

VLMPO Freight Movement Study

Valdosta-Lowndes
Metropolitan Planning Organization

July 2009

Southern Georgia Regional Commission

www.sgrc.us • 327 W. Savannah Ave. • Valdosta, GA • 31601 • Phone : (229) 333-5277 • Fax (229) 333-5312

Table of Contents

Introduction	1
What is Freight Transportation?	1
Purpose and Methodology.....	1
Federal, State and Local Regulations.....	3
Freight Business Survey	5
Existing Freight Movement.....	9
Truck Routes and Traffic	9
Commercial Vehicle Crashes	9
Crashes not on Interstate 75	10
Crashes on Interstate 75	11
Crashes at Intersections.....	11
Rail Traffic	19
Commodities Carried by Rail	20
Other Freight Transportation.....	20
Land Use and Growth	23
Current Transportation Plans.....	27
Study Outcomes	31
Appendices.....	15
A. Freight Study Committee Membership.....	15
B. Georgia Statewide Rail System	16
C. Survey Questions.....	17

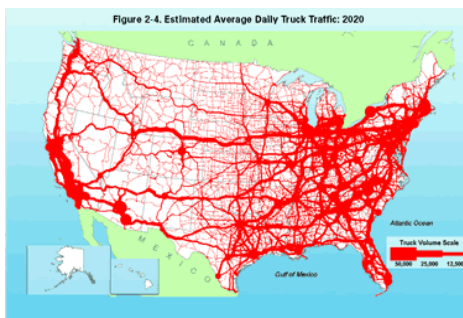
Introduction

Federal law governing transportation planning (23 USC 133 & 134) and transit planning (49 USC 5303 & 5304) requires that states and MPO's consider freight in their long-range plans, transportation improvement programs, and annual work elements. The purpose of freight movement studies is to determine the nature of both current and future freight movement within an area and to propose recommendations on accommodating both existing and future freight traffic needs.

Figure 1 National Freight Truck Movements



1998 US Freight Truck Movements



2020 US Freight Truck Movements

This freight movement study begins to examine the impact of freight movement on the Valdosta-Lowndes Metropolitan Planning Area. While no specific projects are recommended,

several areas of concern are highlighted later in the report. This report is meant to be the beginning of an ongoing examination of the relationship between freight movement and the overall transportation network and economic development of the Valdosta-Lowndes Metropolitan Planning Area.

What is Freight Transportation?

Freight transportation can broadly be defined as the movement of goods from one place to another, however, in many economic analyses; it is defined as the movement of goods from a place of production to a place of consumption in support of manufacturing processes, looking at a more inclusive and holistic approach to freight planning¹. Transportation planners are not only concerned with the shipment of these goods, but must also consider the movement of these goods within metropolitan areas. This may include the delivery of goods to the included industries as well as the movement of goods that are supplementary to the main purpose of the trip, such as service, utility, and construction trucks that carry goods to support their activities. It is important to note that freight transportation is not limited to trucks, but may also include any form of freight transportation from rail movement to air transportation and ocean-bound shipping.

Purpose and Methodology

Transportation is not just about the movement of people from one point to another, it is also about the movement of goods and services from one point to another. Increasing imports

¹ FHWA Quick Response Freight Manual II, www.ops.fhwa.dot.gov/freight/publications/qrfm2/sect02.ftm

and the shipment of goods across the nation are impacting freight movements on a massive scale, requiring more transport of imports and exports to their final markets. The weight of total freight movement is expected to nearly double in the next 30 years.² The movement of these goods in the future will be done on many different modes and many times on more than one per trip per mode. Figure 1 shows truck volumes in the United States in 1998 and expected truck volumes in 2020.

- “Existing freight flows in Georgia consist of over 634 million tons per year with a value of over \$1 trillion.
- Almost one-third of the tonnage and value of freight traveling through Georgia has neither an origin nor a destination within Georgia.
- By 2035, the tonnage of freight moved in Georgia is forecast to increase by 171 percent, or 2.7 percent per year, to 1.7 billion tons per year, and the value of freight moved in Georgia is forecast to increase by 204 percent, or 3.1 percent per year, to \$3.3 trillion.”³

In South Georgia, freight movement is also a concern. Valdosta, originally founded as a railroad town, has been a hub for freight transportation since 1860. Today, South Georgia is quickly becoming a regional warehousing and logistics hub for the Southeast United States. Manufacturers and warehouse

continue to locate in South Georgia because of the easy access to major transportation corridors located in the region. Key transportation corridors in the region include: I-75, I-10, both Norfolk Southern and CSX Railroads, US 84, the Ports of Georgia in Savannah and Brunswick, and ports in Florida (Jacksonville and Miami).

This report will assess the existing freight movement in South Georgia and consider future economic development and land use plans to build a profile of goods movement in the region. Although some areas of concern are highlighted in this report, it will primarily be used to supplement an updated 20-year horizon transportation plan in the next few years. To begin, a study committee was formed of local freight stakeholders to guide the MPO staff in meeting the needs of the local freight community. The membership of the study committee is available in the appendix. The study committee was able to guide the staff in the development of a meaningful survey of local businesses and overall direction of the freight movement study. Each member of the study committee will continue to be a valuable stakeholders in the regional transportation planning process as the recommendations from this study are incorporated into future long range transportation plans.

This study assesses freight movement in all of Lowndes County and its surrounding region to determine how the movement of goods impacts the local transportation network. This study will examine three components: freight policy, freight data (state and local), and public perception of freight movement. Federal, state and local laws and policies will be examined to

² FHWA 2007 Freight Fact Book, Total 2006 – 20.974 billion tons, 2035 – 37.212 billion tons.

³ Source: 2005-2035 Georgia Statewide Freight Plan.

get an overview about overall government policy towards freight movement. This policy review will not only include those that directly affect the transportation of freight but those that lead to increased freight demand such as the location of industrial land uses. Crash data, traffic count data, and statewide data provided by the Federal Highway Administration's Freight Analysis Framework will be used to show where freight movement impacts the local transportation network and how freight fits into the larger state and national movement of freight.

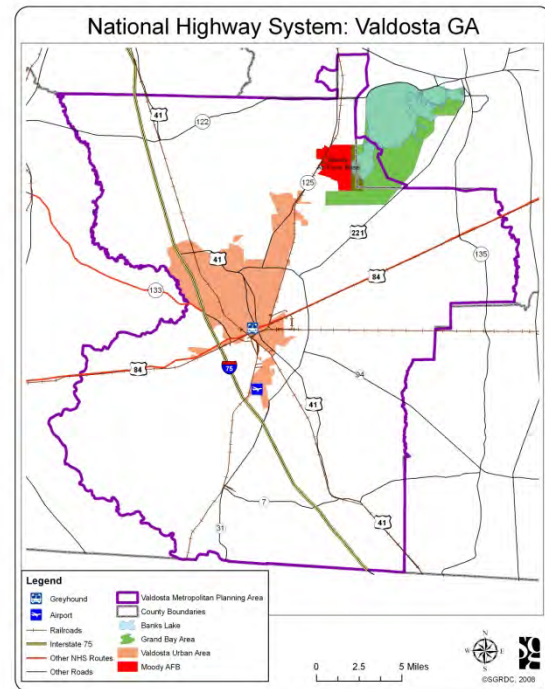
In order to provide public input on the perception of freight movement in Lowndes County a survey of businesses was conducted. The VLMPO partnered with the Valdosta-Lowndes Chamber of Commerce to distribute the survey to the Chambers' more than 1,500 members and non members. Companies in freight intensive industries were also mailed the survey. The survey was completed via SurveyMonkey.com to aid in the distribution and collection of results. Overall there were 118 respondents to the survey, with about 48% being freight intensive users. More information on the survey is found later in this report.

Federal, State and Local Regulations

The law that governs the truck and bus size and weight limitations on the National Network of highways is authorized under the Surface Transportation Assistance Act (STAA) of 1982 (regulated under 23 CFR 658). The purpose of this law is to provide a "National Network of highways that can safely and efficiently accommodate the large vehicles authorized in the STAA. This network includes the Interstate System plus other qualifying federal

Primary System Highways" (23 CFR 658.3). In Georgia several additional routes have been

Figure 2 National Highway System



federally designated, these include only US 84/GA 38 in the study area⁴.

The National Highway System in the Valdosta MPA (Metropolitan Planning Area) consists primarily of I-75, US 84, and GA 133, however, there are other important roadways that carry freight through the community, particularly US 41/GA 7 or Inner Perimeter Highway.

Locally, Lowndes County has not implemented any local truck routes or restrictions, but has the ability to do so under local ordinance. The City of Valdosta has implemented local truck restrictions within the city; however an

⁴ Source: 23 CFR 658.9, 23 CFR 658 Appendix A

inventory of these locations is currently underway and the City hopes to use the findings of this study along with their own research to better locate truck routes and restrictions on city streets.

Bridge restrictions can cause some roadways to become unusable by trucks for through traffic or to make local deliveries. Several local bridges in the Lowndes County area are under such restrictions, however they were not considered in this report.

Freight Business Survey

A survey was conducted of companies throughout Lowndes County to determine what their needs and opinions were about freight transportation in South Georgia. A copy of the questions used in the survey is found in the appendix. The survey was conducted online via SurveyMonkey.com. The survey allowed freight intensive users, concerned citizens and non-freight intensive companies to respond. This type of response has given many different ways to look at the data. First the data from freight intensive companies were been examined separately from the data of concerned citizens and non-freight intensive companies. This survey was conducted in a way that allowed respondents to not answer certain questions, so some questions may be short of complete responses.

Of the 118 respondents to the survey 57 identified themselves as freight intensive users. These freight intensive users identified themselves in several different industries, with the primary ones being: chemicals and minerals, metal fabrications, other manufacturing, paper products, and truck transportation.

82% of the respondents said their company was located in Lowndes County while 8% said that their company was located outside of South Georgia and North Florida. 51% of the freight intensive respondents said they employed less than 50 persons. Nearly 83% of the companies have been located in Lowndes County for less than 50 years.

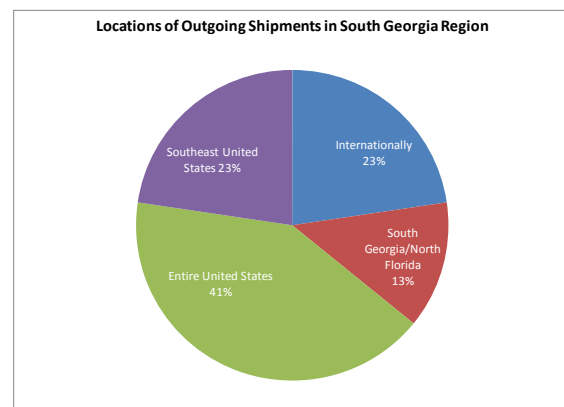
Freight intensive companies were asked about their use of fleet vehicles for shipping and

receiving goods. 25% of the respondents said they use more than 25 trucks per day to ship and receive goods at their location in Lowndes County. 57% of the companies use an outside trucking firm for shipping and receiving products. Of the remaining 22 companies that use their own fleet to provide services to Lowndes County facilities, only one company said they had more than 50 vehicles in their fleet. The remaining companies, 63% of respondents, said they had less than five trucks per day.

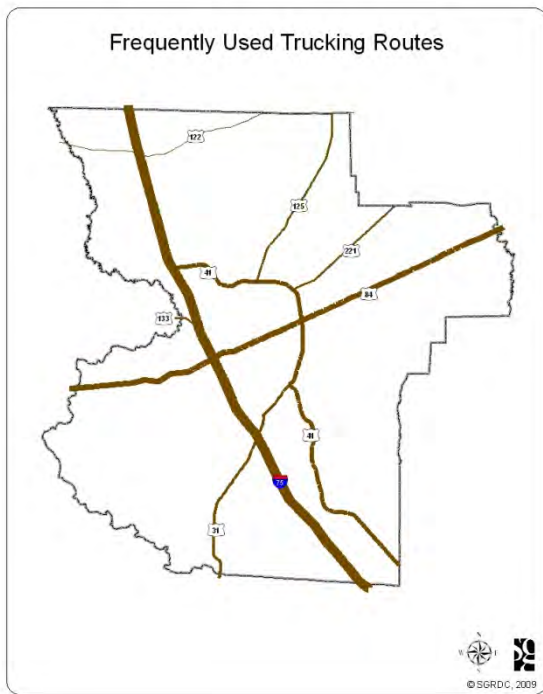
30% of the trucking firms providing services to Lowndes County companies operate within the Southeast United States, most of the rest operates nationally or internationally.

23% of the respondents said they ship the products they produce here internationally, while only 13% said they remain locally in South Georgia and North Florida.

