and the number of surveys returned.

**Summary  
Stakeholder and Public Involvement**

**Table 5.2.2.1**  
**School Survey Participation**

| <b>County/City</b>  | <b>Number of Surveys Sent</b> | <b>Number of Surveys Returned</b> |
|---------------------|-------------------------------|-----------------------------------|
| Brooks              | Electronic                    | 43                                |
| Calhoun             | 350                           | 47                                |
| Chattahoochee       | Electronic                    | 75                                |
| Colquitt            | Electronic                    | 841                               |
| Dooly               | Electronic                    | 349                               |
| Dougherty           | 16,666                        | 2629                              |
| Early               | 2,556                         | 221                               |
| Lowndes             | Electronic                    | 24                                |
| Turner              | 1,679                         | 99                                |
| Webster             | 460                           | 75                                |
| Cook                | Electronic                    | 1                                 |
| Lee                 | Electronic                    | 1                                 |
| Stewart             | Electronic                    | 1                                 |
| City of Thomasville | Electronic                    | 1                                 |
| City of Valdosta    | Electronic                    | 1                                 |
| Clay                | 1,280                         | 0                                 |
| Marion              | Electronic                    | 1                                 |
| Seminole            | 120                           | 0                                 |
| <b>Total</b>        | <b>4,409</b>                  |                                   |

Key input received from the School Survey indicates transportation problems related to the following:

- Speeding
- Tractor Trailer Trucks
- Intersection Safety

**5.2.3 Public Involvement Meetings**

The study team conducted three rounds of Public Involvement Meetings. The format of each meeting included a PowerPoint presentation followed by a discussion between study team staff and the public. Each meeting was held at a strategic and accessible location and was executed in accordance with The Department's Public Involvement Policy guidelines. The study team prepared

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*Final Report*



# Summary

## Stakeholder and Public Involvement

meeting materials focused in a manner to ensure that attendees of all levels of literacy would be engaged in the presentation and discussion. The date, location and attendance for each meeting are in Table 5.2.3.1.

Public Involvement Meeting Notification Flyers were developed for each of the three rounds of meetings. The flyers were distributed to the stakeholders, public libraries, organizations and individuals included in the Interested Persons Database, public school Superintendents, and to individuals that had attended previous Public Involvement Meetings. The GDOT General Communications Office issued a Press Release prior to each round of Public Involvement Meetings for the Southwest Georgia Interstate Study. Each Press Release

**Table 5.2.3.1**  
**Public Involvement Meetings**

| Year | Date         | City        | Location                                    | Attendees  |
|------|--------------|-------------|---------------------------------------------|------------|
| 2008 | April 14     | Bainbridge  | Bainbridge Community Center                 | 15         |
|      | April 15     | Columbus    | Columbus Consolidated Government Center     | 7          |
|      | April 21     | Thomasville | City of Thomasville Municipal Building      | 78         |
|      | April 22     | Americus    | South Georgia Technical College             | 12         |
|      | September 8  | Albany      | Westover High School                        | 32         |
|      | September 9  | Thomasville | Southwest Georgia Technical College         | 20         |
|      | September 15 | Blakely     | Early County High School                    | 10         |
|      | September 16 | Cusseta     | Chattahoochee County Middle/High School     | 9          |
| 2009 | November 2   | Thomasville | Southwest Georgia Technical College         | 13         |
|      | November 9   | Albany      | Albany State University                     | 9          |
|      | November 12  | Cusseta     | Chattahoochee County Middle and High School | 4          |
|      | <b>Total</b> |             |                                             | <b>209</b> |

contained information on the study background, current study status, and information about the upcoming round of public meetings.

The first round of public involvement meetings consisted of an open house/workshop format with an emphasis on education and receiving input. The open house format included an eleven minute



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### ***Stakeholder and Public Involvement***

continuous PowerPoint presentation plus twelve display boards arranged around the meeting room. The meeting agenda was as follows:

#### Meeting 1 Agenda

- Introduce Study Goals, Objectives, Scope, and Schedule
- Present Existing Conditions and Study Area Road Network Data
- Receive Public Comment

Key input received at the first round of meetings is as follows:

#### Bainbridge

- Complete the widening to four lanes on US 27 and US 84.
- A new Interstate would generate commerce.
- Speed limits need to be consistent on corridors.
- Bainbridge is too far from the Interstate.
- No complete four lane facility is available to an interstate.
- Better signage is needed between Bainbridge to Albany and Bainbridge to Columbus.

#### Columbus

- Numerous four lane roads and plenty of capacity are currently available.
- Rail access is needed in larger towns.

#### Thomasville

- I-75 is congested and the current construction further delays traffic.
- Speed limits need to be consistent on corridors.
- Connectivity to the north needs improvement.
- Access to Interstate using current four lane highways is adequate.
- Continue maintenance of existing facilities.
- Complete widening of US 27 to four lanes.
- Passenger rail is needed.
- Thomas County residents do not want an interstate.

#### Americus

- Improved access to I-10 is needed.
- Complete widening of US 19 to four lanes.





# Summary Stakeholder and Public Involvement

- Truck traffic through small towns (specifically Americus) is a problem. Improve truck routes.
- Improve SR 26 to Savannah.
- SR 49 north of Americus needs to be widened to four lanes.

The format for the second round of Public Involvement Meetings included a twenty minute formal presentation followed by two fifteen to twenty minute breakout sessions. One breakout session focused on existing conditions and the other focused on future conditions. The meeting agenda was as follows:

### Meeting 2 Agenda

- Study Team Introductions
- Study Objectives
- Study Process and Progress
- Existing Conditions Review
- Future Conditions Review
- Breakout Group Discussion
- Next Steps and Summary

Key input received at the second round of meetings is as follows:

### Albany

- Improve consistency of speed limits on corridors.
- Ensure military needs are incorporated.
- Identify potential “Commercial Corridors”.
- Emphasize freight operation needs connecting to ports.
- Consider passenger rail from Albany to Atlanta.
- Identify operational improvements for local congestion areas.
- Identify impacts of widening versus not widening SR 133.
- Examine evacuation routes.
- Examine freight rail needs.
- Consider Albany air cargo needs.
- Prioritize completion of unfinished four lane highways.

### Thomasville

- Identify operational improvements for local congestion improvements.



# Summary Stakeholder and Public Involvement

- Consider military transportation connections between bases.
- Consider alternative modes of transportation including greenways, public transportation, passenger and freight rail, and alternative fuels.
- Consider anticipated impact of freight movement via rail corridors.
- Research growth data and patterns for cities as they gain interstate access.
- Incorporate LOS changes on roads which will result from planned I-75 improvements.

### Blakely

- Consider improved east-west connectivity in Blakely area.
- Prioritize the completion of US 27 as a key improvement for north-south connectivity.
- Recommend improvements (either 4-lane or improved 2-lane) for SR 62.
- Identify additional operations to alleviate truck traffic in the downtown square.
- Consider interstate or improved two and four lane roads in Blakely area.

### Cusseta

- Improve consistency of speed limits along corridors.
- Consider rest areas on four lane US Highways which serve interstate travel purposes.
- Passing lanes, wider lanes, shoulders, and wider bridges are needed on SR 26, SR 520, US 82, and US 27.
- Truck traffic is problematic in downtown square of Americus/Lumpkin.
- Address operational and safety issues on SR 520 to Marion County line, US 82, US 27 in Cuthbert, and SR 520/ US 27/US 280 intersection.
- Identify improvements needed for SR 133.
- Improved east-west connectivity is needed.

The final round of Public Involvement Meetings consisted of a twenty-five minute formal presentation followed by breakout discussions between the study team and the public. The purpose of this meeting was to review the study goals and study area characteristics and to present potential interstate corridor alignments, benefits and costs of each alignment, and study recommendations. The meeting agenda was as follows:

### Meeting 3 Agenda

- Review of Study Findings
- Review of Study Recommendations
- Next Steps and Summary



## Southwest Georgia Interstate Study

# Summary

### ***Stakeholder and Public Involvement***

- Question and Answer
- Discussion at Display Boards

Key input received at the third round of meetings is as follows:

#### Thomasville

- Discussion focused on potential alignments.
- Discussion focused on timing and funding of improvements to SR 133 and US 19.
- There was general acceptance of the decision to not pursue construction of an interstate in Southwest Georgia.

#### Albany

- Discussion focused on completion of US 27 widening.
- Discussion focused on study process and determination of impacts to minority and low income populations.
- Discussion was focused on Albany's need for an Interstate facility for economic development.

#### Cusseta

- Discussion focused on potential alignments.
- Discussion focused on study process and determination of impacts to minority and low income populations.
- Need was expressed for passing lanes on SR 26.
- There was general acceptance of decision to not pursue construction of an interstate in Southwest Georgia.

### **5.3 Media Communications**

The study team worked in conjunction with the GDOT Office of Communications and the GDOT District Three and Four Communications Officers to disseminate accurate and up-to-date information about the study. A press release issued by the GDOT Office of Communications was circulated to local media outlets prior to each round of public involvement meetings as a means to inform the public about dates/locations of upcoming meetings and to encourage local media coverage. This process, combined with the public, library, and school mailings of public involvement meeting notification flyers, resulted in study media coverage in a variety of print, web, and broadcast news outlets.



# Summary Stakeholder and Public Involvement

Local media was represented at all three rounds of public involvement meetings. More than 50 public meeting announcements, articles, and newscasts were published or broadcast over the course of the project. Media coverage within the 32-county study area occurred in Albany, Americus, Bainbridge, Blakely, Colquitt, Columbus, Moultrie, Thomasville, and Valdosta. Media coverage outside of the 32-county study area occurred in Atlanta, Dothan, Macon, Tifton, and Tallahassee. The study experienced the greatest quantity of media coverage in Albany, followed by Thomasville.

### 5.4 Study Recommendations Correspondence

The study team presented the study recommendations at the final round of stakeholder and public involvement meetings held October 14, 2009 (stakeholders) and November 2, 9, and 12, 2009 (public involvement). The study recommendations are to not build an interstate in southwest Georgia and to focus on US 27 and SR 133 improvements has drawn feedback and comment from several interested persons and organizations, listed in Table 5.4.1 below. Correspondence received was supportive of the outcome to not build an interstate in Southwest Georgia.

Table 5.4.1  
Southwest Georgia Interstate Study  
Recommendation Correspondence

| Entity Providing Correspondence                                          | Type             |
|--------------------------------------------------------------------------|------------------|
| Tall Timbers Research Station & Land Conservancy<br>Tallahassee, Florida | Email,<br>Letter |
| Thomas County Board of Commissioners                                     | Resolution       |
| Florida Wildlife Federation                                              | Email            |



# *Southwest Georgia Interstate Study*

## ***Final Report APPENDICES***

**Prepared For:**



**Prepared By:**



**In Association With:**

**AECOM**

**M.P.H.**  
Associates, inc.

**December 2009**



# **Appendix A**

## **List of Studies Reviewed**

### **List of Studies Reviewed for the Southwest Georgia Interstate Study**

#### **GDOT**

- Update of 1995 State Route 38 Business Study, Thomas County (March, 1999)
- Revised I-75 at SR 215 Needs Analysis (March, 2002)
- State Route 133 Corridor Study (September, 1999)
- SR 91 CORRIDOR STUDY: Seminole, Miller, Baker and Dougherty Counties (February, 2005)
- SR 122 Truck Route (November, 2000)
- Moultrie-Colquitt County Multimodal Transportation Study (June, 2001)
- Vienna Bypass Final Report (2000)
- Colquitt Bypass Study (October, 2001)
- US 41 Corridor Study (April, 2005)
- SR 62 Corridor Study (August, 2006)
- Transportation Needs Analysis for the Tifton Georgia Area (February, 2000)
- Cuthbert Bypass Study (June, 1998)
- Madison to Valdosta Corridor Study (May, 1997)
- SR31 Passing Lane Study, Valdosta to Lakeland (June, 2003)
- Cairo Corridors Transportation Study (March, 2003)
- Cordele Truck Loop Study (November 2003)
- Colquitt County and City of Moultrie Transportation Analysis (March, 1993)
- Adel Bypass Study (February, 2002)
- Study of Proposed Improvements to GA Highway 133 (1999/2000)
- Latin America Trade and Transportation Study (March, 2001)
- An Analysis of the Governor's Road Improvement Program (GRIP) for the Georgia Department of Transportation
- The Economic Benefits of the Governor's Road Improvement Program (GRIP) (September, 2003)
- GDOT Statewide Truck Lanes Needs Identification Study (July, 2007)
- GDOT 2005 – 2035 Georgia Statewide Freight Plan (October, 2006)
- GDOT 2005 – 2035 Georgia Statewide Transportation Plan (January, 2006)
- GDOT Interstate Systems Plan
- Georgia Department of Transportation Fact Book 2007



## **Appendix A**

### **List of Studies Reviewed**

- GDOT Administrative Guide and Grant Application For Rural Public Transportation Programs Title 49 U.S.C. Section 5311(2005)
- US-280 Corridor Management Plan (May, 2003)
- Central Georgia Corridor Study (June, 2001)
- West Georgia Toll Road Studies (1970s)
- Analysis of the Governor's Road Improvement Program (GRIP) (1990s)
- The Economic Benefits of the Governor's Road Improvement Program (GRIP) (2003)

#### **MPO Plans**

- Dougherty Area Regional Transportation Study (DARTS) 2030 Transportation Plan (December, 2004)
- Dougherty Area Regional Transportation Study (DARTS) 2008 Transportation Improvement Program (July, 2007)
- Dougherty Area Regional Transportation Study (DARTS) 2008 Unified Planning Work Program (April, 2007)
- Albany/Dougherty Freight Profile (February, 2008)
- Columbus-Phenix City (CPCMPO) 2030 Transportation Plan (2005)
- Columbus-Phenix City (CPCMPO) 2008 Transportation Improvement Program (May, 2007)
- Columbus-Phenix City (CPCMPO) 2008 Unified Planning Work Program (May, 2007)
- Valdosta-Lowndes Metropolitan Planning Organization (VLMPO) Metro 2030 Long Range Transportation Plan (September, 2005)
- Valdosta-Lowndes Metropolitan Planning Organization (VLMPO) 2008 Transportation Improvement Program
- Valdosta-Lowndes Metropolitan Planning Organization (VLMPO) 2008 Unified Planning Work Program (June, 2008)

#### **Local Plans and Studies**

- Albany Transit System 2007 Americans with Disabilities Act (ADA) Plan (December, 2007)
- The City of Albany/Albany Transit System Transit Development Plan (2009-2014) (February, 2008)
- Community Assessment for the 2028 Comprehensive Plan, Columbus Consolidated Government (November, 2007)
- Early County 2055
- Lower Chattahoochee Region Comprehensive Economic Development Strategy



# **Appendix A**

## **List of Studies Reviewed**

### **Florida Studies**

- FDOT 2006 Short Range Component of the 2025 Florida Transportation Plan and Annual Performance Report (February, 2007)
- FDOT 2025 Florida Transportation Plan
- FDOT Strategic Intermodal Systems Plan (January, 2005)
- Tallahassee/Leon County Comprehensive Plan
- Capital Region Transportation Planning Agency (CRTPA) 2030 Long Range Transportation Plan

### **Alabama Studies**

- ALDOT Alabama Statewide Transportation Plan Update (June, 2008)
- ALDOT Statewide Transportation Improvement Program Fiscal Years 2006 – 2008 (April, 2005)
- Southeast Wiregrass Area Metropolitan Planning Organization (SWAMPO) 2030 Long Range Transportation Plan (April, 2006)

### **Comprehensive and Land-Use Plans (AECOM)**

- Albany-Dougherty County Comprehensive Plan 2005 - 2025 (June, 2006)
- Baker County and the City of Newton Comprehensive Planning Assessment (February, 2006)
- Baker County and the City of Newton Ten Year Comprehensive Plan Community Agenda
- Greater Brooks County 2030 Comprehensive Plan Draft Community Assessment (June, 2007)
- Calhoun County Consolidated Comprehensive Plan (2004)
- Joint County/City Comprehensive Plan for Chattahoochee County and the City of Cusseta (March, 1992)
- Joint County/City Comprehensive Plan for Clay County and the cities of Bluffton and Ft. Gaines (August, 1992)
- Joint County/City Comprehensive Plan for Colquitt County and the Cities of Berlin, Doerun, Ellenton, Funson, Norman Park and Moultrie 2012
- Comprehensive Plan for Muscogee County (1993)
- Community Assessment for the 2028 Comprehensive Plan, Columbus Consolidated Government (November, 2007)
- Joint County/City Comprehensive Plan for Cook County and the cities of Adel, Cecil, Lenos and Sparks (April 1993)





## ***Appendix A***

### ***List of Studies Reviewed***

- Comprehensive Plan for Crisp County (1992)
- Joint County/City Comprehensive Plan for Decatur County and the cities of Attapulgus, Brinson and Climax (1991)
- Comprehensive Plan for City of Bainbridge (1992)
- Community Assessment Greater Dooly Comprehensive Plan (2006)
- Early County Consolidated Comprehensive Plan (2004)
- Grady County and the Cities of Cairo and Whigham Ten Year Comprehensive Plan Update - Community Agenda
- Fanning the Flames: The Community Assessment Portion of the Ten Year Comprehensive Plan, Grady County and the cities of Cairo and Whigham
- Joint Lee County and the Cities of Leesburg and Smithville 2026 Comprehensive Plan - Community Assessment (July, 2006) and Community Agenda (November, 2006)
- Joint County/City Comprehensive Plan for Lowndes County and the cities of Valdosta, Dasher, Hahira, Lake Park, Naylor and Remerton (August, 1991)
- Marion County and the City of Buena Vista Partial Update 2008 - 2010 Comprehensive Plan (Draft, July, 2007)
- Miller County & the City of Colquitt Twenty Year Comprehensive Plan, Draft Community Agenda (May, 2006)
- Joint County/City Comprehensive Plan for Mitchell County and the cities of Sale, Baconton, Pelham and Camilla (1991)
- Joint County/City Comprehensive Plan for Randolph County and the cities of Coleman, Cuthbert and Shellman (May, 1993)
- Schley County City of Ellaville Comprehensive Plan Community Assessment (2006)
- Joint County/City Comprehensive Plan for Seminole County and the cities of Donalsonville and Iron City (October, 1996)
- Joint County/City Comprehensive Plan for Stewart County and the cities of Lumpkin, Omaha and Richland (January, 1991)
- Comprehensive Plan for Sumter County (2004)
- Comprehensive Plan for Terrell County (1994)
- Comprehensive Plan for Thomas County (June, 1993)
- Joint County / City Comprehensive Plan for Tift County and the cities of Tifton, Omega and Ty Ty (October, 1992)
- 2025 Greater Turner Comprehensive Plan for Turner County, Ashburn, Rebecca, Sycamore (September, 2004)



***Appendix A***  
***List of Studies Reviewed***

- A Joint County/City Comprehensive Plan for Webster County and the Cities of Preston and Weston, 2004 – 2025
- Worth County and the Cities of Poulan, Sumner, Sylvester, & Warwick Consolidated Comprehensive Plan 2007 - Community Assessment



## ***Land Use and Community Benefits Analysis***

### APPENDIX B

#### Tables

#### **B.1 Land Use and Community Benefits Performance Measures: Final Segment Results**

The impact of the segment on its context according to each performance measure is ranked green (*positive*), yellow (*mixed impact*), or red (*negative*). Ranking conclusions were achieved through the analysis of GIS data, planning documents, regional and local maps, public meetings, or a combination of these sources. The 16 rankings for each segment are blended into an overall result, which takes into account analysis of all land use and community benefits performance measures. Rankings could be dark green (*overall positive*), light green (*overall slightly positive*), yellow (*overall mixed impact*), light red (*overall slightly negative*) or dark red (*overall negative*). This final overall impact ranking per segment can be found at the bottom of each segment column in the row titled “Final Results.”



# Appendix B

## Land Use and Community Benefits Analysis

Table B.1.1  
Land Use and Community Benefits Performance Measures, Final Segment Results

|                                                | Segment AC | Segment BC | Segment CD | Segment CE | Segment EG | Segment EF | Segment FH West | Segment FH East |
|------------------------------------------------|------------|------------|------------|------------|------------|------------|-----------------|-----------------|
| Consistent with Land Use Policies              | —          | —          | —          | 0          | —          | —          | —               | —               |
| Consistent with Transportation Policies        | 0          | +          | 0          | +          | +          | +          | +               | 0               |
| Consistent with Economic Development Policies  | 0          | +          | +          | +          | +          | +          | +               | 0               |
| Consistent with Zoning                         | 0          | +          | +          | +          | +          | +          | +               | +               |
| Compatibility with Adjacent Existing Land Uses | 0          | 0          | —          | 0          | —          | 0          | —               | 0               |
| Compatibility with Regional Context            | +          | +          | +          | +          | 0          | 0          | —               | 0               |
| Access to Healthcare Facilities                | +          | +          | +          | 0          | +          | 0          | 0               | 0               |
| Access to Higher Education Facilities          | +          | 0          | +          | 0          | +          | 0          | —               | —               |
| Access to Job Training Facilities              | 0          | +          | 0          | 0          | +          | 0          | —               | —               |
| Access to Employment Centers                   | +          | 0          | +          | 0          | +          | 0          | 0               | 0               |
| Access to Residential Population Areas         | +          | +          | +          | 0          | +          | 0          | 0               | 0               |
| Impact on Populations in Poverty               | —          | —          | —          | —          | —          | 0          | 0               | 0               |
| Impact on Minority Population                  | —          | —          | —          | —          | —          | 0          | 0               | 0               |
| Impact on Elderly Population                   | —          | —          | —          | 0          | —          | 0          | 0               | 0               |
| Impact on Population without HS Diploma        | +          | +          | +          | 0          | +          | 0          | 0               | 0               |
| Impact on Cities / Villages / Subdivisions     | —          | —          | —          | 0          | —          | 0          | +               | 0               |
| Impact on Historic and Cultural Assets         | —          | 0          | —          | +          | —          | +          | 0               | 0               |
| Impact on Prime Agricultural Lands             | —          | 0          | 0          | +          | —          | 0          | —               | —               |
| Final Results                                  | —          | +          | +          | 0          | +          | 0          | —               | 0               |

|     |   |                                  |
|-----|---|----------------------------------|
| Key | + | Overall Positive Impact          |
|     | + | Overall Slightly Positive Impact |
|     | 0 | Overall Mixed Impact             |
|     | — | Overall Slightly Negative Impact |
|     | — | Overall Negative Impact          |





# Land Use and Community Benefits Analysis

## B.2 Land Use and Community Benefits Performance Measures: Detailed Results

County comprehensive plans and Regional Development Centers (RDC) plans were analyzed to determine rankings in land use performance measure categories. The following tables reflect the detailed rankings for the segments' consistency with land use policies, transportation policies, economic development policies, adjacent land uses, and regional context. These detailed tables were used to determine the final results in Appendix B, Table B.1.1.

Table B.2.1  
Consistency with Land Use Policies: Detailed Results

| Segment (AC)             | Segment (BC)       | Segment (CD)       | Segment (CE)       | Segment (EG)        | Segment (EF)       | Segment (FH) West  | Segment (FH) East    |
|--------------------------|--------------------|--------------------|--------------------|---------------------|--------------------|--------------------|----------------------|
| LAND USE ASSESSMENT      |                    |                    |                    |                     |                    |                    |                      |
| Land Use Policies        |                    |                    |                    |                     |                    |                    |                      |
| Muscogee / Columbus      | Dougherty / Albany | Dougherty / Albany | Dougherty / Albany | Dougherty / Albany  | Dougherty / Albany | Mitchell / Camilla | Mitchell / Camilla   |
| Chattahoochee / Cussetta | Worth / Sylvester  | Worth / Sylvester  |                    | Worth / Sylvester   | Mitchell / Camilla | Grady / Cairo      | Thomas / Thomasville |
| Stewart                  | Crisp / Cordele    | Tift / Tifton      |                    | Colquitt / Moultrie |                    |                    |                      |
| Webster                  |                    |                    |                    | Brooks / Quitman    |                    |                    |                      |
| Terrell / Dawson         |                    |                    |                    | Lowndes / Valdosta  |                    |                    |                      |
| Lee / Leesburg           |                    |                    |                    |                     |                    |                    |                      |
| Dougherty / Albany       |                    |                    |                    |                     |                    |                    |                      |
| Aggregate Evaluation →   | —                  | —                  | 0                  | —                   | —                  | —                  | —                    |

Table B.2.2  
Consistency with Transportation Policies: Detailed Results

| Segment (AC)             | Segment (BC)       | Segment (CD)       | Segment (CE)       | Segment (EG)        | Segment (EF)       | Segment (FH) West  | Segment (FH) East    |
|--------------------------|--------------------|--------------------|--------------------|---------------------|--------------------|--------------------|----------------------|
| LAND USE ASSESSMENT      |                    |                    |                    |                     |                    |                    |                      |
| Transportation Policies  |                    |                    |                    |                     |                    |                    |                      |
| Muscogee / Columbus      | Dougherty / Albany | Dougherty / Albany | Dougherty / Albany | Dougherty / Albany  | Dougherty / Albany | Mitchell / Camilla | Mitchell / Camilla   |
| Chattahoochee / Cussetta | Worth / Sylvester  | Worth / Sylvester  |                    | Worth / Sylvester   | Mitchell / Camilla | Grady / Cairo      | Thomas / Thomasville |
| Stewart                  | Crisp / Cordele    | Tift / Tifton      |                    | Colquitt / Moultrie |                    |                    |                      |
| Webster                  |                    |                    |                    | Brooks / Quitman    |                    |                    |                      |
| Terrell / Dawson         |                    |                    |                    | Lowndes / Valdosta  |                    |                    |                      |
| Lee / Leesburg           |                    |                    |                    |                     |                    |                    |                      |
| Dougherty / Albany       |                    |                    |                    |                     |                    |                    |                      |
| Aggregate Evaluation →   | 0                  | +                  | 0                  | +                   | +                  | +                  | 0                    |



# Appendix B

## Land Use and Community Benefits Analysis

Table B.2.3  
Consistency with Economic Development Policies: Detailed Results

|                           | Segment<br>(AC)               | Segment<br>(BC)       | Segment<br>(CD)       | Segment<br>(CE)       | Segment<br>(EG)        | Segment<br>(EF)       | Segment<br>(FH) West | Segment<br>(FH) East   |
|---------------------------|-------------------------------|-----------------------|-----------------------|-----------------------|------------------------|-----------------------|----------------------|------------------------|
|                           | LAND USE ASSESSMENT           |                       |                       |                       |                        |                       |                      |                        |
|                           | Economic Development Policies |                       |                       |                       |                        |                       |                      |                        |
|                           | Muscogee/<br>Columbus         | Dougherty /<br>Albany | Dougherty /<br>Albany | Dougherty /<br>Albany | Dougherty /<br>Albany  | Dougherty /<br>Albany | Mitchell / Camilla   | Mitchell / Camilla     |
|                           | Chattahoochee /<br>Cussetta   | Worth / Sylvester     | Worth / Sylvester     |                       | Worth / Sylvester      | Mitchell / Camilla    | Grady / Cairo        | Thomas/<br>Thomasville |
|                           | Stewart                       | Crisp / Cordele       | Tift / Tifton         |                       | Colquitt /<br>Moultrie |                       |                      |                        |
|                           | Webster                       |                       |                       |                       | Brooks / Quitman       |                       |                      |                        |
|                           | Terrell / Dawson              |                       |                       |                       | Lowndes /<br>Valdosta  |                       |                      |                        |
|                           | Lee / Leesburg                |                       |                       |                       |                        |                       |                      |                        |
|                           | Dougherty /<br>Albany         |                       |                       |                       |                        |                       |                      |                        |
| Aggregate<br>Evaluation → | O                             | +                     | +                     | +                     | +                      | +                     | +                    | O                      |

Table B.2.4  
Consistency with Zoning: Detailed Results

|                           | Segment<br>(AC)             | Segment<br>(BC)       | Segment<br>(CD)       | Segment<br>(CE)       | Segment<br>(EG)        | Segment<br>(EF)       | Segment<br>(FH) West | Segment<br>(FH) East    |
|---------------------------|-----------------------------|-----------------------|-----------------------|-----------------------|------------------------|-----------------------|----------------------|-------------------------|
|                           | LAND USE ASSESSMENT         |                       |                       |                       |                        |                       |                      |                         |
|                           | Zoning                      |                       |                       |                       |                        |                       |                      |                         |
|                           | Muscogee/<br>Columbus       | Dougherty /<br>Albany | Dougherty /<br>Albany | Dougherty /<br>Albany | Dougherty /<br>Albany  | Dougherty /<br>Albany | Mitchell / Camilla   | Mitchell / Camilla      |
|                           | Chattahoochee /<br>Cussetta | Worth / Sylvester     | Worth / Sylvester     |                       | Worth / Sylvester      | Mitchell / Camilla    | Grady / Cairo        | Thomas /<br>Thomasville |
|                           | Stewart                     | Crisp / Cordele       | Tift / Tifton         |                       | Colquitt /<br>Moultrie |                       |                      |                         |
|                           | Webster                     |                       |                       |                       | Brooks / Quitman       |                       |                      |                         |
|                           | Terrell / Dawson            |                       |                       |                       | Lowndes /<br>Valdosta  |                       |                      |                         |
|                           | Lee / Leesburg              |                       |                       |                       |                        |                       |                      |                         |
|                           | Dougherty /<br>Albany       |                       |                       |                       |                        |                       |                      |                         |
| Aggregate<br>Evaluation → | O                           | +                     | +                     | +                     | +                      | +                     | +                    | +                       |



# Appendix B

## Land Use and Community Benefits Analysis

Table B.2.5  
Consistency with Adjacent Existing Land Uses: Detailed Results

| Segment<br>(AC)             | Segment<br>(BC)       | Segment<br>(CD)       | Segment<br>(CE)       | Segment<br>(EG)        | Segment<br>(EF)       | Segment<br>(FH) West | Segment<br>(FH) East    |
|-----------------------------|-----------------------|-----------------------|-----------------------|------------------------|-----------------------|----------------------|-------------------------|
| LAND USE ASSESSMENT         |                       |                       |                       |                        |                       |                      |                         |
| Adjacent Existing Land Uses |                       |                       |                       |                        |                       |                      |                         |
| Muscogee/<br>Columbus       | Dougherty /<br>Albany | Dougherty /<br>Albany | Dougherty /<br>Albany | Dougherty /<br>Albany  | Dougherty /<br>Albany | Mitchell / Camilla   | Mitchell / Camilla      |
| Chattahoochee /<br>Cussetta | Worth / Sylvester     | Worth / Sylvester     |                       | Worth / Sylvester      | Mitchell / Camilla    | Grady / Cairo        | Thomas /<br>Thomasville |
| Stewart                     | Crisp / Cordele       | Tift / Tifton         |                       | Colquitt /<br>Moultrie |                       |                      |                         |
| Webster                     |                       |                       |                       | Brooks / Quitman       |                       |                      |                         |
| Terrell / Dawson            |                       |                       |                       | Lowndes /<br>Valdosta  |                       |                      |                         |
| Lee / Leesburg              |                       |                       |                       |                        |                       |                      |                         |
| Dougherty /<br>Albany       |                       |                       |                       |                        |                       |                      |                         |
| Aggregate<br>Evaluation →   | 0                     | —                     | 0                     | —                      | 0                     | —                    | 0                       |

Table B.2.6  
Consistency with Regional Context: Detailed Results

| Segment<br>(AC)             | Segment<br>(BC)       | Segment<br>(CD)       | Segment<br>(CE)       | Segment<br>(EG)        | Segment<br>(EF)       | Segment<br>(FH) West | Segment<br>(FH) East    |
|-----------------------------|-----------------------|-----------------------|-----------------------|------------------------|-----------------------|----------------------|-------------------------|
| LAND USE ASSESSMENT         |                       |                       |                       |                        |                       |                      |                         |
| Regional Context            |                       |                       |                       |                        |                       |                      |                         |
| Muscogee/<br>Columbus       | Dougherty /<br>Albany | Dougherty /<br>Albany | Dougherty /<br>Albany | Dougherty /<br>Albany  | Dougherty /<br>Albany | Mitchell / Camilla   | Mitchell / Camilla      |
| Chattahoochee /<br>Cussetta | Worth / Sylvester     | Worth / Sylvester     |                       | Worth / Sylvester      | Mitchell / Camilla    | Grady / Cairo        | Thomas /<br>Thomasville |
| Stewart                     | Crisp / Cordele       | Tift / Tifton         |                       | Colquitt /<br>Moultrie |                       |                      |                         |
| Webster                     |                       |                       |                       | Brooks / Quitman       |                       |                      |                         |
| Terrell / Dawson            |                       |                       |                       | Lowndes /<br>Valdosta  |                       |                      |                         |
| Lee / Leesburg              |                       |                       |                       |                        |                       |                      |                         |
| Dougherty /<br>Albany       |                       |                       |                       |                        |                       |                      |                         |
| Aggregate<br>Evaluation →   | +                     | +                     | +                     | 0                      | 0                     | —                    | 0                       |



## ***Land Use and Community Benefits Analysis***

### ***B.3 Regional Context Subtables***

Consistency with regional context rankings in Table B.1.7 above were determined by evaluating the segments' consistency with regional perspectives on land use, economy, infrastructure, and natural and cultural resources. The following subtable rankings (in Table B.1.8) reflect regional perspectives on these categories, which were blended to achieve the regional context ranking in Table B.1.7. It is important to note that the "regional perspective on land use" in this subtable should not be confused with "consistency with land use policy" in the tables above. The regional subtable on land use reflects regional land use goals, not consistency with county-level policies. These regional-level subtables allow rankings for regional goals and values on the four categories included below to be weighed and included in the analysis.





Appendix B  
Land Use and Community Benefits Analysis

Table B.3.1  
Regional Context Subtable

| Segment<br>(AC)                                      | Segment<br>(BC)       | Segment<br>(CD)       | Segment<br>(CE)       | Segment<br>(EG)        | Segment<br>(EF)       | Segment<br>(FH) West | Segment<br>(FH) East    |  |  |  |  |
|------------------------------------------------------|-----------------------|-----------------------|-----------------------|------------------------|-----------------------|----------------------|-------------------------|--|--|--|--|
| LAND USE ASSESSMENT                                  |                       |                       |                       |                        |                       |                      |                         |  |  |  |  |
| Regional Context                                     |                       |                       |                       |                        |                       |                      |                         |  |  |  |  |
| Sub-Tables for Regional Context Evaluation           |                       |                       |                       |                        |                       |                      |                         |  |  |  |  |
| Regional Perspective on Economy                      |                       |                       |                       |                        |                       |                      |                         |  |  |  |  |
| Muscogee/<br>Columbus                                | Dougherty /<br>Albany | Dougherty /<br>Albany | Dougherty /<br>Albany | Dougherty /<br>Albany  | Dougherty /<br>Albany | Mitchell / Camilla   | Mitchell / Camilla      |  |  |  |  |
| Chattahoochee /<br>Cussetta                          | Worth / Sylvester     | Worth / Sylvester     |                       | Worth / Sylvester      | Mitchell / Camilla    | Grady / Cairo        | Thomas /<br>Thomasville |  |  |  |  |
| Stewart                                              | Crisp / Cordele       | Tift / Tifton         |                       | Colquitt /<br>Moultrie |                       |                      |                         |  |  |  |  |
| Webster                                              |                       |                       |                       | Brooks / Quitman       |                       |                      |                         |  |  |  |  |
| Terrell / Dawson                                     |                       |                       |                       | Lowndes /<br>Valdosta  |                       |                      |                         |  |  |  |  |
| Lee / Leesburg                                       |                       |                       |                       |                        |                       |                      |                         |  |  |  |  |
| Dougherty /<br>Albany                                |                       |                       |                       |                        |                       |                      |                         |  |  |  |  |
| Regional Perspective on Land Use                     |                       |                       |                       |                        |                       |                      |                         |  |  |  |  |
| Muscogee/<br>Columbus                                | Dougherty /<br>Albany | Dougherty /<br>Albany | Dougherty /<br>Albany | Dougherty /<br>Albany  | Dougherty /<br>Albany | Mitchell / Camilla   | Mitchell / Camilla      |  |  |  |  |
| Chattahoochee /<br>Cussetta                          | Worth / Sylvester     | Worth / Sylvester     |                       | Worth / Sylvester      | Mitchell / Camilla    | Grady / Cairo        | Thomas /<br>Thomasville |  |  |  |  |
| Stewart                                              | Crisp / Cordele       | Tift / Tifton         |                       | Colquitt /<br>Moultrie |                       |                      |                         |  |  |  |  |
| Webster                                              |                       |                       |                       | Brooks / Quitman       |                       |                      |                         |  |  |  |  |
| Terrell / Dawson                                     |                       |                       |                       | Lowndes /<br>Valdosta  |                       |                      |                         |  |  |  |  |
| Lee / Leesburg                                       |                       |                       |                       |                        |                       |                      |                         |  |  |  |  |
| Dougherty /<br>Albany                                |                       |                       |                       |                        |                       |                      |                         |  |  |  |  |
| Regional Perspective on Infrastructure               |                       |                       |                       |                        |                       |                      |                         |  |  |  |  |
| Muscogee/<br>Columbus                                | Dougherty /<br>Albany | Dougherty /<br>Albany | Dougherty /<br>Albany | Dougherty /<br>Albany  | Dougherty /<br>Albany | Mitchell / Camilla   | Mitchell / Camilla      |  |  |  |  |
| Chattahoochee /<br>Cussetta                          | Worth / Sylvester     | Worth / Sylvester     |                       | Worth / Sylvester      | Mitchell / Camilla    | Grady / Cairo        | Thomas /<br>Thomasville |  |  |  |  |
| Stewart                                              | Crisp / Cordele       | Tift / Tifton         |                       | Colquitt /<br>Moultrie |                       |                      |                         |  |  |  |  |
| Webster                                              |                       |                       |                       | Brooks / Quitman       |                       |                      |                         |  |  |  |  |
| Terrell / Dawson                                     |                       |                       |                       | Lowndes /<br>Valdosta  |                       |                      |                         |  |  |  |  |
| Lee / Leesburg                                       |                       |                       |                       |                        |                       |                      |                         |  |  |  |  |
| Dougherty /<br>Albany                                |                       |                       |                       |                        |                       |                      |                         |  |  |  |  |
| Regional Perspective on Natural & Historic Resources |                       |                       |                       |                        |                       |                      |                         |  |  |  |  |
| Muscogee/<br>Columbus                                | Dougherty /<br>Albany | Dougherty /<br>Albany | Dougherty /<br>Albany | Dougherty /<br>Albany  | Dougherty /<br>Albany | Mitchell / Camilla   | Mitchell / Camilla      |  |  |  |  |
| Chattahoochee /<br>Cussetta                          | Worth / Sylvester     | Worth / Sylvester     |                       | Worth / Sylvester      | Mitchell / Camilla    | Grady / Cairo        | Thomas /<br>Thomasville |  |  |  |  |
| Stewart                                              | Crisp / Cordele       | Tift / Tifton         |                       | Colquitt /<br>Moultrie |                       |                      |                         |  |  |  |  |
| Webster                                              |                       |                       |                       | Brooks / Quitman       |                       |                      |                         |  |  |  |  |
| Terrell / Dawson                                     |                       |                       |                       | Lowndes /<br>Valdosta  |                       |                      |                         |  |  |  |  |
| Lee / Leesburg                                       |                       |                       |                       |                        |                       |                      |                         |  |  |  |  |
| Dougherty /<br>Albany                                |                       |                       |                       |                        |                       |                      |                         |  |  |  |  |



## ***Land Use and Community Benefits Analysis***

### **B.4 Detailed Scoring Inputs on Land Use Categories**

Consistency with policies for land use, transportation, economic development, zoning, adjacent land uses, and regional context were scored for each location using relevant policy and locational themes.

For land use, rankings considered the policy stance on: maintaining rural character, environmental concerns, desire to prevent disruption to small towns or inhabited areas, controlling growth, and decline of town centers. For transportation, rankings considered the policy stance on: better connections, highway construction or expansion, alternative transportation modes rather than roadway expansion or improvement. For economic development, rankings considered the policy stance on: industrial development, desire to create regional hub, desire to promote tourism. For zoning, rankings considered whether or not there is an appropriate highway-oriented policy in place. For consistency with adjacent land uses, rankings considered compatibility with the existing land uses that the alignment is running through (residential, commercial, industrial, agricultural, forested) as well as whether the alignment is bisecting or isolating portions of an urban core. For consistency with regional context, rankings considered the alignments' compatibility with regionally significant projects, regional infrastructure goals, regionally identified natural and cultural resources, regional concerns about land use including sprawl, and regional economic development goals.

The assessment of prime agricultural land was not policy-document based; rather, it was most easily studied through GIS data to enable a counting of the amount of prime agricultural land potentially impacted by possible alignments.

Maps used to generate rankings in the land use table above can be found in Appendix D, Land Use Maps.



# Appendix B

## Land Use and Community Benefits Analysis

Table B.4.1  
Detailed Land Use Analysis Rankings

| Alignment Segments     | Counties / Cities                | SCORING: "+" = POSITIVE, "-" = NEGATIVE, "O" = MIXED |                       |                |        |                   |                  |
|------------------------|----------------------------------|------------------------------------------------------|-----------------------|----------------|--------|-------------------|------------------|
|                        |                                  | Land Use Policy                                      | Transportation Policy | Eco Dev Policy | Zoning | Existing Land Use | Regional Context |
| AC                     | Muscogee / City of Columbus      | O                                                    | ++                    | ++             | O      | -                 | ++               |
| AC                     | Chattahoochee / City of Cussetta | -                                                    | O                     | ++             | O      | -                 | ++               |
| AC                     | Stewart                          | -                                                    | ++                    | O              | O      | ++                | ++               |
| AC                     | Webster                          | O                                                    | -                     | O              | O      | ++                | O                |
| AC                     | Terrell / City of Dawson         | -                                                    | O                     | O              | O      | -                 | ++               |
| AC                     | Lee / City of Leesburg           | -                                                    | O                     | O              | O      | O                 | O                |
| AC, BC, CD, CE, EG, EF | Dougherty / City of Albany       | O                                                    | ++                    | ++             | ++     | O                 | ++               |
| EF, FH EAST, FH WEST   | Mitchell / City of Camilla       | -                                                    | ++                    | ++             | ++     | O                 | O                |
| FH EAST                | Thomas / City of Thomasville     | -                                                    | -                     | -              | O      | O                 | O                |
| FH WEST                | Grady / City of Cairo            | -                                                    | O                     | ++             | O      | -                 | -                |
| BC, CD, EG             | Worth / City of Sylvester        | -                                                    | ++                    | ++             | ++     | -                 | O                |
| EG                     | Colquitt / City of Moultrie      | -                                                    | ++                    | ++             | ++     | -                 | ++               |
| EG                     | Brooks / City of Quitman         | -                                                    | O                     | O              | O      | O                 | O                |
| EG                     | Lowndes / City of Valdosta       | -                                                    | -                     | ++             | ++     | -                 | O                |
| BC                     | Crisp / City of Cordele          | -                                                    | ++                    | ++             | ++     | ++                | ++               |
| CD                     | Tift / City of Tifton            | -                                                    | -                     | O              | ++     | -                 | ++               |
| Key                    |                                  | ++                                                   | Positive Impact       |                |        |                   |                  |
|                        |                                  | O                                                    | Mixed Impact          |                |        |                   |                  |
|                        |                                  | -                                                    | Negative Impact       |                |        |                   |                  |



## ***Land Use and Community Benefits Analysis***

### **B.5 Detailed Scoring Inputs on Community Benefits Categories**

Community benefits measures within the categories of access to services, social and environmental justice, and historic and cultural assets were scored for each location using GIS data to determine potential impacts. Maps were generated based on the performance measures, and potential impacts were derived in terms of raw aggregate numbers of assets or persons possibly impacted within the potential impact area. “Potential impact area” is defined as the area enclosed by an offset of a half mile on either side of the alignment, i.e. it is a mile-wide swath running along the centerline of the alignment. This swath was used to determine potential impacts in lieu of an actual alignment, which has not yet been defined.

Maps used to generate rankings in the community benefits analysis table on the following page can be found in Appendix B, Community Benefits Maps.





