CHAPTER 6 - COMMUNITY FACILITIES

INTRODUCTION

This chapter will focus on existing public facilities in the City of Riverdale, their current capacity, and their ability to accommodate future growth. Each element of this chapter will focus on how to support and attract growth and development into Riverdale in order to maintain and enhance the quality of life for its residents.

6.1 WATER SUPPLY AND TREATMENT

Riverdale was the last municipality to sell their system to the Clayton County Water Authority. In 2001, an agreement was negotiated with the Water Authority to purchase the Riverdale water and sewer distribution system.

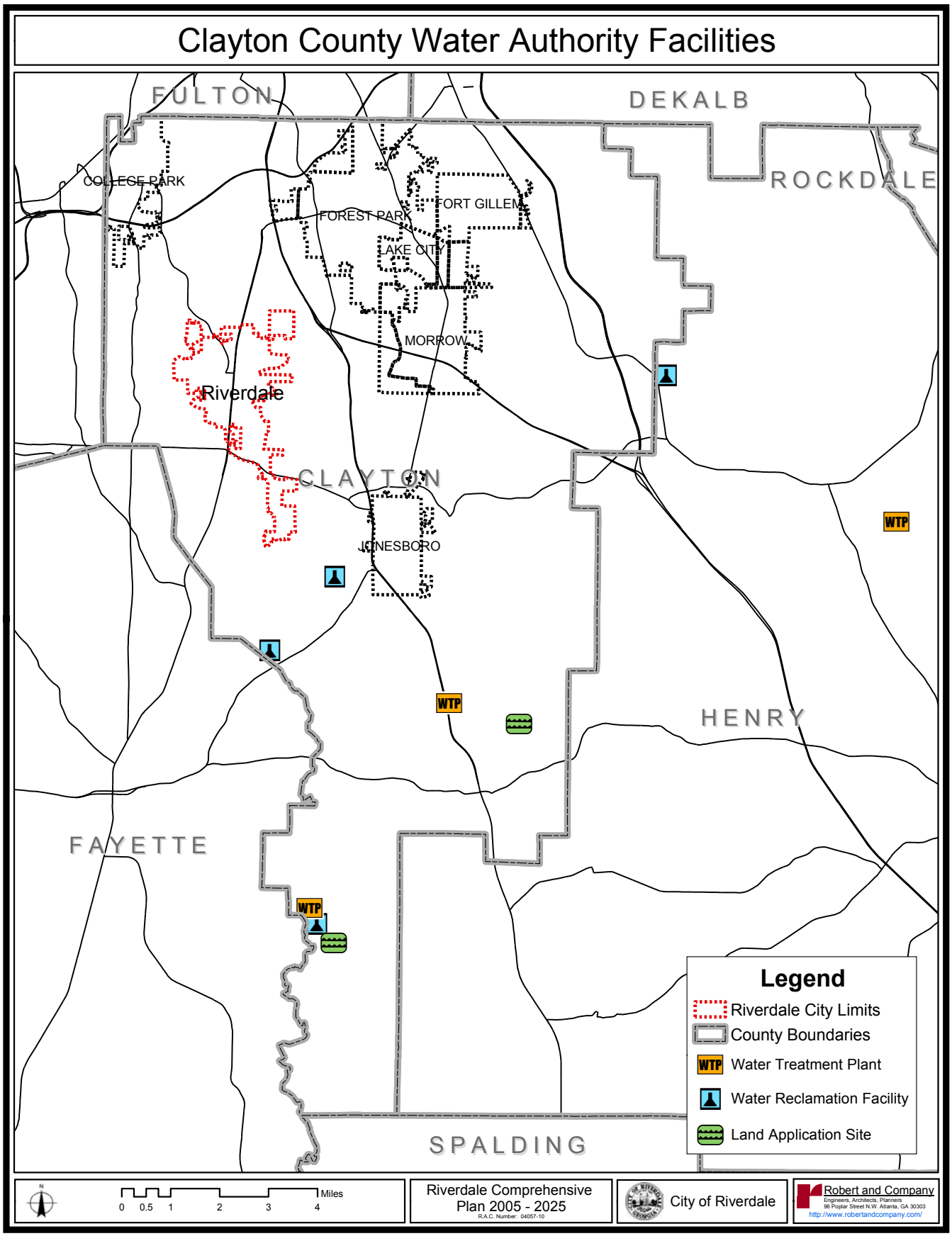
The Clayton County Water Authority (CCWA) was created by an act of the Georgia Legislature in 1955 to have supervision and control over the water and sewer systems of the county. A seven-member board appointed by the Clayton County Board of Commissioners governs the Authority. A general manager, responsible for the daily operation of the Water Authority, is employed by and reports to the Water Authority Board.

Courtesy of CCWSA

Riverdale water is treated at a Clayton County Water Authority Treatment Plan, then it is sent to elevated tanks and pumping stations where it is distributed throughout the county. The Clayton County Water Authority operates three water treatment plants; the William J. Hooper Plant located in Henry County, the J.W. Smith Plant located in the panhandle area, and the Freeman Road Plant, a new facility that opened in October 1999. Water is treated and pumped to the system from the William J. Hooper Plant located in Henry County and the J.W. Smith Plant located in the panhandle area (See Map 6.1). The County's Water Service Area covers nearly the entire county minus a small portion of the northwest corner of the county which includes part of the City of College Park.