Figure 3 Outgoing Shipments



65% of the respondents indicated they ship and receive time sensitive products on a daily basis and only two of the respondents are time sensitive to the hour.

Figure 4 Regional Trucking Routes

93% of respondents said the routes they primarily use when shipping and receiving products and supplies in Lowndes County serve their current needs. 90% of the respondents said that the current primary highways in Lowndes County will serve their future needs as well. The respondents that said no to each of these questions mostly noted that congestion was a concern now or in the future. When asked what primary routes are currently under utilized the two concerns raised were the development of a west-side perimeter highway and more direct connections via interstate quality roadways to Columbus, GA; I-95; and I-10 West. A vast majority of the respondents did not answer this question however.

When asked what specific problems truckers encounter on local highways 62% of the respondents said that they do not encounter

any specific problem on a regular basis, however 23% of the respondents said that delays at railroad crossings in the community are a problem. Two railroad crossings were specifically mentioned, the CSX crossing on St. Augustine Road and the Norfolk Southern crossing on US 84/Hill Ave. Both of these crossings have been known to cause significant traffic delays on a regular basis. 45% of respondents indicated that that recurring congestion is a problem for their business on highway 84 due to general traffic and rail crossing issues, while another 26% of respondents said bottlenecks are a problem on St. Augustine Road due to general congestion and rail crossing issues. Other problem areas included SR 31 near the Paper Corporation of American Paper Mill, the greater Five Points area, truck traffic around students at the Valdosta State University campus, and traffic congestion in the Valdosta Mall area along Baytree Road.

When asked about specific transportation related issues, railroad crossings and congestion (including traffic in downtown Valdosta) had the most negative impact on a company's profitability in South Georgia.

When looking at transloading or modal transfer facilities in South Georgia 23% of the respondents said they utilize these services, however only two of the companies use the services in South Georgia, the remaining companies use transfer points in Atlanta, Waycross, the Georgia Ports and Jacksonville, FL. Only 5 of 43 of the respondents said that they could utilize a new transfer point if it were constructed in the community, and two of these

respondents were concerned about the economics or overall need of such a facility.

The freight intensive users of transportation in South Georgia were asked what additional amenities could be provided in the community for the freight/logistics industry. 31% of the respondents said that improved highway/rail crossings where amenities for the community in general. Other significant amenities that were identified included: defining local truck routes, improving signage and providing an intermodal (transfer facility).

When considering the impact of international ports on locating a business in South Georgia, 70% of respondents said that the role of international trade via ports like Savannah, Jacksonville, Miami, New Orleans, and Mobile were significant or very significant. 80% of the respondents said that locating a business in South Georgia is significant to the role of regional domestic trade in the Southeast United States.

The remaining analysis of questions is from all of the respondents of the survey, not just the freight intensive users. The biggest concerns about truck traffic in the Lowndes County area is the speed of trucks travelling through the community. Several concerns came in second and included fumes/air pollution from trucks, noise, and the total number of trucks in the community, especially in Downtown Valdosta. Ranked last of concern were issues of truck crashes, hours of operation and the vibration caused by large tractor trailers.

When asked if there are specific areas of the community where trucks should be prohibited half of the respondents said there were areas

that should have truck prohibitions in place. Some of the recommendations for these areas included: downtown (37%), all residential areas (27%), Hill Ave./Ashley St./Patterson St. (14%). Other concerns included areas near Valdosta State University, and through trucks travelling in the community that are not making local deliveries.

Three questions were asked of the survey respondents about the need for local ordinances for a variety of freight/truck traffic related issues. The responses to these questions were as follows.

- Does a local ordinance need to be adopted to establish local truck routes to supplement the state highway system?
 - 55% of respondents said yes
- Does a local ordinance need to be adopted requiring through trucks to utilize only the right lane while travelling through the urban area?
 - 67% of respondents said yes
- Does a local ordinance need to be adopted requiring trucks to not use engine brakes while travelling through the urban area?
 - 62% of the respondents said yes

From these questions it is evident that only a few respondents support the creation of a local supplemental truck route system. A greater number of respondents support restricting the behavior of trucks in the community through the use of signage and enforcement.

Next the survey looked at some basic economic development questions to learn more about the

potential future impact of freight on the community.

When asked what kind of business or industries the community should try to attract 67% of the responses were for traditional freight intensive uses of manufacturing, advanced manufacturing or warehousing and distribution. The remaining responses primarily focused on the retail and service industries. Many of the respondents to the survey selected all of the available options, indicating that we should focus on attracting a diverse economic base.

Second, the respondents were asked if freight intensive or non-freight intensive companies should be sought based on the current transportation infrastructure. 56% of the respondents indicated that freight intensive industries should be attracted to the community. This loosely correlates with the previous question asking about what types of industries should be brought to the area, where manufacturing, and warehousing and distribution led with 67% of the responses.

When looking at why a business would choose to or not to locate in Lowndes County the respondents said that the top two reasons to choose to locate a business in Lowndes County are the access to highway infrastructure and the quality of life the community provides. Conversely the respondents said the top two reasons a business would choose not to locate in Lowndes County is the access to airports and seaports.

Finally the respondents were asked to rate their overall satisfaction with the regional transportation system. 66% of the respondents were either satisfied or very satisfied with the

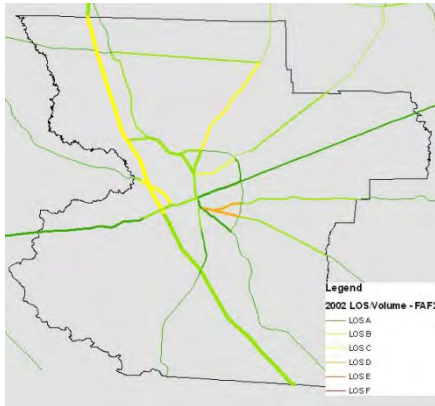
regional transportation system. Another 27% were neither satisfied nor dissatisfied with the regional transportation system.

Respondents to the survey were also asked to comment on general transportation topics. These comments have been reviewed and will be taken into consideration in the development of future projects. Some of the repeating comments included the location of industrial land uses near rail and major highway facilities to provide easy access to markets, and the construction of railroad overpasses on major corridors to prevent traffic bottlenecks.

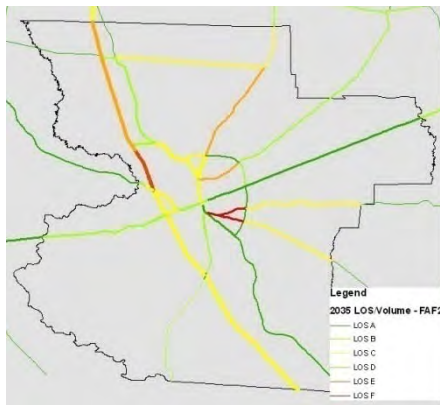
This survey has not been examined in its entirety. In the coming months the VLMPO will conduct a follow-up report to look at the survey data in more detail, based on recommendations from the local communities and the freight study committee.

Existing Freight Movement

Truck Routes and Traffic



2002 Lowndes County LOS Map



2035 Lowndes County LOS Map

Figure 5 Lowndes County Level of Service Maps

As noted previously there are no designated truck routes in Lowndes County or Valdosta. The City of Valdosta does however have the ability to implement truck routes and restrictions, some the current signs posted throughout the community are not consistent with current and planned traffic patterns. The City of Valdosta is currently conducting an inventory of signage and will use the results of its inventory, this report and other research to

better delineate truck routes through the city in the future.

Locally Lowndes County is seeing increased truck traffic annually on its roadways. I-75 and US 84, are major through traffic routes north-south and east-west, respectively through the community. Figure 5 shows what truck traffic looked like in 2002 and what it is projected to look like in 2035 in Lowndes County. The LOS, or Level of Service, shows the volume of vehicles on the roadways versus its designed capacity. A LOS of A signifies free flowing traffic, while a LOS of F signifies standstill traffic. This data from the FHWA Freight Analysis Framework Version 2 shows the impact of freight and goods movement on this community.

Commercial Vehicle Crashes

Examining commercial vehicle crashes in the community can help identify potential locations for roadway improvements. Examining this data only gives a macro view of each location and the crashes associated with it. More detailed planning and engineering analysis will be required for any intersections identified in this report as being high crash locations involving commercial vehicles.

Crash data for this report is from the Georgia Department of Transportation for the years 2005-2007 and analyzed with the CARE 8 software from the University of Alabama.

In the three-year period studied there were a total of 710 crashes with commercial vehicles. As can be seen in Table 1 total crashes in the last three years have remained relatively steady. Overall this tells little about the

situation of commercial vehicle crashes in Lowndes County.

Table 1 Commercial Vehicle Crashes 2005-2007				
Year	Total	PDO	Injury	Fatal
2005	260	196	62	2
2006	223	163	57	3
2007	227	167	56	4
Total	710	526	175	9
Source: GDOT, Univ. of AL CARE 8				

Since I-75 is a very heavily travelled trucking route through the region traffic data from I-75 is being removed from detailed analysis involving the non-freeway road network and will be analyzed separately. Of the 710 crashes in the region in the study period about 61% or 432 of them were not on I-75. There are 15 crashes that reported a “null” value in the location field; these have been removed from further analysis.

Crashes not on Interstate 75

Of these 432 crashes not occurring on I-75, 13% have ‘null’ values for what type of vehicles were involved in the collision. For this reason these crashes have been removed from further analysis as all data is not available, leaving only 375 crashes to examine. 65% of the crashes were at an intersection, with about 15% of them at state routes. These intersection crashes are examined in further detail later.

Because there are many different kinds of commercial vehicles a brief analysis was completed on what kinds of trucks were involved in crashes. Using the thirteen federal classifications of vehicles it was found that about 35% of the accidents were caused by a vehicle other than a commercial vehicle. Table 2 shows the classifications of vehicle types and

the corresponding frequency of collisions with other vehicle types. See Appendix B for Federal vehicle classification definitions.

Table 2 Vehicle Classification and Collision						
Vehicle #2 Class.	“Causal” Vehicle #1 Classification					
	1	2	3	4-7	8-10	11-13
1	0	0	0	1	5	0
2	0	0	0	64	85	1
3	0	0	0	26	35	0
4-7	1	39	17	6	4	0
8-10	2	51	22	4	11	0
11-13	0	0	1	0	0	0
Total	3	90	40	101	140	1
Source: GDOT, Univ. of AL CARE 8						

Table 2 shows that in 65% of the 375 crashes a truck or commercial vehicle was determined to be the “causal” vehicle. Traditionally trucks are thought of as classes 4-13. For this study however we will only be looking at classes 8-10, or traditional tractor-trailer rigs, which were 58% of the crashes involving commercial vehicles, and where 37% of the crashes, were “caused” by these classes of vehicles.⁵

The first harmful event in 92% of the crashes was contact with another motor vehicle in motion. The manner of these collisions is outlined in Figure 6. In 160 of these 219 crashes the severity of the crash was PDO (Property Damage Only). There were a total of two fatal and fifty-seven non-fatal injury crashes.

⁵ It should be noted that Georgia does not determine ‘fault’ for crashes. The University of Alabama has used computational algorithms to develop separate causal commercial vehicle tables. These tables are not used in this analysis as the data differs from that presented in Table 2 (ex. 189 vs. 219 vehicles identified as causal commercial vehicles).

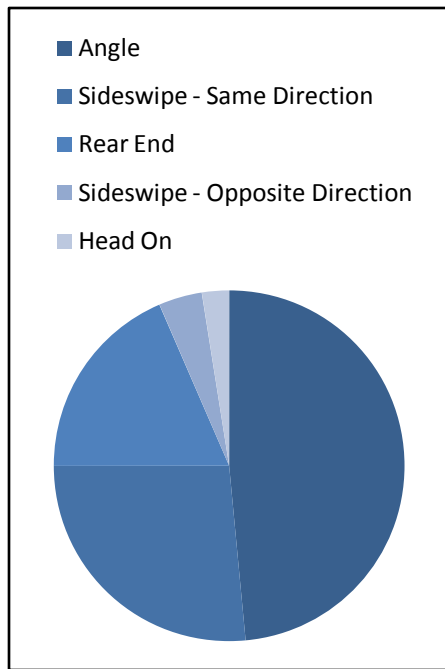


Figure 6 Manner of Collision

Further analysis of these collision types will require examining crash records which will give more detailed information about the specific intersections and contributing circumstances to each crash. Displayed on the following pages are several maps illustrating truck related crashes in Lowndes County. Each of these crash locations and manners of collision will require further in-depth study from the VLMPO, GDOT and local governments.