## Land Use and Community Benefits Analysis

Table B.5.1  
Detailed Community Benefits Analysis Rankings

| Performance measure                        | Segment (AC)                                                                   | Segment (BC)                                                                | Segment (CD)                                                                 | Segment (CE)                                                              | Segment (EG)                                                                 | Segment (EF)                                                              | Segment (FH) West                                                           | Segment (FH) East                                                           |
|--------------------------------------------|--------------------------------------------------------------------------------|-----------------------------------------------------------------------------|------------------------------------------------------------------------------|---------------------------------------------------------------------------|------------------------------------------------------------------------------|---------------------------------------------------------------------------|-----------------------------------------------------------------------------|-----------------------------------------------------------------------------|
| Segment Length (Approximate)               | 80.6 miles                                                                     | 36.7 miles                                                                  | 38.9 miles                                                                   | 2.3 miles                                                                 | 70.6 miles                                                                   | 19.8 miles                                                                | 44.3 miles                                                                  | 46.1 miles                                                                  |
| Hospitals (5 miles)                        | 3                                                                              | 3                                                                           | 4                                                                            | 2                                                                         | 7                                                                            | 2                                                                         | 2                                                                           | 1                                                                           |
| Higher Education (5 miles)                 | 2                                                                              | 1                                                                           | 2                                                                            | 1                                                                         | 2                                                                            | 1                                                                         | 0                                                                           | 0                                                                           |
| Tech Schools (5 miles)                     | 1                                                                              | 2                                                                           | 1                                                                            | 1                                                                         | 3                                                                            | 1                                                                         | 0                                                                           | 0                                                                           |
| Employment Centers (1 mile)                | Major Employers - 11, Cities - 3                                               | Major Employers - 0, Cities - 3                                             | Major Employers - 5, Cities - 7                                              | Major Employers - 1, Cities - 1                                           | Major Employers - 5, Cities - 7                                              | Major Employers - 1, Cities - 4                                           | Major Employers - 2, Cities - 2                                             | Major Employers - 1, Cities - 4                                             |
| Residential pop (1/2 mile)                 | 2006 Population - 83,134                                                       | 2006 Population - 31,663                                                    | 2006 Population - 45,273                                                     | 2006 Population - 21,799                                                  | 2006 Population - 45,060                                                     | 2006 Population - 16,363                                                  | 2006 Population - 23,362                                                    | 2006 Population - 26,507                                                    |
| *Poverty Rate                              | 11,742 people in poverty out of 60,051 people (19.5% of Population)            | 7,493 people in poverty out of 25,242 people (29.6% of Population)          | 9,308 people in poverty out of 36,324 people (25.6% of Population)           | 5,025 people in poverty out of 15,524 people (32.3% of Population)        | 7,017 people in poverty out of 38,063 people (18.4% of Population)           | 2,895 people in poverty out of 15,382 people (18.8% of Population)        | 4,007 people in poverty out of 17,053 people (23.5% of Population)          | 3,292 people in poverty out of 17,799 people (18.5% of Population)          |
| Minority population impacted (1/2 mile)    | 33,191 minority population out of 73,007 people (45.5% of Population)          | 14,936 minority population out of 25,360 people (58.9% of Population)       | 19,325 minority population out of 36,997 people (52.2% of Population)        | 12,777 minority population out of 16,541 people (77.2% of Population)     | 13,233 minority population out of 39,855 people (33.2% of Population)        | 7,940 minority population out of 15,374 people (51.6% of Population)      | 8,209 minority population out of 17,088 people (48% of Population)          | 6,941 minority population out of 19,547 people (35.5% of Population)        |
| Elderly population impacted (1/2 mile)     | 5,822 elderly out of 73,007 people (8% of Population)                          | 2,606 elderly out of 25,360 people (10.3% of Population)                    | 3,655 elderly out of 36,997 people (9.9% of Population)                      | 1,410 elderly out of 16,541 people (8.5% of Population)                   | 4,473 elderly out of 39,855 people (11.2% of Population)                     | 1,590 elderly out of 15,374 people (10.3% of Population)                  | 2,220 elderly out of 17,088 people (13% of Population)                      | 2,346 elderly out of 19,547 people (12% of Population)                      |
| **Population without HS Diploma (1/2 mile) | 8,502 people without HS diploma out of 38,125 (22.3% of Population)            | 4,806 people without HS diploma out of 14,717 (32.6% of Population)         | 7,389 people without HS diploma out of 21,445 (34.4% of Population)          | 2,779 people without HS diploma out of 8,677 (32% of Population)          | 7,790 people without HS diploma out of 24,842 (31.3% of Population)          | 2,614 people without HS diploma out of 9,439 (27.6% of Population)        | 3,273 people without HS diploma out of 10,603 (30.8% of Population)         | 4,047 people without HS diploma out of 12,936 (31.2% of Population)         |
| Cities/Villages/Subdivisions               | C/V/S - 28                                                                     | C/V/S - 15                                                                  | C/V/S - 19                                                                   | C/V/S - 8                                                                 | C/V/S - 16                                                                   | C/V/S - 7                                                                 | C/V/S - 0                                                                   | C/V/S - 5                                                                   |
| Historic/Cultural (1/2 mile)               | Historic - 379, Cultural - 4, Churches - 28, Cemeteries - 7 (481 total assets) | Historic - 0, Cultural - 2, Churches - 12, Cemeteries - 6 (20 total assets) | Historic - 50, Cultural - 0, Churches - 11, Cemeteries - 5 (66 total assets) | Historic - 0, Cultural - 0, Churches - 2, Cemeteries - 0 (2 total assets) | Historic - 26, Cultural - 0, Churches - 25, Cemeteries - 5 (56 total assets) | Historic - 1, Cultural - 0, Churches - 3, Cemeteries - 0 (4 total assets) | Historic - 1, Cultural - 0, Churches - 14, Cemeteries - 9 (24 total assets) | Historic - 12, Cultural - 0, Churches - 5, Cemeteries - 8 (25 total assets) |
| Prime Agriculture (1/2 mile)               | 17,770 acres (not including Stewart and Webster Counties)                      | 9,319 acres                                                                 | 12,333 acres                                                                 | 635 acres                                                                 | 25,504 acres                                                                 | 9,611 acres                                                               | 19,088 acres                                                                | 17,259 acres                                                                |

\*Poverty - This data is an aggregation of block groups that intersect a half-mile buffer of the alignment.

\*\*Population without HS diploma - Totals and percentages are based on population over the age of 25.



# **Southwest Georgia Interstate Study**

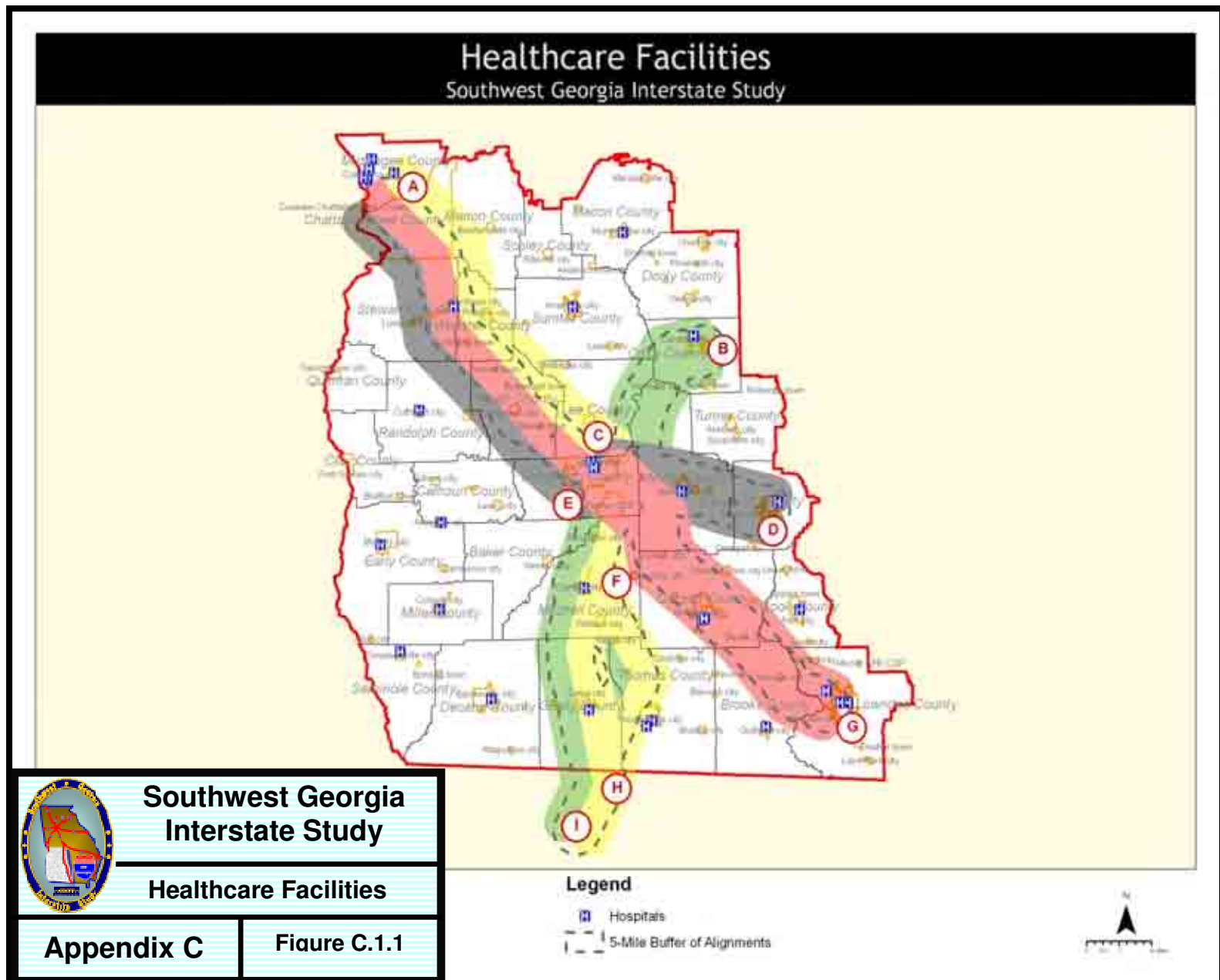
## **Appendix C**

### ***Accessibility and EJ Impacts***

## **APPENDIX C**

### **C.1 Access to Services**

The following four GIS maps were generated to determine potential impacts on access to services, including healthcare, educational facilities, and jobs.



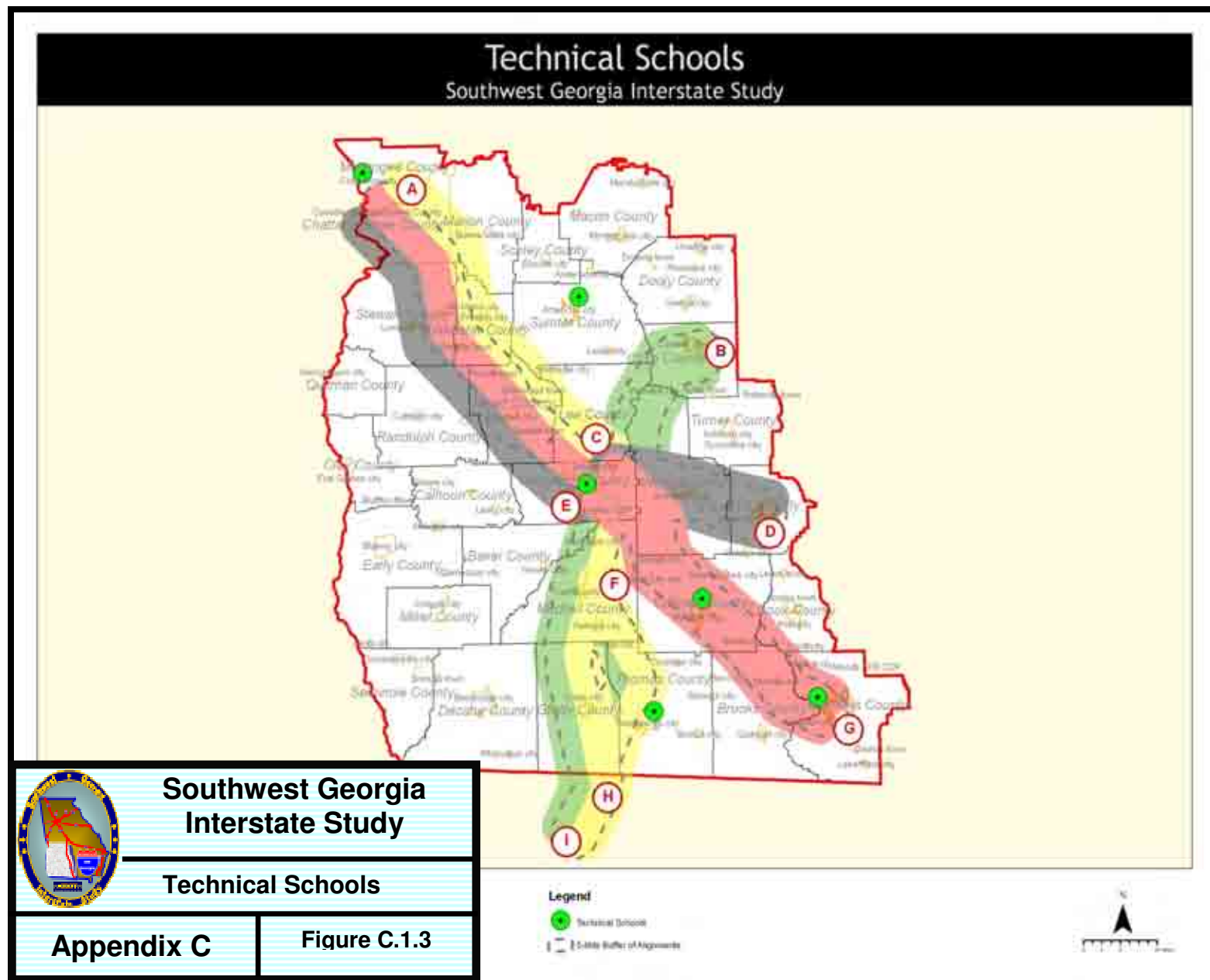


## Higher Education Facilities

Southwest Georgia Interstate Study

This map displays the locations of higher education facilities across Southwest Georgia, overlaid with proposed interstate alignments. The study area includes counties from Wilcox in the north to Appling in the south, and from Wilkes in the west to Wayne in the east. A red outline delineates the project boundary. Various colored shaded regions represent different planning areas or buffers. Specific alignment segments are labeled with letters A through I in circles. Major cities such as Albany, Macon, Columbus, and Savannah are indicated. A legend at the bottom left identifies blue building icons as 'Higher Education Facilities' and dashed lines as the '5-Mile Buffer of Alignments'. A north arrow and scale bar are located at the bottom right.





## Major Employers and Job Centers

### Southwest Georgia Interstate Study

**Southwest Georgia Interstate Study**

**Major Employers and Job Centers**

**Appendix C**

**Figure C.1.4**

**Legend**

- Major Employers
- Job Centers
- County Seats

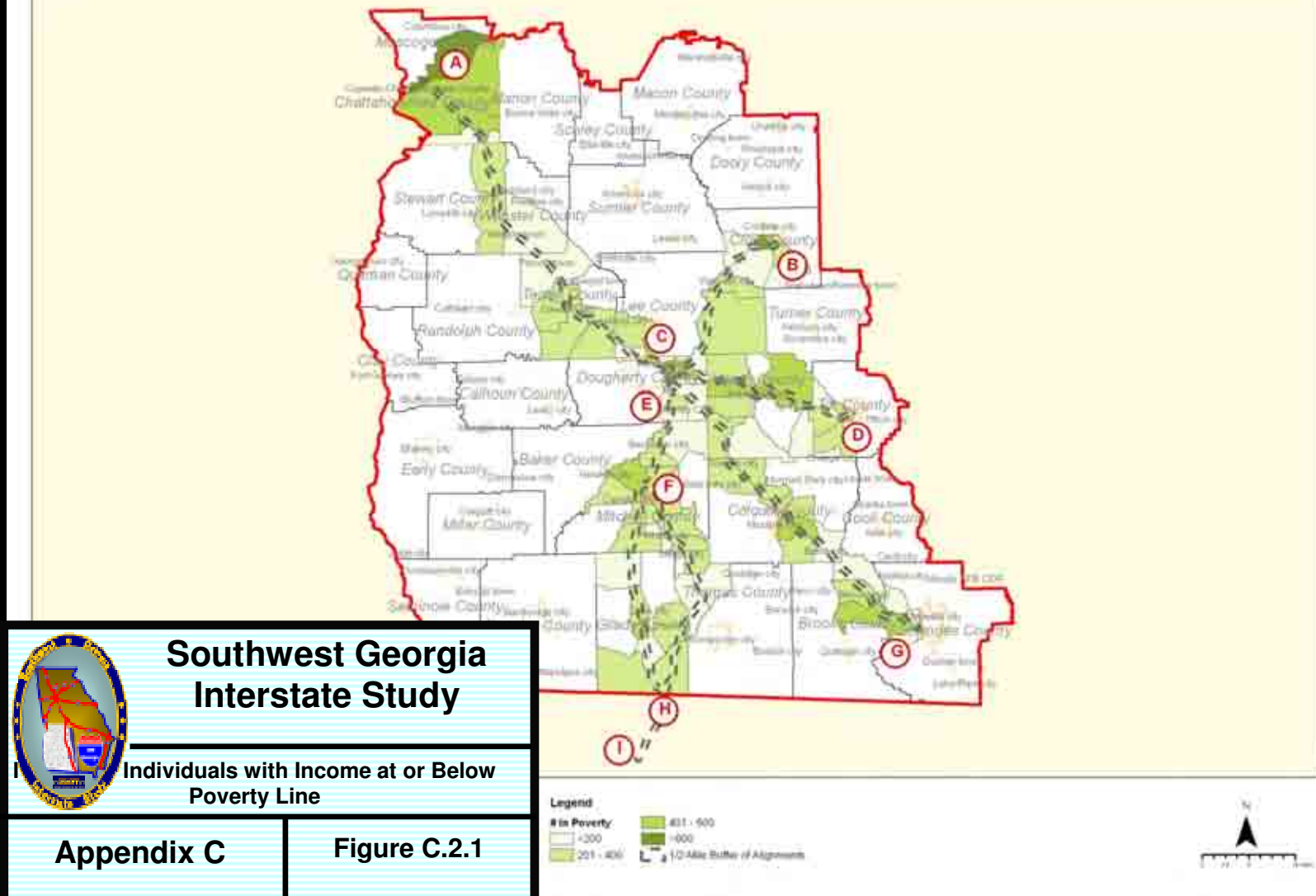


## ***Appendix C*** ***Accessibility and EJ Impacts***

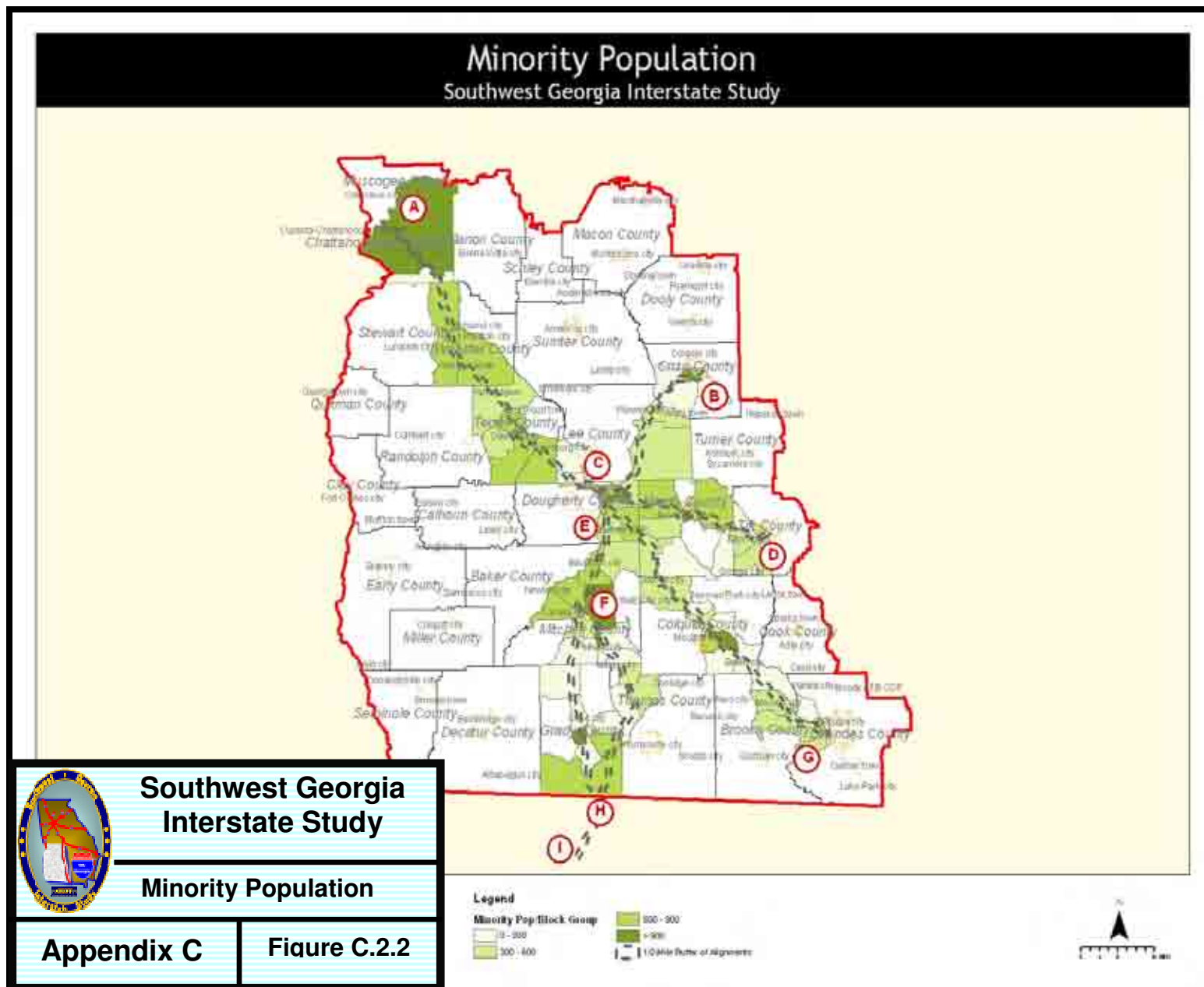
### **C.2 Social and Environmental Justice**

The following four GIS maps were generated to determine potential impacts to social and environmental justice, including identifying populations in poverty, minority populations, persons without a high school diploma, and elderly. The maps quantify aggregate numbers of persons potentially impacted in the census block groups intersecting the alignment within a half mile of either side.

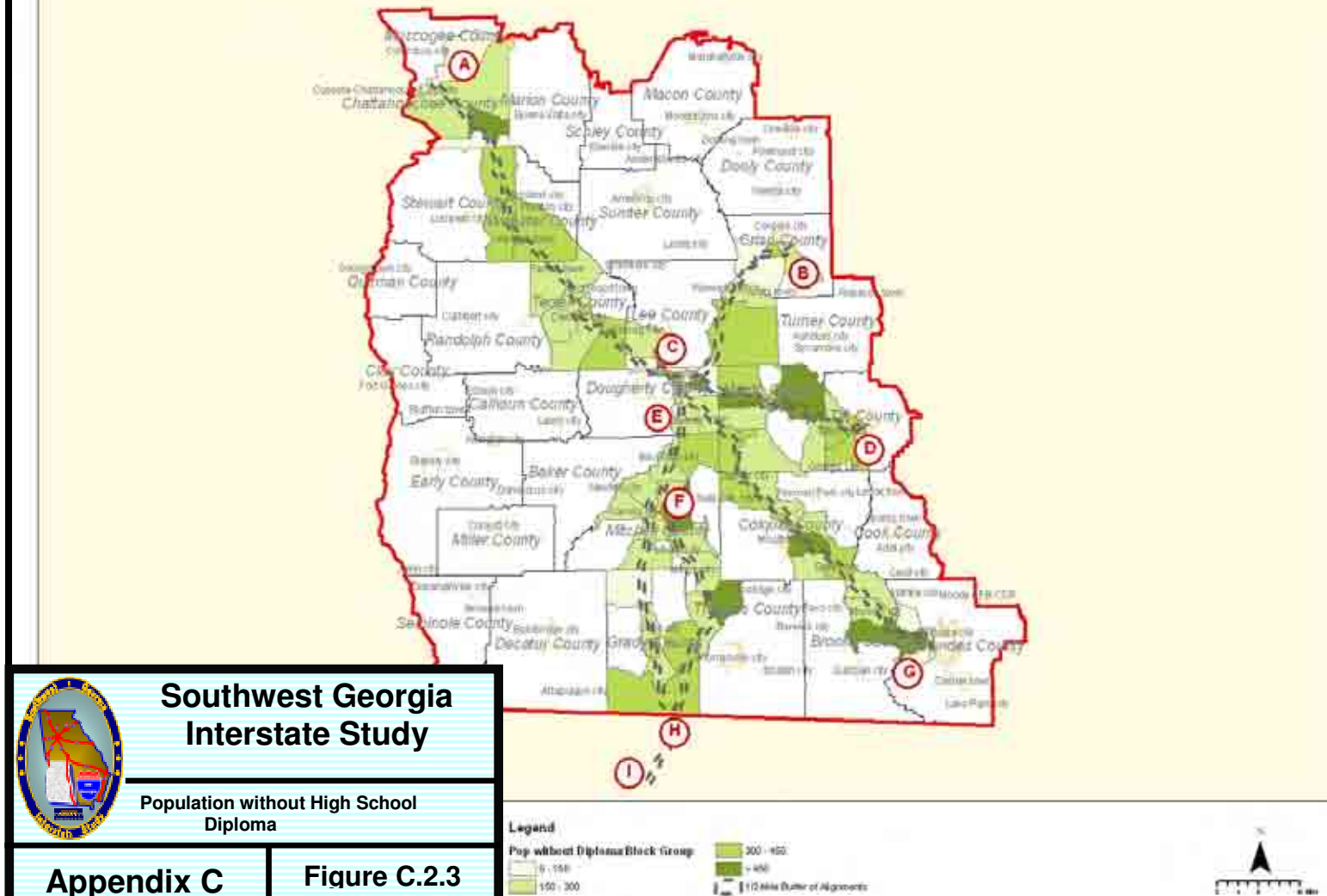
# Individuals with Income at or Below Poverty Line Southwest Georgia Interstate Study



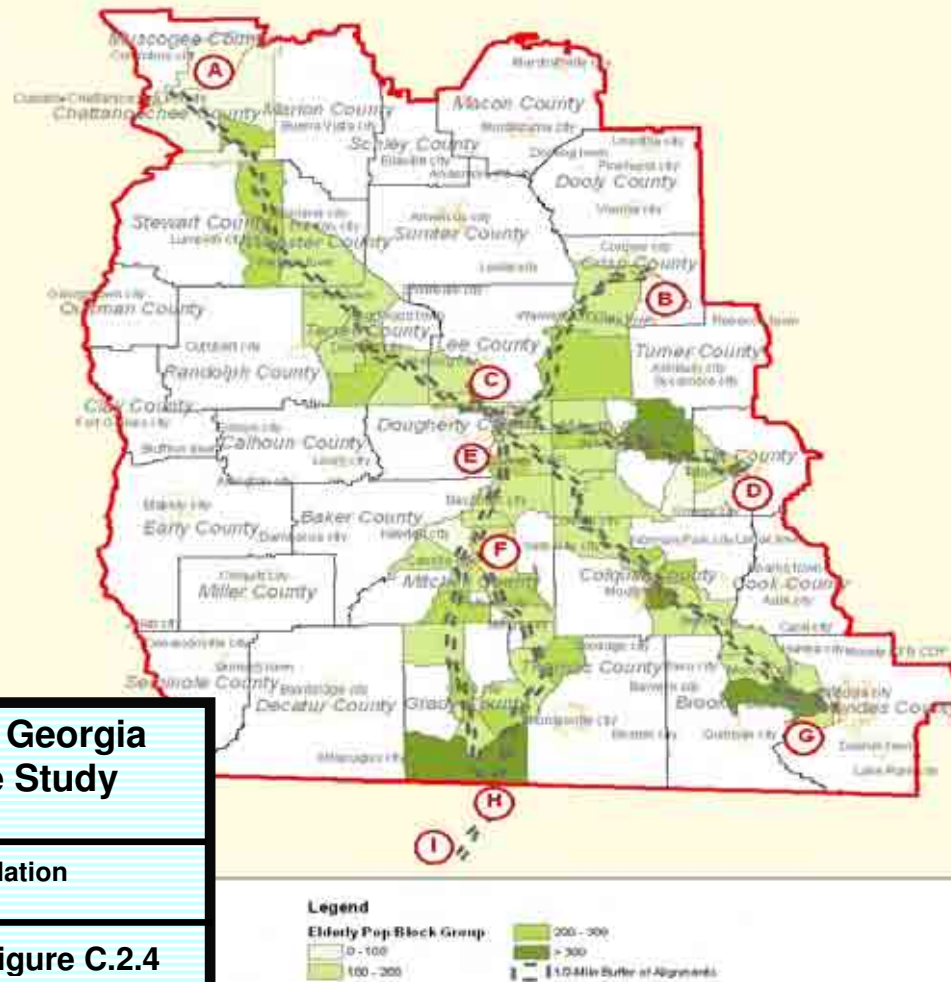




# Population without High School Diploma Southwest Georgia Interstate Study



## Elderly Population Southwest Georgia Interstate Study



**Southwest Georgia  
Interstate Study**

**Elderly Population**

**Appendix C**

**Figure C.2.4**



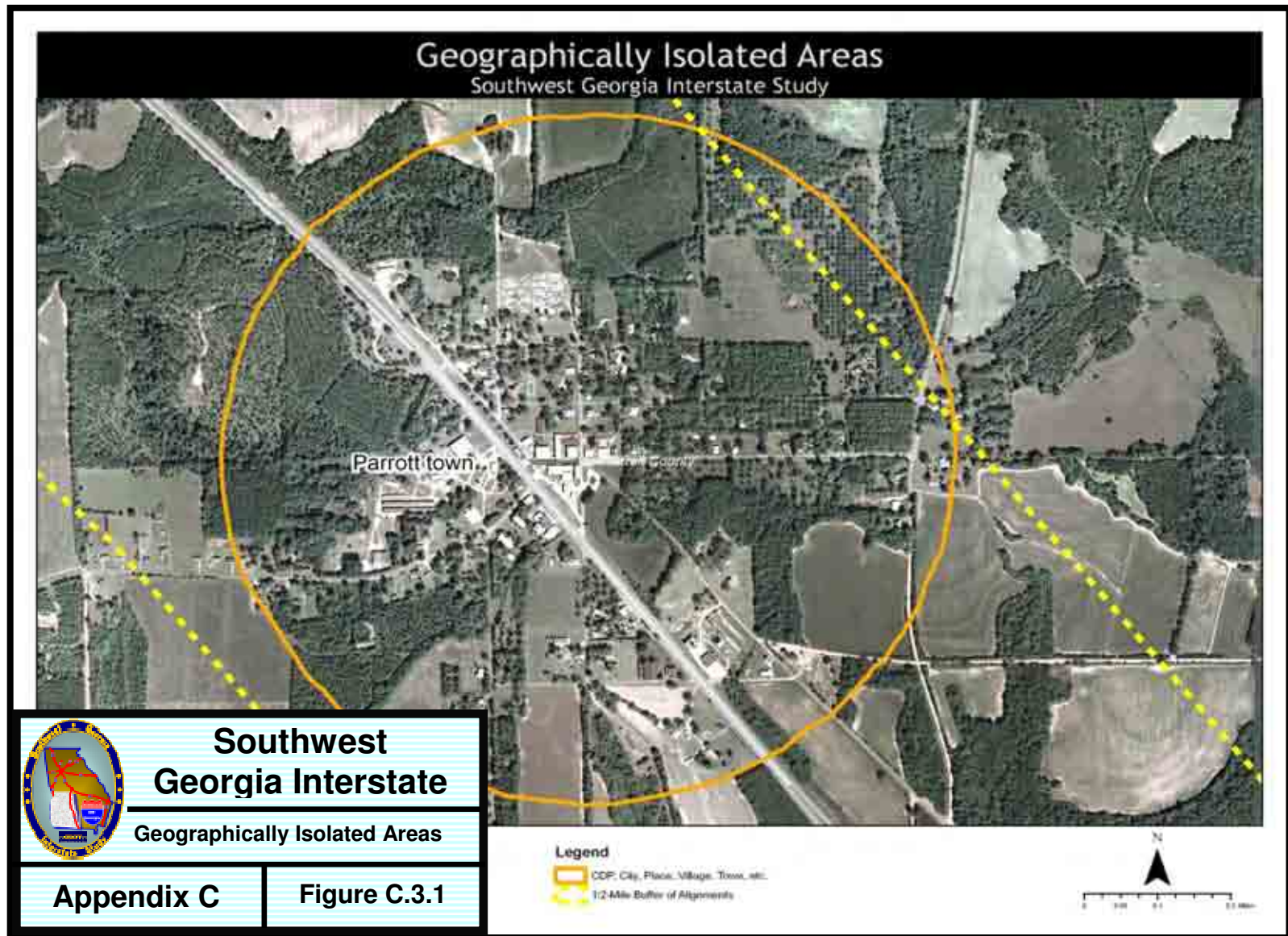
## ***Appendix C***

### ***Accessibility and EJ Impacts***

#### **C.3 Cities/Villages/Subdivisions**

The following maps show snapshot examples of the analysis performed to understand the impact the potential interstate alignments might have on cities, villages, and subdivisions. If such a built-up area was found within a half-mile buffer of the potential alignment (i.e. a 1-mile swath, measuring one mile from the alignment center), the alignment was considered to have a possible impact on the area. The examples show how an alignment might negatively impact three different existing communities of varying scales and natures, creating geographically isolated areas as the interstate might cut through the towns. This analysis is meant simply to flag concerns over alignment placements and to signal where potential conflicts might occur, so that they are avoided in the future.





# Geographically Isolated Areas - Urban Character

Southwest Georgia Interstate Study



**Southwest Georgia  
Interstate Study**

**Geographically Isolated Areas –  
Urban Character**

**Appendix C**

**Figure C.3.2**

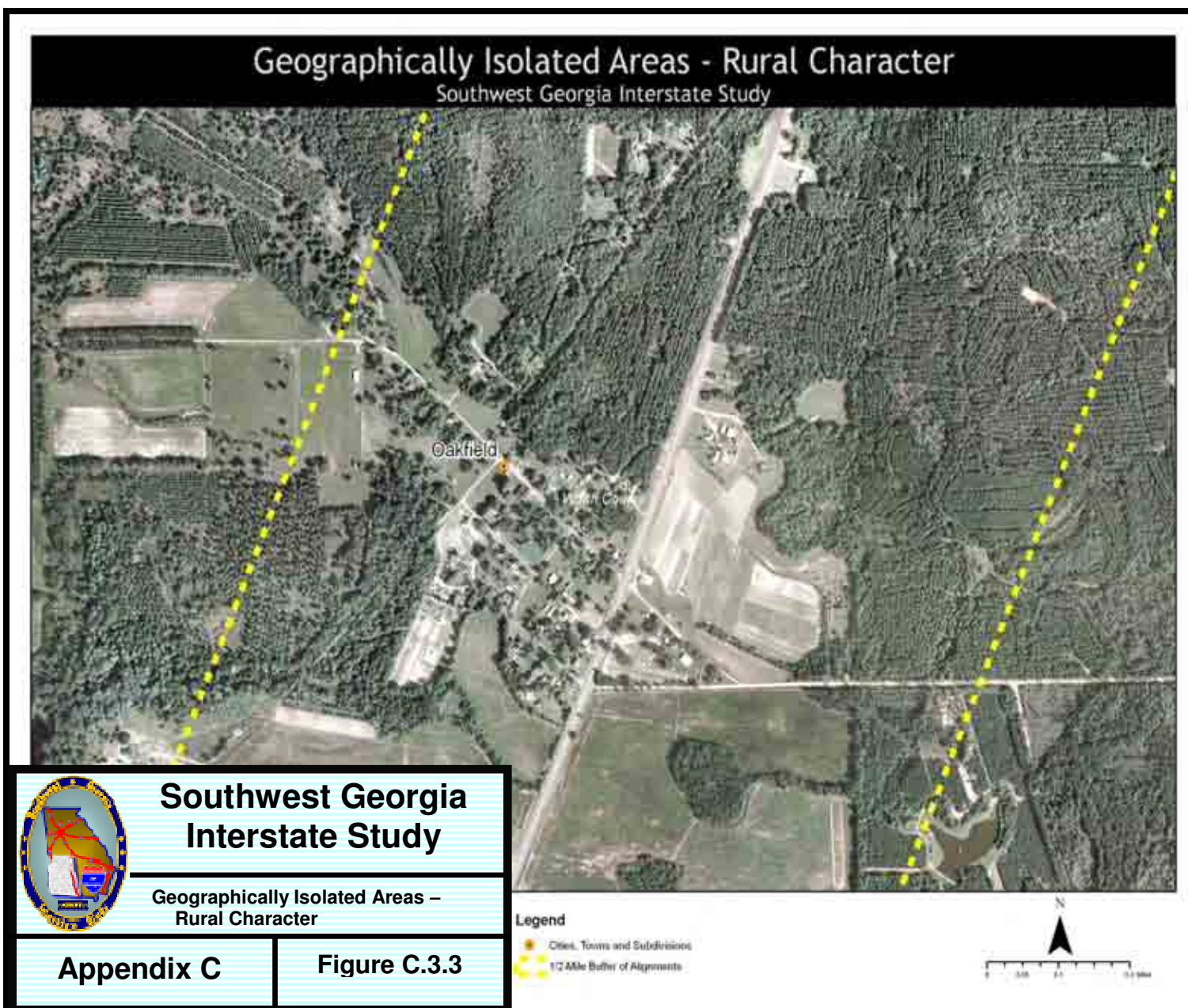
## Legend

-  Cities, Towns and Subdivisions
-  1/2-Mile Buffer of Alignment



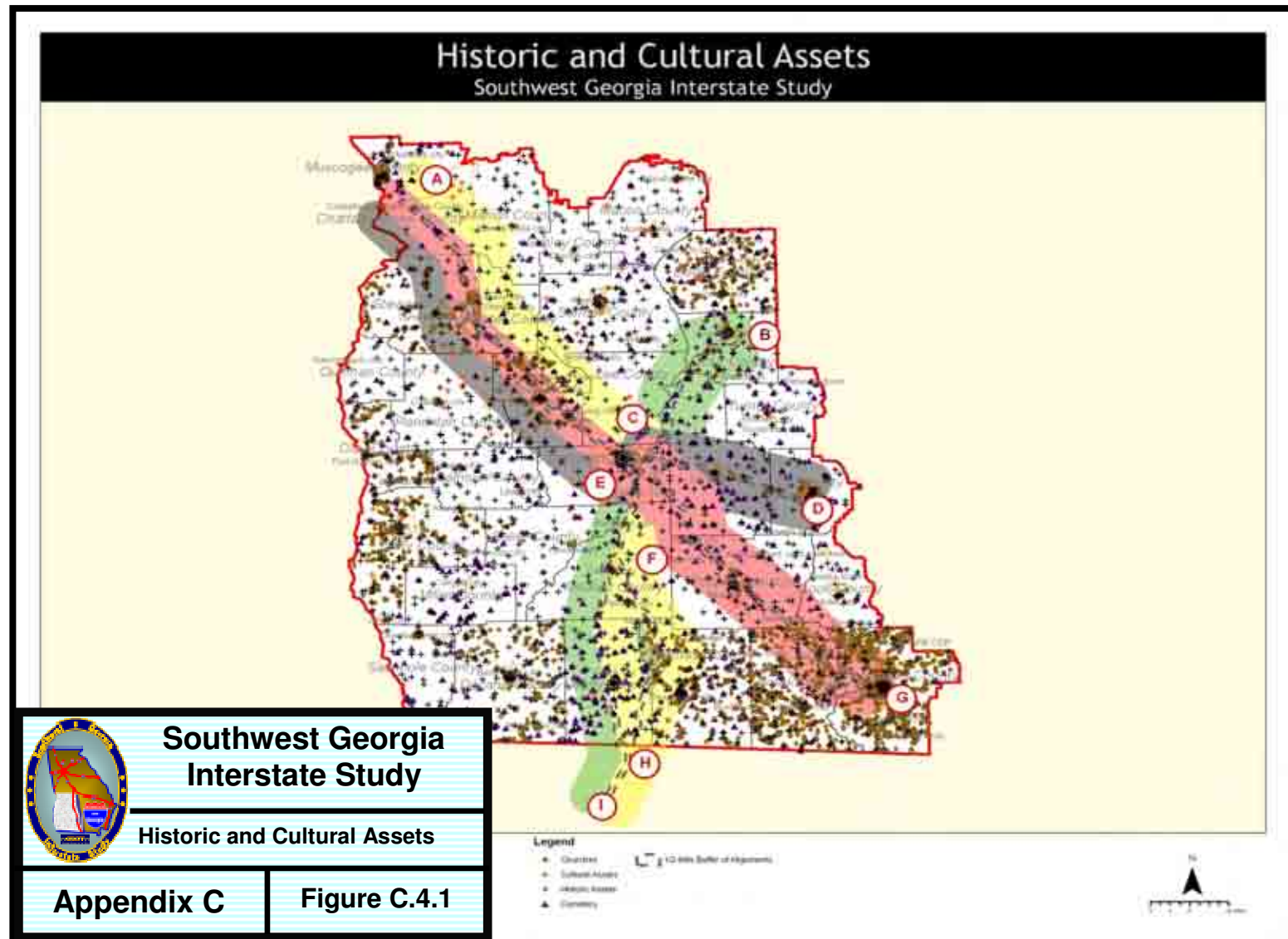
*Final Report*





#### C.4 Historic and Cultural Assets

The following map was generated to determine potential impacts to historic and cultural assets.







## APPENDIX D

### Land Use Maps

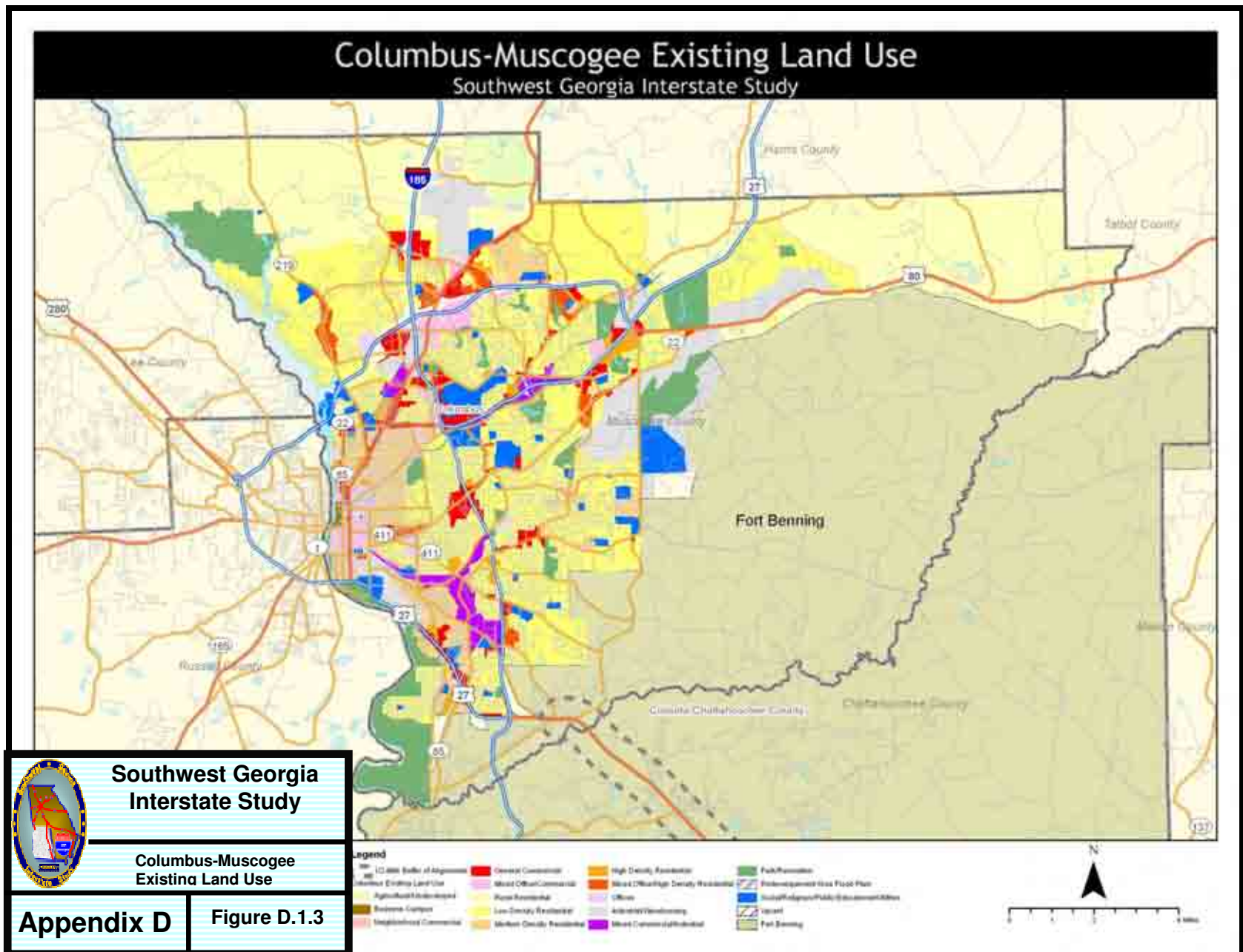
#### D.1 Existing Land Use Maps by County - GIS

The following maps were generated to evaluate potential impacts to existing land uses by county. Not all counties had sufficient land use data available for the GIS analysis. Where available, “hard” copy land use maps were evaluated instead (Figure D.1.1).