The 2000 CCWA Master Plan is based on historical data through 1998, which shows increased water capacity needs from a 2000 demand of 38mgd (million gallons per day) to between 48.6 and 51mgd by 2020. Based on population projections included in Chapter 2, demand is anticipated to reach 55.5mgd by 2025. The current combined capacity of the water treatment plants is 42mgd. The result of projected growth will be an additional demand of 13.5mgd by 2025, with current capacity being reached before 2010.

Map 6.1 Clayton County Water Authority Facilities



The anticipated water demand is based on historical data and the implementation of passive water conservation measures. Passive conservation, which occurs through increases in efficiency resulting from changes in plumbing codes, routine replacement of water fixtures and increases in residential water rates, is anticipated to decrease water demand by 4%. Under aggressive conservation measures, CCWA could achieve a 9% (0.39% per year) reduction in per capita demand (Table 6.1). Aggressive conservation is undertaken through increases in efficiency as described above and other active measures such as summer surcharges for residential customers and a rebate program on low-flow toilets.

Table 6.1 Reduction in Demand through Conservation Measures

		Passive Conservation			**Aggressive Conservation**		
	1998	**2000**	**2010**	**2020**	**2000**	**2010**	**2020**
Total Population	208,999	215,950	256,160	291,933	215,950	256,160	219,933
Per Capita Water Demand gpd	135	134	132	130	134	128	123
Annual Avg Water Demand, mgd	28.17	29.00	33.78	37.81	28.88	32.89	35.98
Max Day Water Demand, mgd	38.03	39.15	45.61	51.04	38.99	44.4	48.58

Source: CCWA Master Plan, Jan. 2000.

6.2 SEWER SYSTEM AND WASTEWATER TREATMENT

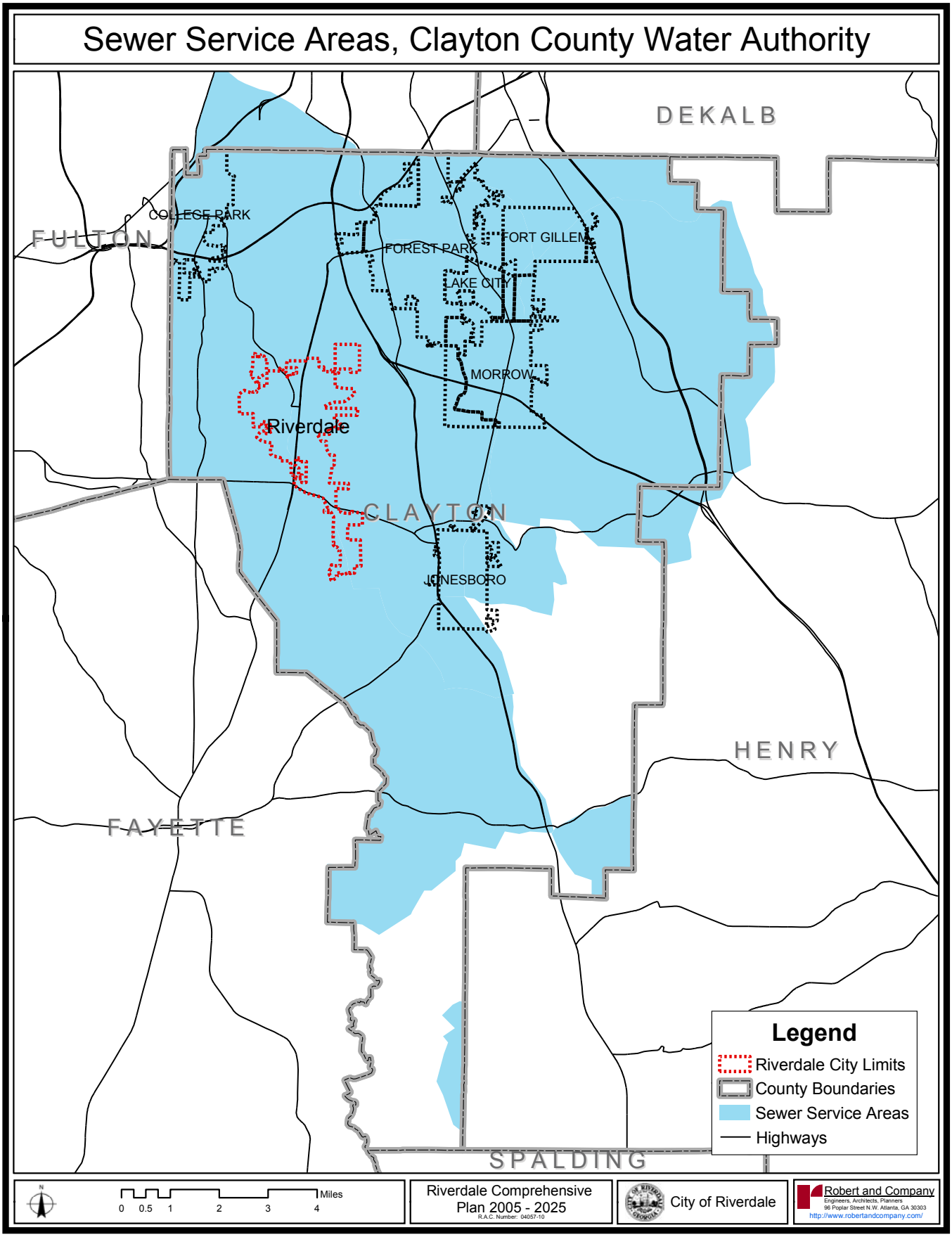
As with water service, Riverdale's sewer and wastewater treatment are handled by the Clayton County Water Authority. The county's sewer service area covers most areas of the county with the exception of the southern most end of the panhandle and areas east of Jonesboro surrounding Lake Spivey and south to Lovejoy. The extent of the sewer service areas is depicted on Map 6.2. The Clayton County Water Authority (CCWA) has four water reclamation facilities (WRF) and two land application sites (LAS). The LAS receive secondary treated effluent that is land applied in a slow-rate irrigation system. The locations of these facilities are noted on Map 6.1. The current capacity and future demand on the facilities, as stated in the 2000 CCWA Master Plan, are show in Table 6.2.