Crashes on Interstate 75

263 crashes occurred on I-75 during the study period, however in determining the vehicle classifications two crashes were missing from the data resulting in only 261 crashes available to be analyzed. Table 3 shows the vehicle classification for crashes occurring on I-75 and the frequency of crashes with those vehicle classifications.

As indicated, 86% of the crashes involved a truck, while a truck was determined to be the “causal” vehicle in about 58% of the crashes.

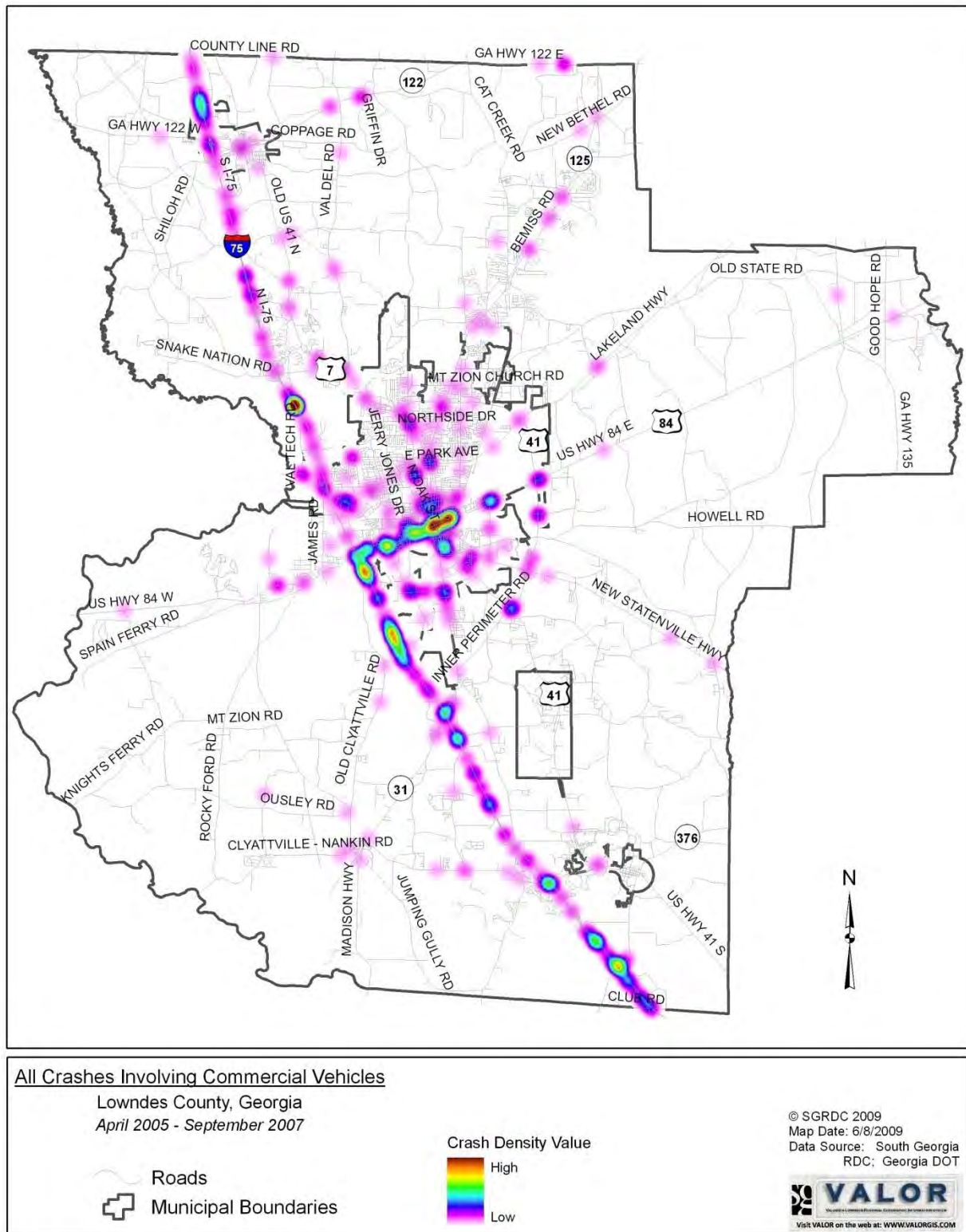
Table 3 Vehicle Classification and Collision on I-75

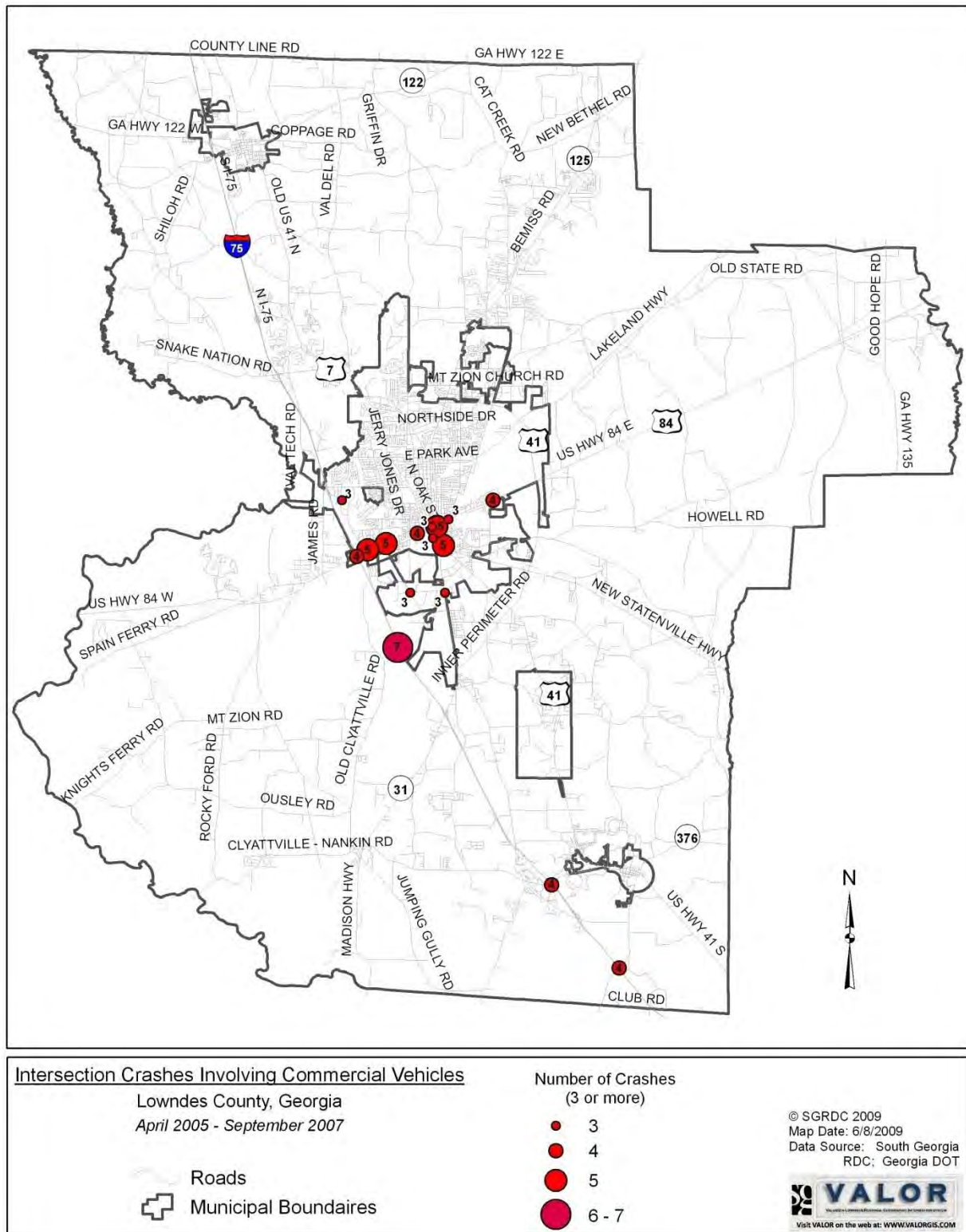
Vehicle #2 Class.	“Causal” Vehicle #1				
	2	3	4-7	8-10	11-13
2	0	0	11	83	4
3	0	0	5	33	1
4-7	7	4	1	8	1
8-10	37	30	4	27	3
11-13	2	0	0	0	0
Total	46	34	21	151	9

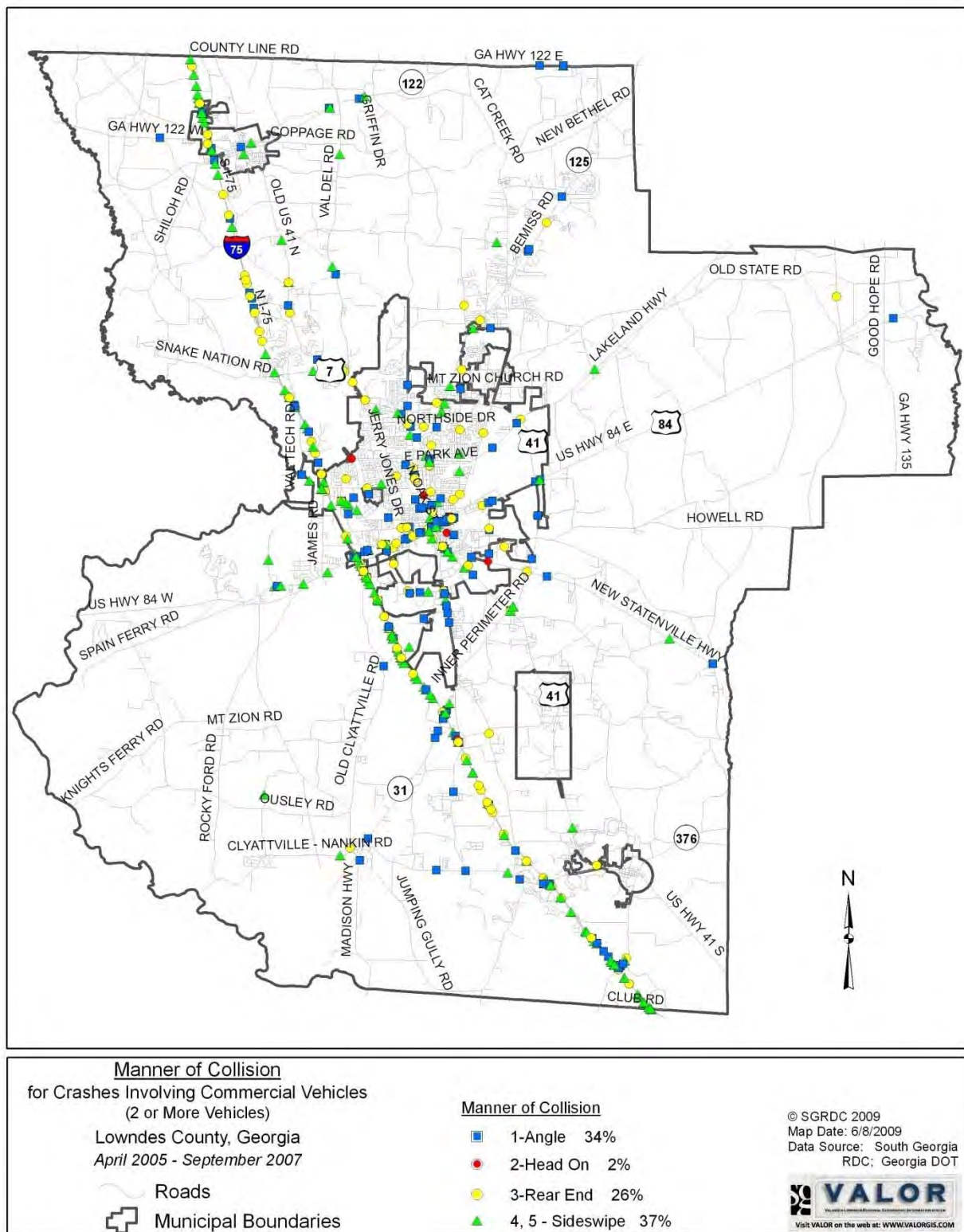
37% of the collisions on I-75 were same-direction sideswipe collisions. Rear end, angle and collisions with objects other than a vehicle were also significant on I-75.