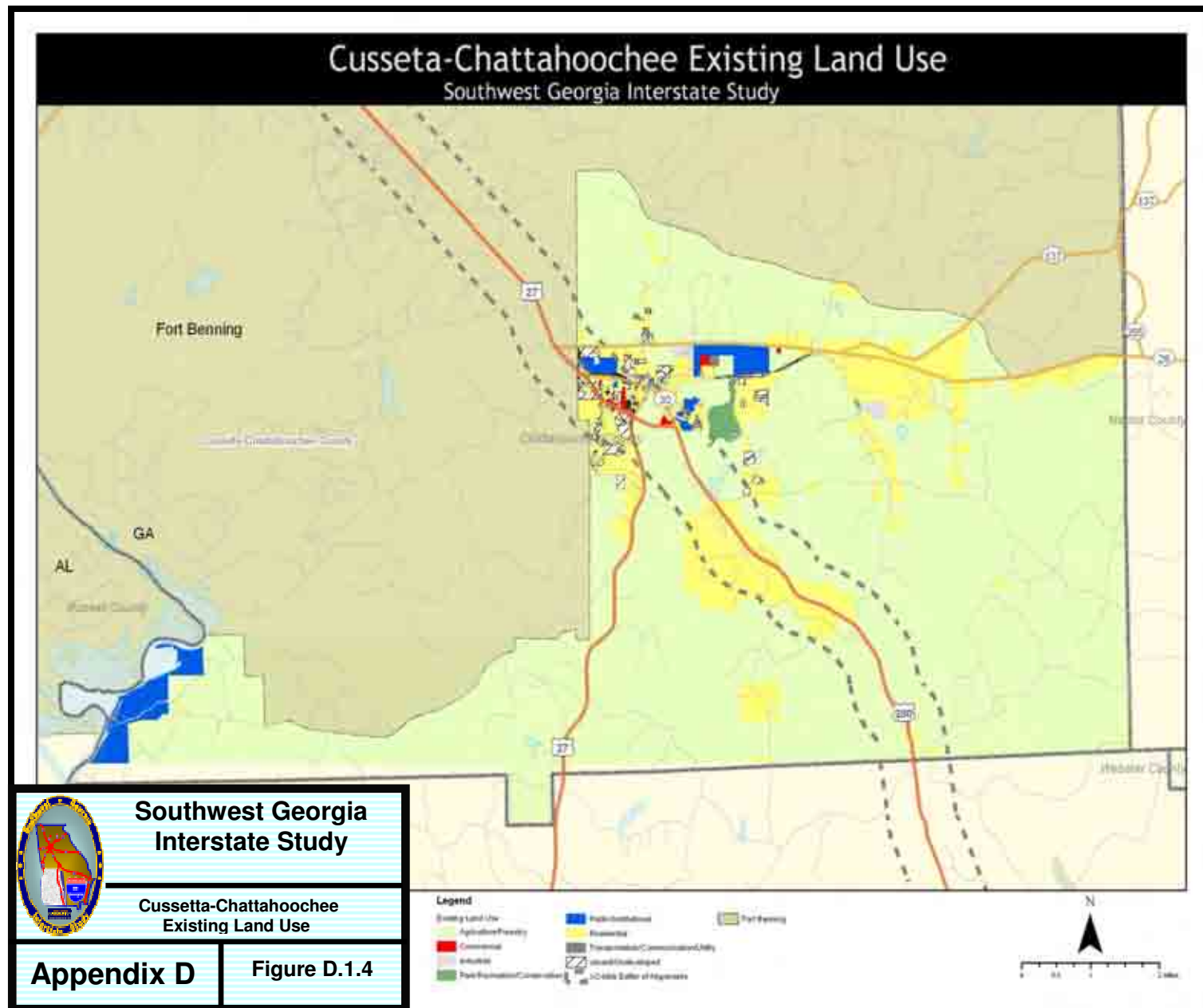








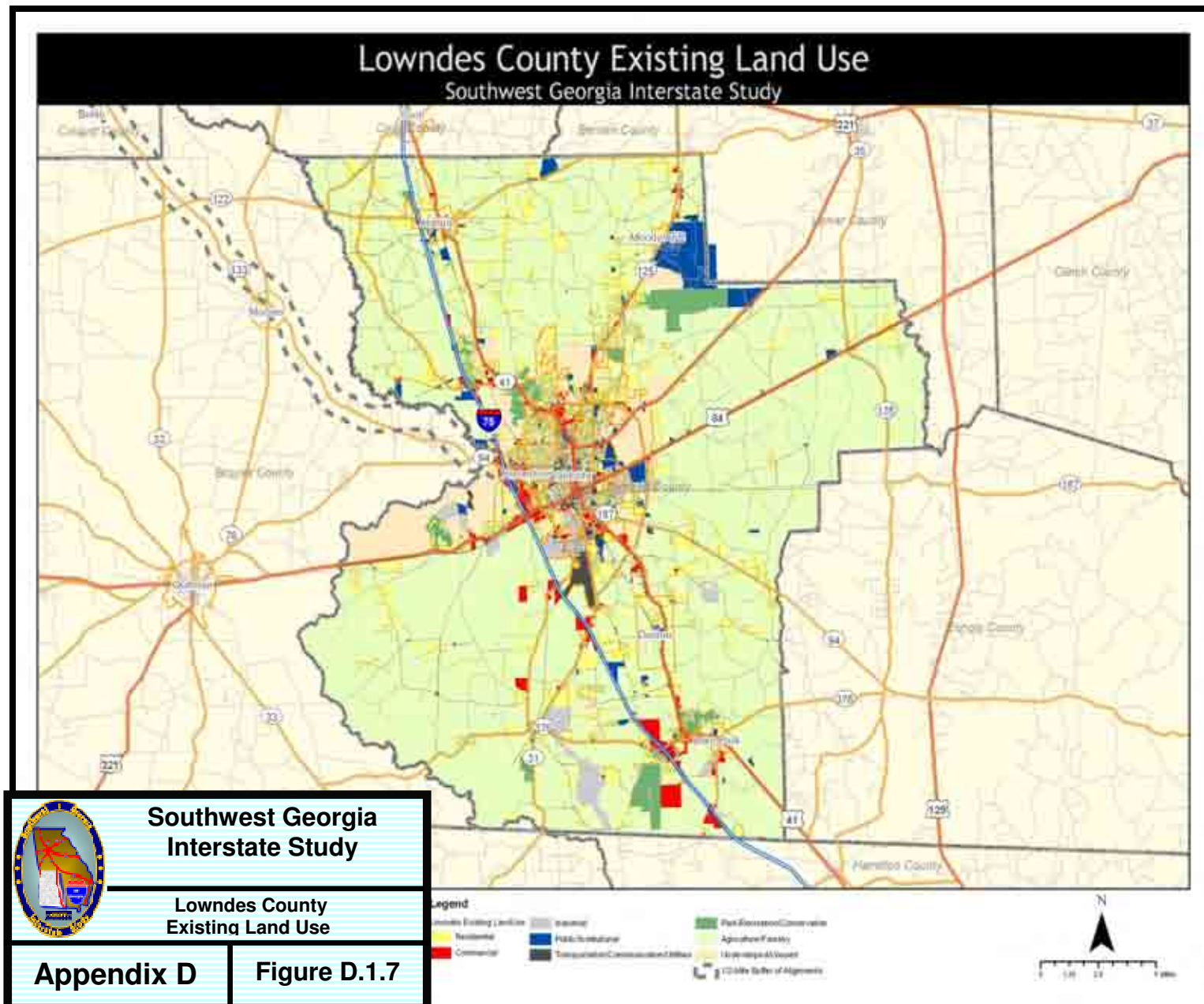




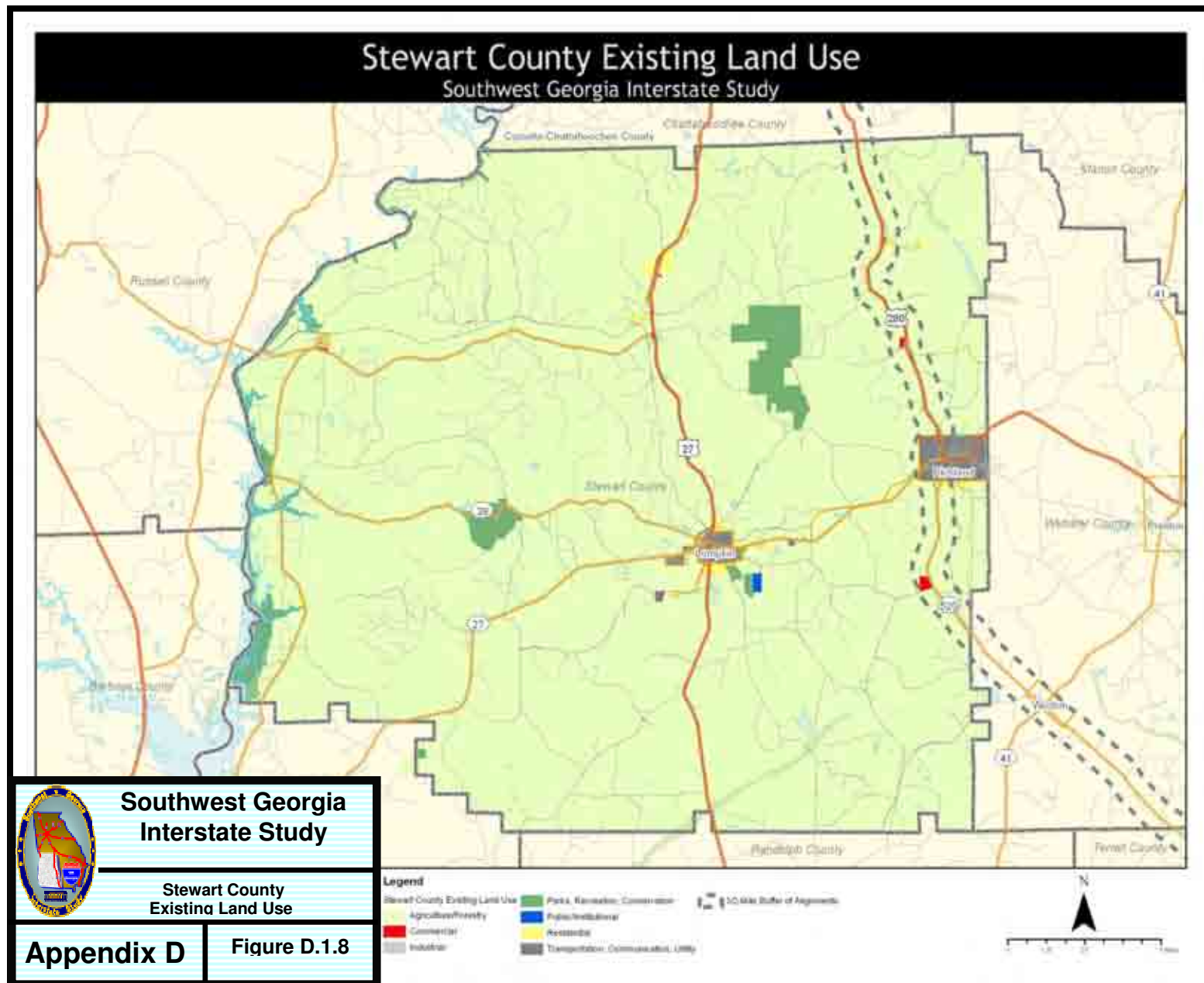


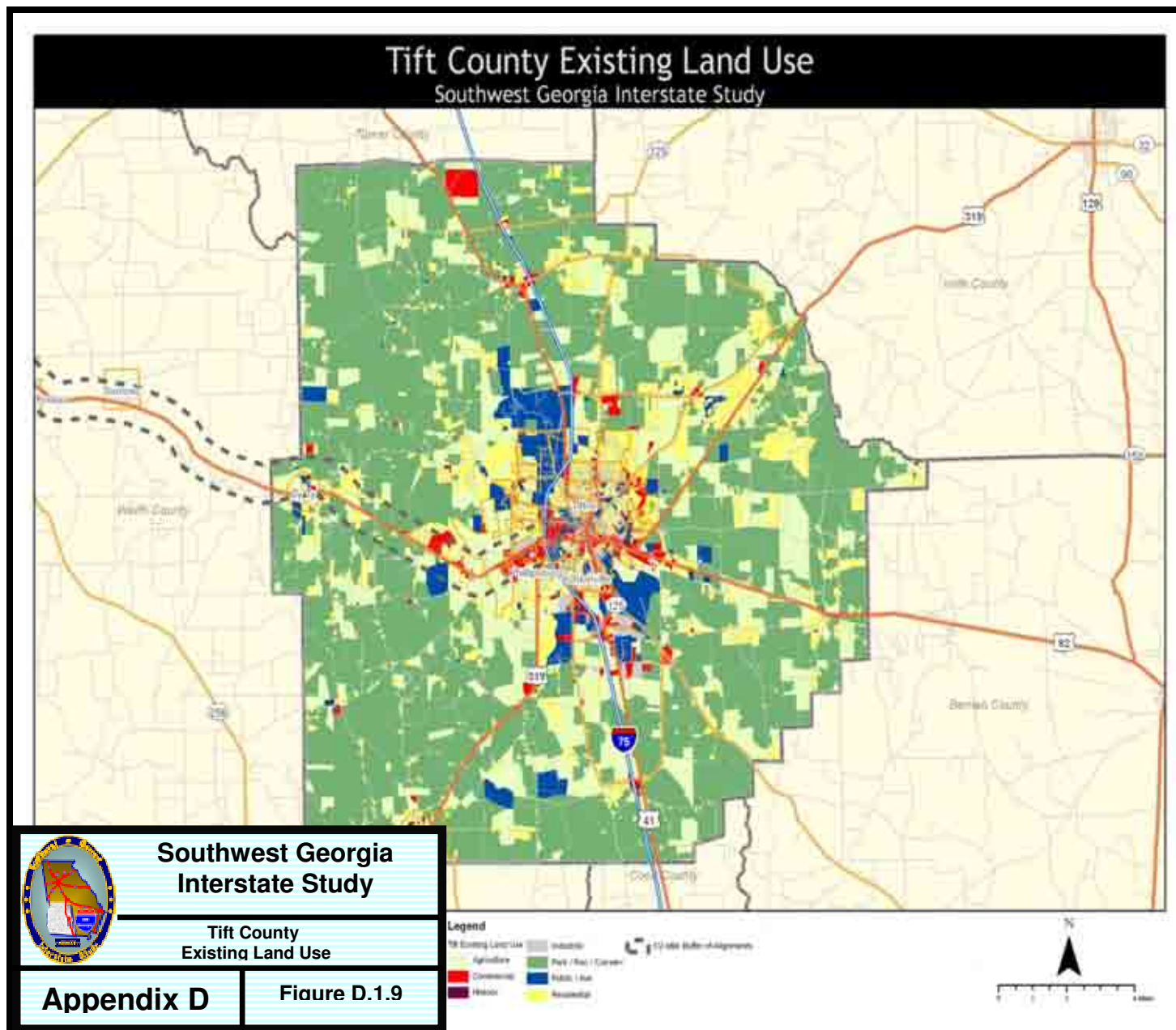










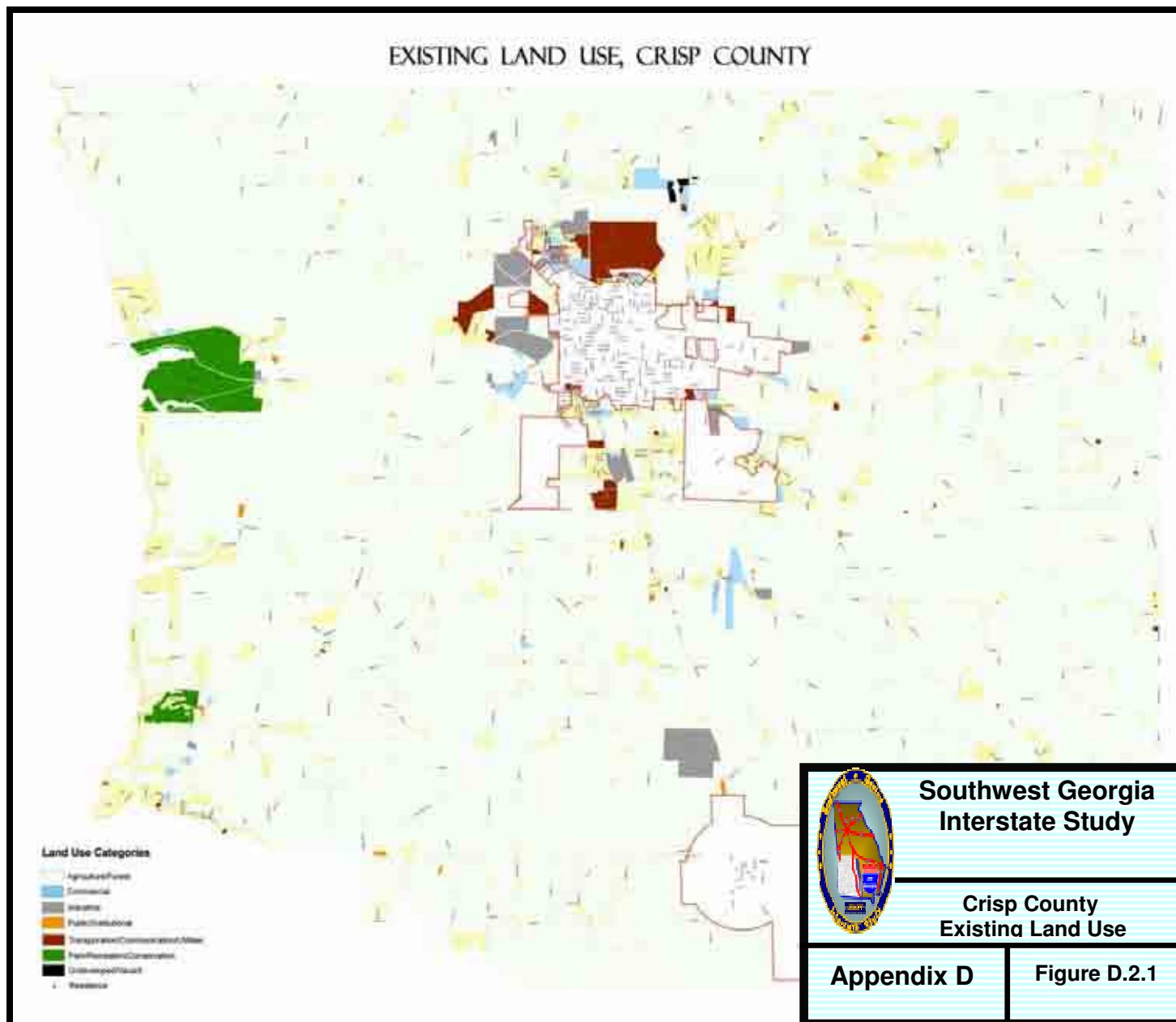




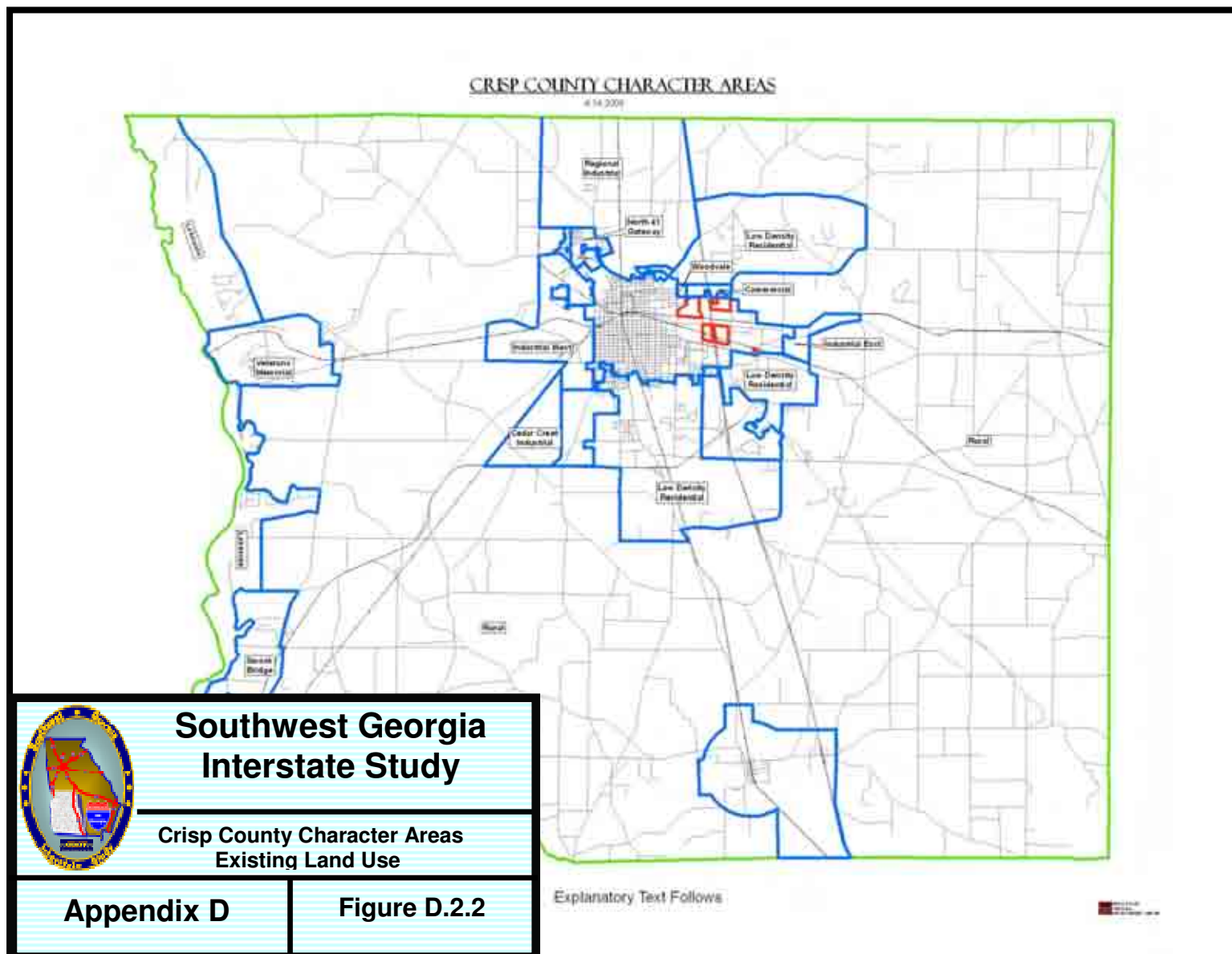
## ***Appendix D*** ***Land Use Maps***

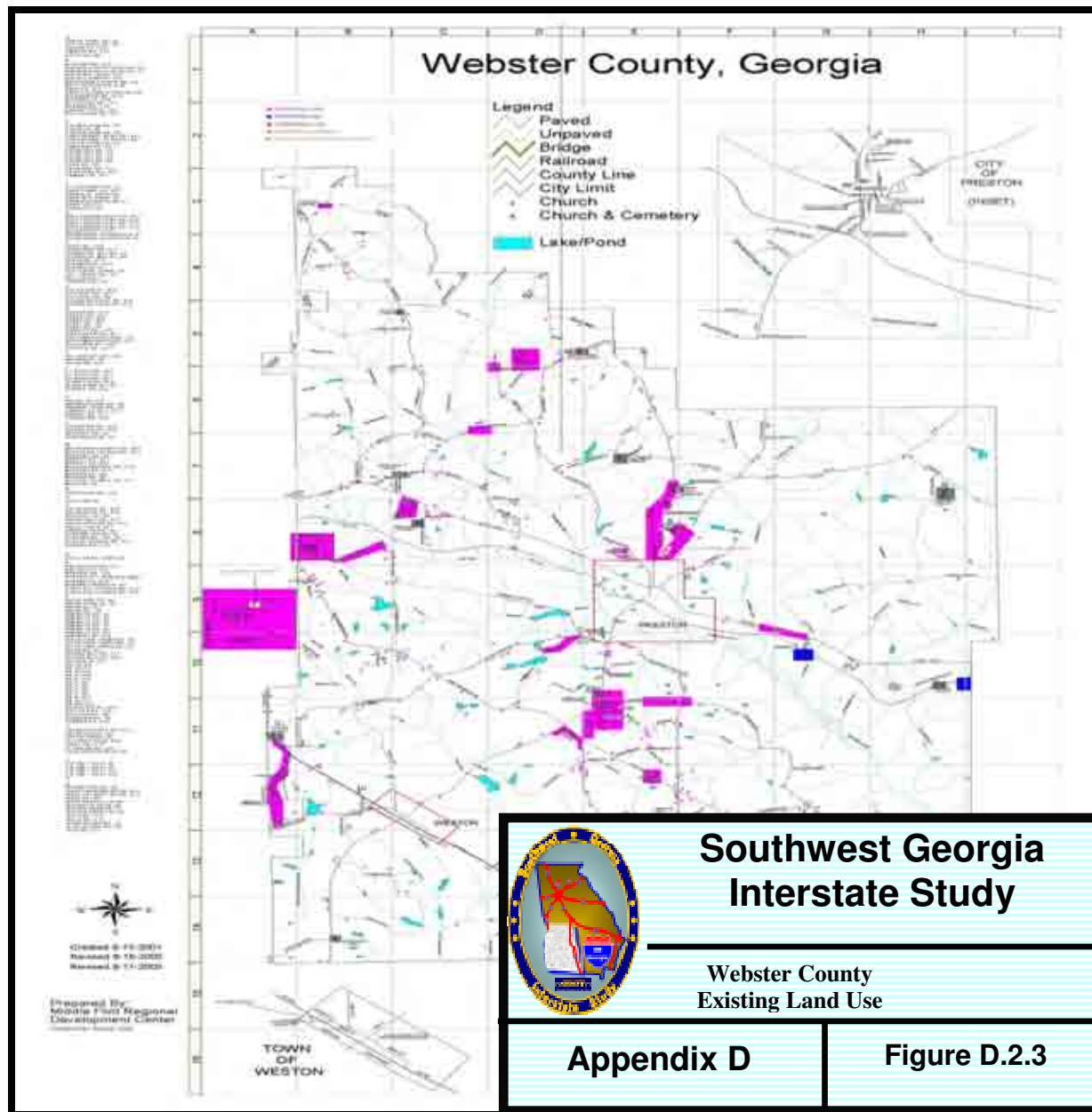
### **D.2 Existing Land Use Maps by County – Non-GIS**

Not all counties had sufficient land use data available for the GIS analysis. Where available, “hard” copy land use maps were evaluated instead. The following maps were solicited from Crisp and Webster counties, where GIS land use data was not available, in order to evaluate potential impacts to existing land uses.









### Prime Agricultural Lands Southwest Georgia Interstate Study

**Southwest Georgia Interstate Study**

**Prime Agricultural Lands**

**Legend**

- Soils
- Prime farmland
- Prime farmland
- 1/2-Mile Buffer of Alignments

**Appendix D**

**Figure D.2.4**



# ***Appendix E***

## ***Land Use Scoring***

### **APPENDIX E**

#### **E.1 Land Use Scoring: Detailed Notes by Segment**

The following four pages contain a matrix of detailed notes by segment related to the land use performance measures. These notes represent highlights of the team's survey of county and regional planning documents.





Southwest Georgia Interstate Study  
**Appendix E**  
**Land Use Scoring**

Table E.1.1  
Land Use Impacts Notes

| Alignment Segments | Counties / Cities                | Land Use Performance Measures                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |                                                                                                                                                                                                                                                                   |                                                                                                                                                                                                                                                                                                                                                                                             |                                                                                                                                                                                                                                                                                       |                                                                                                                                                                                                                                                                                                                  |                                                                                                                                                                                                                                                                                                                                                                                                                                  |
|--------------------|----------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|                    |                                  | Consistent with Comprehensive Plan land use policies                                                                                                                                                                                                                                                                                                                                                                                                                                                           | Consistent with Comprehensive Plan transportation policies                                                                                                                                                                                                        | Consistent with Comprehensive Plan economic development policies                                                                                                                                                                                                                                                                                                                            | Consistent with zoning and land development regulations                                                                                                                                                                                                                               | Compatibility with adjacent existing land uses                                                                                                                                                                                                                                                                   | Compatibility with regional land use context                                                                                                                                                                                                                                                                                                                                                                                     |
| AC                 | Muscogee / City of Columbus      | Most residential growth expected in northern, more rural and suburban parts of community, and extension of commercial services expected along northern arterials in Columbus, not conflicting with interstate alignment.                                                                                                                                                                                                                                                                                       | Recommended widening of St. Mary's Road, located to the west of Ft. Benning, which could serve as a link into downtown Columbus with new interstate; recognition of need for greater connections with existing interstate near Columbus (I-185)                   | Plan recognizes need for support infrastructure to cope with growth associated with Ft. Benning and industry (Aflac, Kia plant, new technology parks). 1,000 acres may be allocated for industrial use near Ft. Benning, allowing good access to the proposed interstate alignment.                                                                                                         | In Columbus's Unified Development Code, provision is made for zoning districts for light manufacturing, technology parks, office parks, and commercial uses serving city or regional markets to be located near major highways or interstates. There is no zoning in Muscogee County. | The proposed alignment would cut through Fort Benning along existing US-27. The northern reaches of the alignment would approach the southeast portion of Columbus, where there are residential and commercial uses.                                                                                             | Alignment supports identified regional industrial clusters and economic goals in Columbus area, and is consistent with projected future freight capacity needs linking Albany and Columbus. Alignment may exacerbate regionally identified problem of sprawl in this area and loss of peripheral farmland. Alignment may conflict with identified regional and state bike and pedestrian corridor - "Chattahoochee Trace" route. |
| AC                 | Chattahoochee / City of Cussetta | The alignments would disturb some conservation areas / State parkland, although they would mostly pass through rural residential and agricultural land. Desire to limit new development and maintain rural character in these areas.                                                                                                                                                                                                                                                                           | With U.S. 27 and SR 520/280, the county is considered the "gateway to Southwest GA." Major Highway Corridor policies are in place to ensure proper management of development on both sides of road.                                                               | An interstate would be beneficial to the desired expansion of an industrial park on GA Hwy 26.                                                                                                                                                                                                                                                                                              | Cussetta has proposed subdivision design standards.*                                                                                                                                                                                                                                  | The alignment exits Fort Benning heading south and bisects the City of Cussetta, which is mostly residential in character, but includes institutional and commercial uses and significant tracts of vacant land. South of Cussetta, a cluster of residential parcels and agricultural tracts abut the alignment. | Supports expansion at Ft. Benning, supports new high school in the county - county poised to accept growth from Muscogee. Alignment is consistent with projected increase in freight traffic between Columbus and Albany. Alignment may conflict with identified regional and state bike and pedestrian corridor - "Chattahoochee Trace" route.                                                                                  |
| AC                 | Stewart                          | The land around the alignments is primarily agriculture / forestry; however, the alignments cut through a future residential area (off County Rd 66) and through the City of Richland. Additionally, a community is planned adjacent (to the east) of the alignments. This conflicts with the policy of protecting residential areas from incompatible land use activities.                                                                                                                                    | Policies exist which encourage the extension of the highways system which provides access to property in the county and thorough routes for local and regional travelers.                                                                                         | The Comp Plan has a policy to support economic development that is compatible with the highway service industry. However, there is also a policy to encourage the redevelopment of downtown Richland. This poses a problem if the alignment cuts through Richland.                                                                                                                          | Zoning ordinance exists* (however not on web).                                                                                                                                                                                                                                        | Alignment would cut through long stretches of agricultural and forestry land to the north and south of Richland. Alignment crosses GA-27 and passes through the west side of the City of Richland, running north-south. A large commercial area sits along the west of the proposed alignment south of Richland. | Recent development of prison and mobile home manufacturer in Stewart will benefit. Possible needed future business development in the county.                                                                                                                                                                                                                                                                                    |
| AC                 | Webster                          | The alignments cut through the town of Weston, dividing residential areas. However, new industrial development is proposed on either side of the potential alignment.                                                                                                                                                                                                                                                                                                                                          | Primary policy is to "preserve transportation facilities"; mostly concerned with the potential development of Hwy 280 as "Power Alley" to spur economic development. Alignments are therefore slightly inconsistent with policy as focus is on upgrading Hwy 280. | Policy is in place to develop an industrial park near Weston and are interested in attracting business there. Otherwise, agriculture and forestry are the primary industries, which may be impacted by an interstate.                                                                                                                                                                       | Code of Ordinances exists but no zoning.                                                                                                                                                                                                                                              | Alignment runs through agricultural land in the southwestern corner of Webster Co, and passes through the town of Weston at the GA-41 intersection. Little disturbance of urbanized areas expected on this portion of alignment.                                                                                 | Webster County is not a priority area in the regional plan - it is rarely mentioned, has low population, and seems primarily to be a bedroom county with no economic develpt initiatives in its boundaries. No apparent impact to economic interests. Alignment crosses area designated as "significant groundwater recharge area" - however this designation covers almost the entire county.                                   |
| AC                 | Terrell / City of Dawson         | The most significant area of transition is expected in the southeast part of the county where residential growth is occurring just north of Dougherty Co line, and the City of Sasser expected to grow due to proximity to Dougherty. Existing built-up areas are also expected to expand. Proposed alignments cut through the southeast part of the county in addition to Sasser and other small towns. This conflicts with the policy of protecting residential areas from incompatible land use activities. | No significant transportation policies exist in the county's comprehensive plan.                                                                                                                                                                                  | Many residents work and shop in Albany; economic development policy therefore encourages keeping people within county, e.g. examining need for another industrial park, promoting tourism, encouraging downtown revitalization. Interstate could help or hinder these efforts; however, would most likely serve to funnel people more directly to Albany with fewer benefits to the county. | City (Dawson) and county have zoning ordinances and subdivision design standards* (however not on web).*                                                                                                                                                                              | Alignment cuts through west side of Dawson, isolating several blocks of residential development from the rest of town. Alignment runs alongside Dawson Municipal Airport, possibly increasing throughput opportunity and encouraging economic development.                                                       | Terrell is identified as an "area in serious need of economic develpt". It is also an area with prime farmland, so responsible growth from Albany would require mgmnt to avoid becoming sprawl as it has in Lee and Worth. Alignment runs near the Swamp of Fox - associated development could impact that resource. Alignment crosses "significant groundwater recharge" area (there is a lot of this type of area however).    |





Southwest Georgia Interstate Study  
**Appendix E**  
**Land Use Scoring**

Table E.1.1  
Land Use Impacts Notes Continued

| Alignment Segments     | Counties / Cities          | Land Use Performance Measures                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |                                                                                                                                                                                                                                                                                                                                                                                                       |                                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|                        |                            | Consistent with Comprehensive Plan land use policies                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | Consistent with Comprehensive Plan transportation policies                                                                                                                                                                                                                                                                                                                                            | Consistent with Comprehensive Plan economic development policies                                                                                                                                                                                                                                                                                                                                                                                                           | Consistent with zoning and land use planning regulations                                                                                                                                                                                                                                                                                            | Compatibility with adjacent existing land uses                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | Compatibility with regional land use context                                                                                                             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| AC                     | Lee / City of Leesburg     | Controlling growth and sprawl is a major concern, and new development should only take place in designated areas. Policy exists to preserve rural character and prime agricultural land. According to the County's Future Development Map, the alignment would cut through established and newly developing suburban areas in the southwest corner of the county.                                                                                                                                                                       | Policy encourages transportation corridors that support multiple modes of transportation and which support economic development, preservation of natural and cultural resources, minimal traffic congestion, and mobility access for all citizens. An interstate could help with economic development but potentially disturb significant prime agricultural farmland in the SW corner of the county. | Desire to achieve a growing and balanced economy. Want to attract "big box investments." Lack of training, skilled workforce is major concern, fostering links to Albany Technical College encouraged. Development of downtowns of Leesburg and Smithville encouraged; interstate may detract from this.                                                                                                                                                                   | Zoning in place; however only billboard regulations appear directly applicable to interstate development.                                                                                                                                                                                                                                           | No pertinent existing land use information was available for this analysis.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
| AC, BC, CD, CE, EG, EF | Dougherty / City of Albany | The alignment appears to pass through or about high population and employment growth areas (US2/ Fowlerton Creek/Turner City).                                                                                                                                                                                                                                                                                                                                                                                                          | Dougherty County Transportation Plan has no specific recommendation for locating interstate alignment nearby. The county has stated policies in support of mobility and efficiency, which could be supported by the proposed alignment. However, the plan's equity and environmental policies could suggest a conflict, pending further evaluation.                                                   | Particular focus on retaining existing industry (currently manufacturing is the highest employment sector) and recruitment of new industry. Additionally, there is a desire to focus on the continued development of downtown Albany as a regional business and touristic hub and the expansion of Phoebe Putney medical complex. Desire to retain I-75 Albany into the future as well. An interstate skirting the eastern edge of Albany could help defuse these efforts. | Albany has a sign ordinance which addresses billboards; Dougherty County has a sign ordinance which addresses off-site signs (including billboards). Zoning for Albany and rest of county permits a number of uses along major arterials: commercial district development which will attract regional customers and heavy industrial.               | <b>Segment AC:</b> Alignment runs along the northern edge of Albany, where residential and agricultural uses predominate. Commercial uses can be found along the northern county boundary, and the alignment cuts through an industrial area at the GA-91 intersection. <b>Segment BC:</b> Alignment passes through agricultural and forestry lands, and connects with other proposed alignments at intersection with US-82. A large industrial area exists on the northwest quadrant of GA-309/US-82 intersection. <b>Segment CD:</b> Alignment cuts through primarily agricultural land with residential use increasing as segment approaches Albany. <b>Segment CE:</b> Alignment cuts through agricultural and industrial land uses east of downtown Albany. <b>Segment EG:</b> Alignment passes through primarily agricultural and forestry uses, with sporadic residential development. A park/preservation property exists within the alignment's 1/2 mi. buffer. <b>Segment EF:</b> Alignment cuts through agricultural, residential, forestry, commercial, and industrial areas as it approaches Albany. | <b>Segment AC:</b> The SWGA regional plan identifies this part of US-19 as one of the highest need infrastructure corridors in the region, and a regional goal is to widen it - alignment segment AC is consistent with increasing capacity along that corridor. Also in line with anticipated future freight capacity growth between Albany and Columbus. Potential exacerbation of land use conflicts as sprawl expands outward from Albany. Alignment planning must take into consideration the important regional goal of managing the Knochdoome Lake resource - stimulating development, preservation, and flood management. Alignment crosses "significant groundwater recharge" area (there is a lot of this type of area in Dougherty County however - almost the whole county is affected). <b>Segment BC:</b> Alignment is consistent with future freight capacity growth between Albany and I-75 along this corridor. Potential exacerbation of land use conflicts as sprawl expands outward from Albany. <b>Segment CD:</b> Alignment would serve region's largest employer, the Marine Corps Logistics Base in Albany. Alignment supports anticipated growth of freight trucking along this corridor. Alignment is considered one of the highest need corridors in the region. Alignment may conflict with identified regional and state lake and pedestrian corridor - "Wigeoness" route. Alignment crosses an old pioneer or Indian trail east of Albany. <b>Segment CE:</b> Alignment is identified as one of the highest need infrastructure corridors in the region. Care must be taken here as alignment may have an impact on the protected Flint River corridor. Alignment intersects or is proximate to a pioneer road/furrow trail and an Indian village site. <b>Segment EG:</b> The Valdosta-Albany alignment does not appear to be critically needed for Albany - the Albany area is growing to the north and east into Lee and Worth County, with a strong industrial connection emerging between Albany and Cordele to the northeast, and a stronger industrial connection is emerging between Albany and Columbus, to the northwest. Alignment crosses "significant groundwater recharge" area (there is a lot of this type of area in Dougherty County however - almost the entire county is affected). <b>Segment EF:</b> SWGA considers this route from Albany to Camilla to be one of the highest need infrastructure corridors in the region. The route would serve the SW GA Regional airport, which is a regionally significant passenger and cargo airport with expected growth in its freight traffic services. However, there are many potential negatives to consider. Alignment may have an impact on the protected Flint River corridor in Dougherty County, and wetlands south of Albany. This route from Albany to Camilla is considered a "scenic byway" by the region - alignment must not negatively impact that resource. Alignment crosses old pioneer roads and must be evaluated for impact to possible (potential) family farms in the area. Alignment crosses "significant groundwater recharge" area (there is a lot of this type of area however). |
| EF, FH EAST, FH WEST   | Mitchell / City of Camilla | It is stressed that the local historic fabric of GA Hwy 3 (Dike Hwy), which parallels US-29 to the west, should be maintained. Preserving rural character is also an aim in prime agricultural land areas (which covers most of the county), where lower levels of transportation infrastructure are called for to reduce development pressures. All major residential development is planned to the east of US-19 around Camilla and Pellum. Moving the alignments to the immediate east or west of US-19, then, would be problematic. | The county is interested in extending I-385 (near Columbus) into the county, so they are keen on interstate development in general. Heavy truck congestion is a concern in Camilla and an efficient truck route is desired to alleviate problems.                                                                                                                                                     | As part of the economic vision for the county, industrial development is desired, particularly along US-29 (the location of alignments A & B).                                                                                                                                                                                                                                                                                                                             | Camilla has zoning ordinances which specify highway commercial districts to encourage appropriate development along the city's major thoroughfares where uses such as motels, warehouses, service stations, and manufacturing are allowed. A billboard ordinance exists which prohibits their construction. County has zoning (however not on web). | Alignment cuts through agricultural and forestry land. Sufficient data not available for this analysis. Mitchell County Community Agenda does not include existing land use information or maps.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | <b>Segment EF:</b> SWGA considers this route from Albany to Camilla to be one of the highest need infrastructure corridors in the region. However, there are many potential negatives to consider. Alignment may have an impact on the protected Flint River corridor in north Mitchell County - this alignment also has proximity to the habitat of the Red Cockaded Woodpecker, a federal and state endangered species, which has recorded occurrences in Baker County to the west. This route from Albany to Camilla is considered a "scenic byway" by the region - alignment must not negatively impact that resource. Alignment may impact wetlands west of Camilla. Alignment crosses old pioneer roads and must be evaluated for impact to possible (potential) family farms in the area. Alignment may exacerbate existing trend of residential sprawl around Camilla. Alignment crosses "significant groundwater recharge" area (there is a lot of this type of area however). <b>Segment FH EAST:</b> Alignment is identified as one of the highest need infrastructure corridors in the region. Alignment would serve a state correctional institution in Mitchell County. Alignment crosses pioneer road or trail, must be planned to avoid impact to potential family farms. Alignment runs along a regionally identified "scenic byway" - this regional resource must not be impacted. <b>Segment FH WEST:</b> Alignment may exacerbate existing trend of residential sprawl around Camilla. Alignment may impact wetlands south and west of Camilla. Alignment is along a regionally identified "high need infrastructure" corridor - but it is not one of the highest need corridors - the region sees FH east as a more important corridor.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |





Southwest Georgia Interstate Study  
**Appendix E**  
**Land Use Scoring**

Table E.1.1 Land Use Impacts Notes (continued)

| Alignment Segments | Counties / Cities          | Land Use Performance Measures                                                                                                                                                                                                                                                                                                                                                                                                                                               |                                                                                                                                                                                                                                                                                         |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |                                                                                                                                                                                                                                                                                                                                                                                                                                                       |                                                                                                                                                                                                                                                                                                                 |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
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|                    |                            | Consistent with Comprehensive Plan land use policies                                                                                                                                                                                                                                                                                                                                                                                                                        | Consistent with Comprehensive Plan transportation policies                                                                                                                                                                                                                              | Consistent with Comprehensive Plan economic development policies                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | Consistent with zoning and land development regulations                                                                                                                                                                                                                                                                                                                                                                                               | Compatibility with adjacent existing land uses                                                                                                                                                                                                                                                                  | Compatibility with regional land use context                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
| EG                 | Brooks / City of Quitman   | Most land in the county is agricultural, and the Comp Plan states that rural character should be maintained - even in town centers. A historic area of Morven is just west of the proposed alignment, which would cut through the town. GA 133 is designated in the plan as a Major Highway Corridor, a high-volume transportation facility. However, it is seen as the gateway to the county; therefore, regulations are recommended for these areas to manage aesthetics. | Transportation should support economic development yet natural and cultural resources should be protected.                                                                                                                                                                              | Desire to attract higher-wage jobs and retail opportunities so people will shop in the county.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | City (Quitman) and county have zoning ordinances* (however not on web). The City of Morven does not have zoning.                                                                                                                                                                                                                                                                                                                                      | Interstate would cross scenic highway (GA 122) and pass through Morven. Two Centennial Farms are located just west of GA 133 (the alignment).                                                                                                                                                                   | Regional initiative to grow industrial in Brooks County (a new \$4 million industrial park) is strongly related to I-75 via 76/84, and not to Albany or this corridor. The alignment would neither help nor hurt this goal. Brooks is part of a tri-county initiative, "Triple Crown Hometowns", to attract retirees to the area in order to diversify the economy. Easier access to Albany and its airport may benefit the effort.                                                                                                                                                                                                                                                                                                                             |
| EG                 | Lowndes / City of Valdosta | Sprawl is a major concern, where rural and city lines are becoming increasingly blurred. A new interstate may exacerbate this type of growth. There is also a concern about the nondescript development which occurs along interstate corridors and the decline of traditional town centers.                                                                                                                                                                                | Alternative modes of transportation, moving away from traffic planning focused on automobiles. The need appears to be for more interconnected local roads to relieve traffic on arterial roadways.                                                                                      | Economic development issues include lack of high-wage jobs for residents, workforce inadequacy; however, there is a desire to develop an executive office park with easy access to major transportation corridors and industrial properties. Because the county already has good interstate access, additional interstate access may prove only marginally more beneficial to support these aims. However, the Comp Plan states that the community is connected to the surrounding region for economic livelihood through businesses that process local agricultural products. Another interstate could facilitate this regional interaction. An additional interstate may help the rest of the region access the many higher education opportunities which exist in the county as well. | County has Unified Land Development Code which has a specific ordinance pertaining to signs along interstate highways. A Corridor Road Overlay District exists to manage the safe flow of traffic as well as steer development compatible along major arterial roadways, with specifications for signs, access, parking, landscaping, etc. A Highway Commercial district, for commercial development requiring highest levels of access, also exists. | Hwy 94 / 133 (interstate alignment) would cut through park / recreation / conservation area and linear green space / trail system, according to the future development map. However, the interstate would feed directly into a Regional Activity Center where it would connect with I-75, which is appropriate. | The Valdosta-Albany alignment does not reflect current growth trends in Lowndes County - the Valdosta area is growing to the north and east into Lanier and Echols County, and business and industry goals seem strongly related to I-75 (to Atlanta) and east/west highway 84 - not an Albany connection. Manufacturing/industrial goals (I-75) are identified as important regional goals here, supported by a targeted business clusters task force study. There are no apparent positive or negative impacts to that goal based on this alignment. Lowndes is part of a tri-county initiative, "Triple Crown Hometowns", to attract retirees to the area in order to diversify the economy. Easier access to Albany and its airport may benefit the effort. |
| BC                 | Crisp / City of Cordele    | Residential growth expected around Lake Blackshear, which the alignment currently crosses. The current alignment would slice through a southern portion of the lake, which is not favorable.                                                                                                                                                                                                                                                                                | Desire to extend GA 300 east to I-75 (2012-15), indicating a desire to connect to interstate system.                                                                                                                                                                                    | Desire to expand Cordele-Crisp County Industrial Park (in Cordele); interstate could help attract business.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | County ordinance has provisions for billboards (allowed near highways in commercial and industrial districts). While zoning districts exist, they do not address uses along highways. The City of Cordele has zoning including ordinances on signage, although billboards are not referenced. Highways Commercial district addresses retail oriented toward highway uses.                                                                             | Proposed alignment cuts through agricultural land and skirts the southern boundary of the City of Cordele.                                                                                                                                                                                                      | Alignment is consistent with future freight capacity growth between Albany and I-75 through Cordele along this corridor. Alignment would increase access to Lake Blackshear and GA Vets Memorial State Park, major regional destinations, from I-75 or from Albany - a plus. Alignment supports important regional goal to site a major industrial park in Crisp County.                                                                                                                                                                                                                                                                                                                                                                                        |
| CD                 | Tift / City of Tifton      | Roadways in agricultural areas should be widened only when required to meet public safety standards to preserve rural character. Sensitive wetland environments along SR 82 continue to be threatened due to development. SR 82 now serves as a gateway into Downtown Tifton. Uncontrolled growth a concern.                                                                                                                                                                | SR 82 designated as an "Urban Commercial Highway Corridor Character Area," to carry high volumes of passenger and truck traffic; greater care for aesthetic quality of these roadways is desired. A proposed truck route around Tifton seen as a potential threat to downtown business. | Biggest issues are low local workforce education level (access to training would help); getting return on investment for agricultural businesses (interstate may help connect them to more markets). Also desire to attract high-quality business parks to attract higher paying jobs. However, despite Tift having 7 interchanges with I-75, it only capitalizes on 2 of them, raising concerns another interstate would not be fully exploited in the same way.                                                                                                                                                                                                                                                                                                                        | City of Tifton has a community commercial district which provides and protects convenient areas for community shopping facilities adjacent to the federal interstate system. Additionally, Tifton has billboard regulations in place (allowing billboards only along state and federal highways). County has zoning* (however not on web).                                                                                                            | Current alignment cuts through Ty Ty and agricultural land, which the County wishes to protect.                                                                                                                                                                                                                 | Alignment is consistent with Tifton's role as a growth center in South Georgia region. Alignment is considered one of the highest need corridors in the region. Alignment is consistent with projected significant growth in the volume of freight trucking along this corridor between Albany and I-75. Region identifies this as one of the highest need infrastructure corridors. May impact the protected Little River corridor. May impact wetlands in Tift County.                                                                                                                                                                                                                                                                                        |





# Appendix E

## Land Use Scoring

Table E.1.1 Land Use Impacts Notes (continued)

| Alignment Segments | Counties / Cities          | Land Use Performance Measures                                                                                                                                                                                                                                                                                                                                                                                                                                               |                                                                                                                                                                                                                                                                                         |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |                                                                                                                                                                                                                                                                                                                                                                                                                                                       |                                                                                                                                                                                                                                                                                                                 |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
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|                    |                            | Consistent with Comprehensive Plan land use policies                                                                                                                                                                                                                                                                                                                                                                                                                        | Consistent with Comprehensive Plan transportation policies                                                                                                                                                                                                                              | Consistent with Comprehensive Plan economic development policies                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | Consistent with zoning and land development regulations                                                                                                                                                                                                                                                                                                                                                                                               | Compatibility with adjacent existing land uses                                                                                                                                                                                                                                                                  | Compatibility with regional land use context                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
| EG                 | Brooks / City of Quitman   | Most land in the county is agricultural, and the Comp Plan states that rural character should be maintained - even in town centers. A historic area of Morven is just west of the proposed alignment, which would cut through the town. GA 133 is designated in the plan as a Major Highway Corridor, a high-volume transportation facility. However, it is seen as the gateway to the county; therefore, regulations are recommended for these areas to manage aesthetics. | Transportation should support economic development yet natural and cultural resources should be protected.                                                                                                                                                                              | Desire to attract higher-wage jobs and retail opportunities so people will shop in the county.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | City (Quitman) and county have zoning ordinances* (however not on web). The City of Morven does not have zoning.                                                                                                                                                                                                                                                                                                                                      | Interstate would cross scenic highway (GA 122) and pass through Morven. Two Centennial Farms are located just west of GA 133 (the alignment).                                                                                                                                                                   | Regional initiative to grow industrial in Brooks County (a new \$4 million industrial park) is strongly related to I-75 via 76/84, and not to Albany or this corridor. The alignment would neither help nor hurt this goal. Brooks is part of a tri-county initiative, "Triple Crown Hometowns", to attract retirees to the area in order to diversify the economy. Easier access to Albany and its airport may benefit the effort.                                                                                                                                                                                                                                                                                                                             |
| EG                 | Lowndes / City of Valdosta | Sprawl is a major concern, where rural and city lines are becoming increasingly blurred. A new interstate may exacerbate this type of growth. There is also a concern about the nondescript development which occurs along interstate corridors and the decline of traditional town centers.                                                                                                                                                                                | Alternative modes of transportation, moving away from traffic planning focused on automobiles. The need appears to be for more interconnected local roads to relieve traffic on arterial roadways.                                                                                      | Economic development issues include lack of high-wage jobs for residents, workforce inadequacy; however, there is a desire to develop an executive office park with easy access to major transportation corridors and industrial properties. Because the county already has good interstate access, additional interstate access may prove only marginally more beneficial to support these aims. However, the Comp Plan states that the community is connected to the surrounding region for economic livelihood through businesses that process local agricultural products. Another interstate could facilitate this regional interaction. An additional interstate may help the rest of the region access the many higher education opportunities which exist in the county as well. | County has Unified Land Development Code which has a specific ordinance pertaining to signs along interstate highways. A Corridor Road Overlay District exists to manage the safe flow of traffic as well as steer development compatible along major arterial roadways, with specifications for signs, access, parking, landscaping, etc. A Highway Commercial district, for commercial development requiring highest levels of access, also exists. | Hwy 94 / 133 (interstate alignment) would cut through park / recreation / conservation area and linear green space / trail system, according to the future development map. However, the interstate would feed directly into a Regional Activity Center where it would connect with I-75, which is appropriate. | The Valdosta-Albany alignment does not reflect current growth trends in Lowndes County - the Valdosta area is growing to the north and east into Lanier and Echols County, and business and industry goals seem strongly related to I-75 (to Atlanta) and east/west highway 84 - not an Albany connection. Manufacturing/industrial goals (I-75) are identified as important regional goals here, supported by a targeted business clusters task force study. There are no apparent positive or negative impacts to that goal based on this alignment. Lowndes is part of a tri-county initiative, "Triple Crown Hometowns", to attract retirees to the area in order to diversify the economy. Easier access to Albany and its airport may benefit the effort. |
| BC                 | Crisp / City of Cordele    | Residential growth expected around Lake Blackshear, which the alignment currently crosses. The current alignment would slice through a southern portion of the lake, which is not favorable.                                                                                                                                                                                                                                                                                | Desire to extend GA 300 east to I-75 (2012-15), indicating a desire to connect to interstate system.                                                                                                                                                                                    | Desire to expand Cordele-Crisp County Industrial Park (in Cordele); interstate could help attract business.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | County ordinance has provisions for billboards (allowed near highways in commercial and industrial districts). While zoning districts exist, they do not address uses along highways. The City of Cordele has zoning including ordinances on signage, although billboards are not referenced. Highways Commercial district addresses retail oriented toward highway uses.                                                                             | Proposed alignment cuts through agricultural land and skirts the southern boundary of the City of Cordele.                                                                                                                                                                                                      | Alignment is consistent with future freight capacity growth between Albany and I-75 through Cordele along this corridor. Alignment would increase access to Lake Blackshear and GA Vets Memorial State Park, major regional destinations, from I-75 or from Albany - a plus. Alignment supports important regional goal to site a major industrial park in Crisp County.                                                                                                                                                                                                                                                                                                                                                                                        |
| CD                 | Tift / City of Tifton      | Roadways in agricultural areas should be widened only when required to meet public safety standards to preserve rural character. Sensitive wetland environments along SR 82 continue to be threatened due to development. SR 82 now serves as a gateway into Downtown Tifton. Uncontrolled growth a concern.                                                                                                                                                                | SR 82 designated as an "Urban Commercial Highway Corridor Character Area," to carry high volumes of passenger and truck traffic; greater care for aesthetic quality of these roadways is desired. A proposed truck route around Tifton seen as a potential threat to downtown business. | Biggest issues are low local workforce education level (access to training would help); getting return on investment for agricultural businesses (interstate may help connect them to more markets). Also desire to attract high-quality business parks to attract higher paying jobs. However, despite Tift having 7 interchanges with I-75, it only capitalizes on 2 of them, raising concerns another interstate would not be fully exploited in the same way.                                                                                                                                                                                                                                                                                                                        | City of Tifton has a community commercial district which provides and protects convenient areas for community shopping facilities adjacent to the federal interstate system. Additionally, Tifton has billboard regulations in place (allowing billboards only along state and federal highways). County has zoning* (however not on web).                                                                                                            | Current alignment cuts through Ty Ty and agricultural land, which the County wishes to protect.                                                                                                                                                                                                                 | Alignment is consistent with Tifton's role as a growth center in South Georgia region. Alignment is considered one of the highest need corridors in the region. Alignment is consistent with projected significant growth in the volume of freight trucking along this corridor between Albany and I-75. Region identifies this as one of the highest need infrastructure corridors. May impact the protected Little River corridor. May impact wetlands in Tift County.                                                                                                                                                                                                                                                                                        |





# Southwest Georgia Interstate Study

## Appendix F

### Community Benefits Scoring

#### APPENDIX F

##### F.1 Community Benefits Scoring: GIS Source Methodology

GIS information was collected to inform the community benefits analysis per potential interstate segment. Access to facilities was assessed along with impacts on certain populations, built-up areas, and historic/cultural resources. Although the assessment of prime agricultural land was analyzed under as a land use impact, because it was most easily studied through GIS data, the methodology for this assessment is included here. Data sources for all performance measures studied follow on the next pages.

Parameters were set for the analysis as follows:

- Hospitals, higher education, and technical schools: The number of facilities within a 5-mile buffer on both sides of the potential interstate alignment (i.e. 10 miles total) were counted to understand potential additional access which the alignment might help bring about.
- Employment centers: The number of major employment centers within a 1-mile buffer on both sides of the potential interstate alignment (i.e. 2 miles total) were counted to understand potential additional access.
- Residential populations, populations in poverty, minority populations, elderly populations, populations without high school diplomas: Data for these populations was available on the block-group level. All people living within block groups which intersect a half-mile buffer of the alignment (i.e. 1 mile total) were counted as populations potentially impacted by the possible interstate alignment. Although drawbacks exist using this methodology, due to the varying sizes of block groups and the lack of understanding regarding where in the block groups people actually reside, this represents the best available count of populations potentially impacted. Should an interstate actually be constructed, more detailed, site-specific analysis would need to be performed.
- Cities/villages/subdivisions: The number of cities, villages, and subdivisions which might be impacted (e.g. bisected or abutted by) the potential interstate alignment were counted, based on counting those built-up areas within a half-mile buffer on both sides of the potential interstate alignment (i.e. 1 mile total).
- Historic/cultural assets and prime agriculture: The number of historic/cultural assets and the amount of prime agricultural land within a half-mile buffer (i.e. 1 mile) of the potential interstate alignments was counted.



# Southwest Georgia Interstate Study

## Appendix F

### Community Benefits Scoring

The following table lists source information for the community benefits GIS analysis. As explained above, prime agricultural land source information is also included here as GIS was used to assess potential impacts for this land use performance measure.

**Table F.1.1**  
**GIS Source Information**

| <b>Statewide Datasets</b>       | <b>Source/Notes</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
|---------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Hospitals                       | From Georgia DCA (2008). Included in this dataset are General Medical and Surgical Hospitals, Psychiatric and Substance Abuse Hospitals, and Specialty Hospitals (e.g., Children's Hospitals, Cancer Hospitals, Maternity Hospitals, Rehabilitation Hospitals, etc.).                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
| Higher Education                | From Georgia DCA (2007). The Colleges and Universities dataset is composed of any type of Post Secondary Education such as: colleges, universities, technical schools, trade schools, business schools, satellite (branch) campuses, etc. that grant First Professional, Associate, Bachelors, Masters, or Doctoral degrees. Only colleges and universities were included in this subset.                                                                                                                                                                                                                                                                                                                                                                                                          |
| Tech Schools                    | From Georgia DCA (2007). The Colleges and Universities dataset is composed of any type of Post Secondary Education such as: colleges, universities, technical schools, trade schools, business schools, satellite (branch) campuses, etc. that grant First Professional, Associate, Bachelors, Masters, or Doctoral degrees. Tech schools are a subset that were selected.                                                                                                                                                                                                                                                                                                                                                                                                                         |
| Major Employers and Job Centers | Data was collected from the GA DCA website and includes major employers in counties where the potential alignment intersects. The map also shows Cities as job centers.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
| Residential Population          | Data is from PBS&J and includes 2006 population data by TAZ.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
| Poverty (low income)            | Census 2000 STF3: Table P87 (block group level). County spreadsheets were downloaded from the Census website. Data mapped is the % of individuals living in households with incomes at or below the federal poverty line based on the population from whom this data was collected (block groups).                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
| Cities/Places/Villages          | This data is an extract of the USGS's GNIS database. The set is called "Places" and includes point data representing places of human habitation.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| Cultural/Historic               | Historic - NAHRGIS database - contains information about Georgia's archaeological and historic resources. In the NAHRGIS system, archaeological resources means archaeological sites recorded in the Georgia Archaeological Site File. Historic resources includes buildings, structures, historic sites, landscapes, and districts included in the Historic Preservation Division's Historic Resources Survey or listed in the National Register of Historic Places. Cultural info: U.S. Department of the Interior, U.S. Geological Survey, 1987<br>Geographic Names Information System. Cultural info was queried from this dataset and the attributes queried include: auditorium, theater, city hall, community center, library, lighthouse, memorial, mill, monument, museum, senior center. |
| Prime Agriculture Lands         | U.S. Department of Agriculture, Natural Resources Conservation Service. SSURGO data was used to determine prime farm lands. The attribute value "All areas are prime farm land" was used to determine this value.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |



## ***Appendix F***

### ***Community Benefits Scoring***

The table on the following page lists major employers counted as part of the community benefits analysis, under the “employment centers” performance measure. The information was sourced from Georgia Department of Community Affairs (DCA) “County Snapshots” (as found on their website: <http://www.dca.state.ga.us/CountySnapshotsNet/default.aspx> under the “economy” link which reveals “top employers by county”).



# Southwest Georgia Interstate Study

## Appendix F

### Community Benefits Scoring

Table F.1.2  
Major Employers by County (GA DCA, 2004)

| County        | Employers                                                                                                                                             |
|---------------|-------------------------------------------------------------------------------------------------------------------------------------------------------|
| Baker         | American Force One Inc., Ichauway Inc , Michael's Shopping Center, Pineland Plantation, Rentz Four Point Petro                                        |
| Brooks        | Beech Island Knitt, John D Archbold Memorial Hospital, Lahood's Fellowship Home Inc, Langboard Inc, Micro Craft                                       |
| Chattahoochee | Cusseta Laundry Inc, Employment Source Inc, Lear Siegler Services Inc, Taylor Motors Inc, Thomas Brand Siding                                         |
| Colquitt      | Colquitt Regional Medical Center, Moultrie Technical College, National Beef, Riverside Manufacturing Co, Wal-Mart Associates Inc                      |
| Cook          | Aluminum Finishing of Georgia Inc, Healthmont Of Georgia Inc, J-M Manufacturing, Micro-Flo Co, Specialty Stamping LLC                                 |
| Crisp         | Best Manufacturing, Crisp Regional Hospital, Lasco Bathware Inc, Marvair Inc, Wal-Mart Associates Inc                                                 |
| Dougherty     | Wal-Mart Associates Inc, Cooper Tire & Rubber Co, Phoebe Putney Memorial Hospital, Procter & Gamble, Wal-Mart Associates Inc                          |
| Grady         | John D Archbold Memorial Hospital, Paca Inc, The Torrington Group, Wal-Mart Associates Inc, Wight Nurseries Inc                                       |
| Lee           | Lee State Prison, Oxford Construction Co, Parker Security & Investigative Service, Securitas Security Services, Woodgrain Millwork Inc                |
| Lowndes       | University, Valdosta-Lowndes County Hospital Authority, Wal-Mart Associates Inc                                                                       |
| Marion        | Baby's Dream Furniture, CRHS Long Term and Home Care Inc, Oakcrest Lumber Inc, Tyson Farms Inc, Unimin Corp                                           |
| Mitchell      | Anderson Manufacturing Inc, Camilla Pecan Co Inc, Equity Group LLC - Georgia Division, John D Archbold Memorial Hospital, Mitchell County Prison      |
| Muscogee      | American Family Life Assurance Co, Blue Cross Blue Shield, St Francis Hospital Inc, The Medical Center Inc, Total Systems Service Inc                 |
| Randolph      | Andrew College, Georgia Feed Products, Huddle House, New Horizons Community Service Board, Randolph County Hospital Authority                         |
| Stewart       | Farmers State Bank, Flex-Tec Inc, Four County Health Care LLC, Stewart Webster Hospital Inc., Stewart-Webster Rural Health Board Inc                  |
| Sumter        | Cooper Lighting, JPS Automotive Inc, Magnolia Manor Inc, Sumter Regional Hospital Inc, Wal-Mart Associates Inc                                        |
| Terrell       | Dawson Manor Nursing Home LLC, Dawson Manufacturing Co, Golden Peanut Co, Terrell County Prison, Tyson Farms Inc                                      |
| Thomas        | John D Archbold Memorial Hospital, Professional & Temporary Service Inc, Southwestern State Hospital, Turbine Engine Co, Workstaff Personnel Services |
| Tift          | Gibbs Patrick Farms Inc, Shaw Industries Group Inc, Target Stores, Tift County Hospital Authority, Wal-Mart Associates Inc                            |
| Webster       | Adams Food Center, Charles R Jones, Cooper Lighting, Tolleson Lumber Co, Webster Farmers Inc                                                          |
| Worth         | Birdsong Peanuts, Conagra Grocery Products Inc, Continental Manufacturing Co, Phoebe Worth Hospital Inc, Sylvester Health Care                        |



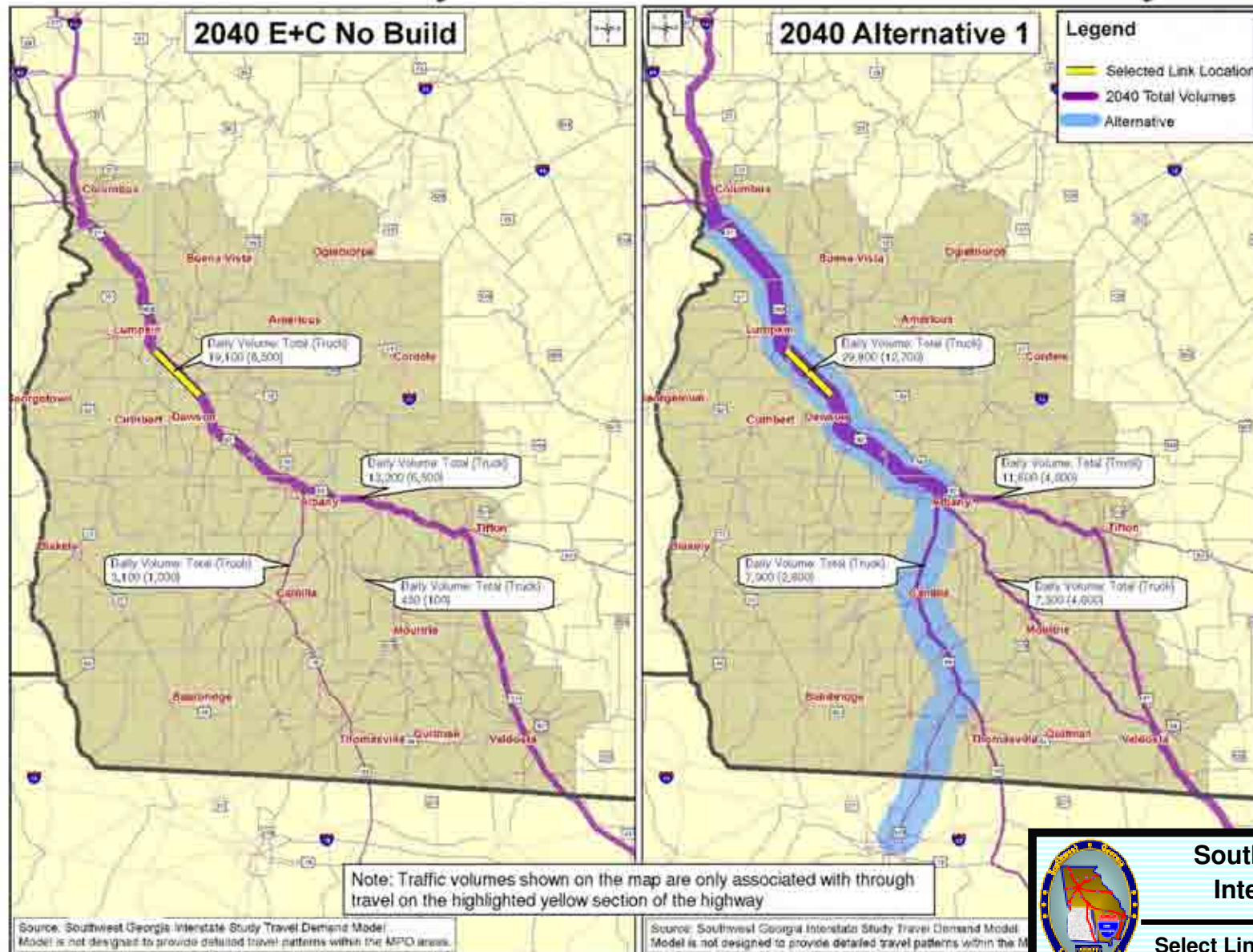


## APPENDIX G

### G.1 SELECT LINK ANALYSES

The following pages contain the 8 select links for each of the 6 alternatives used to examine changes in travel patterns within southwest Georgia resulting from each of the hypothetical Interstate corridors.

# Travel Pattern Analysis on SR520 Between Columbus & Albany



**Southwest Georgia  
Interstate Study**

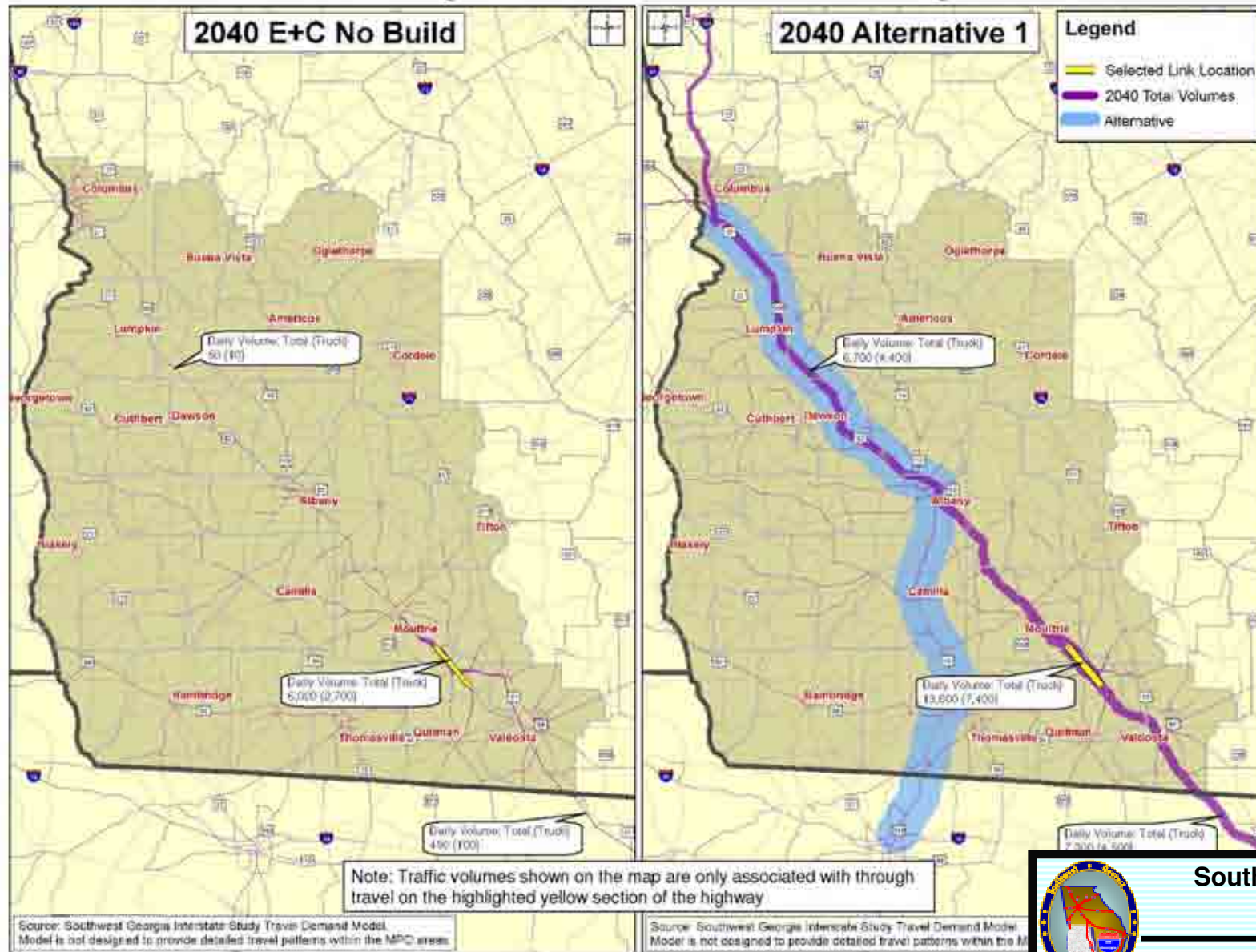
**Select Link Analysis – SR520**

**Appendix G**

**Figure G.1**

*Final Report*

# Travel Pattern Analysis on SR133 Between Albany & Valdosta



Southwest Georgia

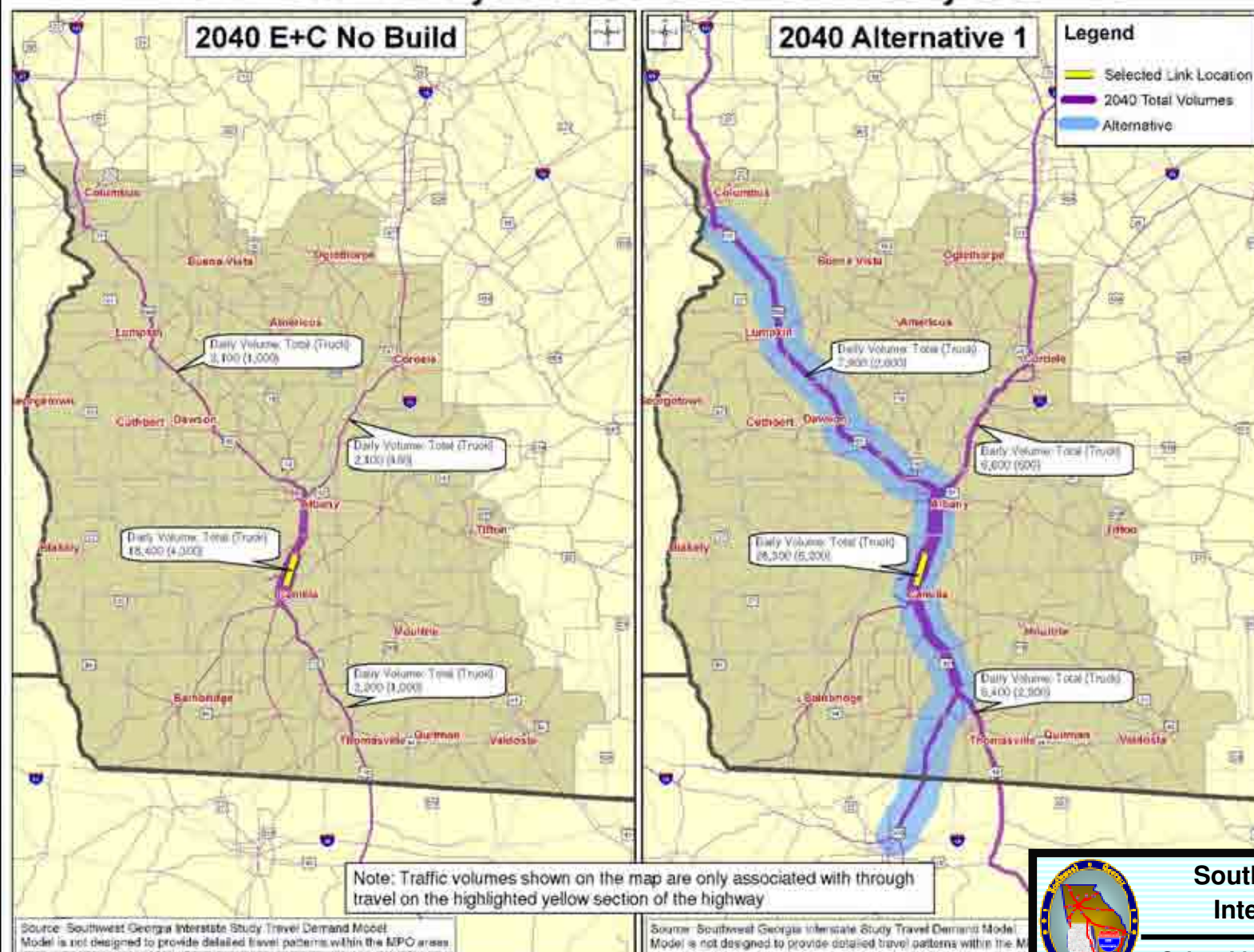
Select Link Analysis – SR133

Appendix G

Figure G.2



### Travel Pattern Analysis on US19 Between Albany & Camilla



## Southwest Georgia Interstate Study

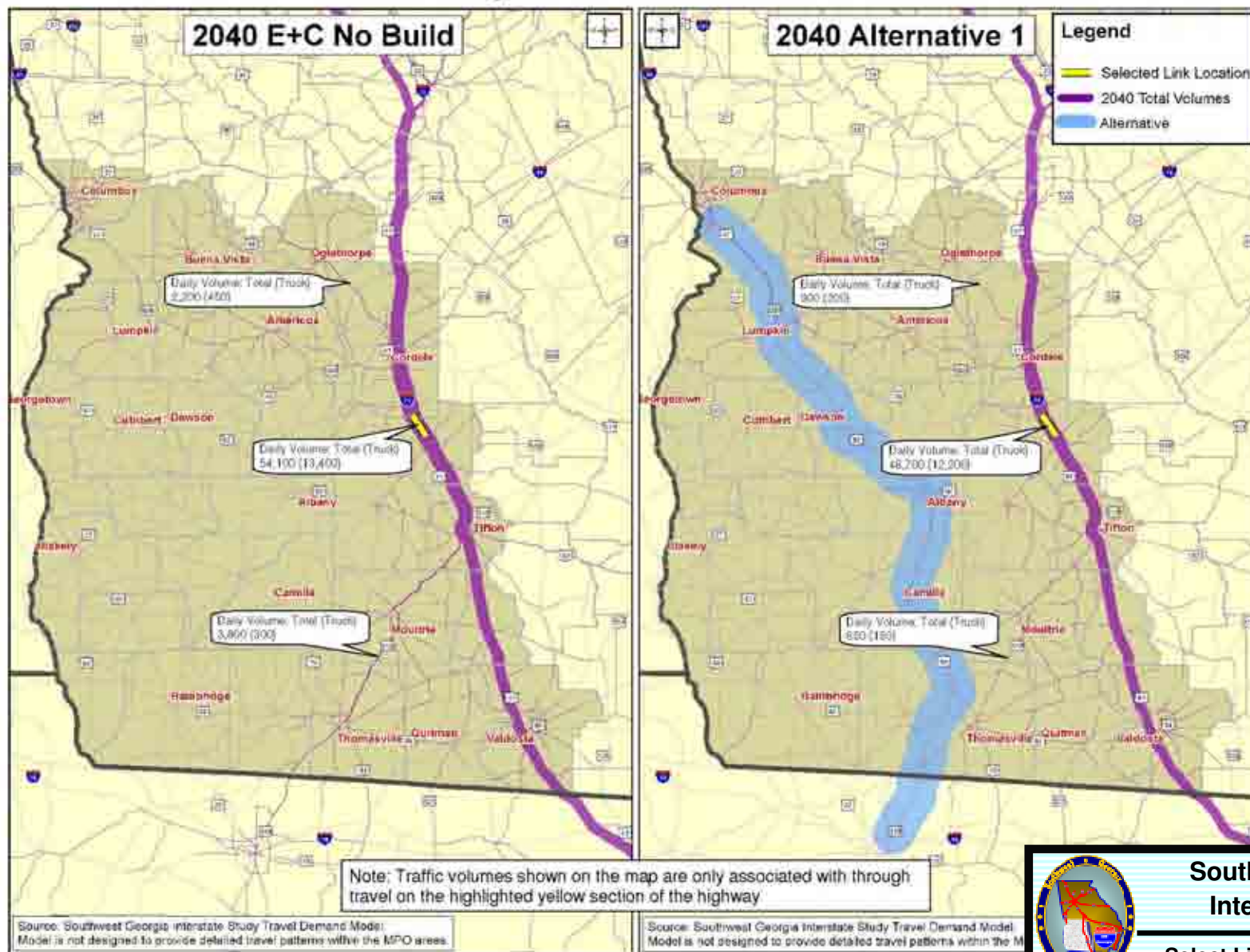
### Select Link Analysis – US19

## Appendix G

### Figure G.3



## Travel Pattern Analysis on I75 Between Cordele & Tifton



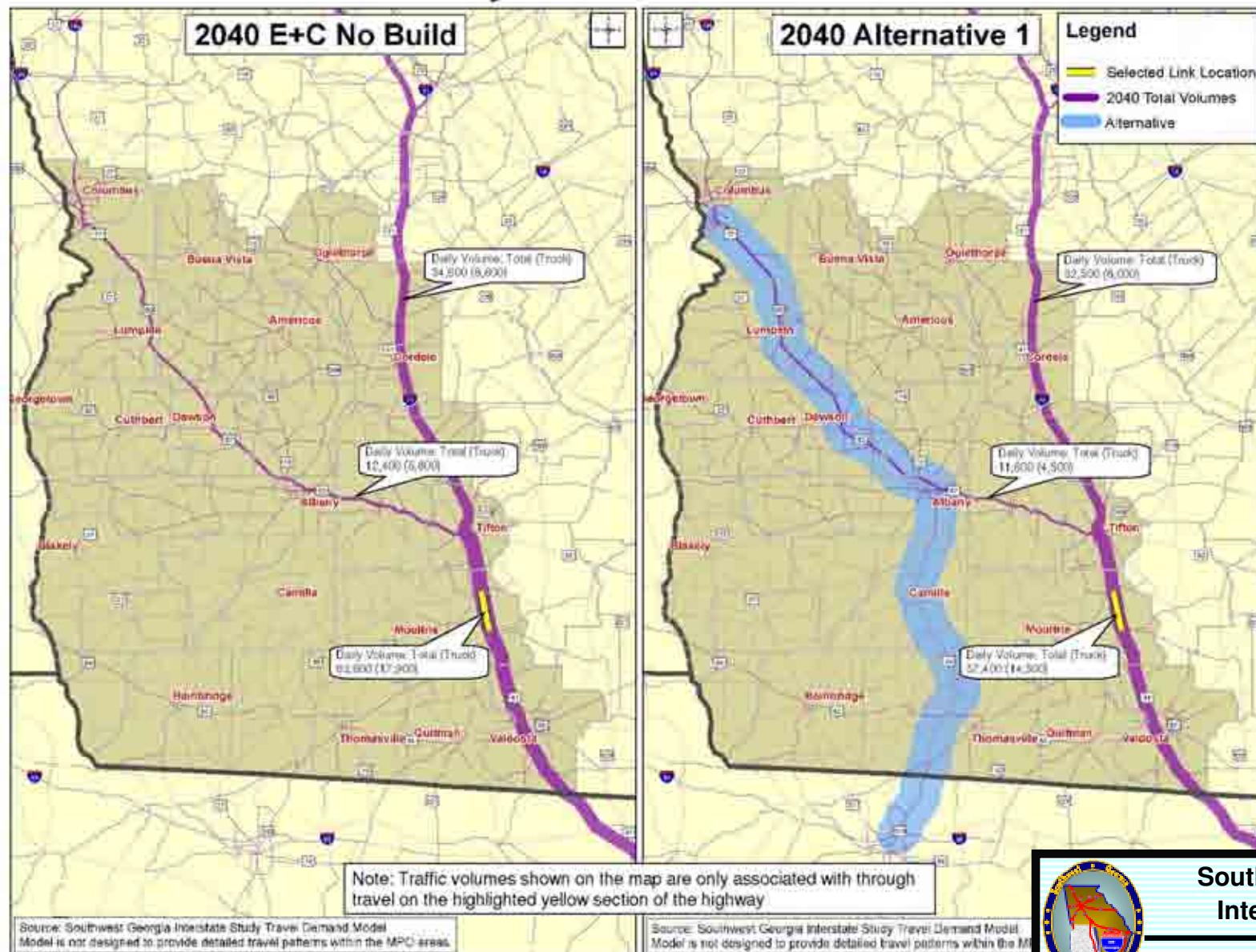
**Southwest Georgia  
Interstate Study**

**Select Link Analysis – I-75**

**Appendix G**

**Figure G.4**

## Travel Pattern Analysis on I75 Between Tifton & Valdosta



**Southwest Georgia  
Interstate Study**

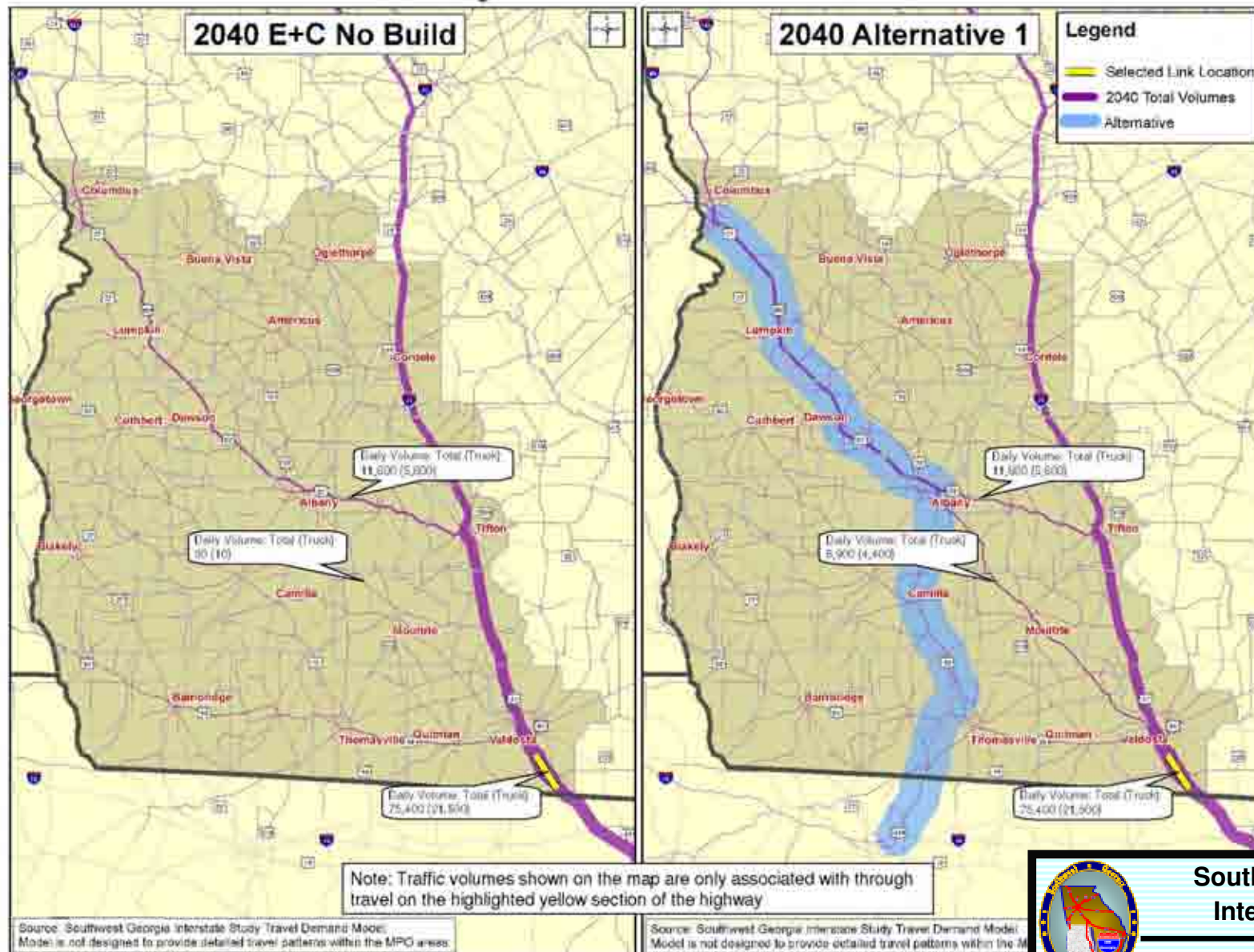
**Select Link Analysis – I-75**

**Appendix G**

**Figure G.5**



## Travel Pattern Analysis on I75 Between Valdosta & Florida



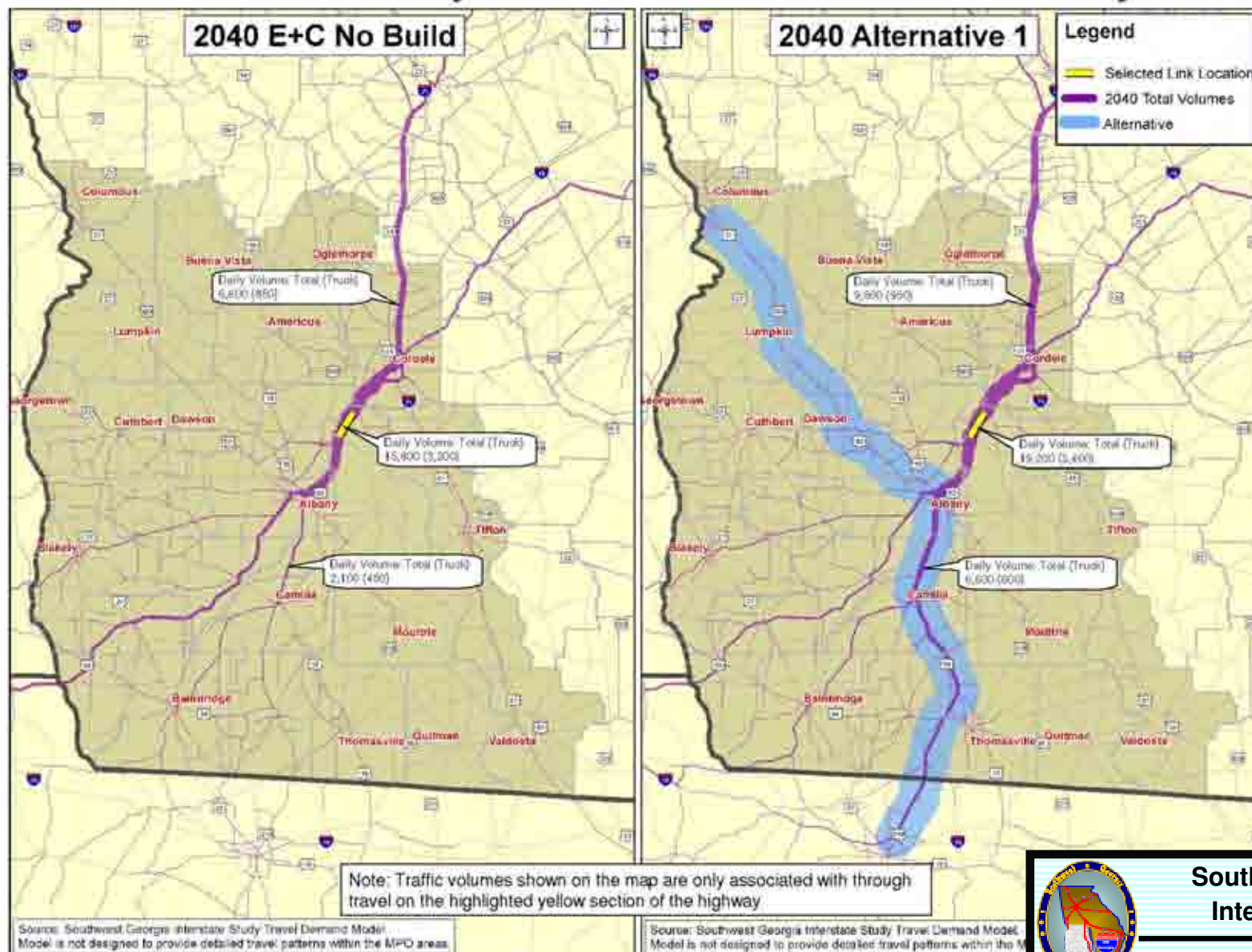
**Southwest Georgia  
Interstate Study**