Table 6.2 Clayton County Water Reclamation Facilities

Water Reclamation Facility	**Capacity**	**Demand**		
	Current	**2000**	**2010**	**2020**
W.B. Casey	15	15.03	18.43	21.7
R.L Jackson	4.5	4.56	5.74	6.76
Shoal Creek	2.2	1.89	2.43	2.92
Northeast	6.0	5.84	7.91	9.65
Total Clayton Co. Capacity/ Demand	**27.7**	**27.3**	**34.5**	**41.0**
*Outside Clayton Co.**		*2.45*	*3.19*	*3.8*
Projected WRF Demand		**29.78**	**37.7**	**44.83**

*Includes flows from City of Atlanta and DeKalb County based on per capita flows for the four WRF's
Source: CCWA Master Plan, Jan. 2000.

Map 6.2 Sewer Service Areas, Clayton County Water Authority



The demand projections outlined in the 2000 CCWA Master Plan show that the county will need an additional 17.13mgd of treatment capacity by 2020. Based on population projections included in the Clayton County Comprehensive Plan, the county will need 50.17mgd of treatment capacity by 2025 (for a total of 18.47mgd over the current capacity). The CCWA Master Plan includes plans for 27mgd expansions by 2020. These expansions of capacity will take place as follows:

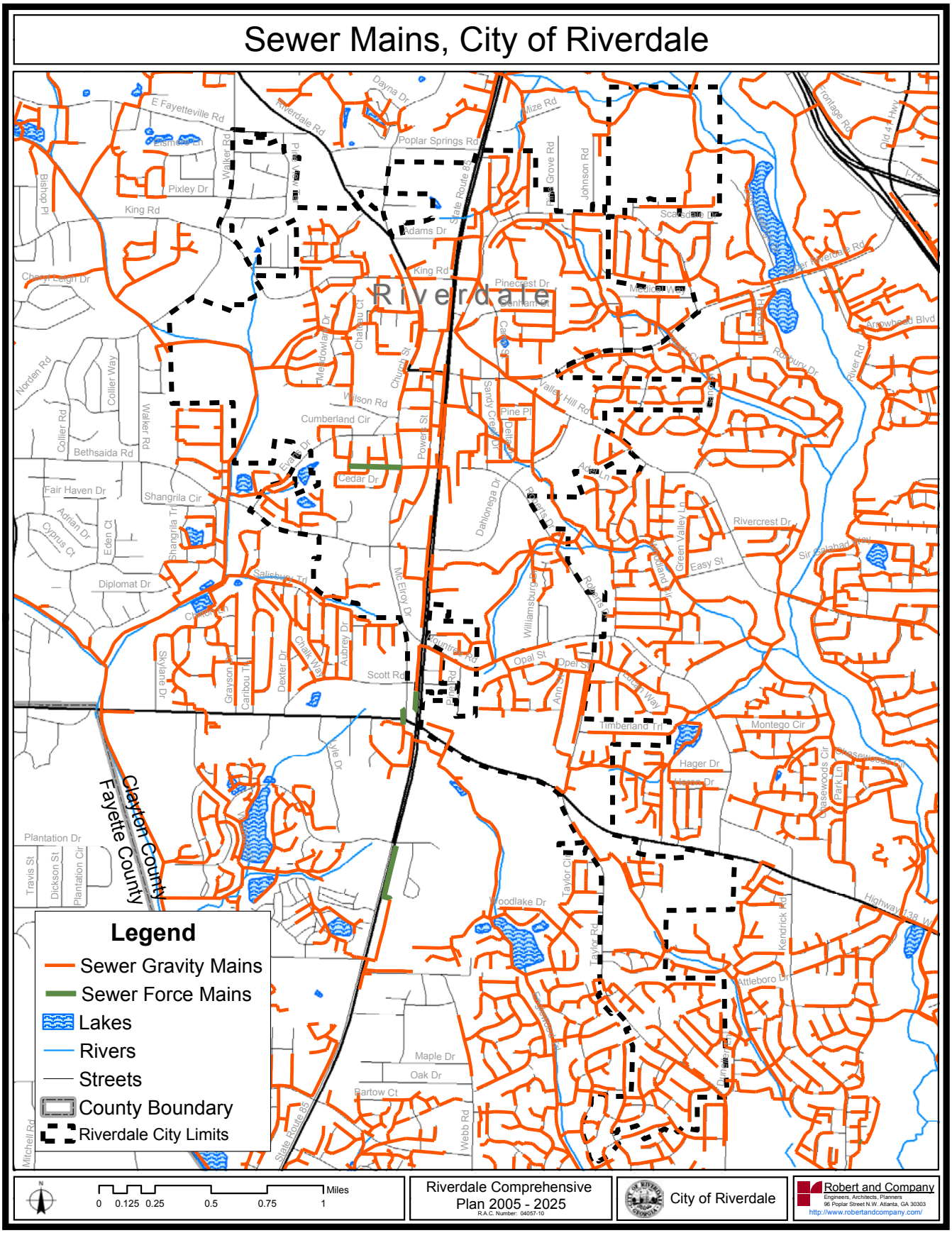
- The W.B. Case WRF will be retrofitted and re-rated to 12mgd capacity. Expansion ultimately to 22mgd capacity is anticipated in the Master Plan, the first phase of which will bring the facility to 18mgd.
- The R.L. Jackson facility will be expanded to a capacity of 7mgd
- The Northeast facility will be expanded to 10mgd.
- The plan does not include any planned expansions of the Shoal Creek WRF. These planned expansions will provide 51.2mgd capacity by 2020, this capacity is sufficient to meet the 51.2mgd projected for 2025.