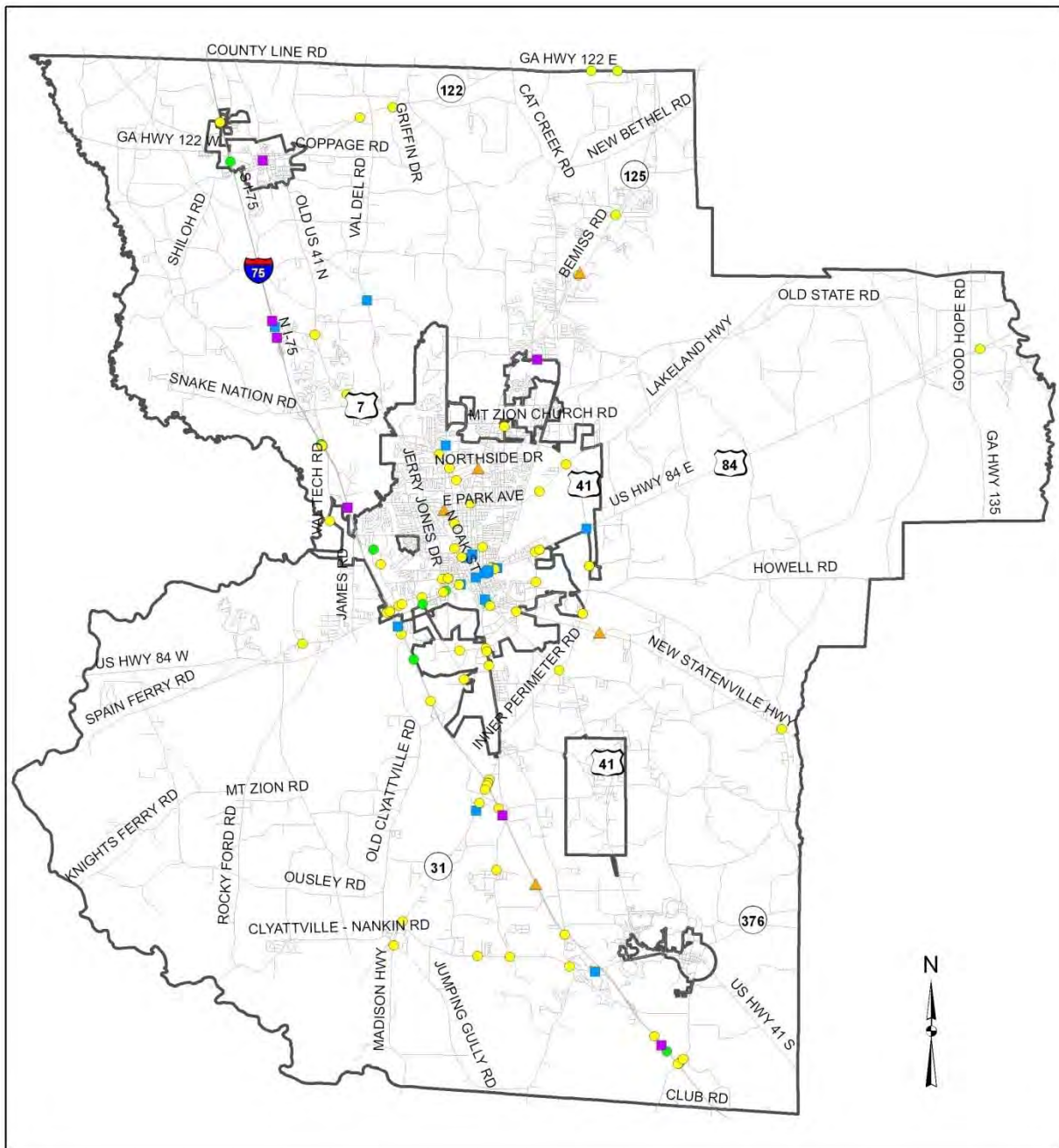
Crashes at Intersections

65% of the crashes were at intersections where traffic is most likely to have conflict points. Of the 375 crashes analyzed in Lowndes County 70% of them were on state routes, however nearly 43% of the crashes at intersections were on a state route that intersected with a county road or city street. The state routes are the roads carrying the majority of traffic in the region, defined as arterials. Nearly 62% of the crashes were at intersections with a traffic control device (ex. traffic signal).









Contributing Factors for Angle Crashes

Involving Commercial Vehicles (2 or More Vehicles)

Lowndes County, Georgia

April 2005 - September 2007

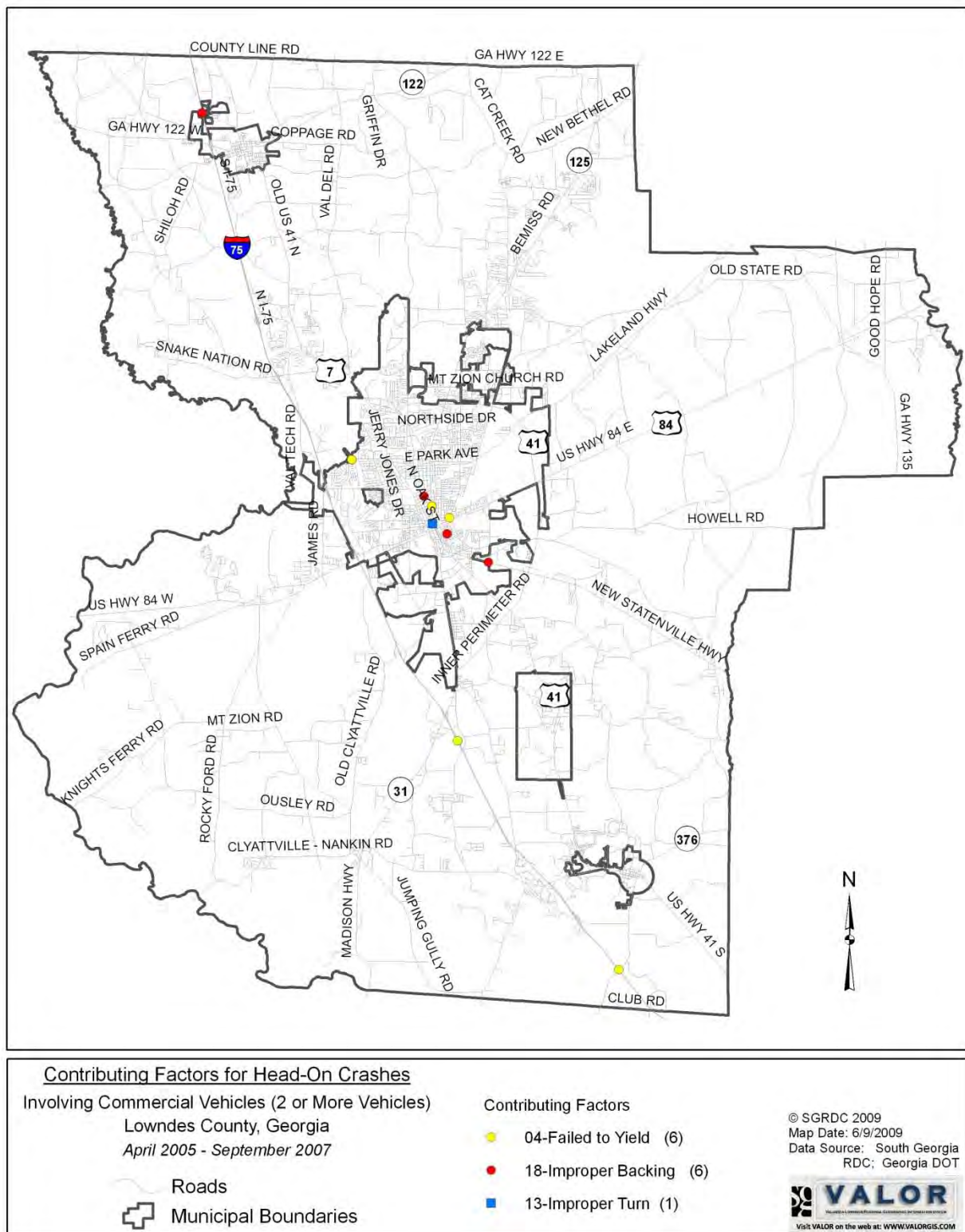
Roads
Municipal Boundaries

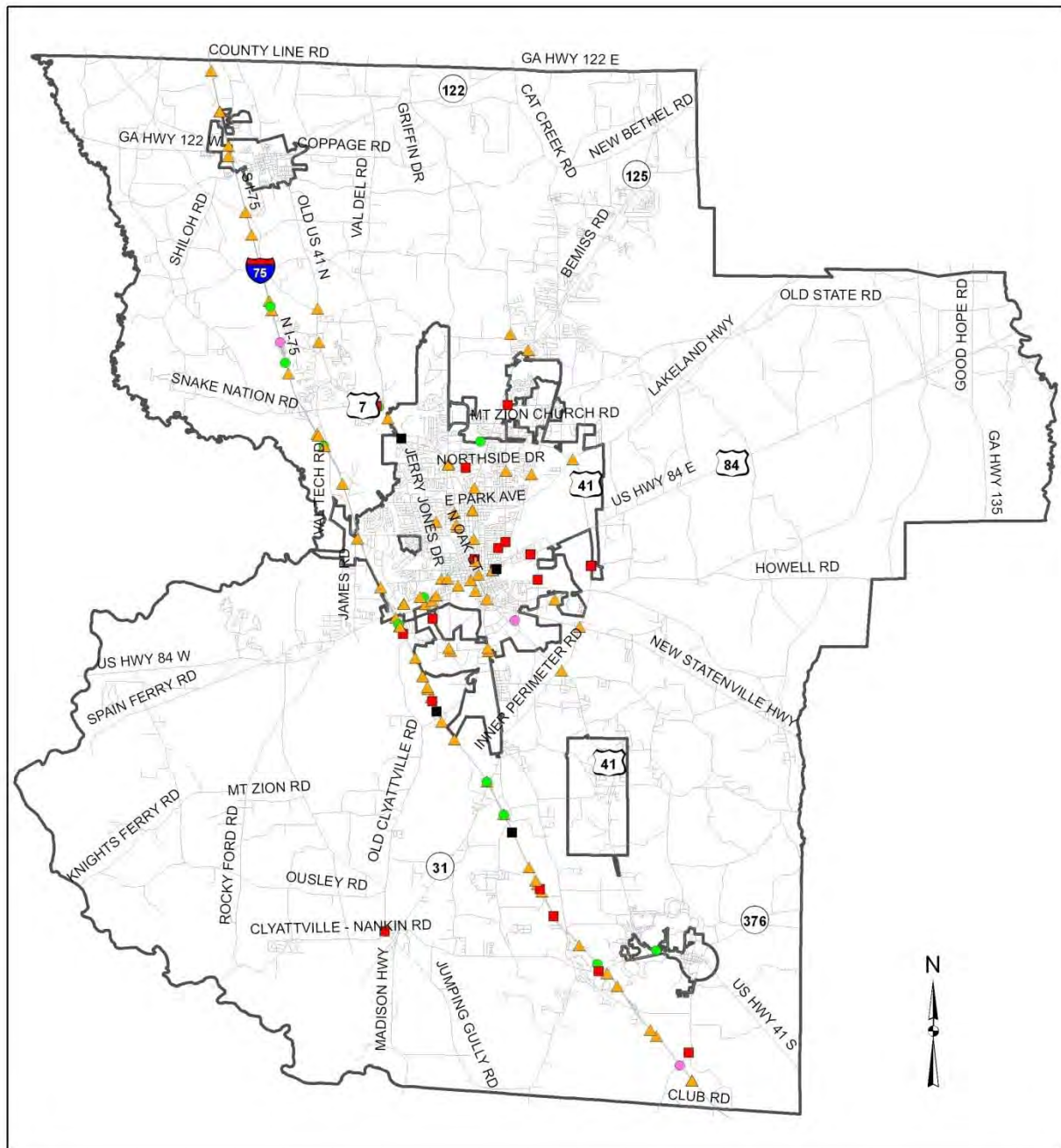
Top 5 Contributing Factors

- 04-Failed to Yield (119)
- 11-Changed Lane (108)
- 03-Following to Close (102)
- 13-Improper Turn (43)
- 10-Driver Lost Control

© SGRDC 2009
Map Date: 6/9/2009
Data Source: South Georgia
RDC; Georgia DOT







Contributing Factors for Rear End Crashes

Involving Commercial Vehicles (2 or More Vehicles)