**Select Link Analysis – I-75**

**Appendix G**

**Figure G.6**

## Travel Pattern Analysis on SR300 Between Cordele & Albany



**Southwest Georgia  
Interstate Study**

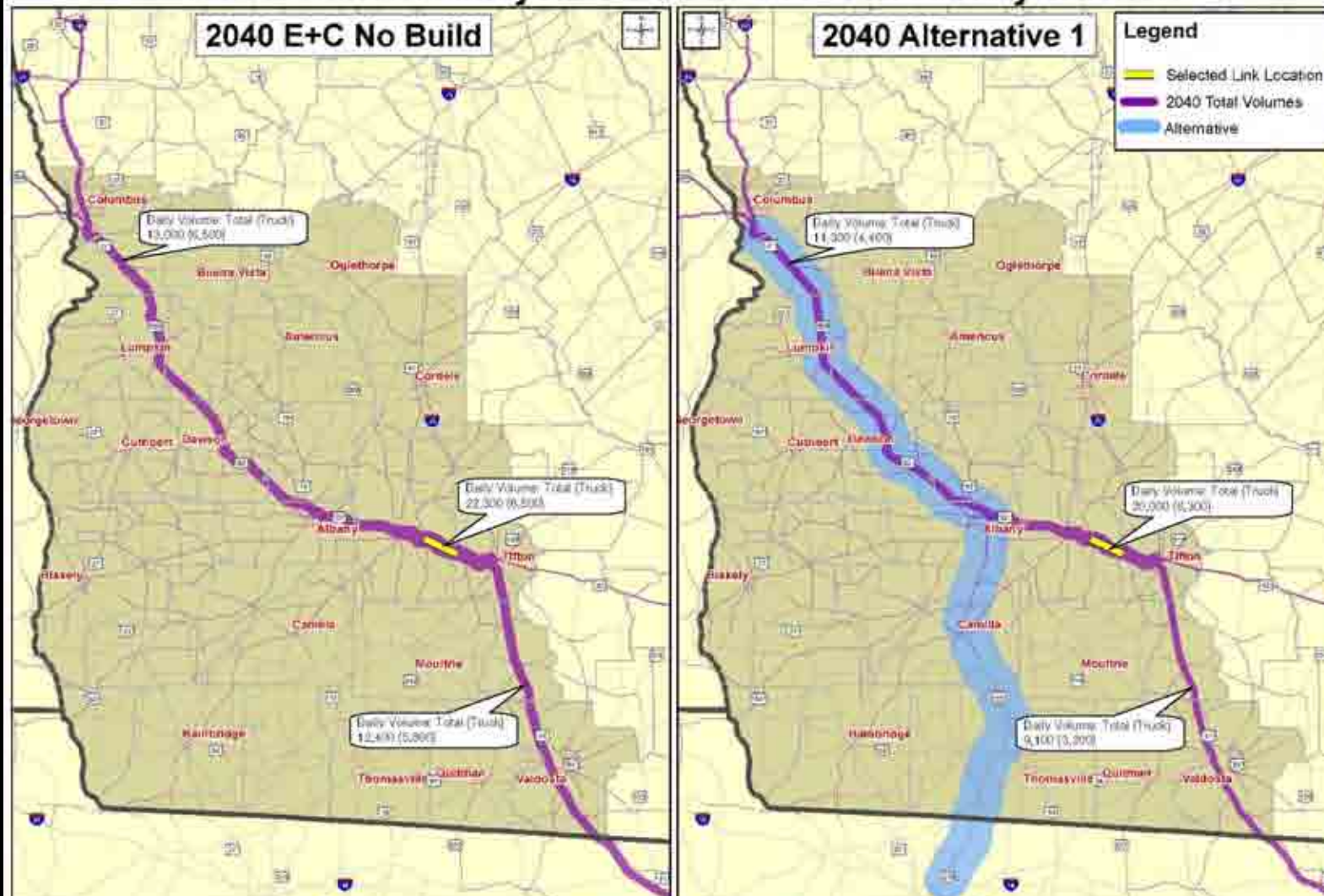
**Select Link Analysis – SR300**

**Appendix G**

**Figure G.7**



## Travel Pattern Analysis on US82 Between Albany & Tifton



Note: Traffic volumes shown on the map are only associated with through travel on the highlighted yellow section of the highway

Source: Southwest Georgia Interstate Study Travel Demand Model  
Model is not designed to provide detailed travel patterns within the MPO areas

Source: Southwest Georgia Interstate Study Travel Demand Model  
Model is not designed to provide detailed travel patterns within the MPO areas



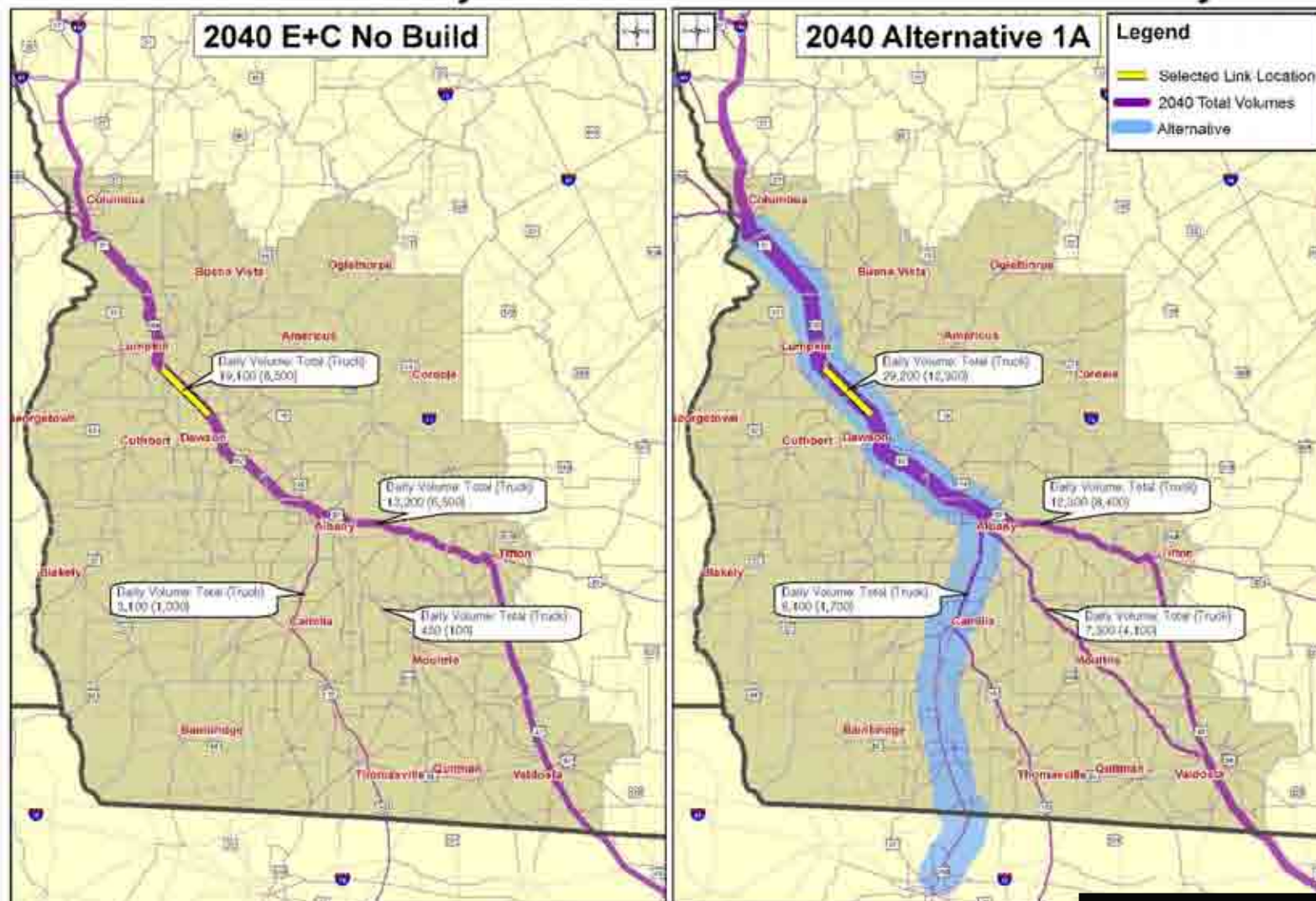
**Southwest Georgia  
Interstate Study**

**Select Link Analysis – US82**

**Appendix G**

**Figure G.8**

## Travel Pattern Analysis on SR520 Between Columbus & Albany



**Southwest Georgia  
Interstate Study**

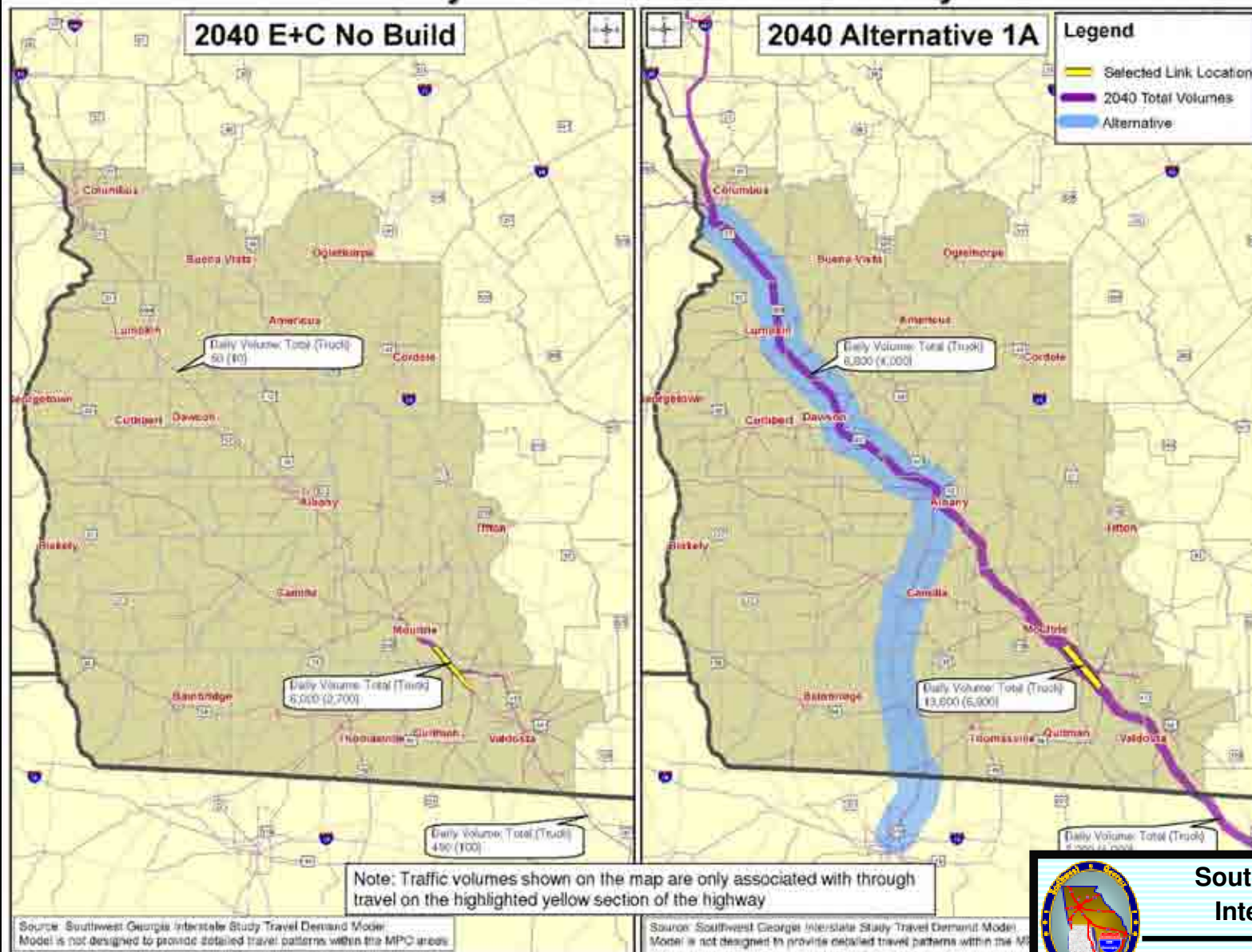
**Select Link Analysis – SR520**

**Appendix G**

**Figure G.9**



# Travel Pattern Analysis on SR133 Between Albany & Valdosta



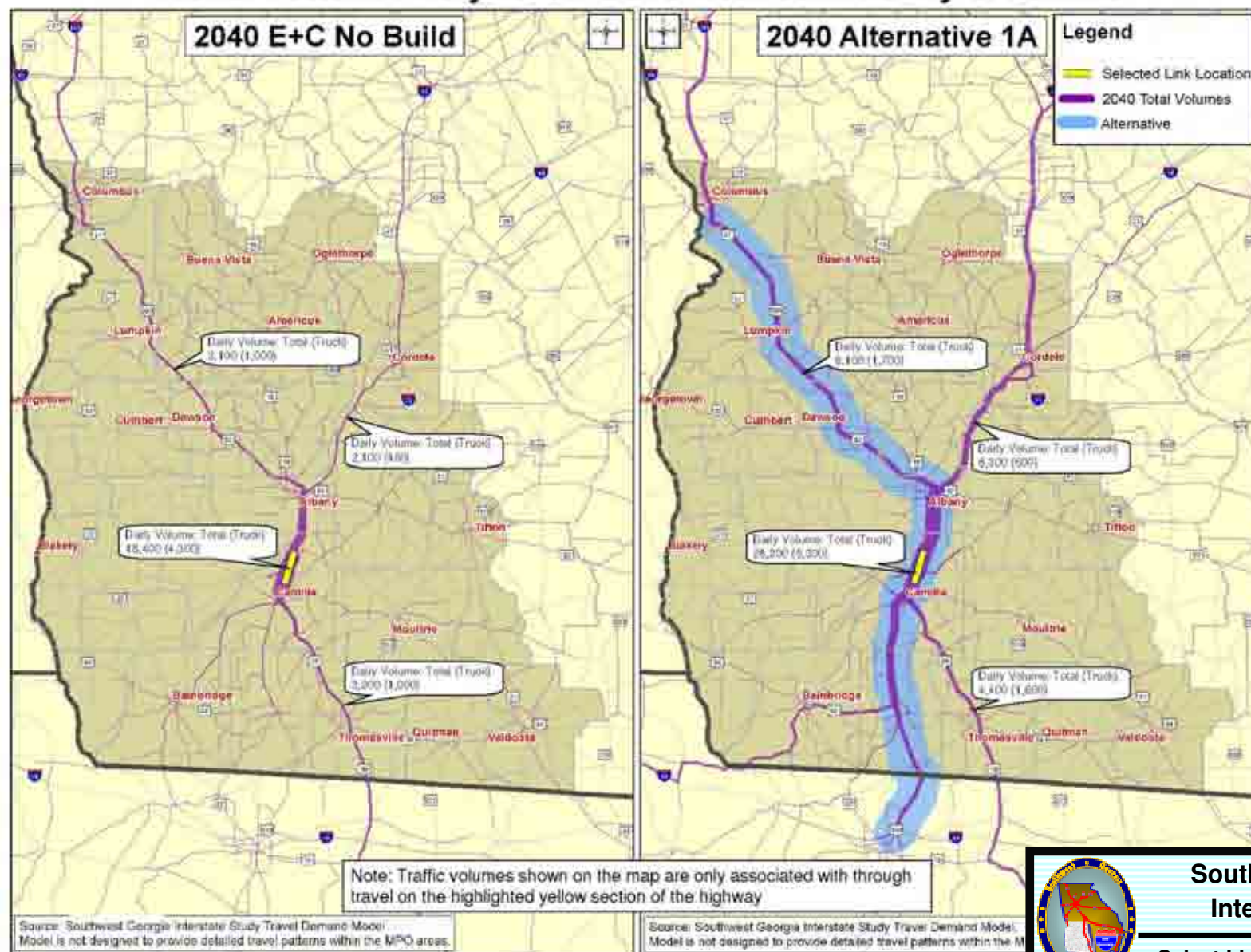
**Southwest Georgia  
Interstate Study**

**Select Link Analysis – SR133**

**Appendix G**

**Figure G.10**

## Travel Pattern Analysis on US19 Between Albany & Camilla



**Southwest Georgia  
Interstate Study**

**Select Link Analysis – US19**

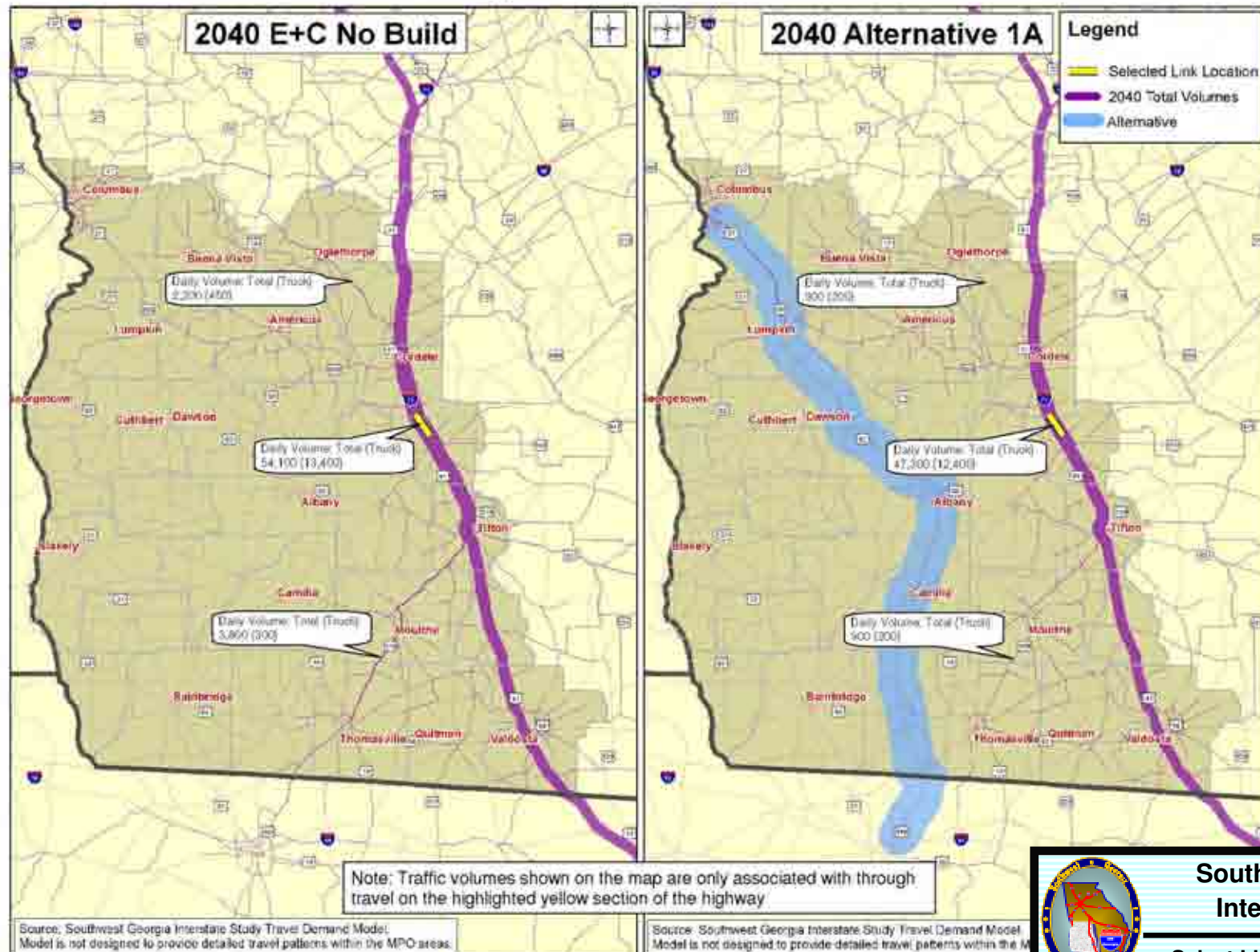
**Appendix G**

**Figure G.11**

*Final Report*



## Travel Pattern Analysis on I75 Between Cordele & Tifton



**Southwest Georgia  
Interstate Study**

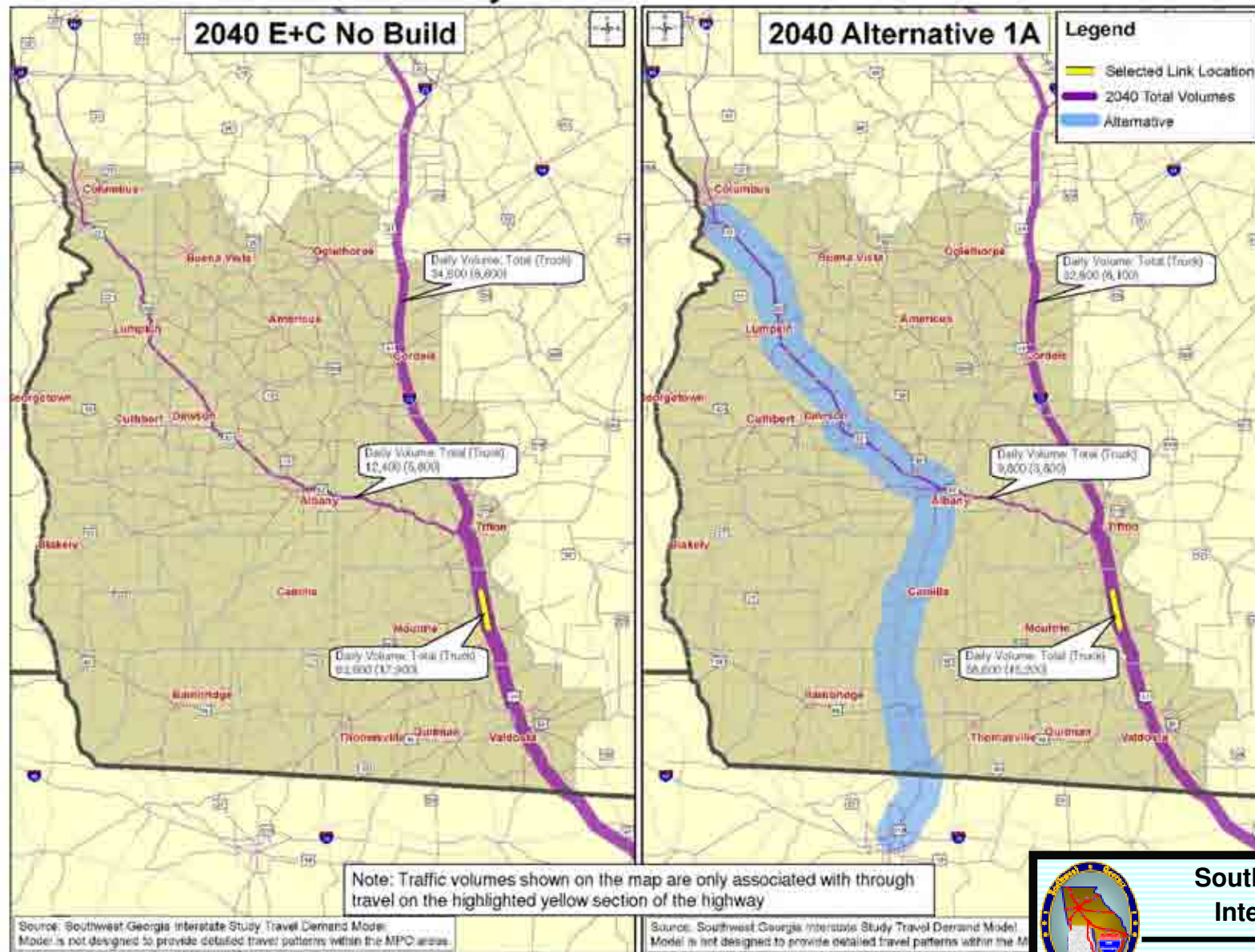
**Select Link Analysis – I-75**

**Appendix G**

**Figure G.12**

*Final Report*

## Travel Pattern Analysis on I75 Between Tifton & Valdosta



**Southwest Georgia  
Interstate Study**

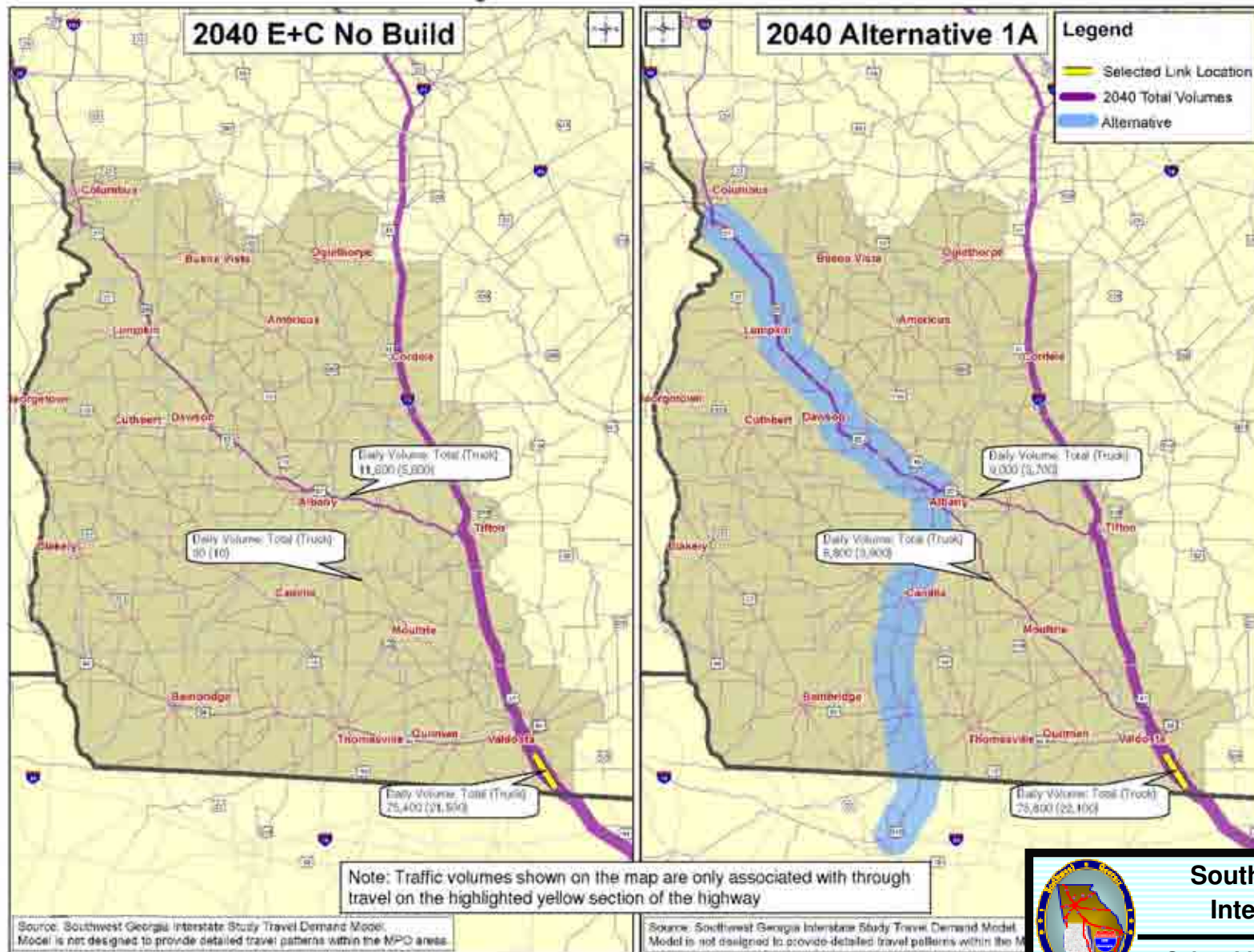
**Select Link Analysis – I-75**

**Appendix G**

**Figure G.13**



## Travel Pattern Analysis on I75 Between Valdosta & Florida



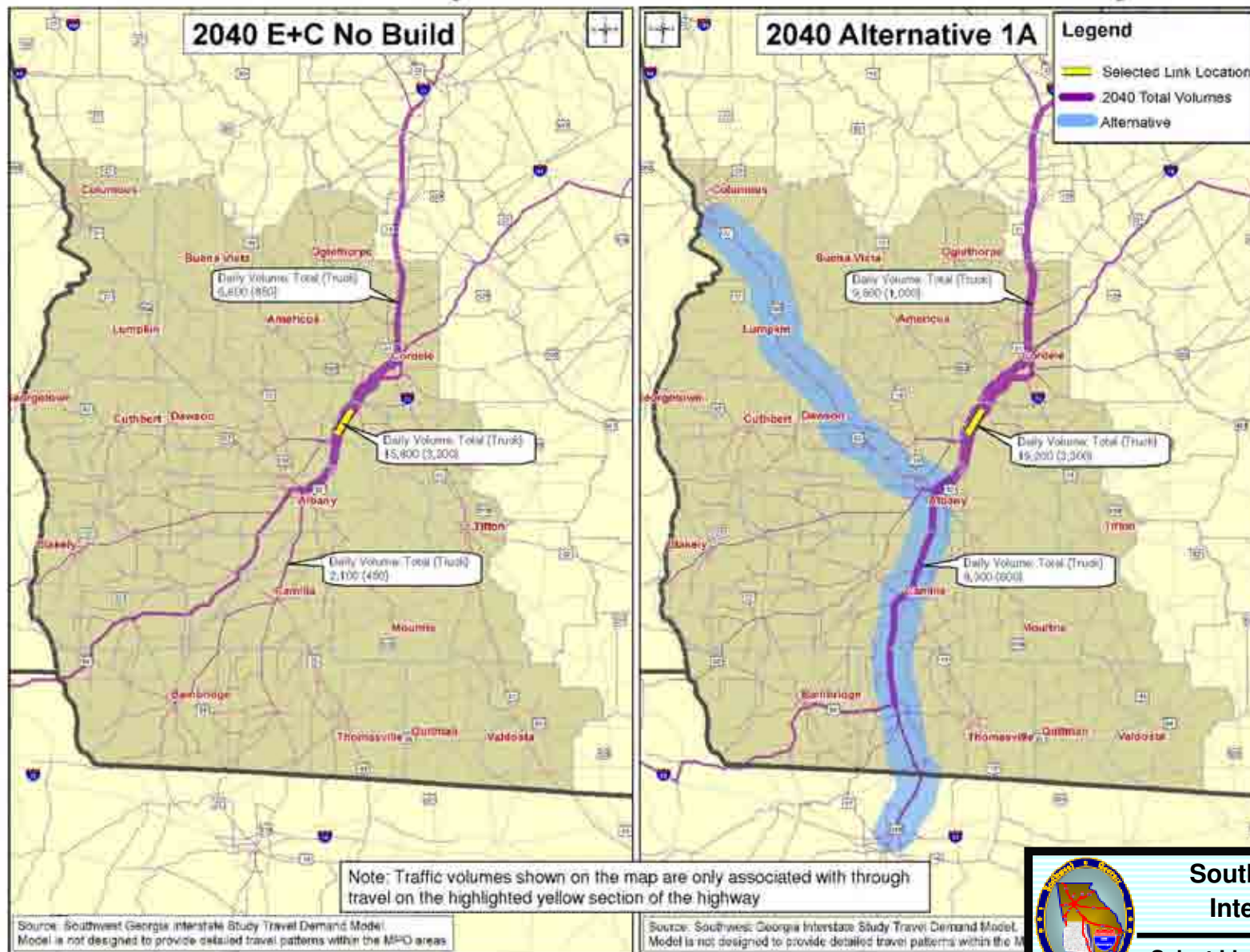
**Southwest Georgia  
Interstate Study**

**Select Link Analysis – I-75**

**Appendix G**

**Figure G.14**

## Travel Pattern Analysis on SR300 Between Cordele & Albany



**Southwest Georgia  
Interstate Study**

**Select Link Analysis – SR300**

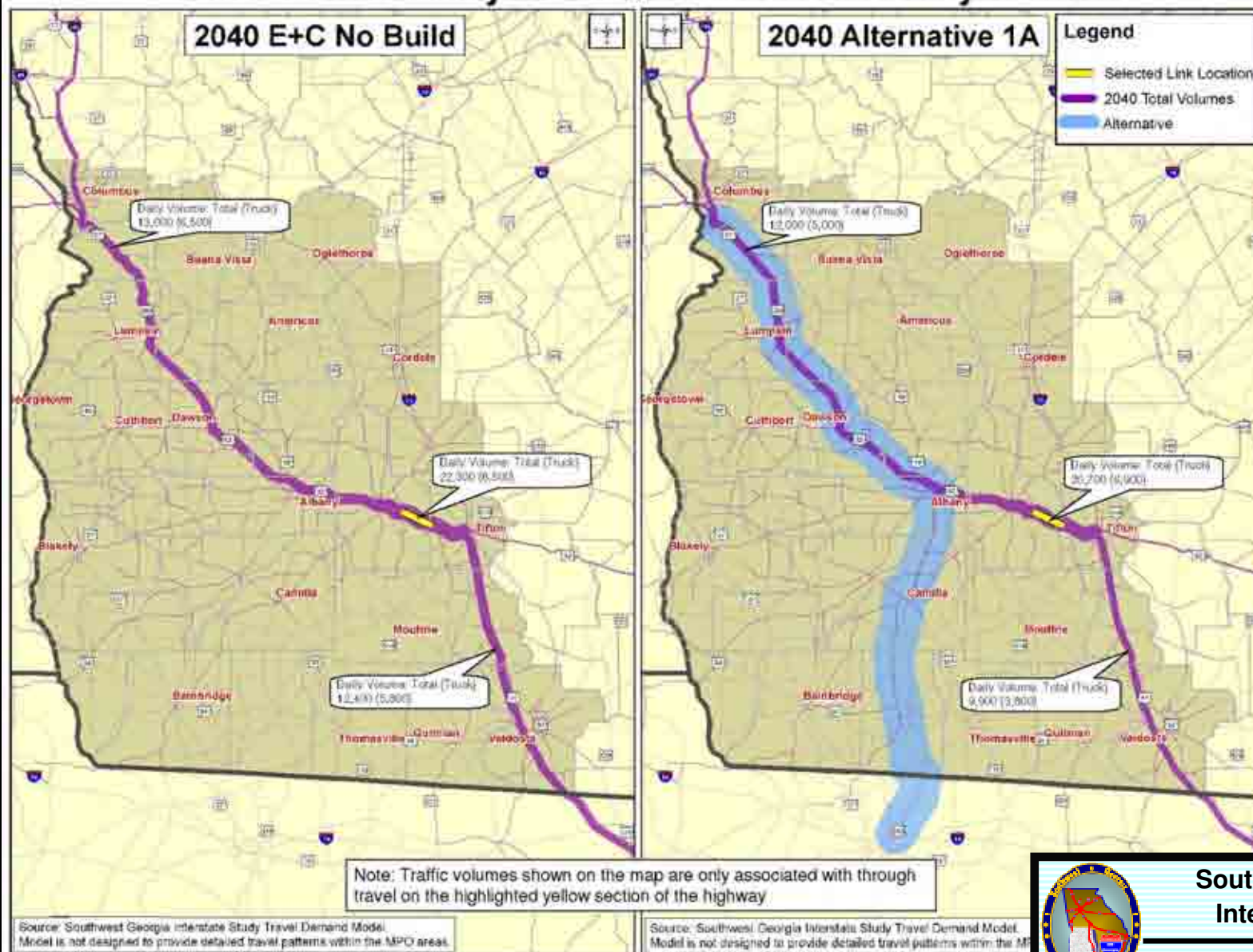
**Appendix G**

**Figure G.15**

*Final Report*



## Travel Pattern Analysis on US82 Between Albany & Tifton



**Southwest Georgia  
Interstate Study**

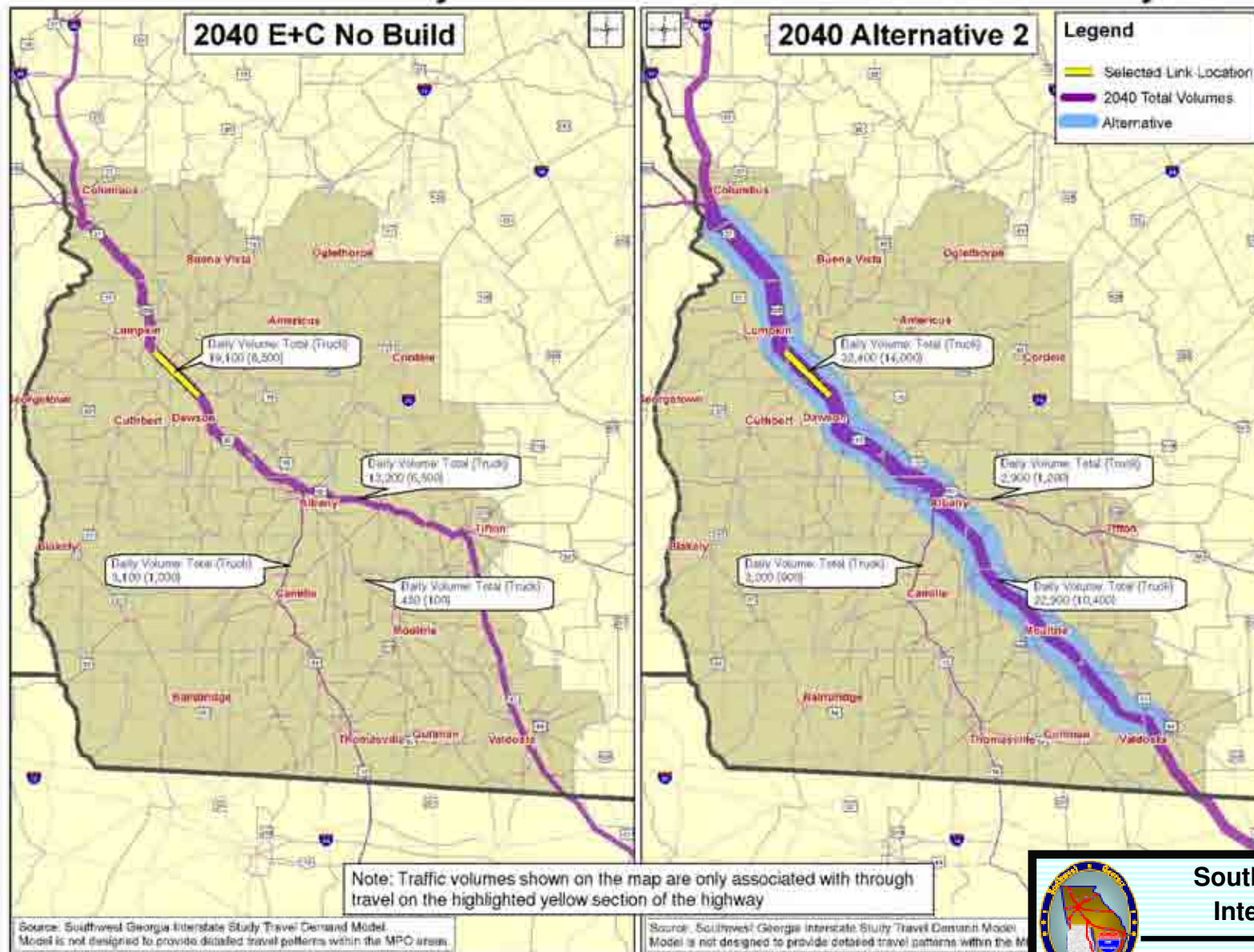
**Select Link Analysis – US82**

**Appendix G**

**Figure G.16**

*Final Report*

## Travel Pattern Analysis on SR520 Between Columbus & Albany



**Southwest Georgia  
Interstate Study**

**Select Link Analysis – SR520**

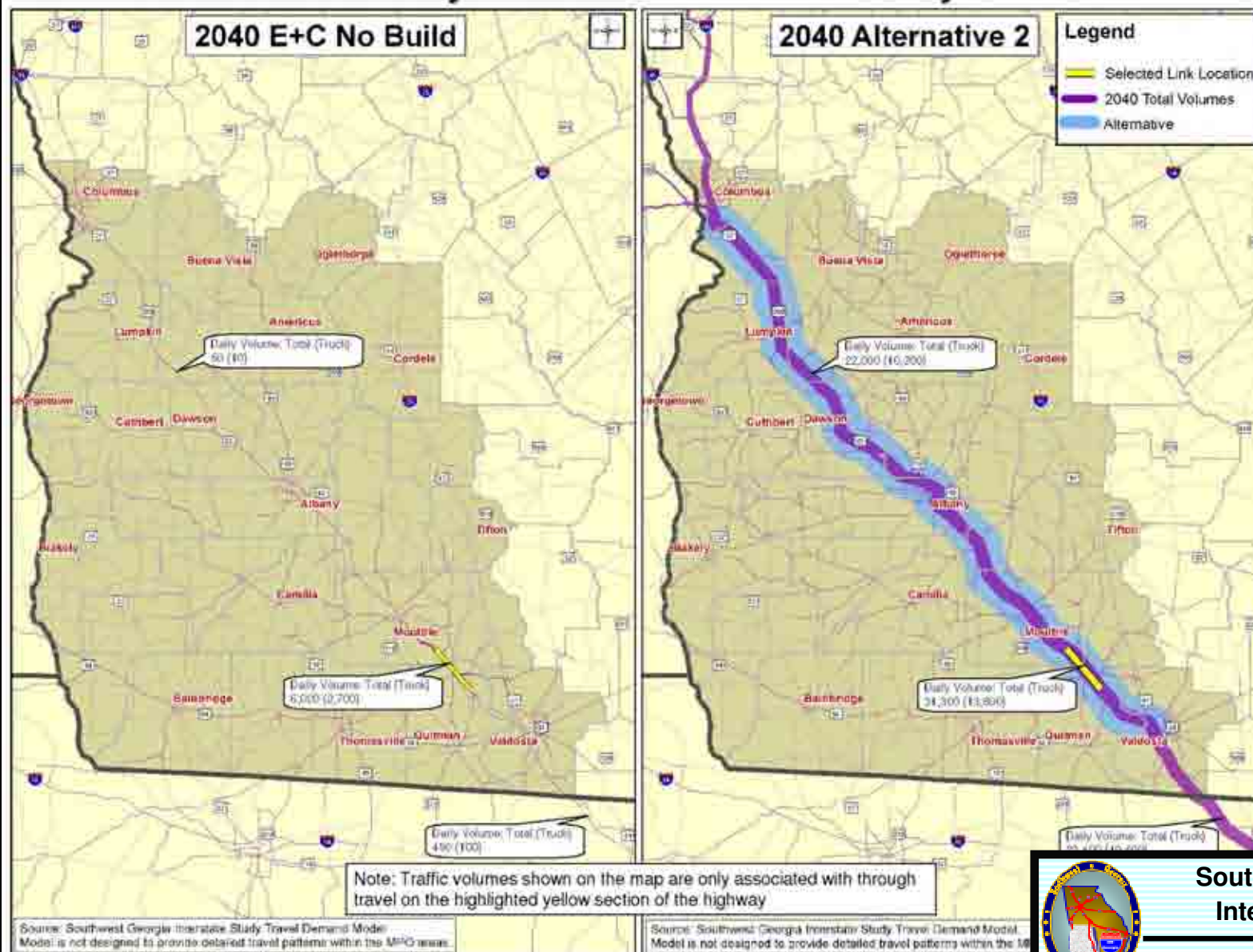
**Appendix G**

**Figure G.17**

*Final Report*



## Travel Pattern Analysis on SR133 Between Albany & Valdosta



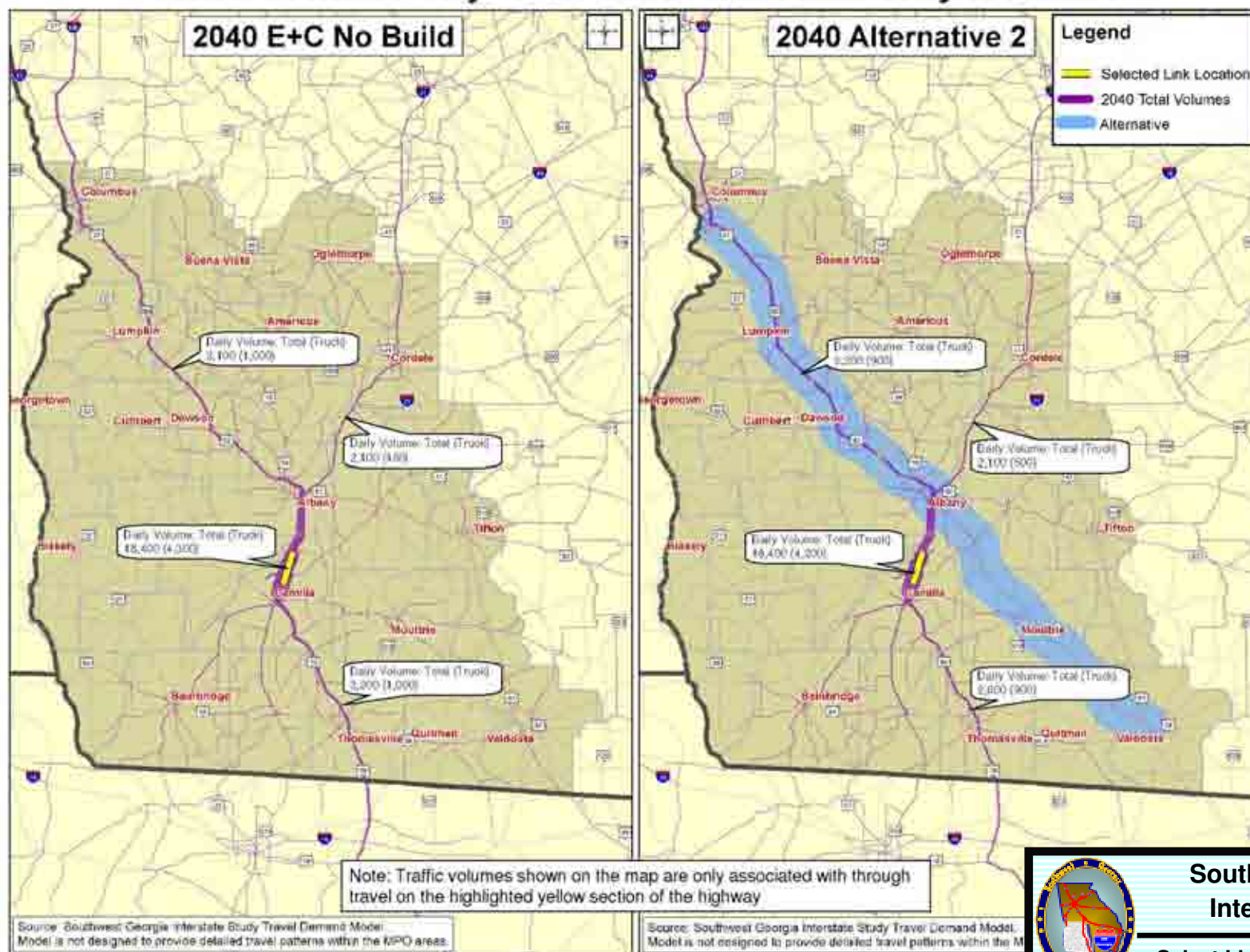
**Southwest Georgia  
Interstate Study**