The CCWA Shoal Creek Land Application Site is a 325-acre facility with a holding pond and pump station. The E.L. Huie LAS is located upstream from the CCWA's William J. Hooper Raw Water Reservoir, north of Lovejoy. This facility is a 3,700-acre site. The 2000 CCWA Master Plan recommends that the maximum sustainable amount of water that can be applied at these sites is 1.25 inches per week. This is equivalent to a total average disposal capacity of 10mgd at the E.L. Huie LAS and 0.6mgd at the Shoal Creek LAS. To accommodate flows in excess of this capacity the CCWA will modify the sites to operate at the maximum sustainable rate and implement wetland-treatment systems for alternate and wet-weather surface discharge. By making these improvements CCWA will be able to maintain its tradition of natural treatment systems.

The CCWA's 2000 Master Plan does not include plans for the expansion of the current sewer service area. Riverdale's sewage flow is treated at the W.B. Case WRF. This facility has a capacity of treating 24 million gallons per day and is currently at a capacity of 17.36 million gallons per day. Most areas within Riverdale has not been inventoried and inspected for repairs. Currently, repairs are done on an as needed basis. Upgrades will continue to be made to the system yearly and as needed.

Sewer Mains in the City of Riverdale are pictured in Map 6.3.

Map 6.3 Sewer Mains, City of Riverdale



6.3 SOLID WASTE MANAGEMENT

The City of Riverdale contracts their solid waste pick up and disposal with Robertson Sanitation. Robertson Sanitation is a private waste company that services 3,200 Riverdale residences and 100 commercial customers. Pick up for the city is provided once a week on Wednesdays. Customers are allowed to dispose of 3 large items per week and yard waste is also accepted on Wednesday's regular pick up day. Sanitation fees are billed on the yearly property tax statement sent each October. The current fee is $15.00 per month, which totals $180 per year. Robertson Sanitation takes the waste to the Lee Industrial Boulevard solid waste transfer station located at 7100 Delta Circle, Austell.

This lift station ships the waste to a landfill at 105 Bailey Jester Road in Griffin, Georgia. This landfill has another 30 years of life expectancy. At this time, Riverdale sends approximately 300 tons of waste per month to the land field. The current capacity of the Lee Industrial Boulevard Lift Station is 1200-1500 tons per day. As the population grows, an assessment on the number of pick up days will be taken.

Robertson Sanitation also operates a recycling program and accepts aluminum, newspapers, glass and plastics (water bottles, milk bottles, and soda bottles). These items are picked up at the same time as the solid waste pick up. The recycling items are taken to the West Minister transfer station in Cobb County.