Lowndes County, Georgia

April 2005 - September 2007

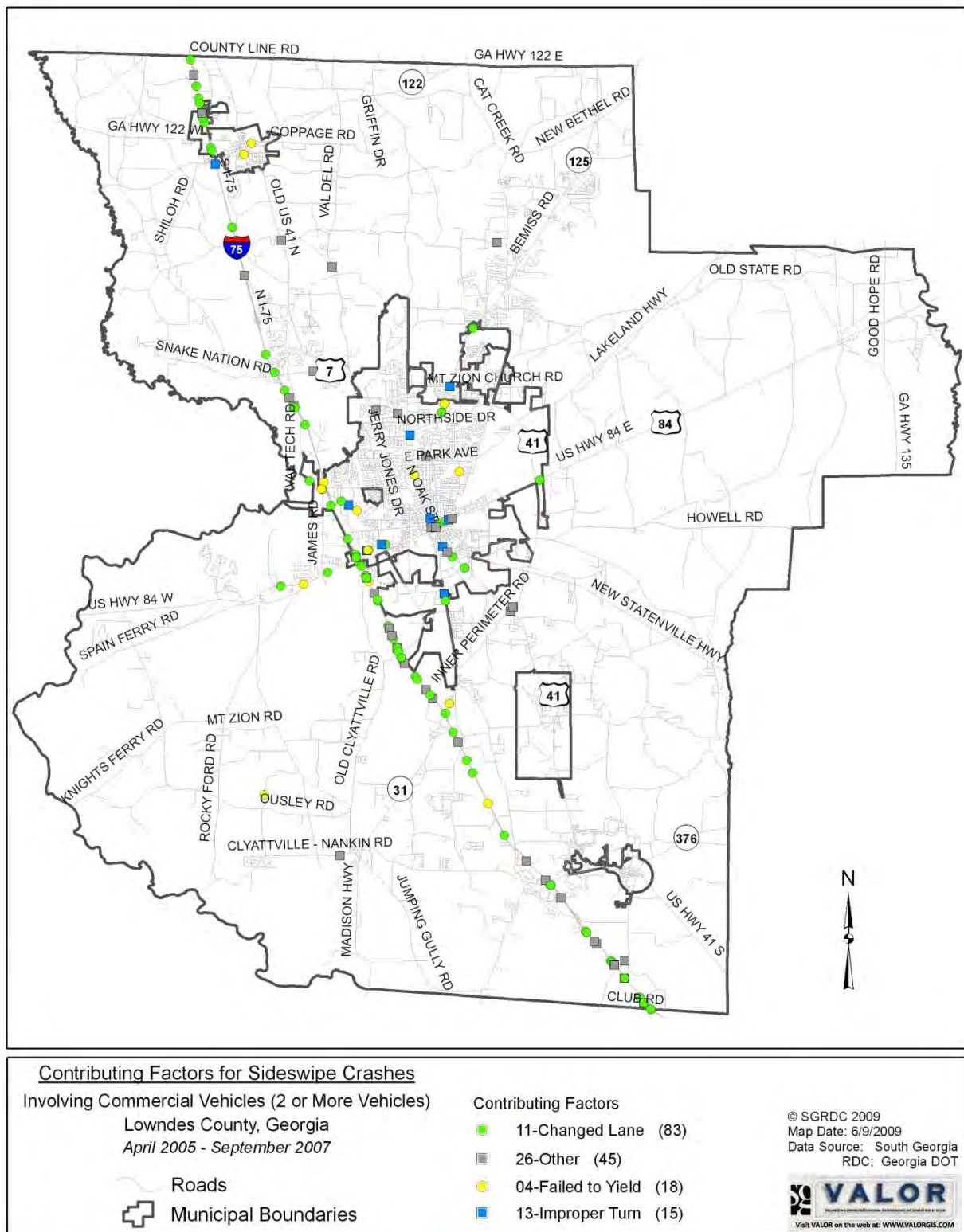
Roads
Municipal Boundaries

Top 5 Contributing Factors

- ▲ 03-Following to Close (95)
- 18-Improper Backing (22)
- 11-Changed Lane (11)
- 15-Mechanical (4)
- 02-D.U.I (3)

© SGRDC 2009
Map Date: 6/9/2009
Data Source: South Georgia
RDC; Georgia DOT





Rail Traffic

There are currently two Class I railroads, Norfolk Southern (NS) and CSX Transportation; and two shortline railroads in operation in

County. A map of the current ownership of railroads in Georgia is provided in the appendix.

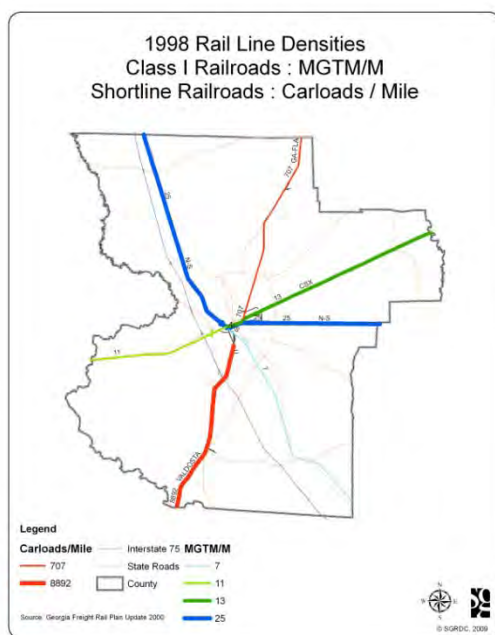
Rail line densities in 1998 showed that Class I

Table 4 Freight Railroads in Lowndes County.

Railroad	Mileage GA/LC	Rail Line Density (avg)	Major Destinations	General Commodities
NS	1,777/58	19 MGTM/M	Knoxville, TN; Jacksonville, FL	Farm/Food Products, Paper, Coal/Aggregates, Wood Products, Chemicals, Hazardous Materials
CSXT	1,781/36	12 MGTM/M	Dothan, AL; Savannah, GA	
VR	10/10	<9K carloads/mi	Valdosta and Clyattville	Farm Products, Chemicals, Forest Products, Paper
GFRR	208/18	700 carloads/mi	Valdosta and Nashville, GA	Nonmetallic Minerals, Chemicals or Allied Products

Source: GDOT Freight Rail Study, VALOR GIS

Lowndes County. The two shortline railroads operating in Lowndes County are the Valdosta



Railway (VR) and Georgia & Florida Railroad (GFRR). Most of the rail traffic in the region is carried by NS and CSXT. There are currently no inactive or abandoned railroads within Lowndes

railroads in Lowndes County handled on average between 12 and 19 million gross ton miles per mile of track for CSX and NS, respectively. Although Valdosta is not a major rail hub line like Waycross, GA or Atlanta there is a fair amount of trains changing direction and tracks in Valdosta as can be seen in the map to the left. Currently the level of service on railroads in the Lowndes County area appears to be operating at an acceptable level of service. The Georgia Freight Rail Plan does however outline several short- and long-term improvements to be made to shortline railroads in the Region. On the Georgia and Florida Railnet between Valdosta and Nashville, it is estimated that nearly \$8 million will be needed to upgrade and maintain this segment through 2010 (Georgia Freight Rail Plan was completed in 2000; it is unclear if this number has been adjusted for inflation). The Valdosta Railway is also expected to make improvements annually but provides no estimates.

Communities in Lowndes County are currently seeking input and funding for the relocation of the Savannah Avenue switching yards in Valdosta. At the time of this report some funding has been secured, however no firm plans are in place for improvements to the rail infrastructure at this time.

At grade railroad crossings along major roadways, particularly in Valdosta, are regularly blocked leading to congestion bottlenecks as trains are passing through or using the switching yards. Two key areas of concern are on St. Augustine Ave. and Hill Ave. There is a proposed overpass to be built on Hill Ave. that is currently being designed.

Commodities Carried by Rail

Table 4 shows the amount of track mileage and general destinations each railroad has and some of the general commodities carried throughout South Georgia and the entire State. The largest commodities carried throughout the Region and State are farm and food products as well as mineral aggregates and wood products, reflecting the major industries of the Region and State. According to the Georgia Freight Rail Plan in 1998, Lowndes County was an exporter of paper products, while it was an importer of nonmetallic minerals, clay/concrete/glass/stone products. Lowndes County was both an importer and exporter of lumber and wood products. The Georgia Freight Rail Plan shows that by 2025 there will be increases in rail traffic originating in Georgia from categories like minerals and aggregates, and manufactured goods; while there would be a decrease in farm and food products, wood and paper products, hazardous materials and bulk materials. Likewise rail traffic terminating in Georgia will

see increases in farm products, coal and other aggregates, manufactured items, and chemicals; while the following categories are likely to show decreases in traffic terminating in Georgia: forest, wood and paper products, waste materials and empty shipping containers.

Other Freight Transportation

While this study focuses on truck and rail transportation other modes influence freight movement in our region such as air, water and pipelines.

High value, low weight, and time sensitive cargo is increasingly being carried by airplane rather than by truck due to costs and needs for just-in-time shipping. Although the Valdosta Regional Airport does not have regularly scheduled air cargo carriers, these services are provided to businesses in our community through the Southwest Georgia Regional Airport in Albany, GA, and the Tallahassee Regional Airport in Tallahassee, FL. Although air cargo traffic cannot easily be traced back to the Valdosta Region it is deduced that these airports provide a large part of the air cargo services via truck to the Valdosta area.



Figure 7 Ports in the Southeast U.S. within a 1 days drive of Valdosta. Source: VLIA

Valdosta and Lowndes County are strategically located in the Southeast United States within a one day's drive of ten of the nation's top 20 ports by total weight or total unit volume.⁶ Since 2002, the Port of Savannah has seen foreign container trades more than double from 8.3 MMT (million metric tons) in 2002 to 17.1 MMT in 2007, a 106% increase.⁷ As the United States imports more goods the ports of the Southeast will continue to see increases in the amounts of goods transported through them. In 2007, the nation of Panama began a mega-building project to widen the Panama Canal by 2015. This widening will allow larger ships to enter the eastern seaports of the United States, increasing intermodal traffic and distribution center traffic. There are several projects at many of the ports throughout the Southeast to increase capacity in anticipation of larger ships and more traffic resulting from this expansion.

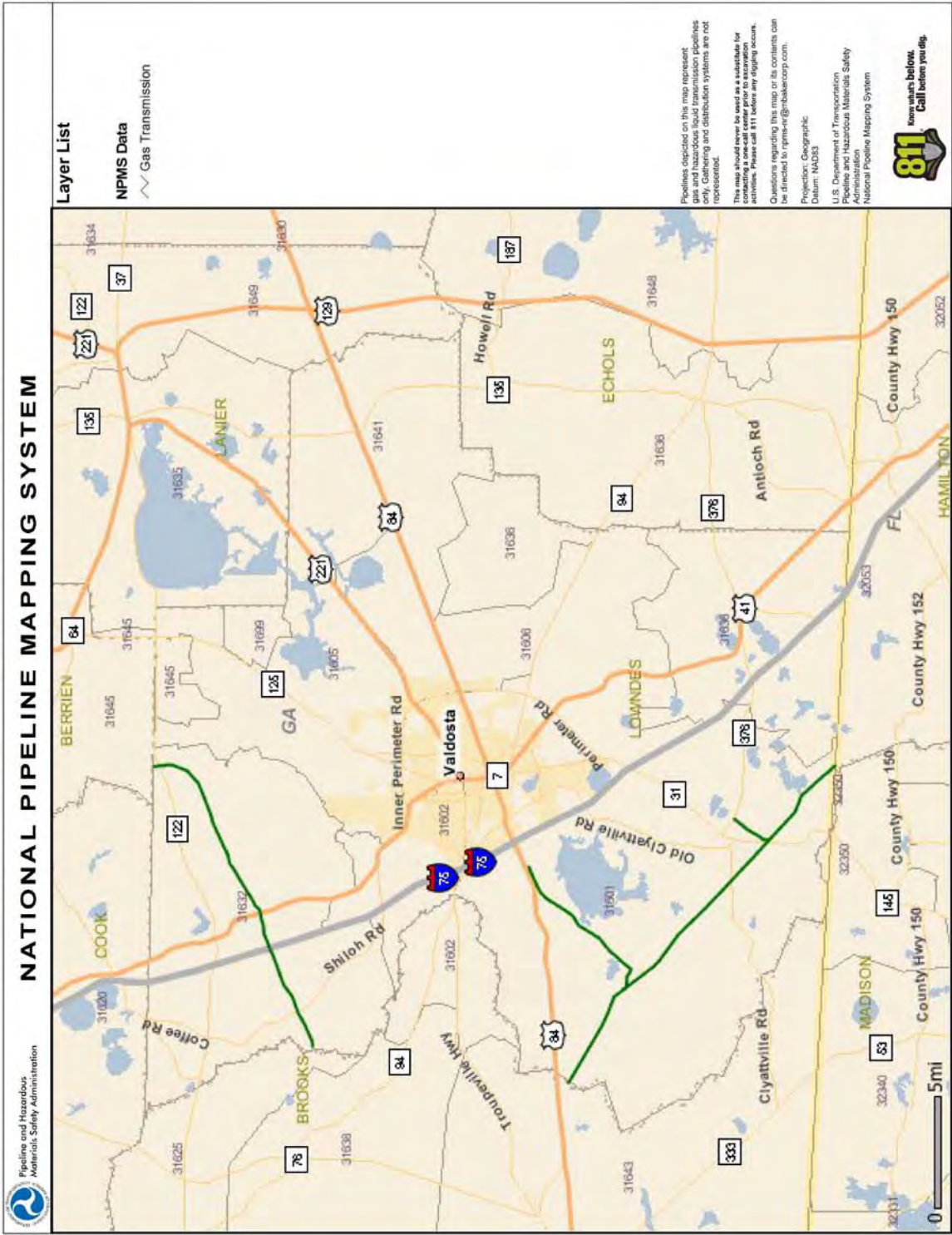
Although it can be difficult to determine the level of impact the ports of the Southeast have on South Georgia, anecdotally, shipping containers are seen on railroads and trucks travelling to and from the various ports through the Region.