**Select Link Analysis – SR133**

**Appendix G**

**Figure G.18**

## Travel Pattern Analysis on US19 Between Albany & Camilla



**Southwest Georgia  
Interstate Study**

**Select Link Analysis – US19**

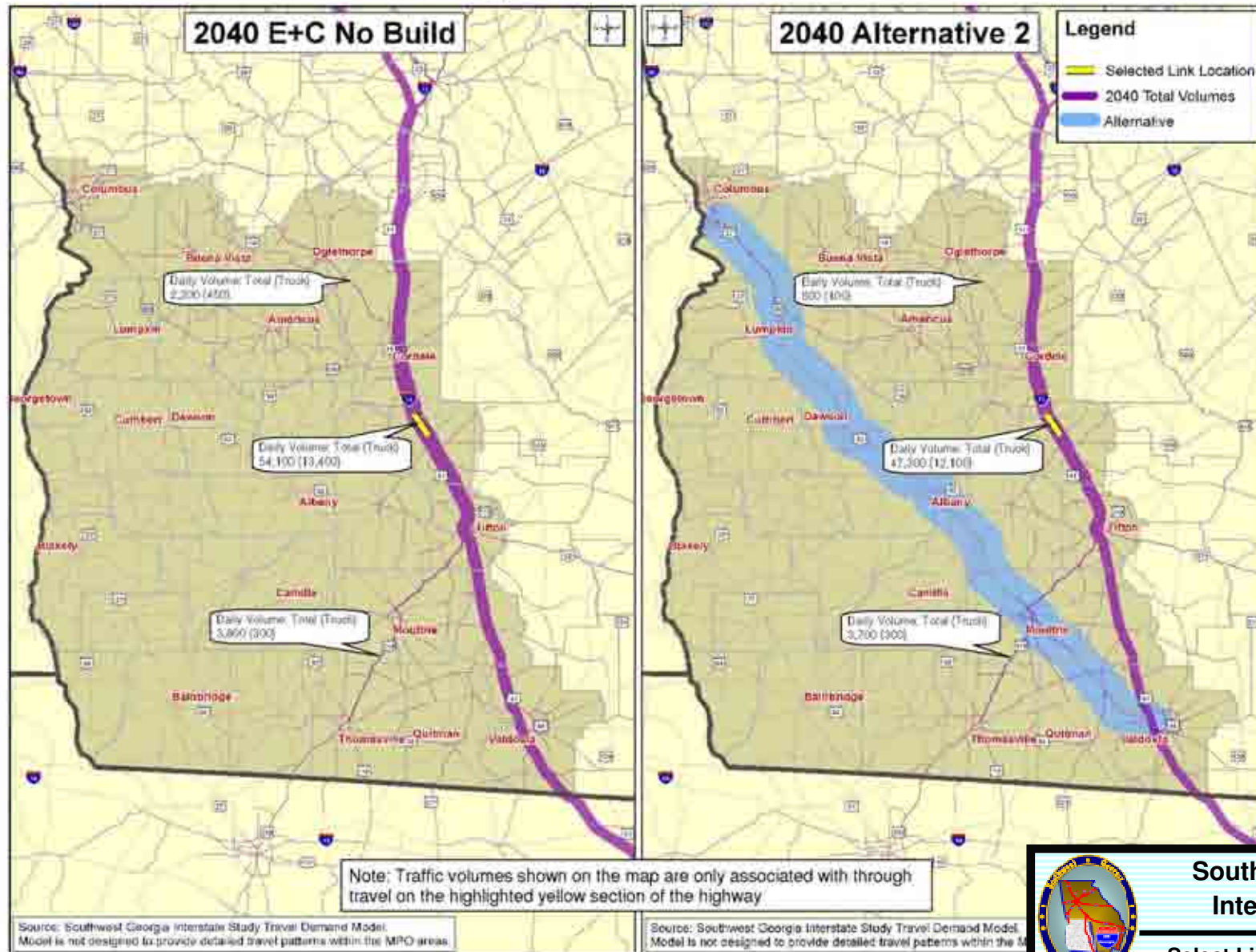
**Appendix G**

**Figure G.19**

*Final Report*



## Travel Pattern Analysis on I75 Between Cordele & Tifton



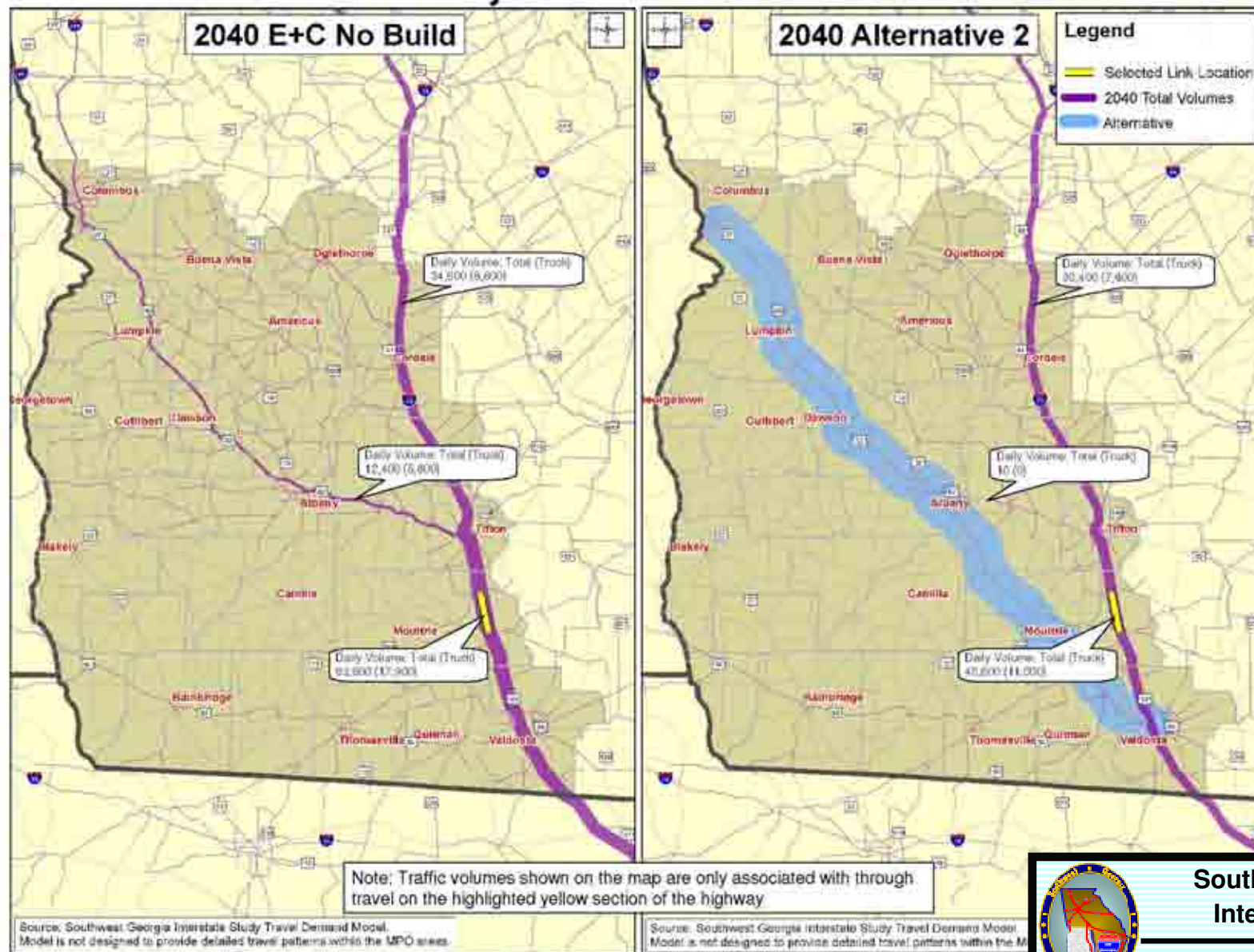
**Southwest Georgia  
Interstate Study**

**Select Link Analysis – I-75**

**Appendix G**

**Figure G.20**

## Travel Pattern Analysis on I75 Between Tifton & Valdosta



**Southwest Georgia  
Interstate Study**

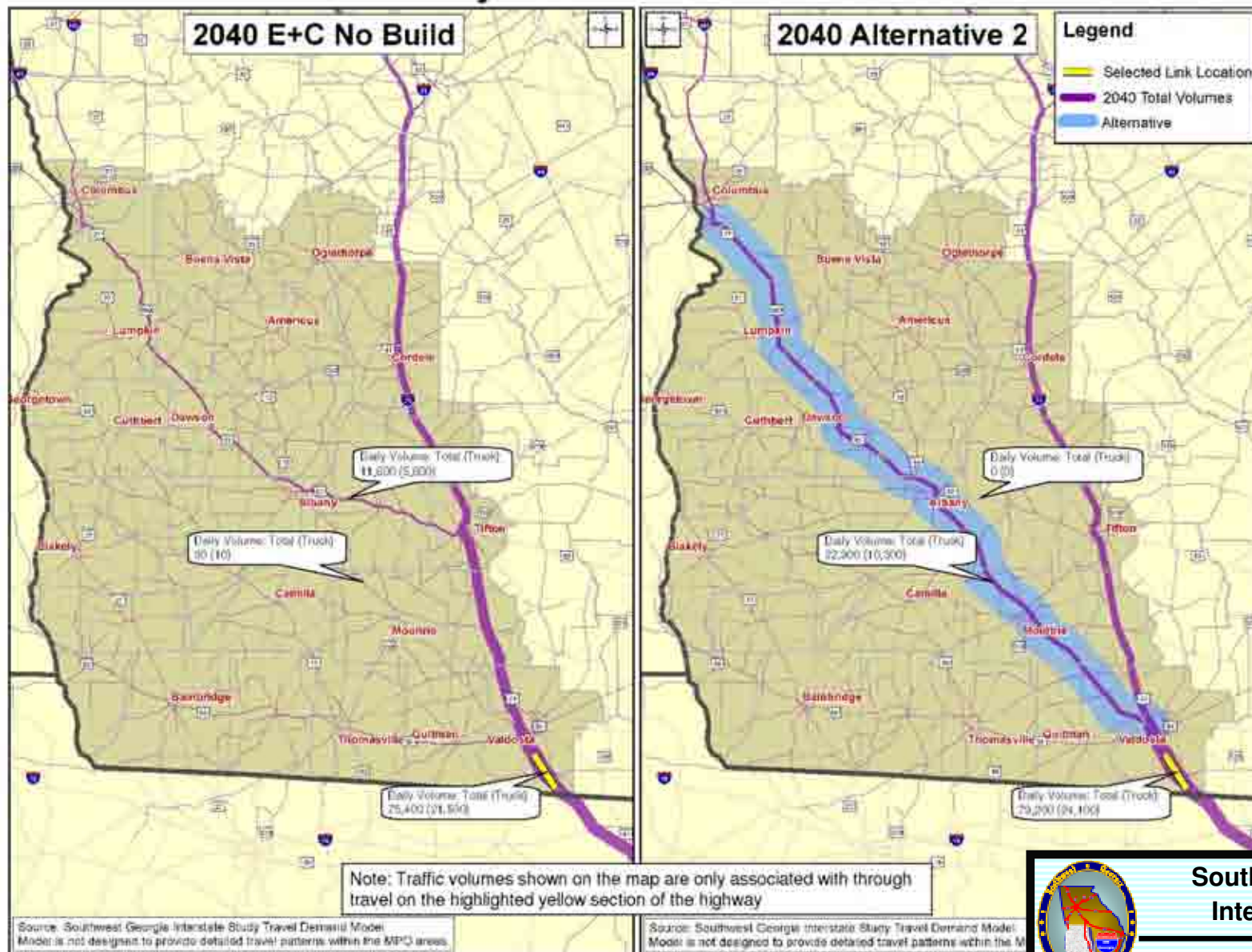
**Select Link Analysis – I-75**

**Appendix G**

**Figure G.21**



# Travel Pattern Analysis on I75 Between Valdosta & Florida



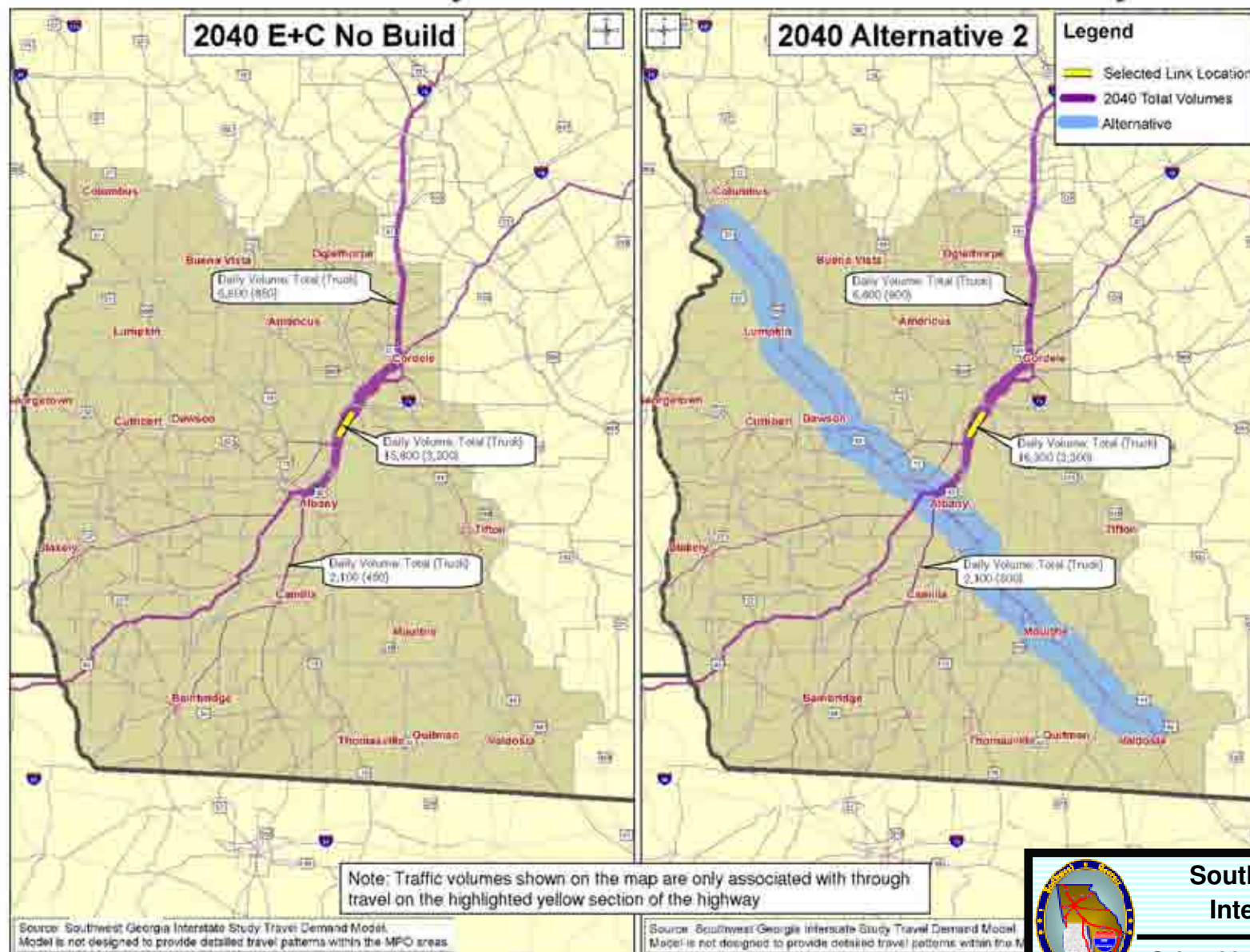
**Southwest Georgia  
Interstate Study**

**Select Link Analysis – I-75**

**Appendix G**

**Figure G.22**

## Travel Pattern Analysis on SR300 Between Cordele & Albany



**Southwest Georgia  
Interstate Study**

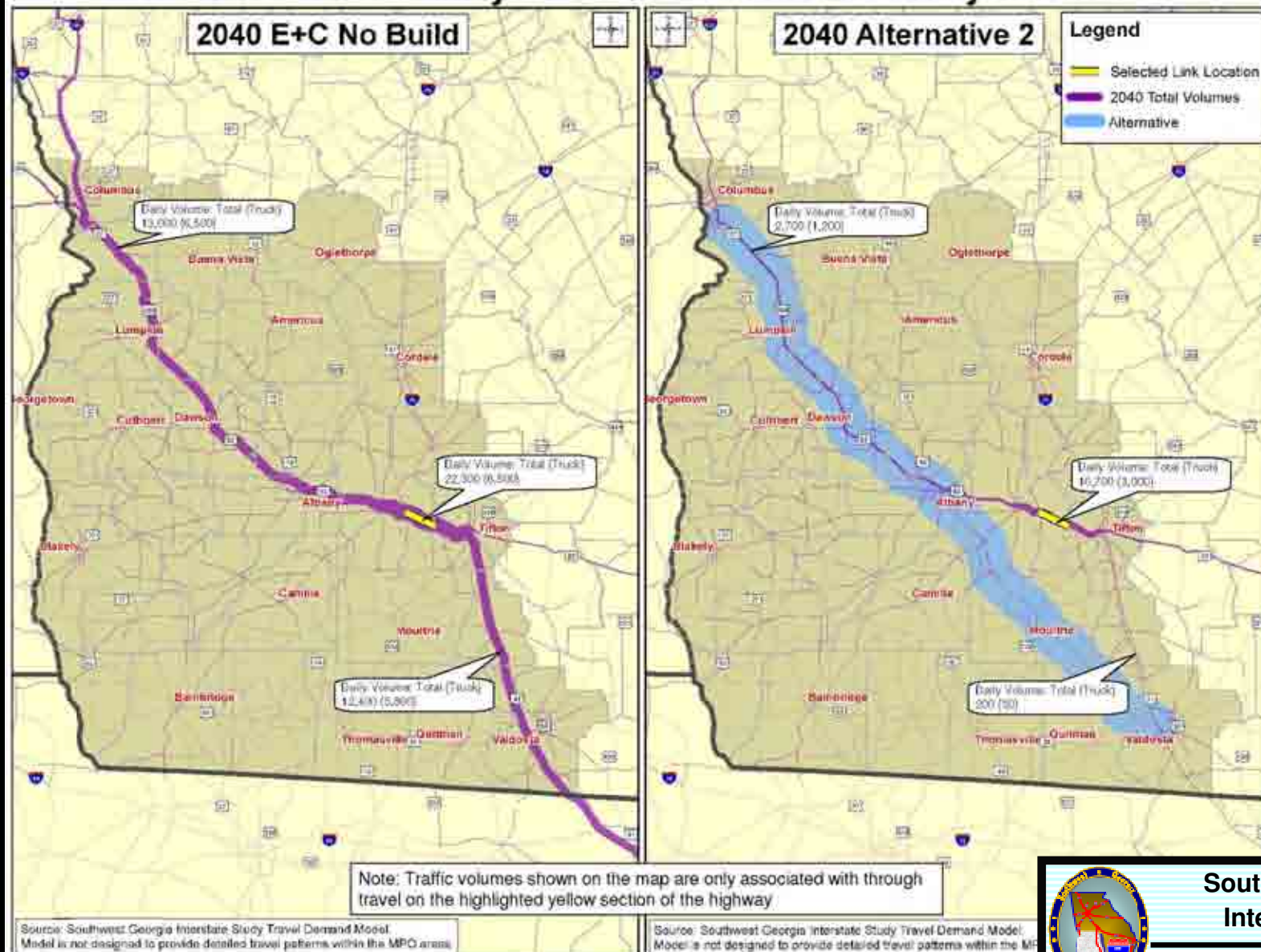
**Select Link Analysis – SR300**

**Appendix G**

**Figure G.23**



## Travel Pattern Analysis on US82 Between Albany & Tifton



**Southwest Georgia  
Interstate Study**

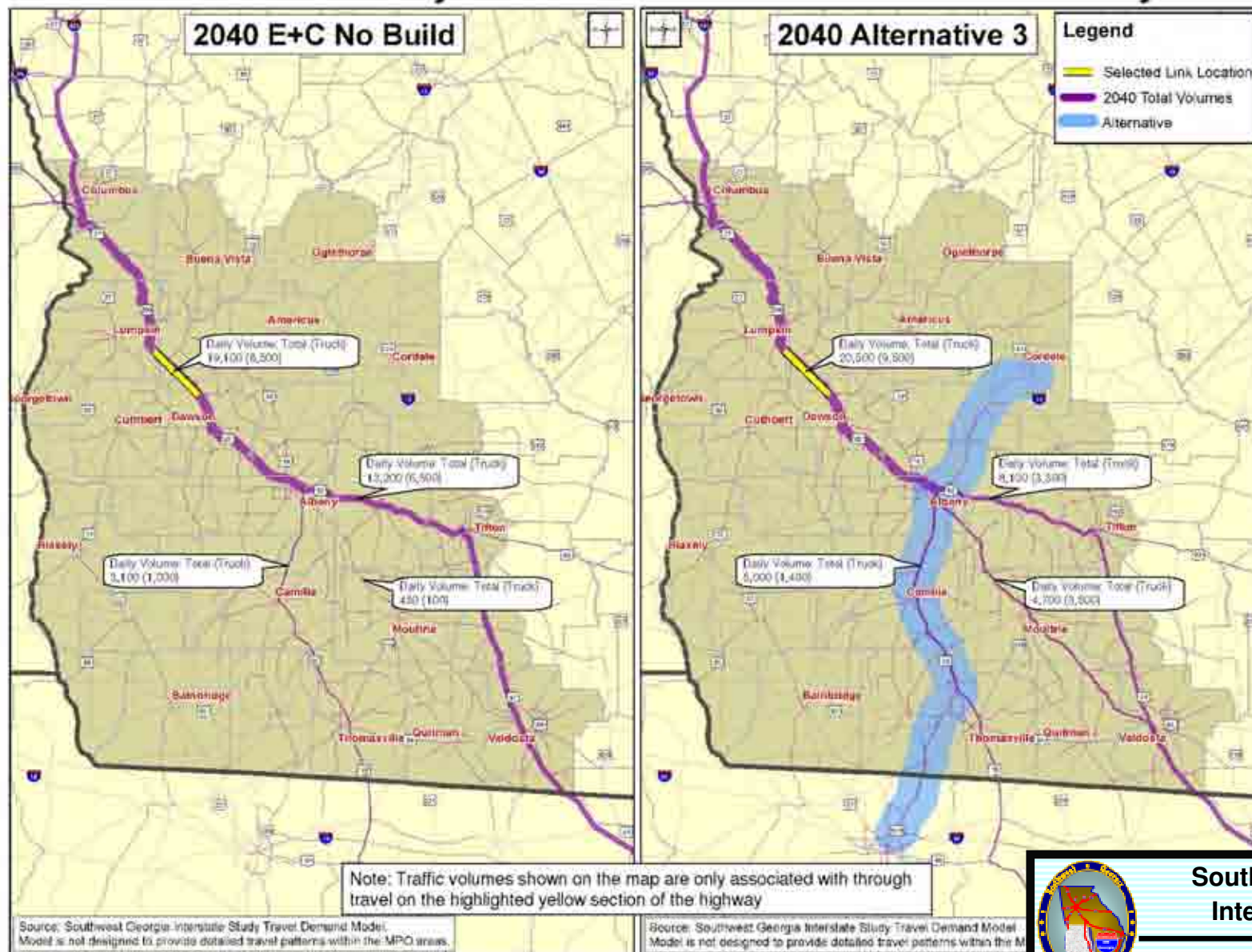
**Select Link Analysis – US82**

**Appendix G**

**Figure G.24**

*Final Report*

# Travel Pattern Analysis on SR520 Between Columbus & Albany



**Southwest Georgia  
Interstate Study**

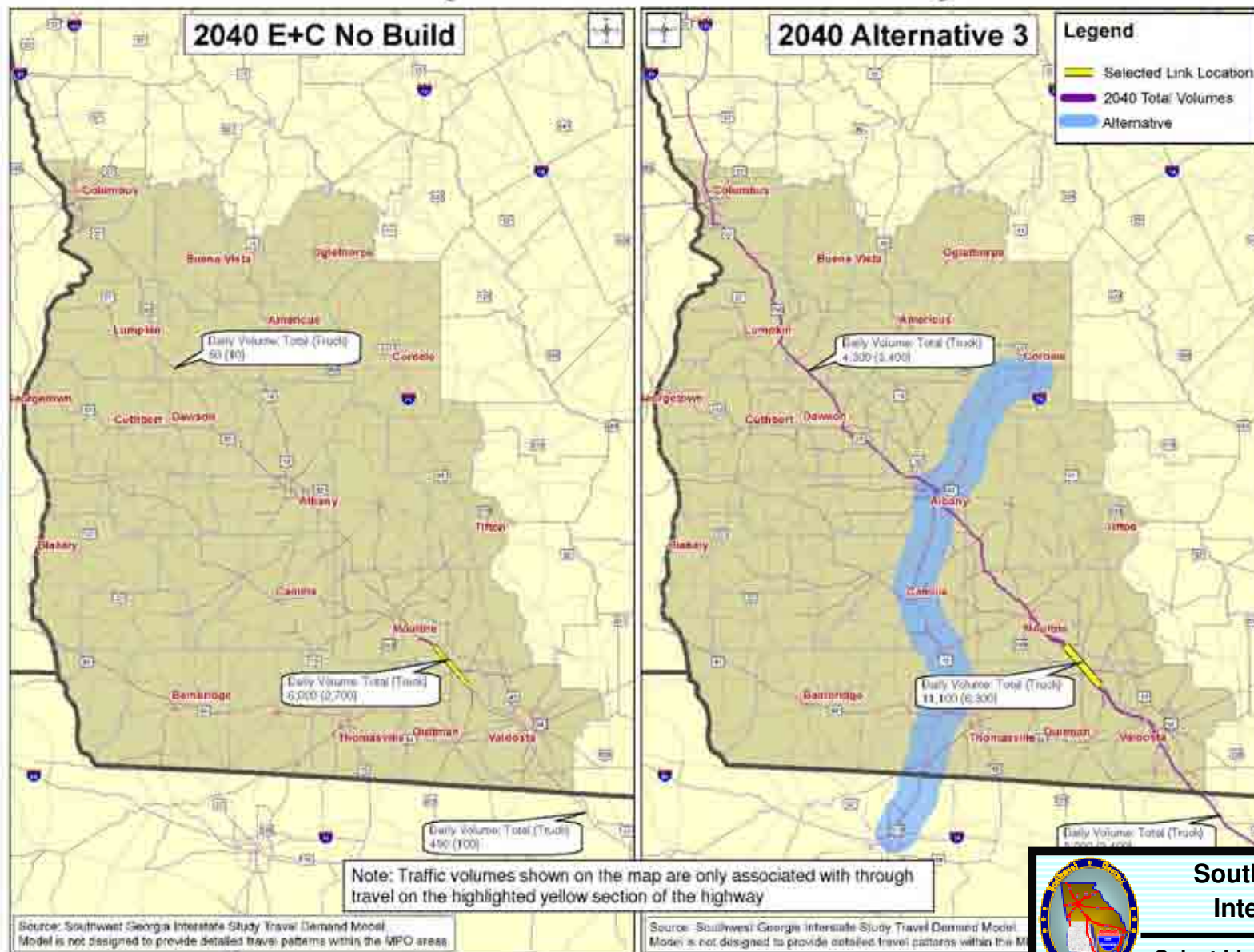
**Select Link Analysis – SR520**

**Appendix G**

**Figure G.25**



## Travel Pattern Analysis on SR133 Between Albany & Valdosta



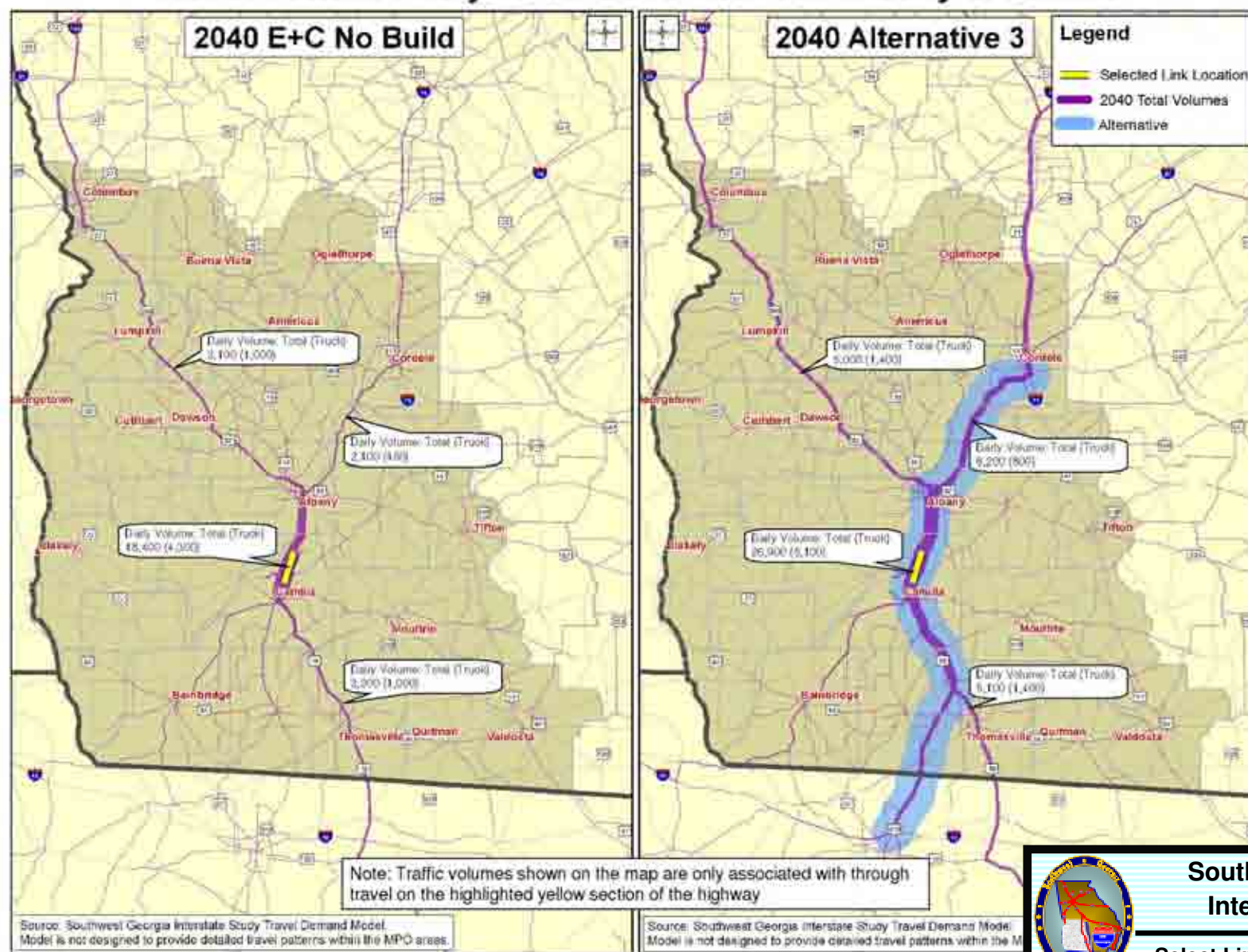
**Southwest Georgia  
Interstate Study**

**Select Link Analysis – SR133**

**Appendix G**

**Figure G.26**

## Travel Pattern Analysis on US19 Between Albany & Camilla



**Southwest Georgia  
Interstate Study**

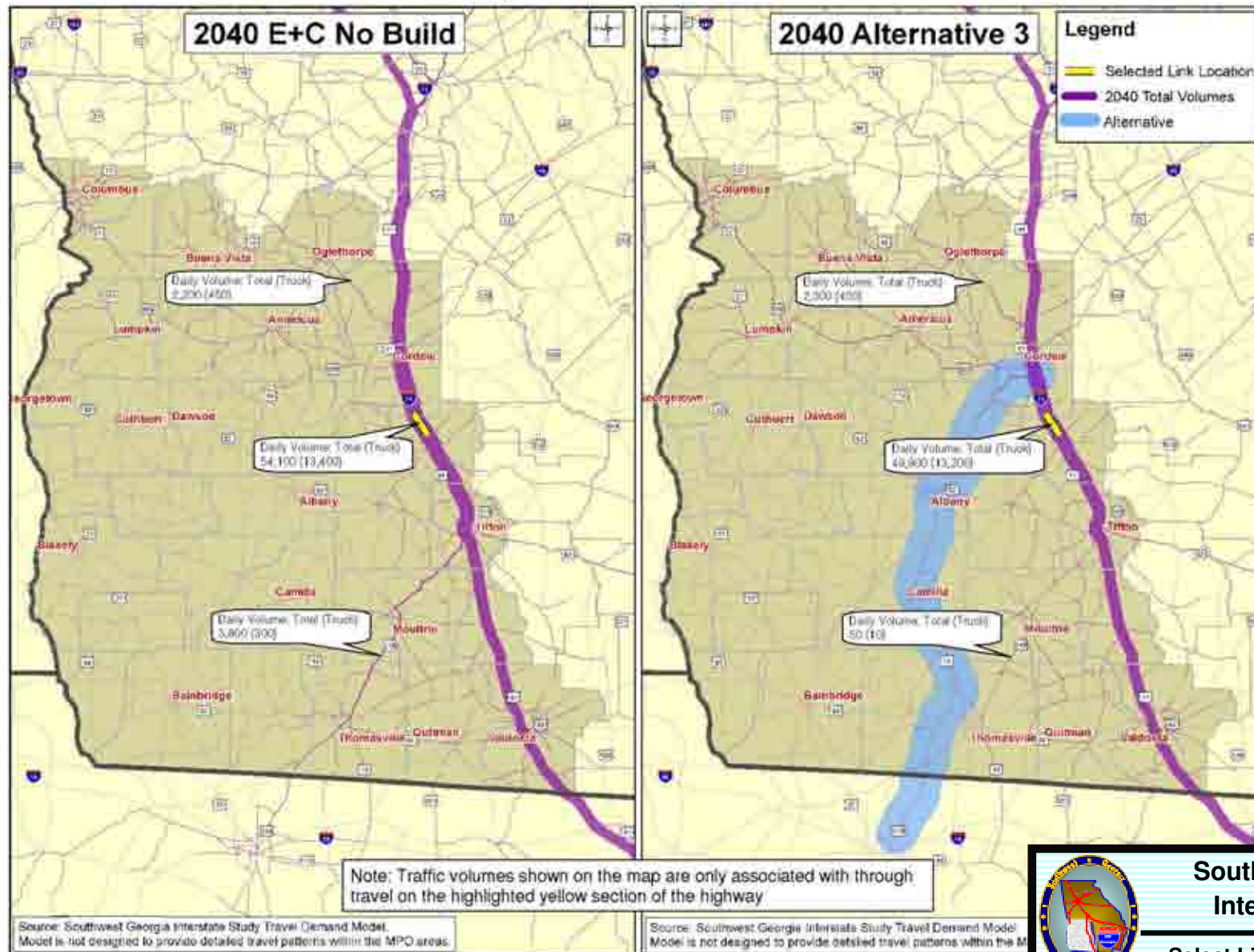
**Select Link Analysis – US19**

**Appendix G**

**Figure G.27**



## Travel Pattern Analysis on I75 Between Cordele & Tifton



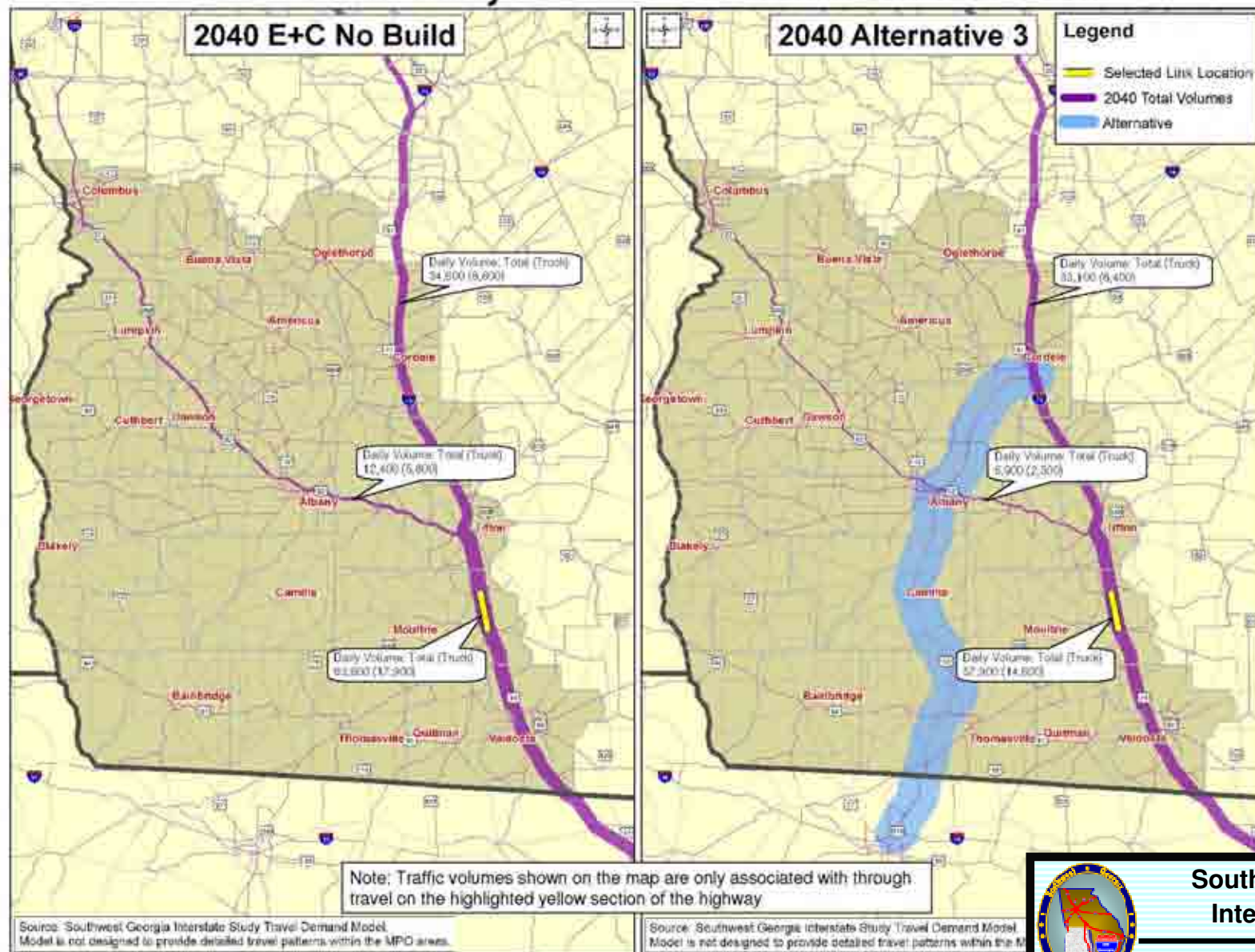
**Southwest Georgia  
Interstate Study**