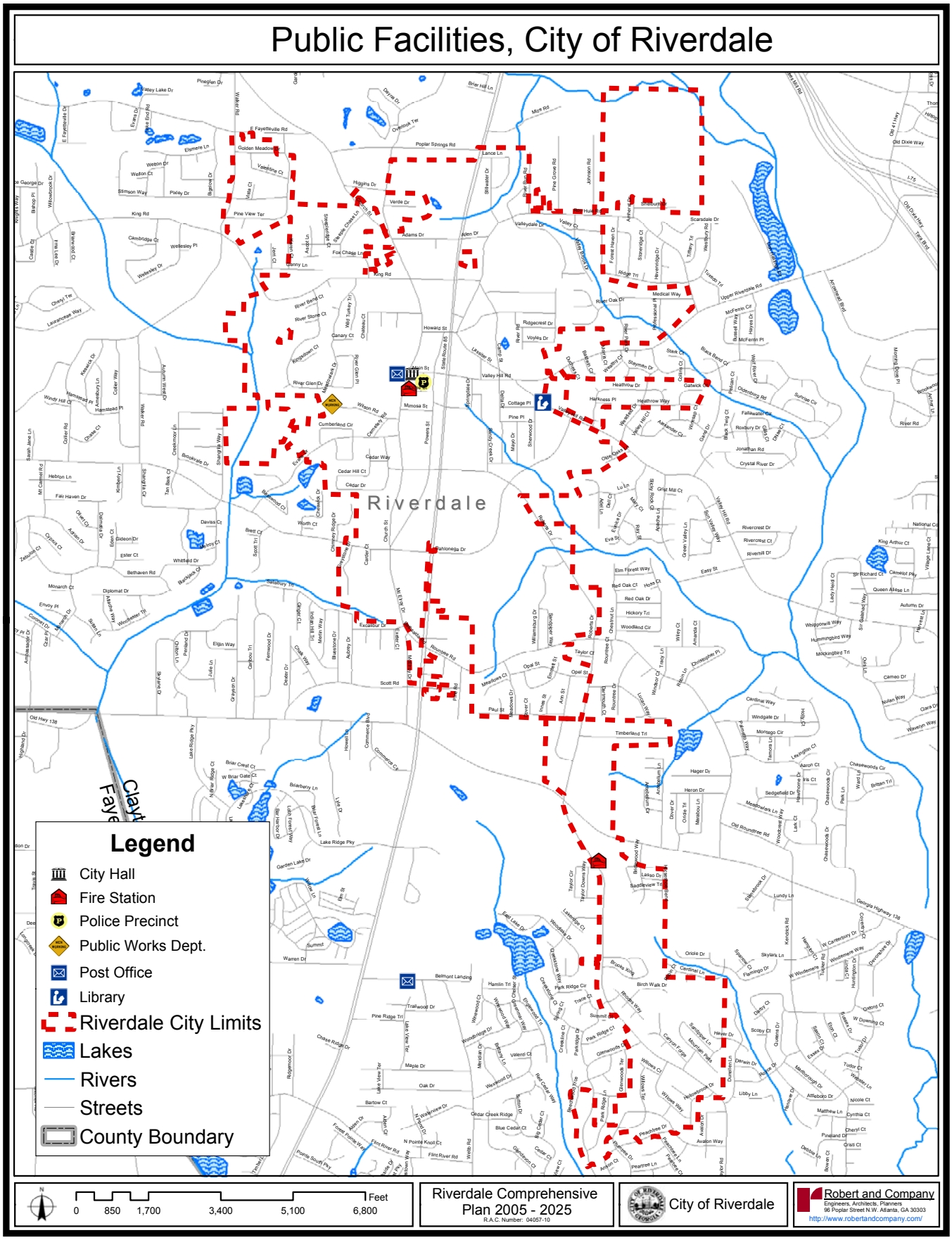
6.4 GENERAL GOVERNMENT

General government buildings within Riverdale include: City Hall, Public Works, Fire and Police Buildings. These facilities are ran and operated by the City of Riverdale for the daily operational and administrative functions and safety of the public. (Map 6.4)

City Hall functions as the daily operational facility and includes the City Manager, City Clerk, and the Departments of Finance, Human Resources, Business Licensing and Property Taxes. The Community Development Directors Office operates out of the Public Works Department located at 971 Wilson Road. Building permits, planning and zoning applications, and code enforcement issues are dealt with at this facility. The City of Riverdale Public Works Department is responsible for maintaining city streets and storm sewers within the public rights of way, providing sanitation and recycling services, and maintaining street lighting. Their main headquarters is also located at this building: 971 Wilson Road.

The Fire Administration Offices are located to 782 Orme Street. Two fire stations are located within the city.

Map 6.4 Public Facilities, City of Riverdale



At this time there are plans for City Hall to be expanded over the next five years. The current facilities are in good condition, but are not large enough to adequately accommodate the needed employees. The Public Works building was built in 2005 and has enough room on the top floor of their facility for expansion to accommodate additional employees. At this time, the extra space is being used for storage.

Table 6.3 City of Riverdale Governmental Facilities

FACILITY	LOCATION	DATE OF CONSTRUCTION	APPROXIMATE SQUARE FOOTAGE
City Hall	6690 Church Street	1987	4,572
Police Station	6690 Church Street	1987	6,493
Fire Station No. 1	6690 Church Street	1979	9,140
Fire Station No. 2	7844 Taylor Road	1987	3,960
Fire Administration	782 Orme Street		
Public Works	971 Wilson Road	2000	8,000
Police Storage	6709 West Street	1986	5,000

6.5 PUBLIC SAFETY

Police

The City of Riverdale's Police Department is charged with overseeing its public safety programs, with the exception of The Georgia Department of Public Safety, which operates a driver's license test and renewal agency on Highway 85 in Riverdale. The city often receives assistance from the county or other municipalities when the need arises.

Divisions

Riverdale's Public Safety is housed in its Municipal Complex. The department is organized in four major areas as follows: (1) The office of the Chief of Police has the Office of Professional Standards, Training Coordinator, Accreditation, Crime Analysis and the Administrative Assistant. The Assistant Chief of Police is responsible for Police Operations and supervises three divisions. (2) The Patrol Operations Division, commanded by a police Major, is the largest operating unit with four teams of patrol officers and supervisors, the Community Police Officer, the School Resource Officers, the Court Services Officer and the part-time officers. (3) The Criminal Investigations Division, commanded by a police Captain, consists of two supervisors and six detectives, with two of the detectives assigned to the Clayton County Drug Task Force. (4) The Support Services Division, commanded by a police Captain, has three civilians who work in the Records Section.

The Police Department is charged with responding to calls for service and to providing a police presence in the community to deter/reduce crime. This is accomplished by having four teams or shifts of patrol personnel in Patrol Operations, that work 12-hour shifts and have a Captain, Sergeant and 3-4 patrol officers assigned. Criminal investigations are

conducted by the Criminal Investigations Division which has four detectives working the variety of crimes that occur in the city and two detectives that are assigned to the county Drug Task Force. The Captain that commands the division coordinates these investigations and shares information throughout the department and reports up the chain of command to the Chief of Police. All of the divisions or units in the police department compliment each other to achieve the goal of crime reduction and the overall safety of the community.