It is well known that the Ports of Georgia and those in Florida have a large impact on our local economy. There is no data though that details what companies or even commodities are flowing to or from the South Georgia Region as a result of the ports of the Southeast United States.

There are currently only two pipelines in Lowndes County. One provides natural gas to industrial users and the community in general, while the other seems to only traverse Lowndes County.

⁶ Source: Bureau of Transportation Statistics, Pocket Guide to Transportation 2008.

⁷ Source: US Maritime Administration.



Land Use and Growth

Land use in and around Lowndes County currently remains primarily rural in nature, however high growth in and around the City of Valdosta is adding suburban character and development to the region. The Greater Lowndes 2030 Comprehensive Plan identifies current and future land use areas for residential commercial and industrial (freight intensive uses); these maps are included on the following pages.

The Comprehensive Plan Future Land Use Map identifies two character areas that are appropriate for industrial or freight intensive uses. These character areas are Industrial Activity Centers and Transportation/Utility Centers. Each of these character areas identify strategies to buffer them from residential and commercial land uses as to provide adequate public infrastructure including transportation for existing and future industrial parks.

The Greater Lowndes Planning Commission is active in ensuring proper access management and protecting arterial and collector corridors from un-managed access points, ensuring proper usage of roadways for all users, trucks and automobiles alike.

The Valdosta-Lowndes Industrial Authority is the leading economic development organization for all of Lowndes County. The Industrial Authority promotes business development in primarily six industrial parks throughout the community.

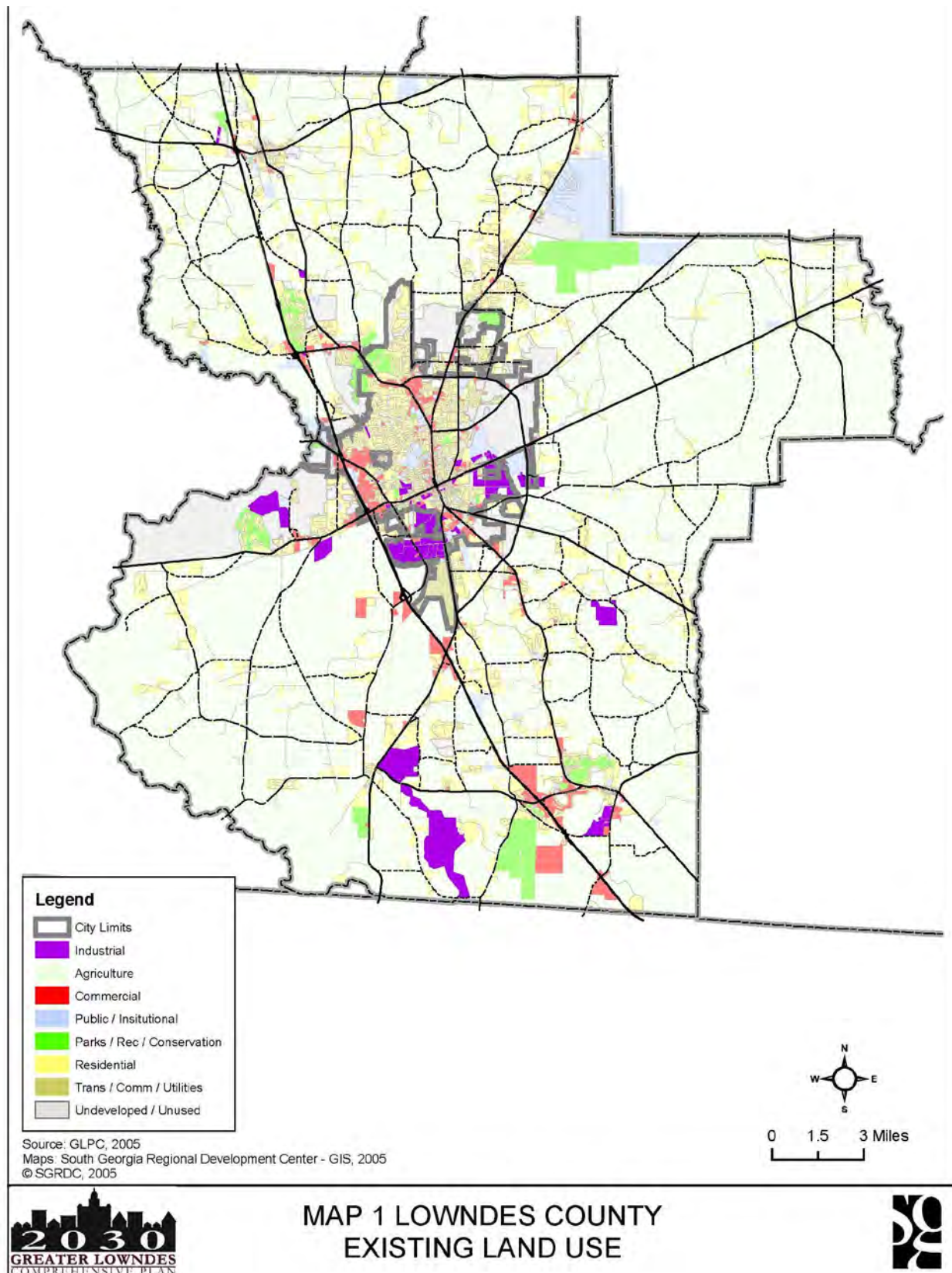
Based on data from the US Census Bureau 2006 County Business Patterns there were 2,710 business establishments in Lowndes County employing more than 42,000 persons. Using the

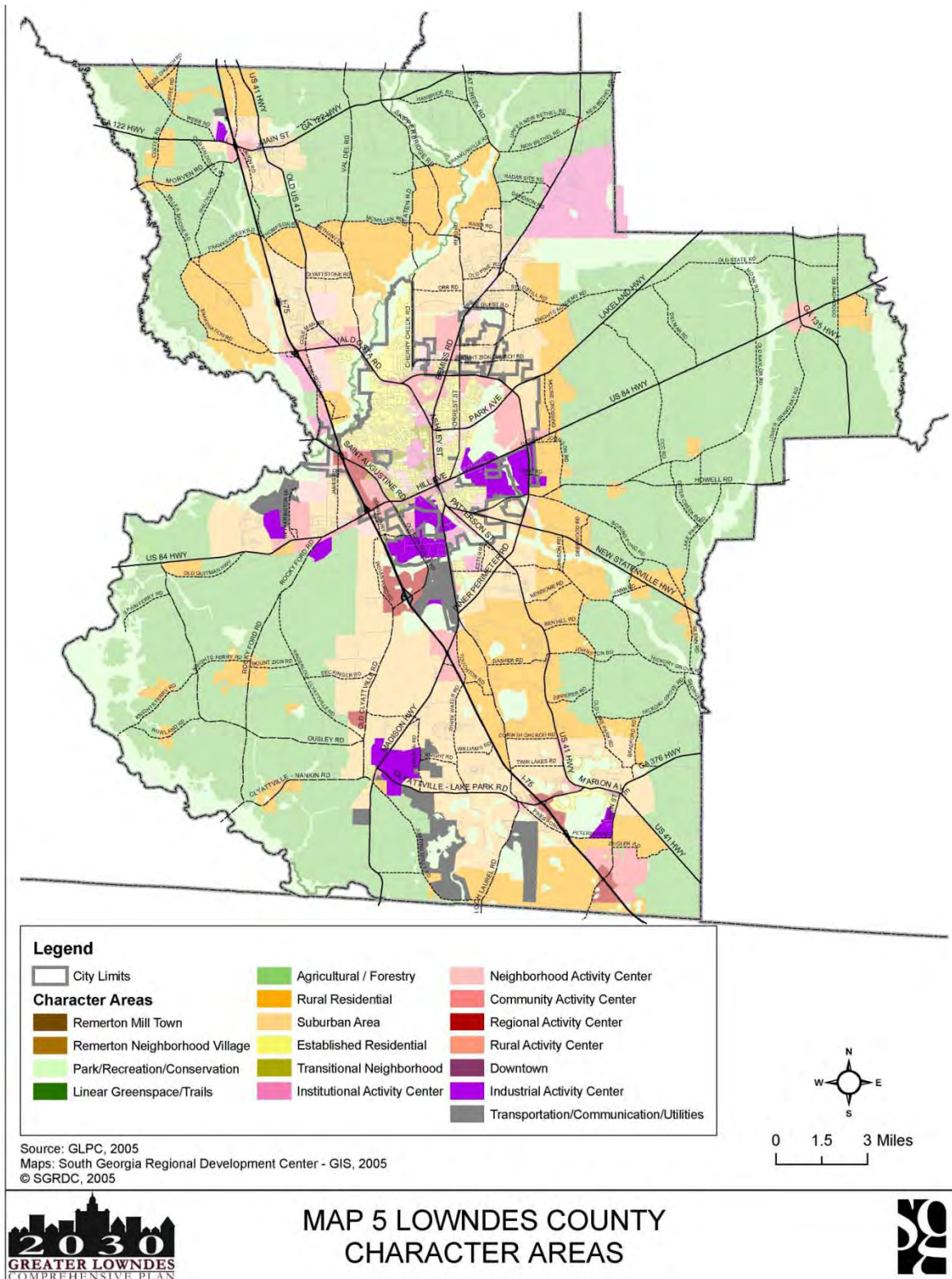
North American Industrial Classification System (NAICS) there are several industry sectors that are traditional 'freight intensive users'. These freight intensive industry sectors are included in Table 5.

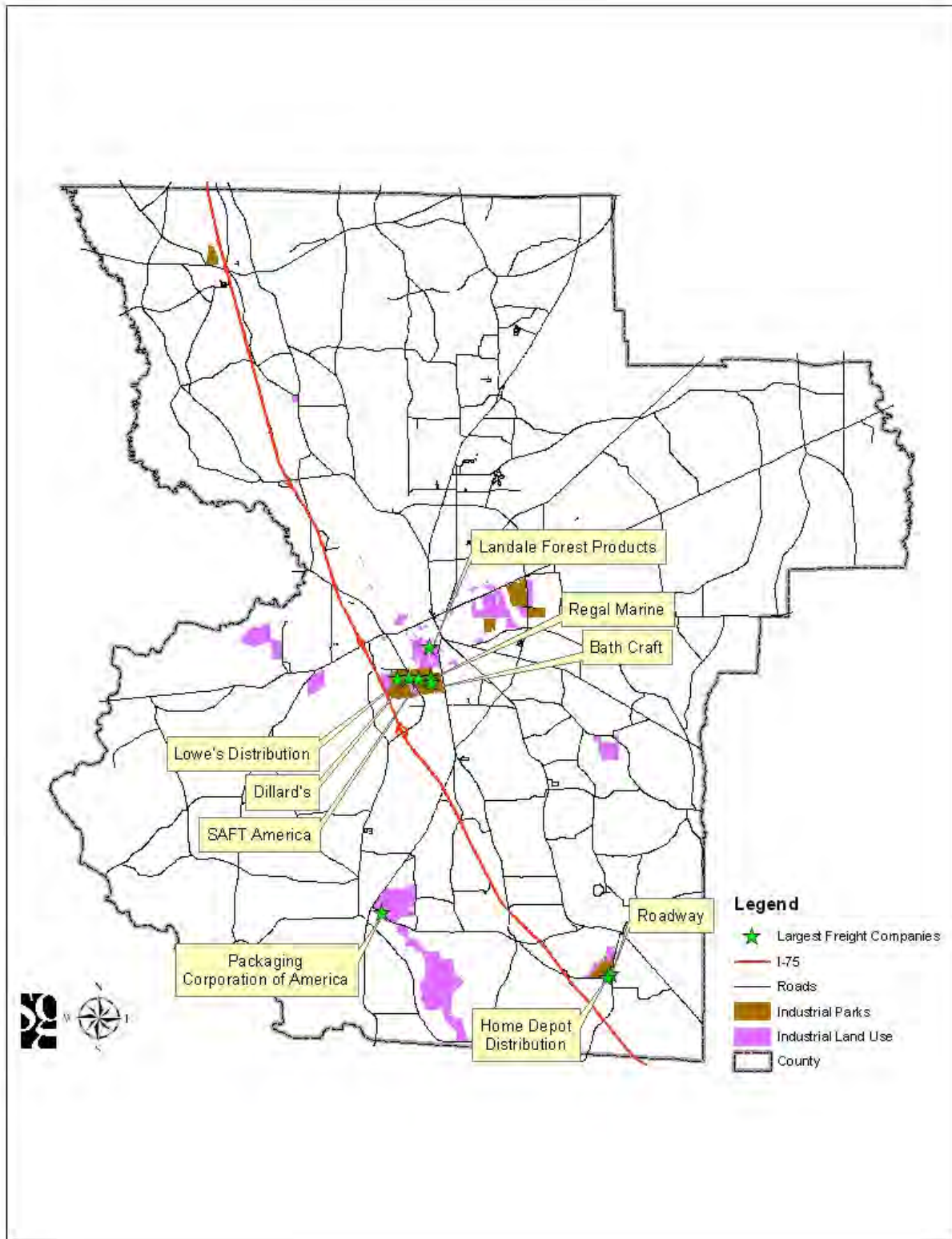
When considering the total employment of Lowndes County at 42,323, the freight intensive users account for about 30% of the total employment. This is concentrated in just over 500 businesses in Lowndes County.