**Select Link Analysis – I-75**

**Appendix G**

**Figure G.28**

## Travel Pattern Analysis on I75 Between Tifton & Valdosta



**Southwest Georgia  
Interstate Study**

**Select Link Analysis – I-75**

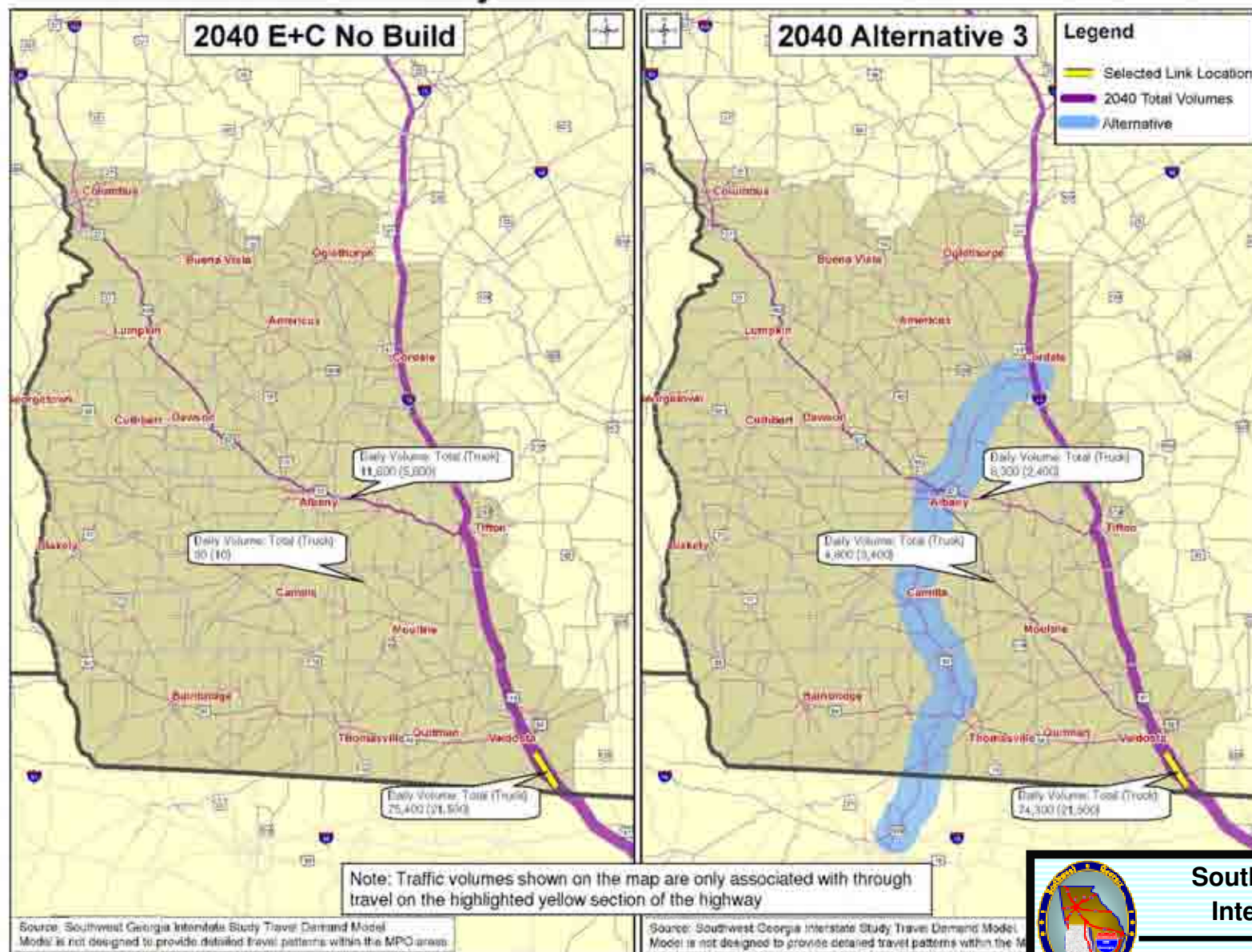
**Appendix G**

**Figure G.29**

*Final Report*



## Travel Pattern Analysis on I75 Between Valdosta & Florida



**Southwest Georgia  
Interstate Study**

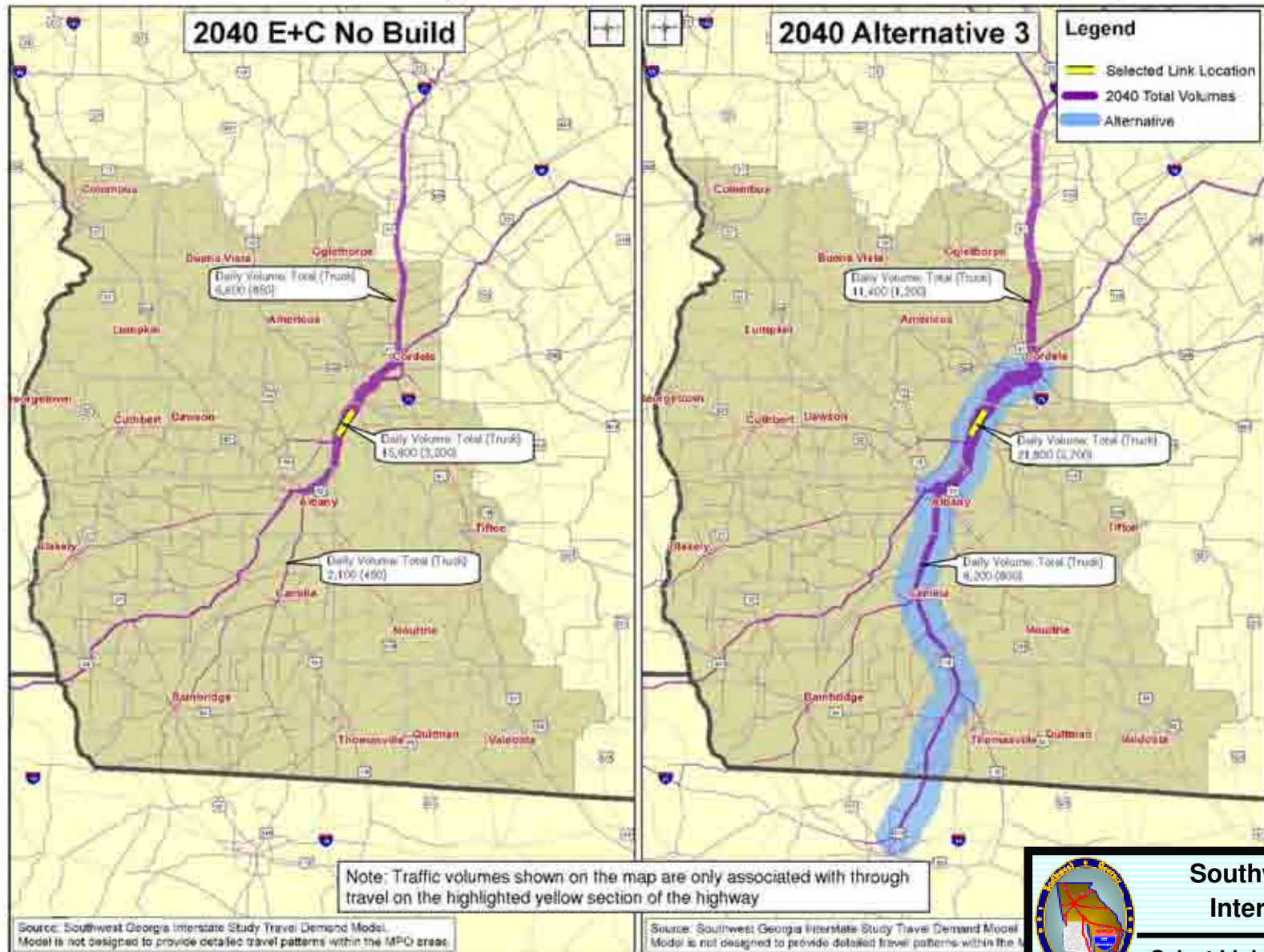
**Select Link Analysis – I-75**

**Appendix G**

**Figure G.30**

*Final Report*

# Travel Pattern Analysis on SR300 Between Cordele & Albany



**Southwest Georgia  
Interstate Study**

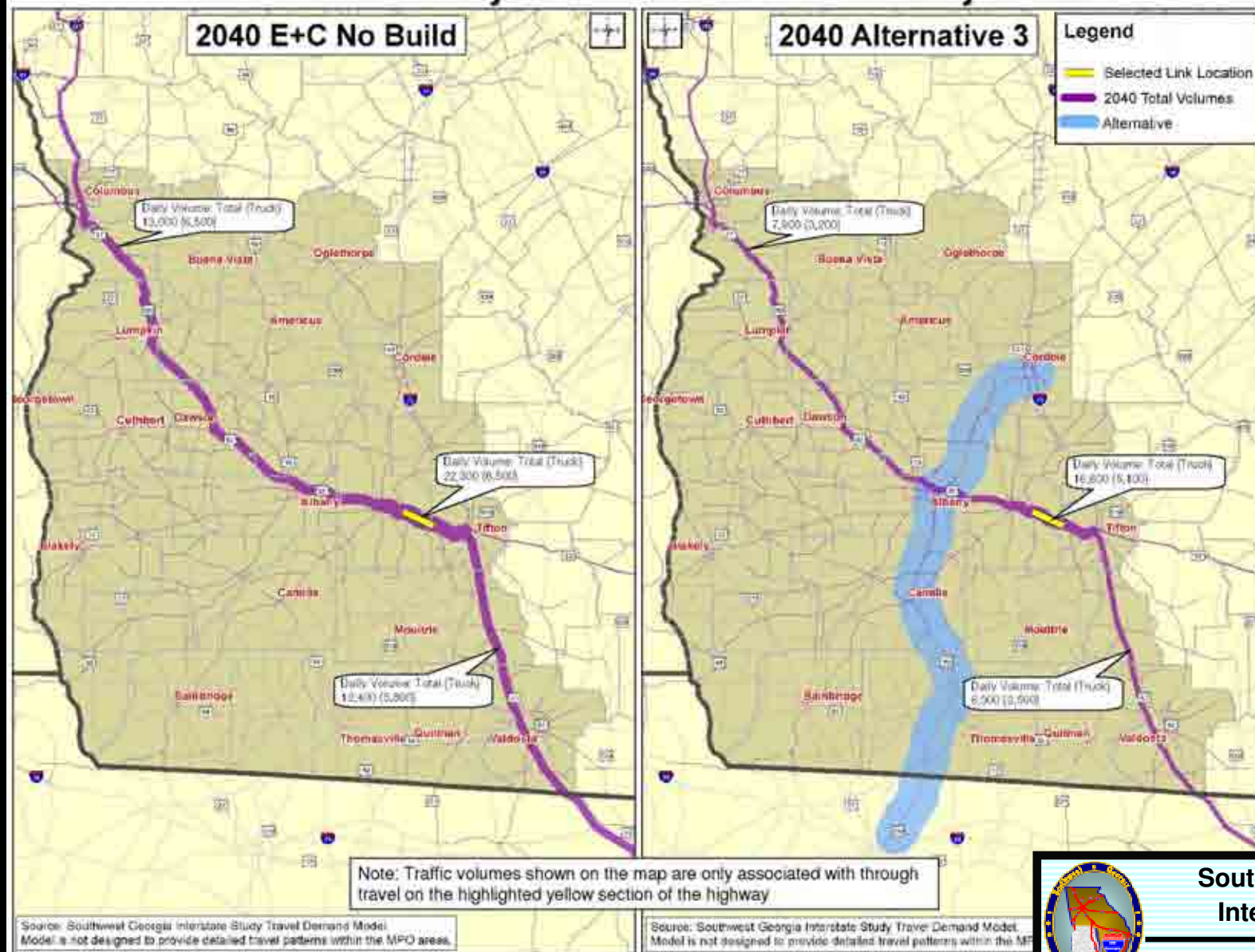
**Select Link Analysis – SR300**

**Appendix G**

**Figure G.31**



## Travel Pattern Analysis on US82 Between Albany & Tifton



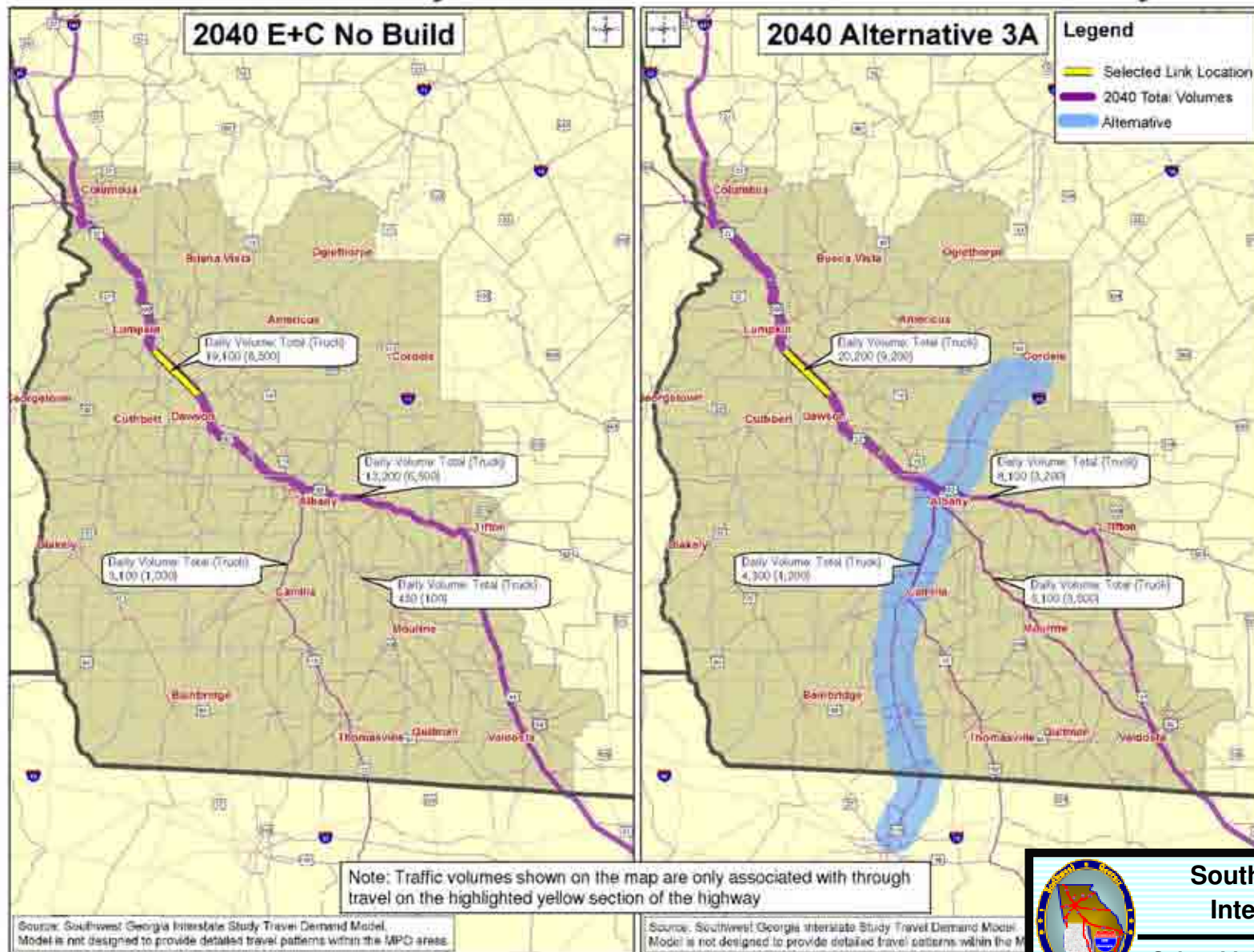
**Southwest Georgia  
Interstate Study**

**Select Link Analysis – US82**

**Appendix G**

**Figure G.32**

## Travel Pattern Analysis on SR520 Between Columbus & Albany



**Southwest Georgia  
Interstate Study**

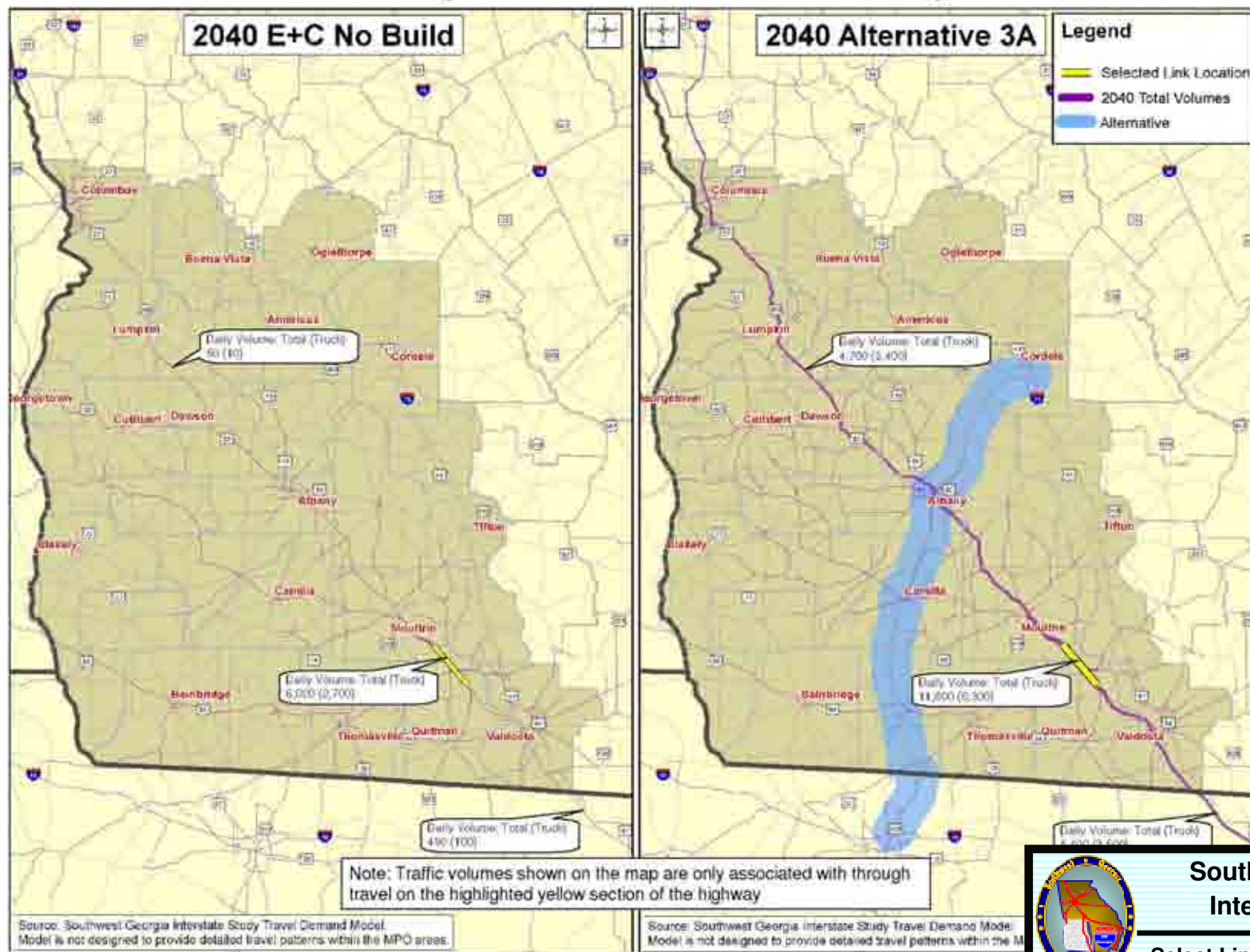
**Select Link Analysis – SR520**

**Appendix G**

**Figure G.33**



## Travel Pattern Analysis on SR133 Between Albany & Valdosta



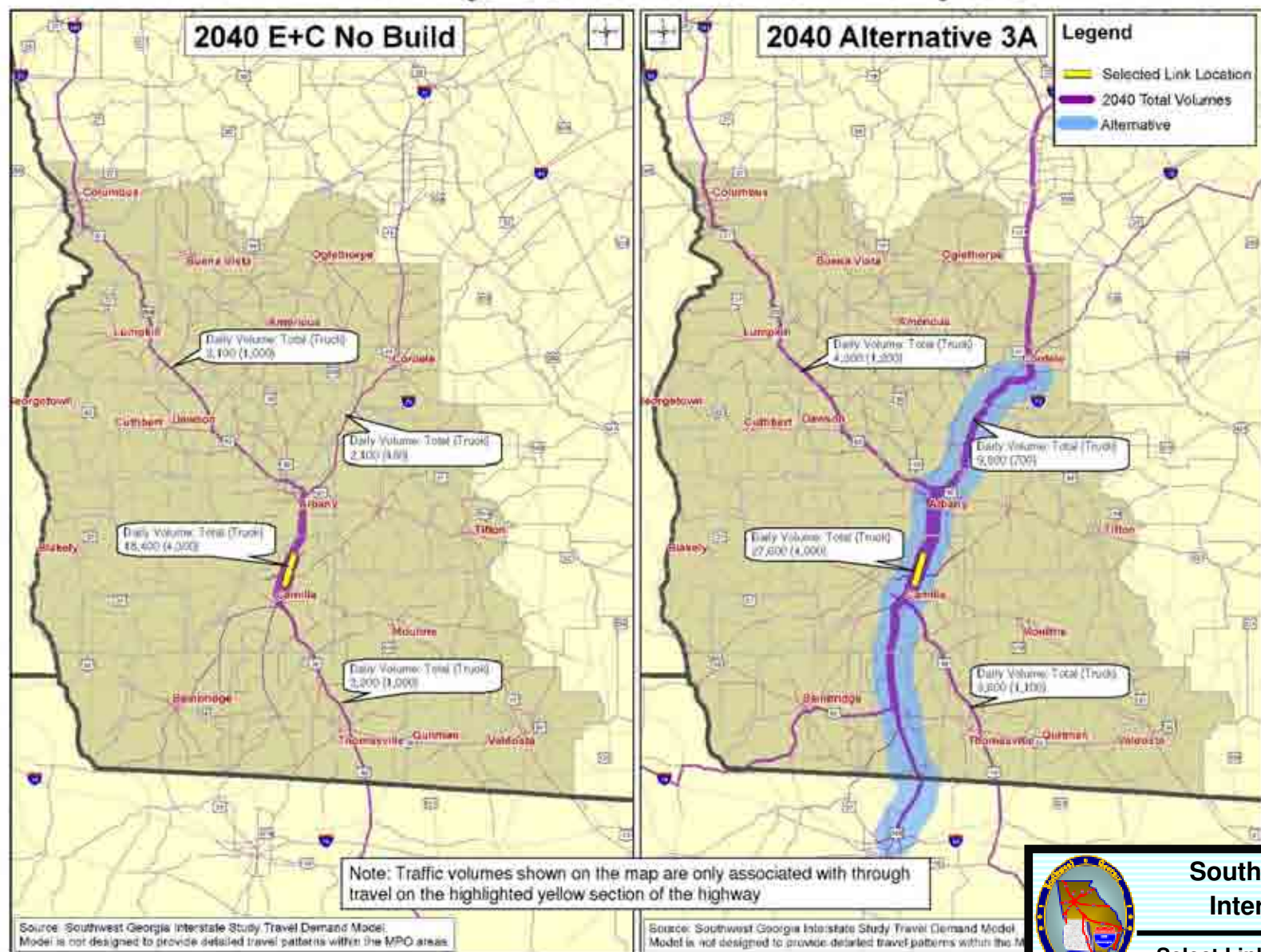
**Southwest Georgia  
Interstate Study**

**Select Link Analysis – SR133**

**Appendix G**

**Figure G.34**

## Travel Pattern Analysis on US19 Between Albany & Camilla



**Southwest Georgia  
Interstate Study**

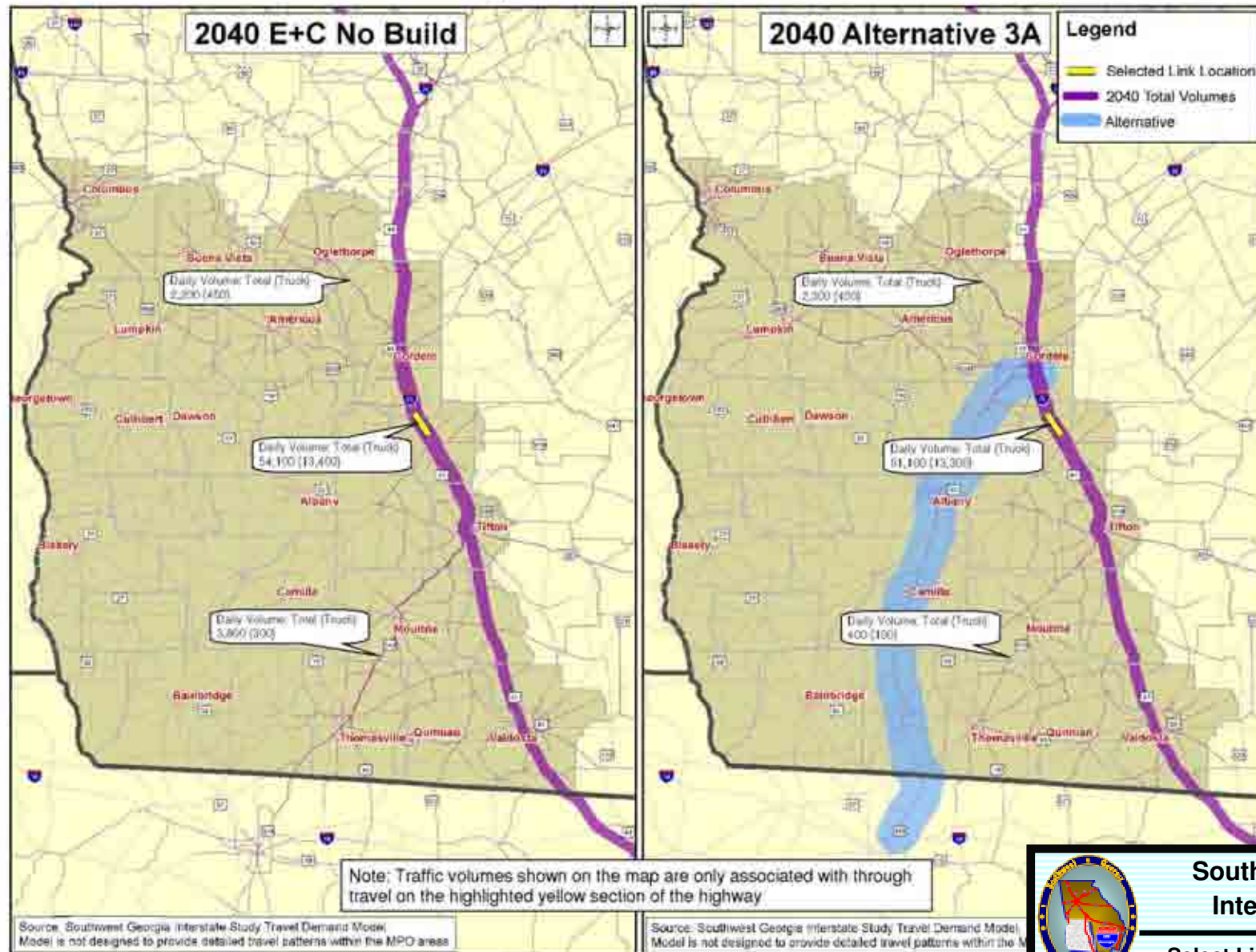
**Select Link Analysis – US19**

**Appendix G**

**Figure G.35**



## Travel Pattern Analysis on I75 Between Cordele & Tifton



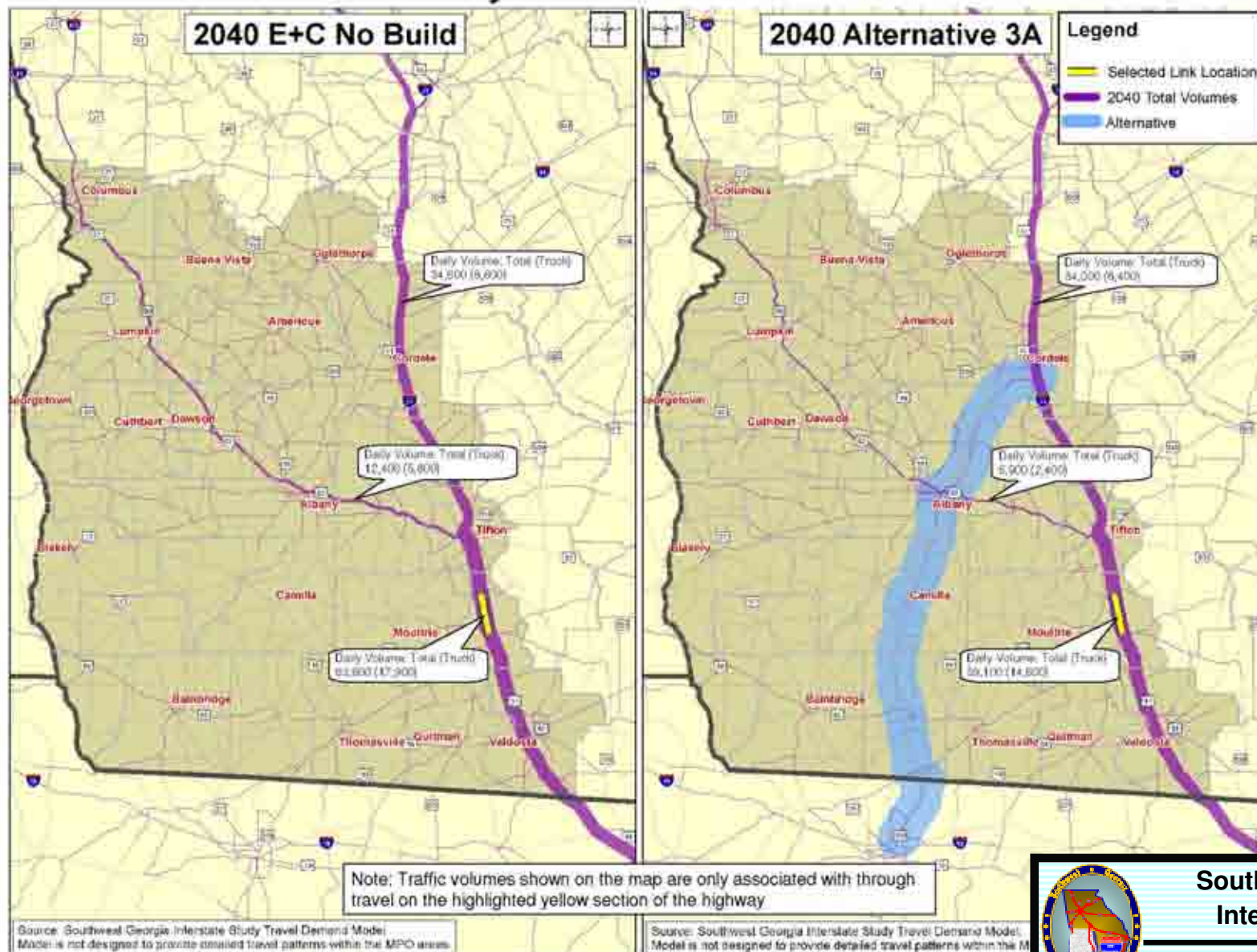
**Southwest Georgia  
Interstate Study**

**Select Link Analysis – I-75**

**Appendix G**

**Figure G.36**

## Travel Pattern Analysis on I75 Between Tifton & Valdosta



**Southwest Georgia  
Interstate Study**

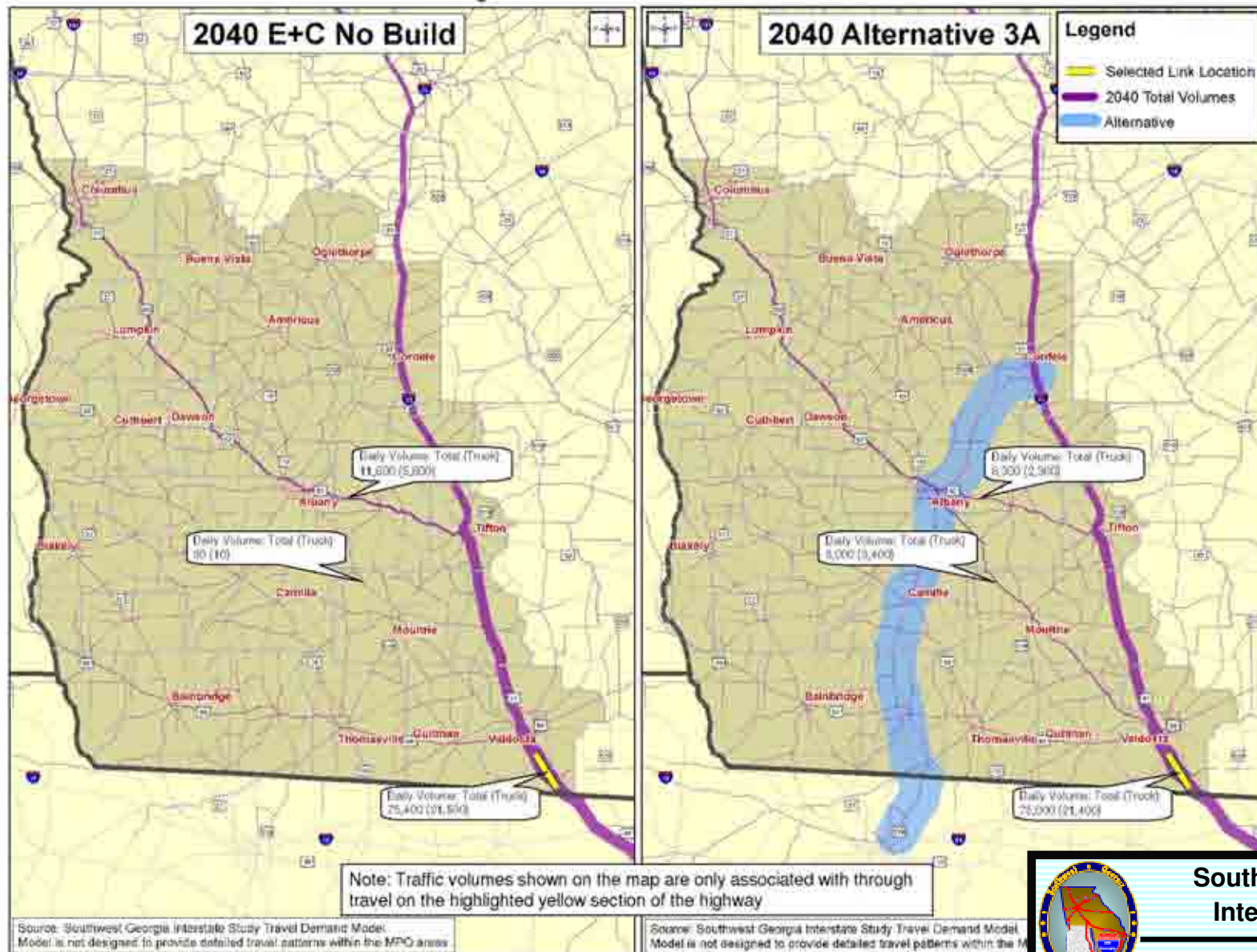
**Select Link Analysis – I-75**

**Appendix G**

**Figure G.37**



# Travel Pattern Analysis on I75 Between Valdosta & Florida



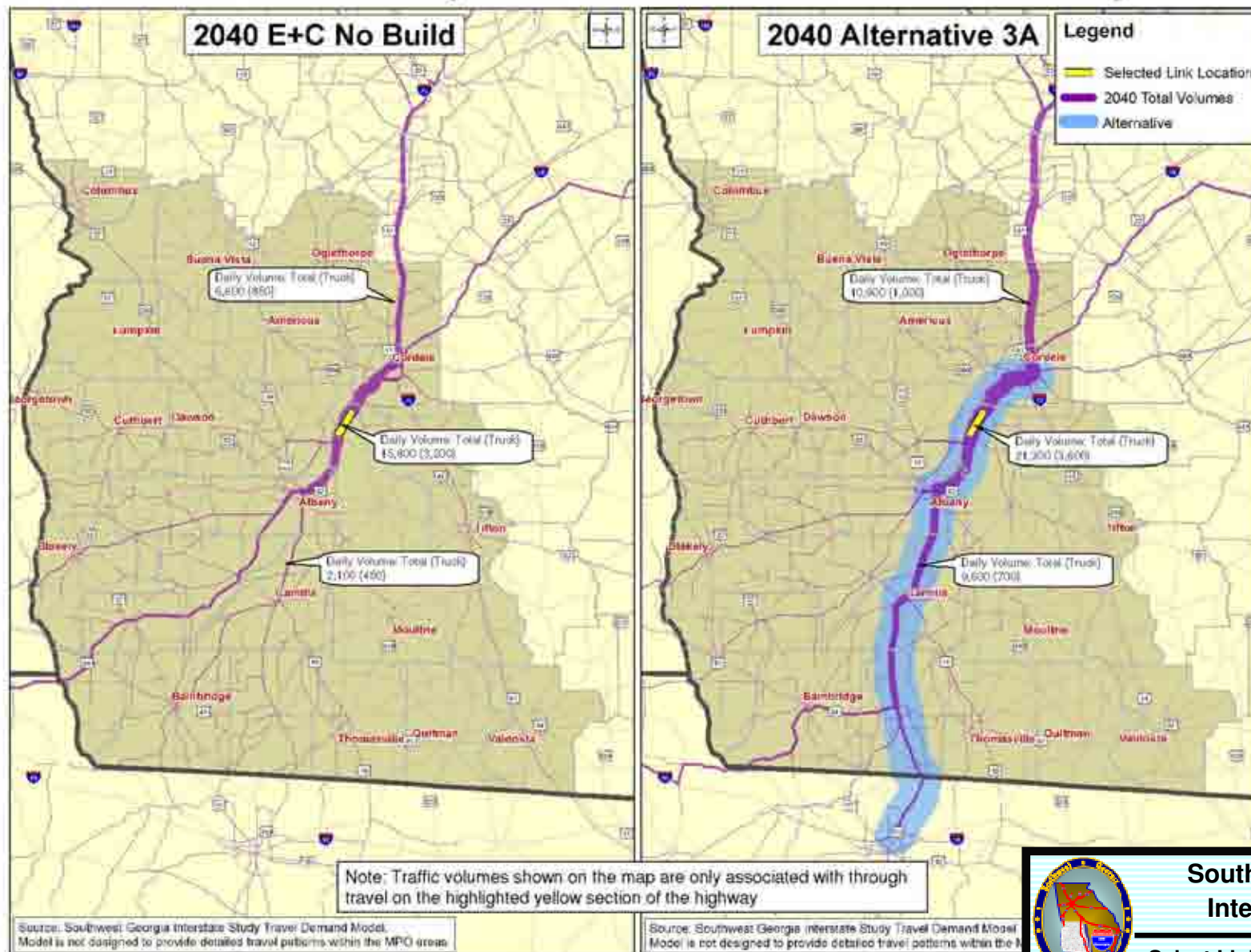
**Southwest Georgia  
Interstate Study**

**Select Link Analysis – I-75**

**Appendix G**

**Figure G.38**

## Travel Pattern Analysis on SR300 Between Cordele & Albany



**Southwest Georgia  
Interstate Study**

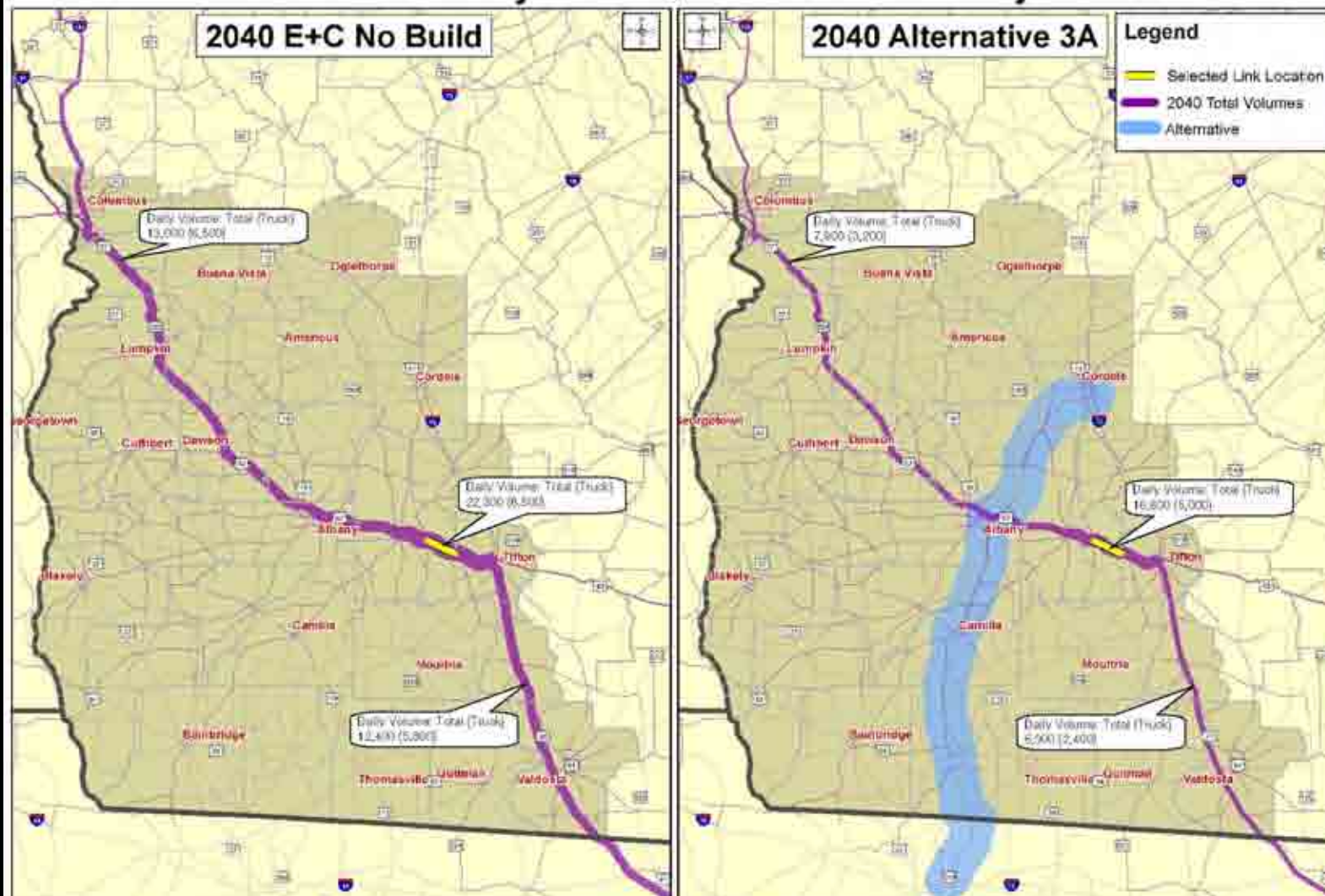
**Select Link Analysis – SR300**

**Appendix G**

**Figure G.39**



## Travel Pattern Analysis on US82 Between Albany & Tifton



Note: Traffic volumes shown on the map are only associated with through travel on the highlighted yellow section of the highway

Source: Southwest Georgia Interstate Study Travel Demand Model.  
Model is not designed to provide detailed travel patterns within the MPO areas.

Source: Southwest Georgia Interstate Study Travel Demand Model.  
Model is not designed to provide detailed travel patterns within the MPO areas.