There are a number of activities that support the police department in accomplishing its mission; **Training** of sworn and civilian personnel is an ongoing requirement of the Police Officer Standards and Training (P.O.S.T.) The mandated training program for police officers is 400 hours for a new non-certified sworn employee and 20 hours annually for certified sworn employees. Civilian employees have training requirements based on their job descriptions, which vary by assignment. Council as well as the Georgia Bureau of Investigation's (GBI's) Georgia Crime Information Center (GCIC). Analysis of Part 1 Crime incidents and other criminal activity is conducted by the **Crime Analyst** who is a part-time employee but integral to the crime reduction objectives of the department. The **Office of Professional Standards** (OPS) conducts internal investigations of misconduct, corruption and violations of written directives. The commander, a police Major, works directly for the Chief of Police and has a wide range of responsibility and authority. The **Accreditation** Unit, commanded by a police Captain, is responsible for ensuring that the department can demonstrate compliance with the standards that the Council on Accreditation of Law Enforcement Agencies (CALEA) requires for national certification of police agencies. The **Administrative Assistant**, a civilian position, performs administrative tasks that include but are not limited to, budget preparation, processing purchase orders, payroll support, secretarial support and maintains and updates records and logs for the Chief of Police.

Crime Statistics for the City of Riverdale are listed in Tables 6.4 and 6.5. For each year, crimes are reported for the period of January 1 through April 9. Among Part I offenses, there has been a 6% increase in crimes between the 2004 and 2005 periods reported. The average response time for calls for service is two-three minutes.

Table 6.4 Crimes Reported 2004 – 2005, City of Riverdale

OFFENSES	2005	2004	% Chg.
Murder	1	0	100%
Rape	1	2	-50%
Robbery	11	9	22%
Aggravated Assault	6	12	-50%
Burglary	62	56	11%
Larceny / from auto	74	56	32%
Larceny / Other	155	149	4%
Auto Theft	37	43	-14%
TOTAL PART I OFFENSES	347	327	6%

Source: Riverdale Police Department

Table 6.5 Arrests 2004 – 2005, City of Riverdale

ARRESTS	2005	2004	% Chg.
Murder	0	0	0%
Rape	0	0	0%
Robbery	1	1	0%
Aggravated Assault	2	4	-50%
Burglary	0	3	-100%
Larceny / from auto	0	0	0%
Larceny / Other	32	27	19%
Auto Theft	3	5	-40%
TOTAL PART I ARRESTS	38	40	-5%
Stolen Property	2	1	100%
Narcotics	29	30	-3%
Quality of Life	27	10	170%
Other Part II Arrests	269	299	-10%
TOTAL PART II ARRESTS	327	340	-4%
TOTAL ARRESTS	365	380	-4%

Source: Riverdale Police Department

The City of Riverdale, Ga. is not subdivided into public safety districts. For the purpose of police visibility and assignments of calls for service the city is divided into north and south and separated near the middle at Roberts Road.

The Office of the Chief is comprised of: The Chief of Police, the Assistant Chief of Police, the OPS Commander, the Accreditation Commander, the Training Coordinator part-time/Administrative Assistant part-time, the Crime Analyst part-time and the Administrative Assistant to the Chief. (Four sworn/5 civilian-3 part-time)

The Patrol Division is commanded by a Police Major and has four teams commanded by Police Captains, supervised by Police Sergeants and manned by 3-4 Patrol Officers. The Community Oriented Police Officer is a Police Sergeant, the School Resource Officers are two Patrol Officers, the Court Services Officer is a Patrol Officer and there are two part-time Patrol Officers. (Nine sworn supervisors/20 sworn officers-2 part-time)

The Criminal Investigations Division is commanded by a Police Captain and supervised by a Police Sergeant with six detectives, two of whom are assigned to the county Drug Task Force. (Two sworn supervisors/six sworn detectives)

Support Services Division is commanded by a Police Captain and has three civilians who work in the Records Unit. (One sworn supervisor/three civilians)

There are 50 total personnel assigned to the Riverdale Police Department, 42 sworn-2 part-time and 8 civilians-3 part-time.

Courts

The city maintains its own court system to address traffic citations or warrants, although the defendant can choose to use the state or county court instead. Higher courts automatically receive offenses that are deemed to be serious.

Fire and EMS

Fire Stations and Districts

The City of Riverdale holds an ISO rating of 4 and anticipates obtaining a 3 in the near future. The city maintains two fire stations: Station 21 on Church Street covering the Northern District and Station 22 on Taylor Road covering the Southern District. (Map 6.4) Administrative Offices are on Orme Street. The city provides fire and emergency medical response (EMS) to an area of 4.5 miles with a diverse residential population over 12,000. In addition, Riverdale attracts many visitors due to its many commercial and medical businesses.

The Fire and EMS need to construct a new fire station in the future. Current facilities are in fair condition, but lack the space they need to effectively meet the demands. They are presently at maximum density now and must expand to maintain adequate space. The Riverdale Fire and EMS programs respond to 1,800-2,000 calls per year, with 1,200-1,400 calls to Station 21 and 500-700 calls to Station 22. The average response time is 3.4 minutes.