Industry	# of Establishments	# of Employees
Forestry/Ag	12	20-99
Mining	1	<20
Utilities	14	204
Construction	286	3802
Manufacturing	109	4605
Transportation	84	2556
Total	506	12712

Some of the largest employers in the county are freight intensive companies, these include: Lowe's (750), Regal Marine (120), Langdale Forest Products (275), Roadway (450 – significantly downsized), Packaging Corp. of America (350), Dillard's (275), Bath Craft (550), SAFT America (230), and Hood Packaging Corp. (150). While these are the largest freight intensive users/employers in the county there are many other smaller companies that utilize freight movement just as much if not more than these companies. The locations of many of these companies and other industrial parks are shown on the next page.







Current Transportation Plans

In 2006 the Georgia Department of Transportation (GDOT) completed its' 2005-2035 Statewide Freight Plan. This plan identified the existing freight movements in the State as well as looked at forecast data for future freight movements in 2035. This plan used the 1998 TRANSEARCH database from Reebie Associates (now Global Insight) to calculate forecast freight movements. The freight plan was developed concurrently with the 2005-2035 Statewide Transportation Plan (SWTP) and became a separate document to highlight the impact of freight on Georgia's transportation network and economy.

In 2006 the Georgia DOT began a study to determine the feasibility of developing truck only lanes along Interstates. In the end the benefits from the project were not significant enough to warrant construction, however truck freight movements were examined in detail and some information from this study is included in this report.

The Georgia Rail Freight Plan Update 2000 was released in March 2001 and produced "a preliminary list of shortline railroad capital investment needs," which resulted in a state program of freight rail assistance.⁸ These improvements were identified earlier in this report.

Georgia Governor Sonny Perdue's Commission for a New Georgia Task Force on Freight and Logistics completed its report in July 2008. The Task Force was formed to "examine the current

landscape and strategic future of Georgia's freight and logistics industry and the transportation infrastructure that supports it."⁹

The VLMPO Metro 2030 Transportation Plan last updated in 2007 discusses freight movement in the community only briefly. However, it is known that many of the projects in this plan will aid in the movement of freight throughout the region. This freight movement study will aid in the update in 2010 of the VLMPO Transportation Plan by identifying the current state of freight movement in the region and possibly including some recommendations for projects to be included in future planning studies.

The Greater Lowndes 2030 Comprehensive Plan and the Regional Comprehensive Economic Development Strategy both note that well planned multi-modal freight movement is important to the region but refer to the VLMPO Metro 2030 Transportation Plan for proposed improvements and other planning efforts.

In August 2008 the City of Valdosta adopted a Comprehensive Transportation Master Plan. This plan was developed to support Smart Growth and a Comprehensive Land Use Plan adopted in 2005. Some of the goals of the Transportation Master Plan include providing improved access and mobility for people, goods and services; promoting economic development for global competitiveness; and to proactively address future growth and mitigate congestion.

The Lowndes County Thoroughfare Plan outlines how roadways should be developed in

⁸ Georgia Rail Freight Plan Update 2000 (pg 2)

⁹ The Commission for a New Georgia, www.newgeorgia.org

conjunction with corresponding land uses. The Thoroughfare Plan is used as a tool of local land use planners to determine zoning and building regulations to promote livable communities with a high quality of life. The Thoroughfare Plan outlines the activity hubs and defines roadway classifications for corresponding land uses and activity hubs as well as design guidelines for the roadways themselves. Through the development of the Thoroughfare plan the County has outlined roadways that will be designed to carry heavy commercial or industrial traffic. These corresponding roadway classifications have been used by the MPO and State in their transportation planning efforts as well.

Freight Movement: The State Perspective

Looking at general freight movements to, from and through Georgia, it is obvious that freight movement plays a large role in the State's economy. Figure 8 shows the combined impact of trucks moving to, from and through Georgia as it relates to the rest of the nation.

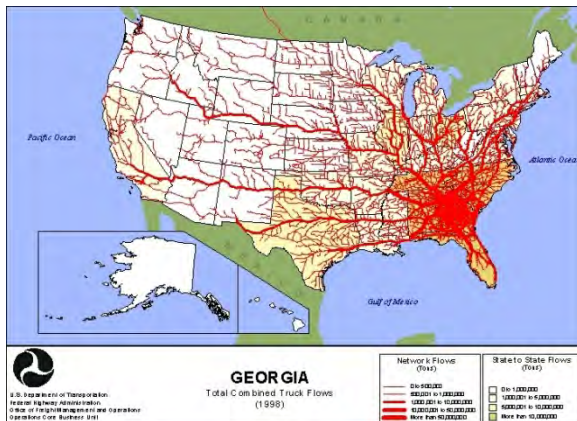


Figure 8 Georgia Truck Flows

The 2005-2035 Georgia Statewide Freight and Transportation Plans showed that in 1998, 634 million tons of freight moved to, from, within, and through Georgia at a value of \$1.1 trillion on all modes of transportation (truck, rail, water, air). In 2035 this freight movement will have increased by about 2.7% per year to 1.7 billion tons of freight moved in Georgia. The value of freight will have increased by 3.1% per year to a total value of \$3.3 trillion.¹⁰

Lowndes County's contribution to this overall freight picture is not significant in terms of

¹⁰ 2005-2035 Georgia Statewide Transportation Plan (pg 4-27, 6-15)

tonnage but it is significant in terms of the value of freight to, from, and within Lowndes County. In 1998 more than \$7.7 billion of freight moved within the county primarily on truck and rail. By 2035 this value will nearly triple to more than \$21 billion dollars of freight moved to, from and within the County, primarily on trucks.¹¹ "Nearly 29 percent of the freight tonnage and 33 percent of the value moving on the transportation system in 2035 in Georgia is forecast to have neither an origin nor a destination in the State, but rather serves the national economy."¹² This increase in value is not only indicative of the traffic moving through South Georgia, but also the economic development potential of the area. As higher valued goods are produced or needed here, freight must be shipped here and value added products must also be shipped out to markets outside of the local area.

As Lowndes County borders another state, this through movement of freight becomes increasingly relevant here as the local transportation network must accommodate this traffic. Interstate highways such as I-75 remain very important in the movement of freight throughout the nation and here in Georgia. Here in Georgia the Governor's Road Improvement Program (GRIP) routes also are key to providing the transportation linkages between metropolitan areas where many goods are manufactured and consumed. Locally these routes include US 84 and GA 133.

¹¹ 2005-2035 Georgia Statewide Freight Plan (pg28, 30)

¹² 2005-2035 Georgia Statewide Transportation Plan (pg 6-15)

The GRIP program identifies that these two roadways will provide access to metropolitan areas throughout Georgia and the Southeast United States.

The Commission for a New Georgia Freight and Logistics Task Force completed an analysis of the current landscape and strategic future of Georgia's freight and logistics industry and the transportation infrastructure that supports it. The Task Force completed a SWOT (Strengths, Weaknesses, Opportunities, and Threats) analysis of the freight and logistics industry in Georgia. Many of the characteristics identified for the State of Georgia are also evident in the local Lowndes County economic and freight and logistics industries.

Some of the key strengths identified were: pro-business environment for logistics services, workforce training programs (technical colleges), extensive air, rail and highway network. The weaknesses included the following: lack of cohesive state logistics plan in the context of a transportation plan, current resources for infrastructure do not meet current and/or future demand. Some of the identified opportunities include expanding international trade and west coast port congestion. Some of the threats include high cost of fuel, competition with other states, environmental impacts, challenges with safety and security, and a large skilled workforce. Each of these characteristics from the SWOT analysis were carefully analyzed and considered and recommendations were developed in three different categories: outreach and collaboration; data, tools and talent; and planning and infrastructure.

Some of the recommendations of the task force included: establishing statewide freight corridors and hubs, develop statewide demand driven freight and logistics plan, and to create a freight and logistics division within the Georgia Department of Transportation.

Some of the further recommendations from the task force included items that directly relate to metropolitan and local freight planning. Some of the key recommendations included the following:

- Establish "Freight Mobility Information Exchange"
 - This would be able to provide better private and proprietary freight movement information to state and local planners.
- Establish statewide freight corridors and hubs
 - Collaborate with MPOs and local governments to improve truck route connectivity and improve signage across jurisdictions.
- Promote and support workforce training and education programs
 - Both Valdosta Technical College and Valdosta State University provide curriculums in logistics.
- Local Freight Movement Survey

Study Outcomes

This initial study of freight transportation in South Georgia provides just an overview of the concerns facing freight movement in the area. The consideration of freight movement as it relates to land use, crash evaluation, economic development and the impact on the overall quality of life of the region needs to be further discussed in detail on each of these different topics on an ongoing basis.

Overall the Valdosta-Lowndes Metropolitan Planning Organization should continue to address freight movement in the long range regional transportation planning studies the organization undertakes. This may include a formal policy standpoint towards freight in the region or recommendations of specific projects. The crash data found in this report should be looked at as a beginning point to address specific roadway improvements in the region.

Frequently, from the survey and from the crash data, several areas of freight movement concern have continued to reappear, these are primarily related to truck traffic but also the impact of rail traffic on the community. These areas of concern include: railroad overpasses on Hill Ave. and St. Augustine in Valdosta, the intersection of Clay Road and Hill Ave., and the development of a completed perimeter road connecting to West Hill Ave, west of I-75.

Several of these areas of concern are already being addressed in a variety of ways. The City of Valdosta and Lowndes County are actively pursuing funding and plans to relocate the railroad switching yards located in the City to an area where roadway traffic will be less impacted by trains blocking tracks throughout

the day. The Georgia Department of Transportation is currently working with local units of government to construct an overpass on West Hill Ave. at the Norfolk Southern railroad crossing. These plans are currently in the design and environmental phases.

The annual crash report produced by the Valdosta-Lowndes MPO should consider commercial related crashes when analyzing data as well, to determine if commercial trucks impact specific crash locations or the overall crash data of the community.

Some of the data from the survey of local businesses suggested that as a community our exports are higher than our imports. A more in-depth analysis of this should be developed to determine our location quotient and further develop economic characteristics for the region.

The data for railroads in the community should be examined more thoroughly to find out exactly how these important facilities impact the community both for freight movement and highway bottlenecks.

As the Lowndes County area is becoming more of a center for logistics an examination of the truck stops and other trucking facilities in the region would be helpful to understand what amenities are present and those that might be needed in the future.

As infrastructure continues to age bridges are becoming a larger priority for maintenance and replacement. A study of the bridge inventory and the sufficiency rating of bridges along truck routes should be considered as a way to develop future projects and to aid in the project prioritization and selection process.

Just as the community continues to grow through economic development, new intermodal facilities will continue to be explored. The current location of businesses along rail lines or close to major roadways is also important and should continue to be examined.