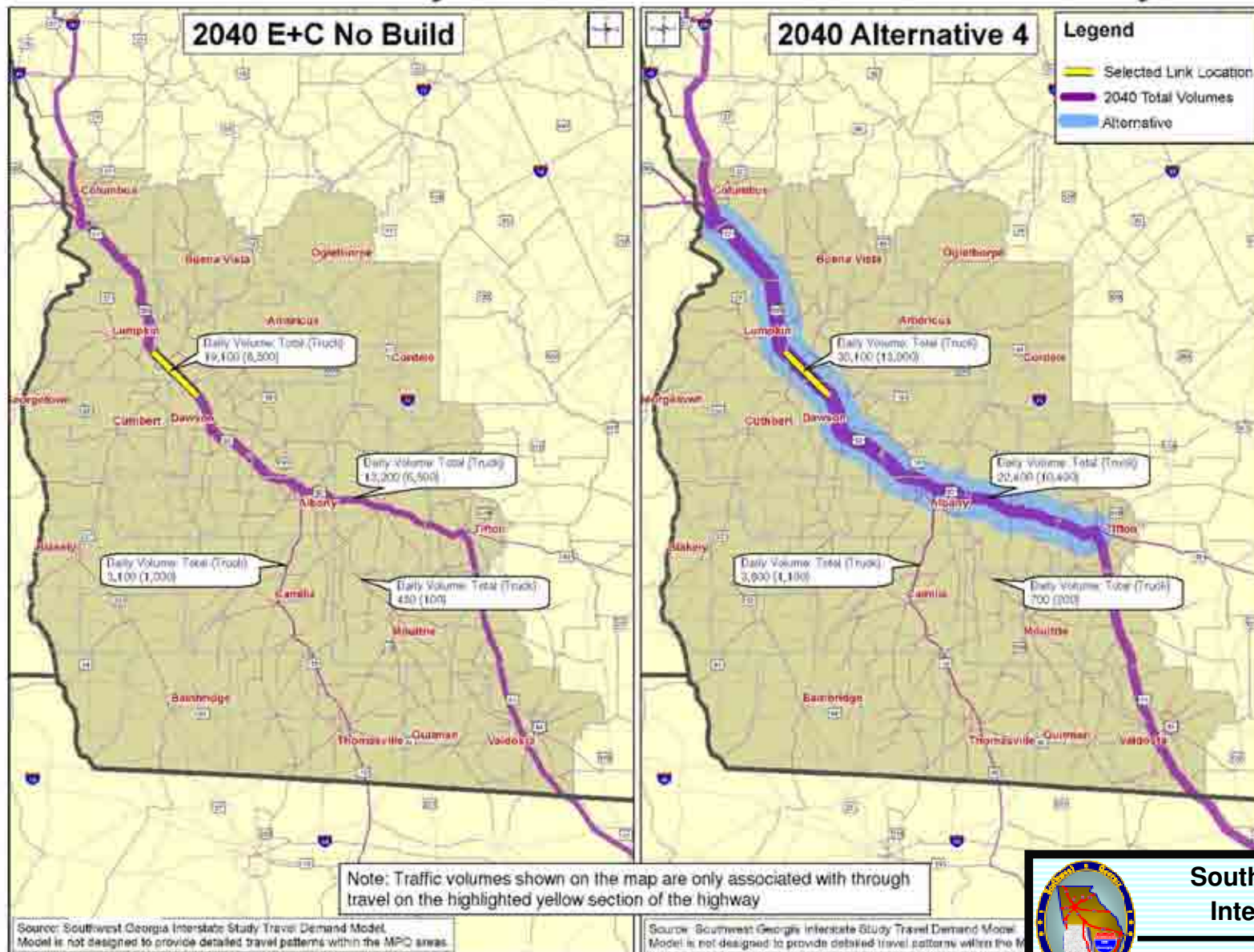
**Southwest Georgia  
Interstate Study**

**Select Link Analysis – US82**

**Appendix G**

**Figure G.40**

## Travel Pattern Analysis on SR520 Between Columbus & Albany



**Southwest Georgia  
Interstate Study**

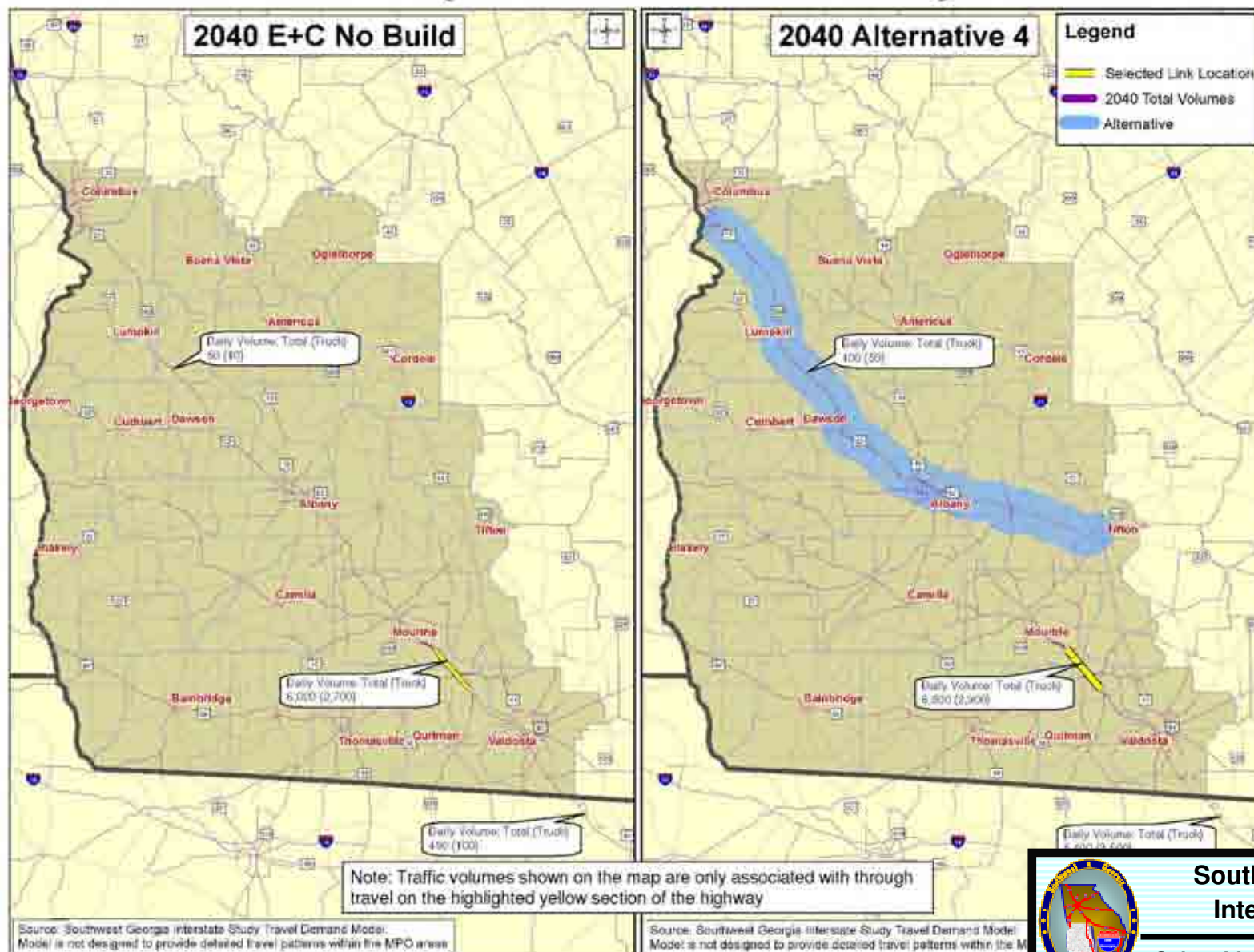
**Select Link Analysis – SR520**

**Appendix G**

**Figure G.41**



## Travel Pattern Analysis on SR133 Between Albany & Valdosta



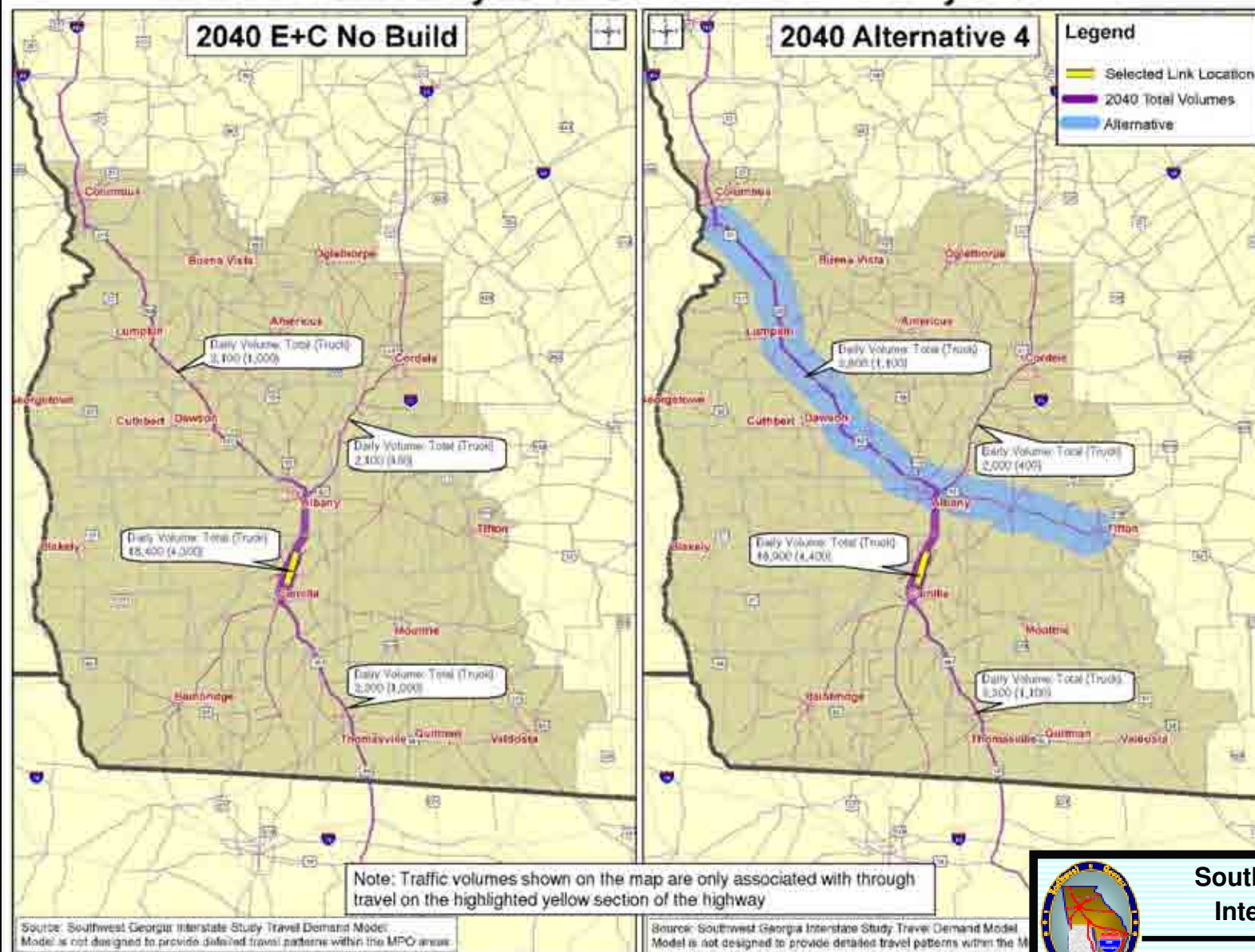
**Southwest Georgia  
Interstate Study**

**Select Link Analysis – SR133**

**Appendix G**

**Figure G.42**

## Travel Pattern Analysis on US19 Between Albany & Camilla



**Southwest Georgia  
Interstate Study**

**Select Link Analysis – US19**

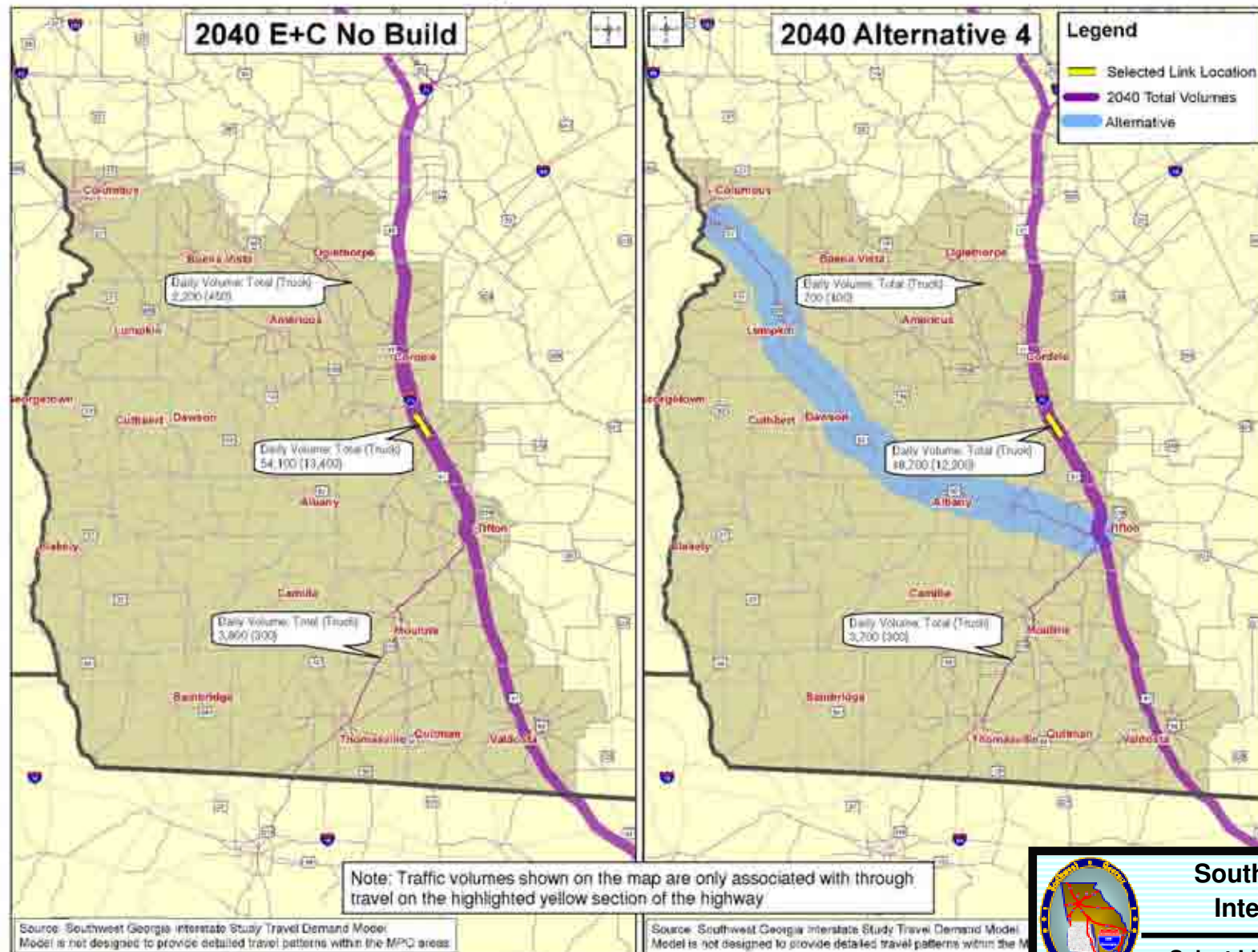
**Appendix G**

**Figure G.43**

*Final Report*



## Travel Pattern Analysis on I75 Between Cordele & Tifton



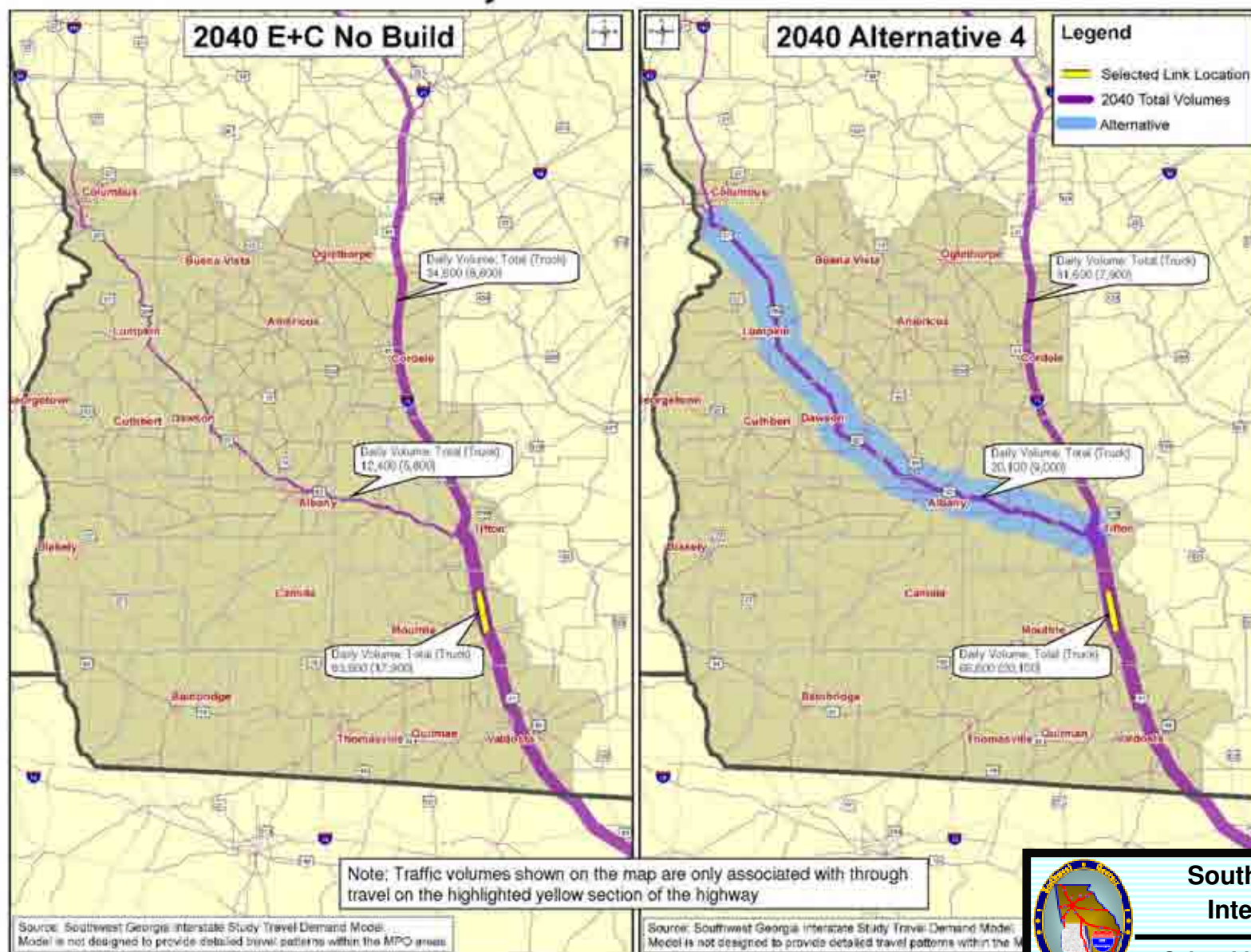
**Southwest Georgia  
Interstate Study**

**Select Link Analysis – I-75**

**Appendix G**

**Figure G.44**

## Travel Pattern Analysis on I75 Between Tifton & Valdosta



**Southwest Georgia  
Interstate Study**

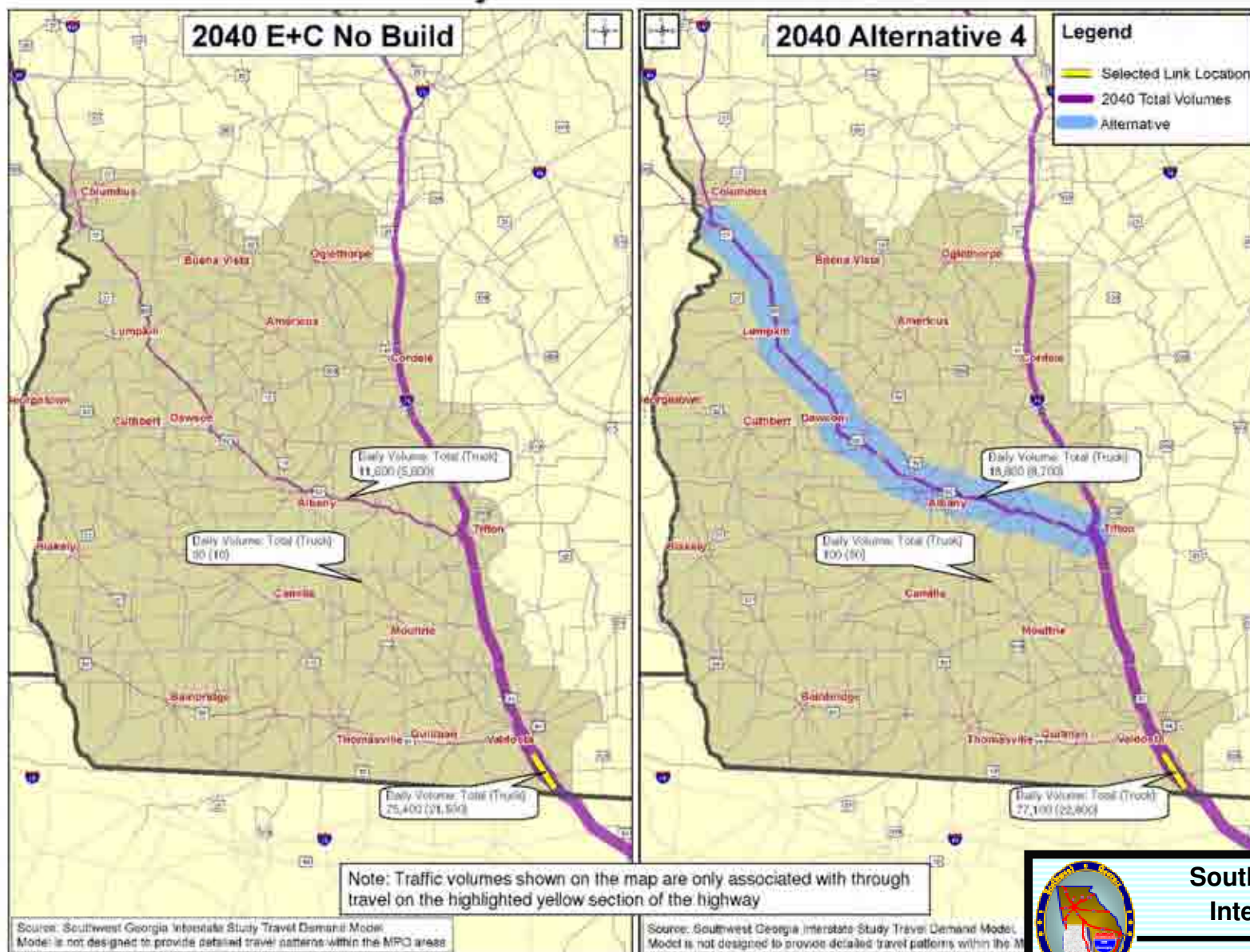
**Select Link Analysis – I-75**

**Appendix G**

**Figure G.45**



## Travel Pattern Analysis on I75 Between Valdosta & Florida



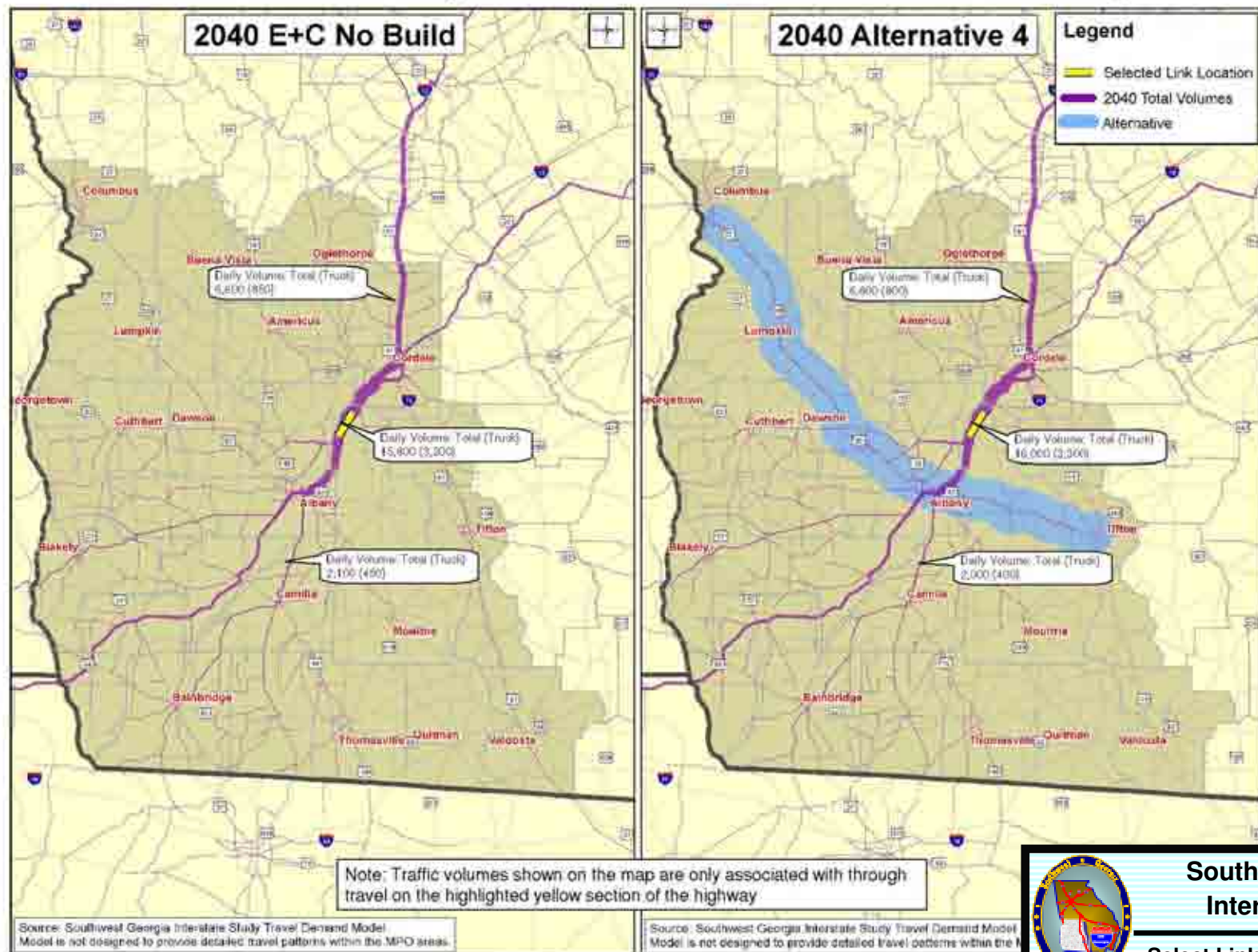
**Southwest Georgia  
Interstate Study**

**Select Link Analysis – I-75**

**Appendix G**

**Figure G.46**

## Travel Pattern Analysis on SR300 Between Cordele & Albany



**Southwest Georgia  
Interstate Study**

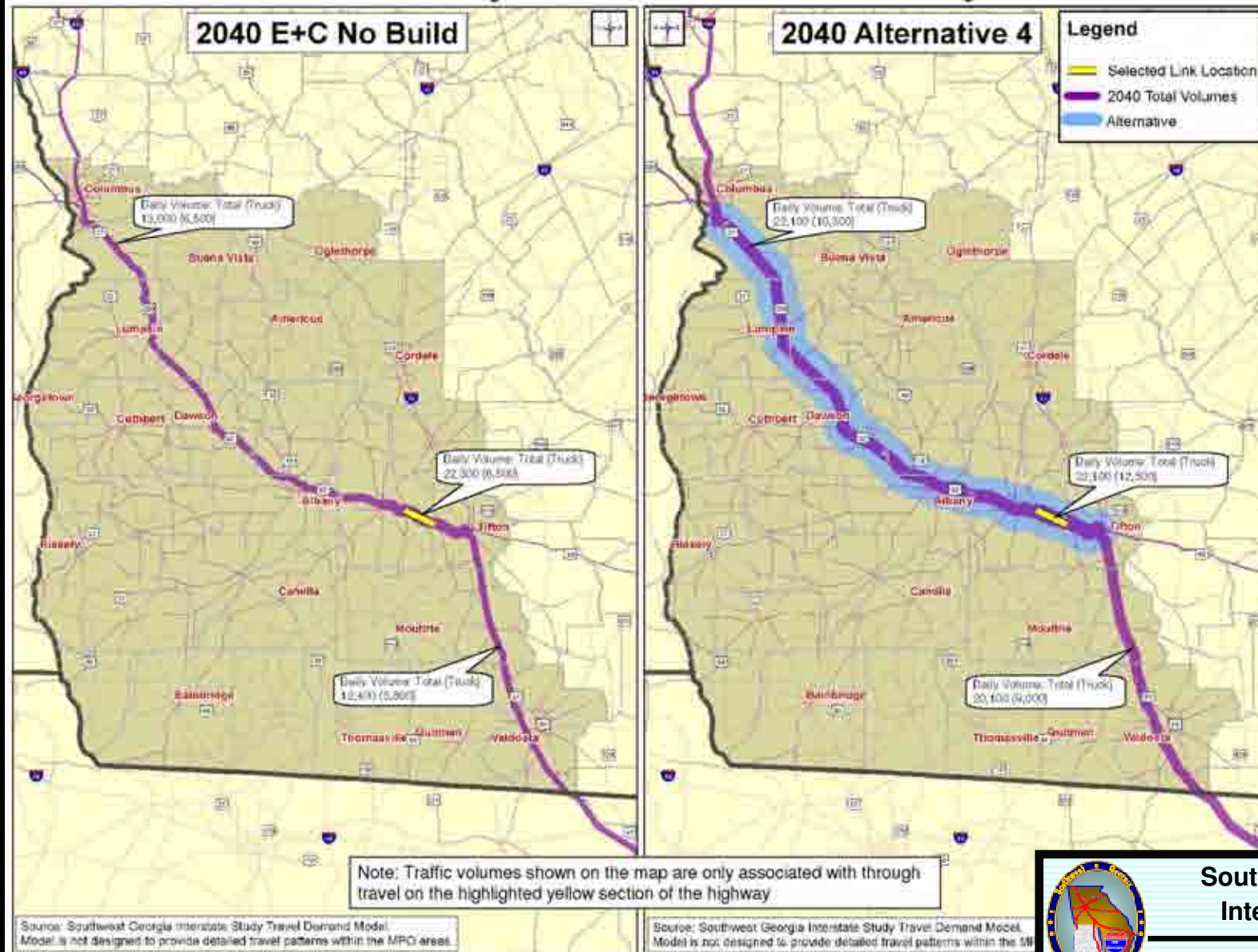
**Select Link Analysis – SR300**

**Appendix G**

**Figure G.47**



## Travel Pattern Analysis on US82 Between Albany & Tifton



**Southwest Georgia  
Interstate Study**

**Select Link Analysis – US82**

**Appendix G**

**Figure G.48**



# Appendix H

## Transportation Inputs for Benefit Cost Analysis

### H.1 : Transportation Inputs by Segment and Alternative--Study Region

|                                             | Length        | Alt1        | Alt 1A        | Alt 2        | Alt 3        | Alt 3A        | Alt 4        |
|---------------------------------------------|---------------|-------------|---------------|--------------|--------------|---------------|--------------|
| 2040 Travel Time Savings VHD – Auto Leisure |               |             |               |              |              |               |              |
| <b>Segment</b>                              |               |             |               |              |              |               |              |
| Segment AC                                  | 80.6          | 225,716     | 214,475       | 484,512      |              |               | 402,576      |
| Segment BC                                  | 36.7          |             |               |              | 165,999      | 160,910       |              |
| Segment CD                                  | 38.9          |             |               |              |              |               | 194,295      |
| Segment CE                                  | 2.3           | 6,441       | 6,120         | 13,826       | 10,403       | 10,084        |              |
| Segment EG                                  | 70.6          |             |               | 424,399      |              |               |              |
| Segment EF                                  | 19.8          | 55,449      | 52,687        |              | 89,558       | 86,813        |              |
| Segment FH-West                             | 44.3          |             | 117,882       |              |              | 194,232       |              |
| Segment FH-East                             | 46.1          | 129,101     |               |              | 208,516      |               |              |
| Segment HI                                  | 13.6          | 38,086      | 36,189        |              | 61,515       | 59,629        |              |
|                                             |               |             |               |              |              |               |              |
|                                             | <b>Length</b> | <b>Alt1</b> | <b>Alt 1A</b> | <b>Alt 2</b> | <b>Alt 3</b> | <b>Alt 3A</b> | <b>Alt 4</b> |
| 2040 Travel Time Savings VHD – Auto Work    |               |             |               |              |              |               |              |
| <b>Segment</b>                              |               |             |               |              |              |               |              |
| Segment AC                                  | 80.6          | 96,735      | 91,918        | 207,648      |              |               | 172,533      |
| Segment BC                                  | 36.7          |             |               |              | 71,142       | 68,962        |              |
| Segment CD                                  | 38.9          |             |               |              |              |               | 83,269       |
| Segment CE                                  | 2.3           | 2,760       | 2,623         | 5,925        | 4,459        | 4,322         |              |
| Segment EG                                  | 70.6          |             |               | 181,885      |              |               |              |
| Segment EF                                  | 19.8          | 23,764      | 22,580        |              | 38,382       | 37,205        |              |
| Segment FH-West                             | 44.3          |             | 50,521        |              |              | 83,242        |              |
| Segment FH-East                             | 46.1          | 55,329      |               |              | 89,364       |               |              |
| Segment HI                                  | 13.6          | 16,323      | 15,510        |              | 26,363       | 25,555        |              |
|                                             |               |             |               |              |              |               |              |
|                                             | <b>Length</b> | <b>Alt1</b> | <b>Alt 1A</b> | <b>Alt 2</b> | <b>Alt 3</b> | <b>Alt 3A</b> | <b>Alt 4</b> |
| PDO Accident Reduction 2040                 |               |             |               |              |              |               |              |
| <b>Segment</b>                              |               |             |               |              |              |               |              |
| Segment AC                                  | 80.6          | 132         | 136           | 256          |              |               | 362          |
| Segment BC                                  | 36.7          |             |               |              | 83           | 84            |              |
| Segment CD                                  | 38.9          |             |               |              |              |               | 175          |
| Segment CE                                  | 2.3           | 4           | 4             | 7            | 5            | 5             |              |
| Segment EG                                  | 70.6          |             |               | 225          |              |               |              |
| Segment EF                                  | 19.8          | 32          | 33            |              | 45           | 45            |              |
| Segment FH-West                             | 44.3          |             | 75            |              |              | 102           |              |
| Segment FH-East                             | 46.1          | 75          |               |              | 105          |               |              |
| Segment HI                                  | 13.6          | 22          | 23            |              | 31           | 31            |              |
|                                             |               |             |               |              |              |               |              |
|                                             | <b>Length</b> | <b>Alt1</b> | <b>Alt 1A</b> | <b>Alt 2</b> | <b>Alt 3</b> | <b>Alt 3A</b> | <b>Alt 4</b> |
| Injury Accident Reduction 2040              |               |             |               |              |              |               |              |
| <b>Segment</b>                              |               |             |               |              |              |               |              |
| Segment AC                                  | 80.6          | 51          | 51            | 107          |              |               | 151          |
| Segment BC                                  | 36.7          |             |               |              | 27           | 26            |              |
| Segment CD                                  | 38.9          |             |               |              |              |               | 73           |
| Segment CE                                  | 2.3           | 1           | 1             | 3            | 2            | 2             |              |



# Appendix H

## Transportation Inputs for Benefit Cost Analysis

|                                              |               |              |               |              |              |               |              |
|----------------------------------------------|---------------|--------------|---------------|--------------|--------------|---------------|--------------|
| Segment EG                                   | 70.6          |              |               | 93           |              |               |              |
|                                              | <b>Length</b> | <b>Alt1</b>  | <b>Alt 1A</b> | <b>Alt 2</b> | <b>Alt 3</b> | <b>Alt 3A</b> | <b>Alt 4</b> |
| <b>Injury Accident Reduction 2040 con'td</b> |               |              |               |              |              |               |              |
| Segment EF                                   | 19.8          | 12           | 12            |              | 15           | 14            |              |
| Segment FH-West                              | 44.3          |              | 28            |              |              | 31            |              |
| Segment FH-East                              | 46.1          | 29           |               |              | 34           |               |              |
| Segment HI                                   | 13.6          | 9            | 9             | 9            |              | 10            | 10           |
|                                              |               |              |               |              |              |               |              |
|                                              | <b>Length</b> | <b>Alt1</b>  | <b>Alt 1A</b> | <b>Alt 2</b> | <b>Alt 3</b> | <b>Alt 3A</b> | <b>Alt 4</b> |
| <b>Fatal Accident Reduction 2040</b>         |               |              |               |              |              |               |              |
| <b>Segment</b>                               |               |              |               |              |              |               |              |
| Segment AC                                   | 80.6          | 1            | 0             | 2            |              |               | 3            |
| Segment BC                                   | 36.7          |              |               |              | 0            | (1)           |              |
| Segment CD                                   | 38.9          |              |               |              |              |               | 2            |
| Segment CE                                   | 2.3           | 0            | 0             | 0            | 0            | (0)           |              |
| Segment EG                                   | 70.6          |              |               | 1            |              |               |              |
| Segment EF                                   | 19.8          | 0            | 0             |              | 0            | (0)           |              |
| Segment FH-West                              | 44.3          |              | 0             |              |              | (0)           |              |
| Segment FH-East                              | 46.1          | 0            |               |              | 0            |               |              |
| Segment HI                                   | 13.6          | 0            | 0             |              | 0            | (0)           |              |
|                                              |               |              |               |              |              |               |              |
|                                              | <b>Length</b> | <b>Alt1</b>  | <b>Alt 1A</b> | <b>Alt 2</b> | <b>Alt 3</b> | <b>Alt 3A</b> | <b>Alt 4</b> |
| <b>Reduction in Auto VMT 2040</b>            |               |              |               |              |              |               |              |
| <b>Segment</b>                               |               |              |               |              |              |               |              |
| Segment AC                                   | 80.6          | (26,391,413) | (37,966,188)  | (36,659,217) |              |               | (39,490,290) |
| Segment BC                                   | 36.7          |              |               |              | (5,543,171)  | (19,730,260)  |              |
| Segment CD                                   | 38.9          |              |               |              |              |               | (19,059,210) |
| Segment CE                                   | 2.3           | (753,105)    | (1,083,402)   | (1,046,107)  | (347,392)    | (1,236,501)   |              |
| Segment EG                                   | 70.6          |              |               | (32,110,927) |              |               |              |
| Segment EF                                   | 19.8          | (6,483,250)  | (9,326,682)   |              | (2,990,594)  | (10,644,663)  |              |
| Segment FH-West                              | 44.3          |              | (20,867,272)  |              |              | (23,816,090)  |              |
| Segment FH-East                              | 46.1          | (15,094,840) |               |              | (6,962,948)  |               |              |
| Segment HI                                   | 13.6          | (4,453,142)  | (6,406,205)   |              | (2,054,145)  | (7,311,486)   |              |
|                                              |               |              |               |              |              |               |              |
|                                              | <b>Length</b> | <b>Alt1</b>  | <b>Alt 1A</b> | <b>Alt 2</b> | <b>Alt 3</b> | <b>Alt 3A</b> | <b>Alt 4</b> |
| <b>Reduction in Truck VMT 2040</b>           |               |              |               |              |              |               |              |
| <b>Segment</b>                               |               |              |               |              |              |               |              |
| Segment AC                                   | 80.6          | (29,698,916) | (24,205,721)  | (36,919,263) |              |               | (42,446,692) |
| Segment BC                                   | 36.7          |              |               |              | (7982,715)   | (6,774,090)   |              |
| Segment CD                                   | 38.9          |              |               |              |              |               | (20,486,058) |
| Segment CE                                   | 2.3           | (847,488)    | (690,734)     | (1,053,527)  | 500,279)     | (424,534)     |              |
| Segment EG                                   | 70.6          |              |               | (32,338,709) |              |               |              |
| Segment EF                                   | 19.8          | (7,295,764)  | (5,946,318)   |              | (4,306,751)  | (3,654,686)   |              |
| Segment FH-West                              | 44.3          |              | (13,304,137)  |              |              | (8,176,899)   |              |
| Segment FH-East                              | 46.1          | (16,986,601) |               |              | (10,027,334) |               |              |
| Segment HI                                   | 13.6          | (5,011,232)  | (4,084,340)   |              | (2,958,172)  | (2,510,290)   |              |



# Appendix H

## Transportation Inputs for Benefit Cost Analysis

|                                                                                    | Length | Alt1     | Alt 1A   | Alt 2    | Alt 3    | Alt 3A   | Alt 4    |
|------------------------------------------------------------------------------------|--------|----------|----------|----------|----------|----------|----------|
| <b>2016-2040 Safety (includes all accident types) Discounted Benefits (2008\$)</b> |        |          |          |          |          |          |          |
| <b>Segment</b>                                                                     |        |          |          |          |          |          |          |
| Segment AC                                                                         | 80.6   | 18.58    | 14.32    | 56.40    |          |          | 97.21    |
| Segment BC                                                                         | 36.7   |          |          |          | 7.57     | 2.94     |          |
| Segment CD                                                                         | 38.9   |          |          |          |          |          | 46.91    |
| Segment CE                                                                         | 2.3    | 0.53     | 0.41     | 1.61     | 0.47     | 0.18     |          |
| Segment EG                                                                         | 70.6   |          |          | 49.41    |          |          |          |
| Segment EF                                                                         | 19.8   | 4.56     | 3.52     |          | 4.09     | 1.59     |          |
| Segment FH-West                                                                    | 44.3   |          | 7.87     |          |          | 3.55     |          |
| Segment FH-East                                                                    | 46.1   | 10.63    |          |          | 9.51     |          |          |
| Segment HI                                                                         | 13.6   | 3.13     | 2.42     |          | 2.81     | 1.09     |          |
|                                                                                    |        |          |          |          |          |          |          |
|                                                                                    | Length | Alt1     | Alt 1A   | Alt 2    | Alt 3    | Alt 3A   | Alt 4    |
| <b>2016-2040 Travel Time Savings Discounted Benefits (2008\$)</b>                  |        |          |          |          |          |          |          |
| <b>Segment</b>                                                                     |        |          |          |          |          |          |          |
| Segment AC                                                                         | 80.6   | 34.32    | 32.49    | 73.73    |          |          | 61.23    |
| Segment BC                                                                         | 36.7   |          |          |          | 25.14    | 24.27    |          |
| Segment CD                                                                         | 38.9   |          |          |          |          |          | 29.55    |
| Segment CE                                                                         | 2.3    | 0.98     | 0.93     | 2.10     | 1.58     | 1.52     |          |
| Segment EG                                                                         | 70.6   |          |          | 64.58    |          |          |          |
| Segment EF                                                                         | 19.8   | 8.43     | 7.98     |          | 13.56    | 13.09    |          |
| Segment FH-West                                                                    | 44.3   |          | 17.86    |          |          | 29.30    |          |
| Segment FH-East                                                                    | 46.1   | 19.63    |          |          | 31.58    |          |          |
| Segment HI                                                                         | 13.6   | 5.79     | 5.48     |          | 9.32     | 8.99     |          |
|                                                                                    |        |          |          |          |          |          |          |
|                                                                                    | Length | Alt1     | Alt 1A   | Alt 2    | Alt 3    | Alt 3A   | Alt 4    |
| <b>2016-2040 Travel Cost Savings Discounted Benefits (2008\$)</b>                  |        |          |          |          |          |          |          |
| <b>Segment</b>                                                                     |        |          |          |          |          |          |          |
| Segment AC                                                                         | 80.6   | (403.76) | (355.73) | (508.16) |          |          | (579.94) |
| Segment BC                                                                         | 36.7   |          |          |          | (106.01) | (114.30) |          |
| Segment CD                                                                         | 38.9   |          |          |          |          |          | (279.89) |
| Segment CE                                                                         | 2.3    | (11.52)  | (10.15)  | (14.50)  | (6.64)   | (7.16)   |          |
| Segment EG                                                                         | 70.6   | (99.19)  | (87.39)  |          | (57.20)  | (61.67)  |          |
| Segment EF                                                                         | 19.8   |          | (195.52) |          |          | (137.97) |          |
| Segment FH-West                                                                    | 44.3   | (230.93) |          |          | (133.17) |          |          |
| Segment FH-East                                                                    | 46.1   | (68.13)  | (60.02)  |          | (39.29)  | (42.36)  |          |
| Segment HI                                                                         | 13.6   |          |          |          |          |          |          |
|                                                                                    |        |          |          |          |          |          |          |
|                                                                                    | Length | Alt1     | Alt 1A   | Alt 2    | Alt 3    | Alt 3A   | Alt 4    |
| <b>2016-2040 Economic Discounted Benefits (2008\$)</b>                             |        |          |          |          |          |          |          |
| <b>Segment</b>                                                                     |        |          |          |          |          |          |          |
| Segment AC                                                                         | 80.6   | 439.34   | 444.27   | 697.23   |          |          | 882.63   |
| Segment BC                                                                         | 36.7   |          |          |          | 53.64    | 60.52    |          |
| Segment CD                                                                         | 38.9   |          |          |          |          |          | 425.98   |
| Segment CE                                                                         | 2.3    | 12.54    | 12.68    | 19.90    | 3.36     | 3.79     |          |
| Segment EG                                                                         | 70.6   |          |          | 610.72   |          |          |          |





# Appendix H

## Transportation Inputs for Benefit Cost Analysis

|                                                         |               |               |               |               |              |               |               |
|---------------------------------------------------------|---------------|---------------|---------------|---------------|--------------|---------------|---------------|
| Segment EF                                              | 19.8          | 107.93        | 109.14        |               | 28.94        | 32.65         |               |
| Segment FH-West                                         | 44.3          |               | 244.18        |               |              | 73.05         |               |
| Segment FH-East                                         | 46.1          | 251.29        |               |               | 67.38        |               |               |
|                                                         | <b>Length</b> | <b>Alt1</b>   | <b>Alt 1A</b> | <b>Alt 2</b>  | <b>Alt 3</b> | <b>Alt 3A</b> | <b>Alt 4</b>  |
| <b>2016-2040 Economic Discounted Benefits (2008\$)</b>  |               |               |               |               |              |               |               |
| Segment HI                                              | 13.6          | 74.13         | 74.96         |               | 19.88        | 22.43         |               |
|                                                         |               |               |               |               |              |               |               |
|                                                         | <b>Length</b> | <b>Alt1</b>   | <b>Alt 1A</b> | <b>Alt 2</b>  | <b>Alt 3</b> | <b>Alt 3A</b> | <b>Alt 4</b>  |
| <b>2016-2040 Total All Discounted Benefits (2008\$)</b> |               |               |               |               |              |               |               |
| <b>Segment</b>                                          |               |               |               |               |              |               |               |
| Segment AC                                              | 80.6          | 88.48         | 135.34        | 319.21        |              |               | 461.13        |
| Segment BC                                              | 36.7          |               |               |               | 19.66        | 26.57         |               |
| Segment CD                                              | 38.9          |               |               |               |              |               | 222.55        |
| Segment CE                                              | 2.3           | 2.53          | 3.86          | 9.11          | 1.23         | 1.66          |               |
| Segment EG                                              | 70.6          |               |               | 279.60        |              |               |               |
| Segment EF                                              | 19.8          | 21.74         | 33.25         |               | 10.61        | 14.33         |               |
| Segment FH-West                                         | 44.3          |               | 74.39         |               |              | 32.07         |               |
| Segment FH-East                                         | 46.1          | 50.61         |               |               | 24.70        |               |               |
| Segment HI                                              | 13.6          |               |               |               |              |               |               |
|                                                         |               |               |               |               |              |               |               |
|                                                         |               | <b>Length</b> | <b>Alt1</b>   | <b>Alt 1A</b> | <b>Alt 2</b> | <b>Alt 3</b>  | <b>Alt 3A</b> |
| <b>Discounted Cost of Project (2008\$)</b>              |               |               |               |               |              |               |               |
| <b>Segment</b>                                          |               |               |               |               |              |               |               |
| Segment AC                                              | 80.6          | 1,289.93      | 1,289.93      | 1,289.93      |              |               | 1,289.93      |
| Segment BC                                              | 36.7          |               |               |               | 605.32       | 605.32        |               |
| Segment CD                                              | 38.9          |               |               |               |              |               | 689.54        |
| Segment CE                                              | 2.3           | 59.97         | 59.97         | 59.97         | 59.97        | 59.97         |               |
| Segment EG                                              | 70.6          |               |               | 1,274.94      |              |               |               |
| Segment EF                                              | 19.8          | 364.67        | 364.67        |               | 364.67       | 364.67        |               |
| Segment FH-West                                         | 44.3          |               | 633.05        |               |              | 633.05        |               |
| Segment FH-East                                         | 46.1          | 623.51        |               |               | 623.51       |               |               |
| Segment HI                                              | 13.6          | 397.85        | 397.85        |               | 397.85       | 397.85        |               |
|                                                         |               |               |               |               |              |               |               |
|                                                         |               | <b>Length</b> | <b>Alt1</b>   | <b>Alt 1A</b> | <b>Alt 2</b> | <b>Alt 3</b>  | <b>Alt 3A</b> |
| <b>Benefit Cost Ratio</b>                               |               |               |               |               |              |               |               |
| <b>Segment</b>                                          |               |               |               |               |              |               |               |
| Segment AC                                              | 80.6          | 0.07          | 0.10          | 0.25          | -            | -             | 0.36          |
| Segment BC                                              | 36.7          |               |               |               | 0.03         | 0.04          |               |
| Segment CD                                              | 38.9          |               |               |               |              |               | 0.32          |
| Segment CE                                              | 2.3           | 0.04          | 0.06          | 0.15          | 0.02         | 0.03          |               |
| Segment EG                                              | 70.6          |               |               | 0.22          |              |               |               |
| Segment EF                                              | 19.8          | 0.06          | 0.09          |               | 0.03         | 0.04          |               |
| Segment FH-West                                         | 44.3          |               |               |               |              | 0.05          |               |
| Segment FH-East                                         | 46.1          | 0.08          |               |               | 0.04         |               |               |
| Segment HI                                              | 13.6          | 0.04          | 0.06          |               | 0.02         | 0.02          |               |