Staff

The city's Fire Services is divided into four divisions: Administration, Operations, Fire Marshal's Office, and Training. The City of Riverdale Fire Services employs 39 career personnel, including the Fire Chief and support staff in the Administration Division. In Operations, the city employs 3 Battalion Chiefs, 6 Lieutenants, 6 Sergeants, 18 Firefighters; First Responders, Emergency Medical Technicians, and Paramedics. The Fire Marshal's Office is made up of the Fire Marshal and Fire Inspector. A Training Officer heads the Training Division. The city maintains an entirely professional fire department with no volunteers. Current staffing levels are not adequate according to NFPA 1710 and ISO in order to receive a reduced insurance rating.

Equipment

The Church Street Station that covers the Northern District consists of Battalion 20, Engine 21, and Rescue 21. Engine 22 and Quint 22 are located in the Southern District on Taylor Road.

The fleet consists of a 2005 Ford Excursion as Battalion Command, a 1997 Ferrara as Engine 21, a 1994 Pierce as Engine 22, a 1996 Ferrara as Quint 22, and a 1988 Ford F-800 as Rescue 21/Severe Weather Emergency Response Vehicle, the only one of a kind in the state of Georgia. Other vehicles include a 1996 Ford Explorer, a 2000 Mercury Grand Marquis, a 2003 Ford Crown Victoria, a 2004 Ford Expedition, and a 1999 Ford Expedition to serve Administration and the other Divisions. The department is in

immediate need of a new aerial apparatus, quint, and, two new engines. Over the next five years the department will need a new heavy rescue.

Intergovernmental Coordination

Clayton County provides fire protection services for unincorporated areas of the county. The city works with the county regularly, as the County EMS is the transport provider, but generally not on responses for fire protection. The city will work with the county on fire incidents when requested in Mutual Aid.

Future Needs

The department has assessment plans that identify current and future needs in terms of personnel and equipment. A need has been identified for public safety headquarters that are centrally located and will provide adequate space for personnel and a full training facility.

In the future, the department will face greater challenges in terms of chemical and biological emergencies, particularly in regard to hazardous construction materials. Adequate staffing, equipment, and new training facilities will enable the department to better handle these emergencies and better provide for the safety of its personnel. In addition to training, codes and ordinances may need to be development and implemented to improve fire safety, such as mandatory sprinklers systems.

The districting of Riverdale's Fire Department shows the delineation of geographical areas for Stations 21 and 22. Station 21 responds to the area north of Bethsaida Road/ Lamar Hutcheson Parkway and Station 22 responds to that area south of the aforementioned location.

6.6 RECREATIONAL FACILITIES

Providing an opportunity for citizens to play, relax, exercise and enjoy the natural environment is key for any recreational program. Recreational facilities provide a community with an opportunity for an enriched quality of life. Currently, the City of Riverdale owns a total of 83.17 acres with 16.88 of those acres made up of four parks with amenities for its residents and 66.29 greenspace acres.

Two of these parks are operated by the Clayton County Recreation Department, including Riverdale Park and Riverdale Basketball Court Park. The city owns these properties and Clayton County maintains and operates the activities and facilities. Two other park systems are owned and operated by the City of Riverdale. These include: Church Park and Banks Park. Both of these parks are passive and do not have organized sporting events or buildings associated with them.

Based on the current population and the National Recreation and Park Association (NRPA) who provides the benchmark for the amount of acreage, types of amenities and level of services for the current and future population, the city would need an additional 62.71 acres to accommodate today's needs. Their standard, which is used by The

Department of Community Affairs for measurement purposes, states there should be 10 acres for every 1,000 persons. Currently, the city has 5.7 acres per 1,000 residents. Although the city does not meet the NRPA standards for recreational amenities and acreage, the city does offer a wide variety of services.

Services Riverdale offers include:

- Organized sports such as baseball, football, and soccer
- Walking/Jogging Trails
- Outdoor Basketball Courts
- Playgrounds
- Covered Sitting/Picnic Areas

The majority of the city activities take place at Riverdale Park. This park does offer year round programs for its residents including summer camp, and winter programs for youth. Adult classes are also offered including yoga, karate, and tennis lessons.

The Current Facilities for the city include:

Facility	**Size**
Riverdale Park	10 acres
Church Park	5 acres
Riverdale Basketball Court	1.5 acres
Banks Park	1/3 acre

Recreational Amenity	**Number of Amenities**	**Location of Amenity**
Baseball/Softball Fields	3	Riverdale Park
Basketball Court Outside	2	Riverdale Basketball Court
Concession Stand	2	Riverdale Park
Football Field	1	Riverdale Park
Jogging Trail	2	Riverdale Park & Church Park
Picnic Area		Riverdale Park
Picnic Shelter		Riverdale Park & Church Park
Playground	2	Riverdale Park & Church Park
Restrooms	3	Riverdale Park
Football Field	1	Riverdale Park
Special Use Facility	1	Riverdale Park
Sitting Areas	4	All Parks in city
T-Ball Field	1	Riverdale Park
Tennis Courts	2	Riverdale Park
Veteran Monument	1	Banks Park

Table 6.6 City Greenspace Inventory

Location	Acres
6207 Golden Meadow Ct.	0.47
1106 Valentine Ct.	0.51
1126 Valentine Ct.	0.51
1138 Valentine Ct.	0.51
1148 Valentine Ct.	0.55
1171 Valentine Ct.	0.48
762 Main Street	0.14
916 Wilson Road	0.68
Wilson Road	0.68
Wilson Road	5.80
Steeplechase Lane	0.90
River Glen I	14.73
River Glen II	6.80
Kingsland Pointe	4.50
Walker Estates	27.50
Winderemere	1.53
TOTAL	**66.29**

Expansion Plans

The city will continue to apply for a Community Development Block Grant for a City Recreational Center off Roy Hill Road that includes: indoor basketball, arts and crafts rooms, and a kitchen. The city plans for the facility to double as a City Multi-Purpose Center.