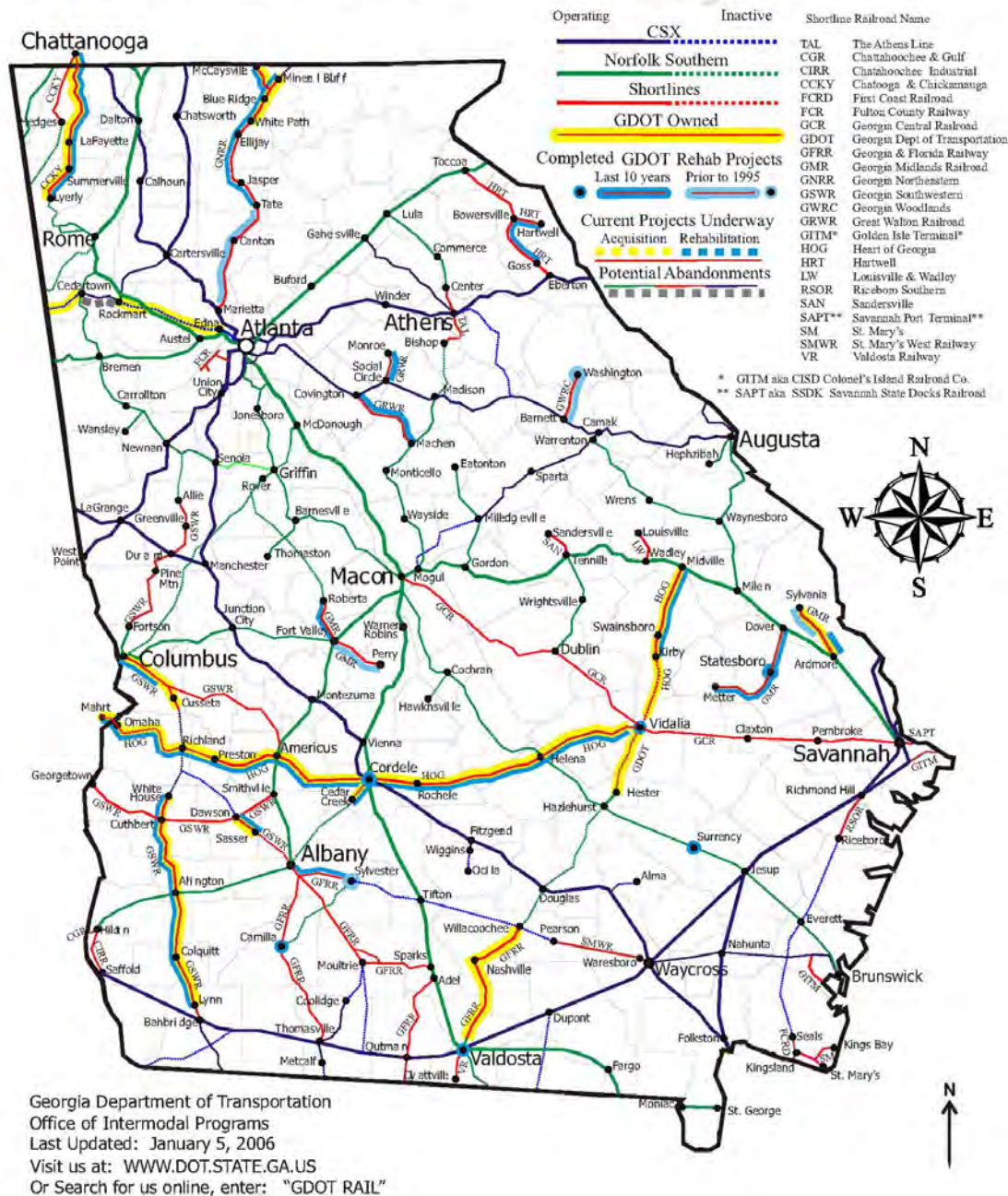
Appendices

A. Freight Study Committee Membership

Name	Agency
Leggett Lovan	Southeastern Freight Lines
Von Shipman	Engineer, City of Valdosta
Mike Fletcher	Engineer, Lowndes County
Patti Clark	Valdosta Regional Airport
Ken Ellington	Shaw Industries
Lee Smith	Outsource Logistics
Jim Langdale	Langdale Forest Products
Michelle Caldwell	GDOT, Office of Planning
Ralph Volpe	FHWA – GA Division
Marco Turra	CSX
Brad Lofton	Valdosta-Lowndes Industrial Authority

B. Georgia Statewide Rail System

Georgia Rail System



C. Survey Questions

Valdosta-Lowndes Metropolitan Planning Organization Freight Movement Study

Please Circle Answer; if you need more space please use additional sheets as necessary.

1. How would you define the primary industry of your company?
 - a. Manufacturer
 - b. Warehouser
 - c. Freight and Logistics Provider
 - d. Retail/Wholesale Trade
 - e. Professional Services
 - f. I am a concerned citizen
2. What industry description best fits your company?
 - a. Forestry/Logging
 - b. Construction
 - c. Food Manufacturing
 - d. Textiles
 - e. Wood/Furniture Products
 - f. Paper/Printing Products
 - g. Chemicals and Minerals
 - h. Plastics and Rubber
 - i. Metal Fabrication
 - j. Machinery Fabrication
 - k. Electrics and Electronics
 - l. Transportation Equipment
 - m. Other Manufacturing
 - n. Truck Transportation
 - o. Rail Transportation
 - p. Freight Support Activities
 - q. Warehousing/Distribution
 - r. Retail/Wholesale Trade
 - s. Professional Services
 - t. Other _____
3. How long have you lived in Lowndes County?
 - a. Less than 5 years
 - b. 6 – 10 years
 - c. 11 – 25 years
 - d. 26 – 50 years
 - e. More than 50 years
 - f. Not Applicable
4. In which community do most of your employees live?
 - a. Valdosta/Lowndes County
 - b. South Georgia/North Florida
 - c. Other _____
5. In what community is your company located?
 - a. Valdosta/Lowndes County
 - b. South Georgia/North Florida
 - c. Other _____
6. How many people are employed by your company in South Georgia?
 - a. Less than 50
 - b. 51 – 100
 - c. 101 – 250
 - d. 250 – 500
 - e. More than 500
 - f. Not Applicable
7. How long has your company been located in South Georgia?
 - a. Less than 5 years
 - b. 6 – 10 years
 - c. 11 – 25 years
 - d. 26 – 50 years
 - e. More than 50 years
 - f. Not Applicable
8. How many trucks do you use to ship/receive products/supplies on an average day at your location in Lowndes County?
 - a. Less than 5
 - b. 6 – 10
 - c. 11 – 25
 - d. 26 – 50
 - e. 51 – 100
 - f. More than 100
 - g. Not Applicable
9. Do you operate your own truck fleet or utilize outside trucking companies?
 - a. Operate own fleet
 - b. Utilize outside trucking companies (skip to Question 11)
 - c. Not Applicable
10. How many trucks are in your fleet that are based in or primarily service Lowndes County?
 - a. Less than 5
 - b. 6 – 10
 - c. 11 – 25
 - d. 26 – 50
 - e. 51 – 100
 - f. More than 100
 - g. Not Applicable
11. As a trucking firm what is the geographic area your company primarily services?
 - a. Locally (South Georgia/North Florida)
 - b. Regionally (Southeast United States)
 - c. Nationally (Entire United States)
 - d. Internationally
 - e. Not Applicable

12. Where are the locations you are shipping your products to?
- Locally (South Georgia/North Florida)
 - Regionally (Southeast United States)
 - Nationally (Entire United States)
 - Internationally
 - Not Applicable
13. Where are the locations you are receiving supplies from?
- Locally (South Georgia/North Florida)
 - Regionally (Southeast United States)
 - Nationally (Entire United States)
 - Internationally
 - Not Applicable
14. What routes do you primarily use when shipping/receiving products/supplies in Lowndes County? Select all that apply.
- I-75
 - I-10
 - US 41
 - US 84
 - SR 133/SR 94
 - SR 221
 - SR 125
 - SR 31
 - US 41/SR 7/Inner Perimeter Road
 - Other _____
 - Not Applicable
15. Do the routes you primarily use when shipping/receiving products/supplies in Lowndes County serve your current needs?
- Not Applicable
 - Yes
 - No, Please Comment.
- _____
16. Do the routes you primarily use when shipping/receiving products/supplies in Lowndes County serve your future needs?
- Not Applicable
 - Yes
 - No, Please Comment.
- _____
17. What other routes would be more preferable to use but are not currently utilized? Please Describe.
- Not Applicable
- _____

18. Have you encountered any specific problems on routes you travel often (e.g. narrow roads, rail crossings, difficult turn movements, etc.)?
- Yes, Please Describe.
- _____
- No
19. Where are the specific locations/areas where truck or rail traffic causes recurring congestion or bottlenecks in Lowndes County?
- Name of Road/Area _____
 - Name of Road/Area _____
20. How often does your company ship and receive time sensitive deliveries?
- Hourly
 - Daily
 - Weekly
 - Never
 - Not Applicable
21. Does your company use transfer points (transloading) between different modes of transportation (e.g. truck to/from rail) in South Georgia?
- Yes, Please Describe.
- _____
- No
 - Not Applicable
22. If the community could provide a small intermodal facility that converts rail containers to truck, would your company benefit, and would you be interested in utilizing these services? Please Comment.
- Yes
 - No
- _____
23. What is your opinion about the transportation mode choices available in the region?
- Excellent
 - Good
 - Fair
 - Poor
 - Very Poor
24. What additional amenities could the community provide for the freight/logistics industry? Select all that apply.
- Intermodal Facility
 - Air Cargo Services
 - Access to Industrial Parks
 - Truck Rest Stop Facilities
 - Defined Local Truck Routes
 - Improved Signage
 - Improved Rail/Highway Crossings
 - Other _____

→ → Continued → →

25. How significant is the role of international trade via the ports of the southeastern United States (Savannah, Jacksonville, Miami, New Orleans, Mobile, etc.) playing in locating businesses in South Georgia?
- Very Significant
 - Significant
 - Not Very Significant
 - Plays no role
26. How significant is the role of regional (southeastern United States) domestic trade playing in locating businesses in South Georgia?
- Very Significant
 - Significant
 - Not Very Significant
 - Plays no role
27. Do any of the following transportation related issues have a negative impact on your firm's profitability?
- Downtown Traffic
 - Congestion
 - Railroad Crossings
 - Local Truck Routes
 - Other _____
28. Do you have any concerns with truck traffic in the area? If so, what are they? Select all that apply.
- Noise
 - Fumes/Air Pollution
 - Day/Night Hours of Operation
 - Vibrations
 - Too Many Trucks
 - Speed of Trucks
 - Crashes
 - Other _____
29. Are there areas in the community where trucks should be prohibited except for making local deliveries?
- Yes
 - No (skip to Question 31)
30. Where are the specific locations/areas where truck traffic should be restricted or prohibited in Lowndes County?
- Name of Road/Area _____
 - Is this a residential area?
 - Yes
 - No
31. Does a local ordinance need to be adopted to establish local truck routes to supplement the state highway system?
- Yes
 - No
32. Does a local ordinance need to be adopted requiring through trucks to utilize only the right lane while traveling through the urban area?
- Yes
 - No
33. Does a local ordinance need to be adopted requiring trucks to not use engine brakes (aka 'jake brakes') while travelling through the urban area?
- Yes
 - No
34. What type of businesses/industries should the community try to attract in general? Select all that apply.
- Manufacturing
 - Advanced Manufacturing
 - Distribution/Logistics/Warehousing
 - Retail
 - Service
 - Other _____
35. What type of businesses/industries should the community try to attract based on the current transportation infrastructure?
- Freight Intensive Companies
 - Non-Freight Intensive Companies
36. Why would a business choose TO locate in Lowndes County? Select all that apply.
- Highway Infrastructure
 - Rail Infrastructure
 - Other Utilities/Infrastructure
 - Quality of Life
 - Education Opportunities
 - Proximity to Larger Cities
 - Airport Availability
 - Seaport Availability
 - Other _____
37. Why would a business choose NOT to locate in Lowndes County? Select all that apply.
- Highway Infrastructure
 - Rail Infrastructure
 - Other Utilities/Infrastructure
 - Quality of Life
 - Education Opportunities
 - Proximity to Larger Cities
 - Airport Availability
 - Seaport Availability
 - Other _____
38. What is your overall satisfaction with the regional transportation system?
- Very Satisfied
 - Satisfied
 - Neither Satisfied nor Dissatisfied
 - Dissatisfied
 - Very Dissatisfied

39. What changes in the transportation infrastructure in South Georgia can be made to make shipping and receiving goods in this area more effective for your company? Please Comment.

40. Would you like to be placed on the Valdosta-Lowndes Metropolitan Planning Organization mailing list?

a. Yes

i. Name: _____

ii. Company: _____

iii. Address: _____

iv. City: _____

v. State: _____

vi. Zip: _____

vii. Email: _____

b. No