Overall, the proposed site includes 12 acres that would be developed for recreational services and expansion needs for the recreation center including an indoor swimming pool and walking track.

Future Needs

According to the population projections for the city's growth over the next twenty years, if the city met the current NRPA standards of 145 acres for their 2005 population, they would need to add recreational space/acreage for their citizens at the following rates every five years:

Table 6.7 Recreational Acreage Needs Assessment

	2010	2015	2020	2025
Projected Population	15,538	16,545	17,585	18,668
Additional Needs per 5 year increments	8 acres	10 acres	10 acres	11 acres

Senior Recreational Services

The Clayton Senior Center is located just outside the city limits at 6213 Riverdale Road and is available to the Riverdale Senior Citizens. This 25,600 square foot facility offers senior adults a place for learning, exercising and interacting with one another. This center opened April 25, 2002 and offers: classrooms, an arts and crafts area which includes organized classes, a library, computer lab, exercise room, a complete training kitchen, an indoor therapy pool, a full service locker room and a multi-purpose room with a stage that will seat approximately 150. This project was funded through the U.S. Housing and Urban Development's Community Block Grant.

Picture Courtesy of Clayton County

Other Recreational Space

Recreational Space not provided by the local government but used by the residents includes open space provided by private residential developments and school systems.

Many of the newer residential developments have set aside an amount of useable open space/greenspace. The majority of this land lies idle in an undeveloped state. These open spaces although not owned and operated by the local government do allow some level of services for the local citizens to enjoy passive time with nature. These particular lands are protected through city regulations and offer amenities such as natural resources and wildlife.

School Parks also contribute to the recreational facilities available to children including organized sports.

6.7 Hospitals and Other Public Health Facilities

The primary source of medial care in Clayton County is Southern Regional Medical Center, a 406-bed; medical/surgical facility located just outside of the Riverdale city limits. This center provides a wide range of state-of-the-art services including: anesthesiology, cardiology, a community care center, diagnostic imaging, emergency medicine, gastroenterology, general medicine, general surgery, gynecology, neurology, obstetrics, oncology, orthopedics, pain management, pathology, pediatrics, psychiatric, wound, ostomy, and continence care. The center's Emergency Department is one of Georgia's busiest, serving more than 70,000 patients annually. Southern Regional Health

System has recently completed upgrades to the Fast Track area of the Emergency Department to maximize patient care and efficiency while improving patient flow. The goal of Fast Track is to have non-urgent patients treated and released within sixty minutes of their arrival.

Other recent improvements to the health care facility include the opening of the Women's Life Center in May 2001. This center, which provides comprehensive women's healthcare in one convenient location, has quickly become the premiere facility for women's health care in the Atlanta area. The hospital has also added an additional Magnetic Resonance Imaging (MRI) unit to accommodate increasing volume in this service area. The new piece of equipment is a special open MRI unit that is more comfortable for patients who feel claustrophobic in traditional "closed" MRIs. In October of 1999, Southern Regional Medical Center became the first facility in the State of Georgia to use the new Endoscopic Vessel Harvesting system in treating peripheral vascular disease (PVD) a condition that restricts blood flow in the legs. Additionally, a New Campus Support Building has been constructed in order to free up more space in the medical center for patient care areas. The 42,000 square foot three story building houses storage for medical records, film and equipment, print and carpentry shops, home health information systems, Southern Crescent Health Network, accounting, patient accounts, public relations and marketing, planning and development, and physician services.

Southern Regional Medical Center is designed to meet not only Clayton County needs, but also the needs of the southern crescent of the Atlanta metropolitan area. Therefore, healthcare services provided by Southern Regional are more than adequate to meet the needs of the current and future population

The Clayton County Alzheimer's Facility is located within the city limits of Riverdale. This 5,000 square foot facility began services in October of 2004. The facility is located at 6701 Highway 85, and was retrofitted into an existing building. This 501C3 non-profit operates on grants and donations from the public.

6.8 EDUCATIONAL FACILITIES

Riverdale schools are operated by the Clayton County Board of Education. The Board is comprised of nine members representing each of the nine educational districts of the County. Each member is elected to a six-year term on a countywide basis. Riverdale's schools are within District 3 of Clayton County. Schools in the City of Riverdale include two elementary schools, one middle school and one high school.

The most recent student enrollment figures provided by the school board in March 2005 report the total enrollment for Riverdale Schools at 4,346. Overall, the city's enrollment in the school system has steadily increased. The table below presents the total enrollment and capacity of each Riverdale school. Map 6.5 illustrates their locations.

Table 6.8 Riverdale Educational Facilities

School	Address	Current Enrollment	Capacity
Church Street Elementary	7013 Church Street	898	825
Riverdale Elementary	6630 Camp Street	664	700
Riverdale Middle	400 Roberts Drive	1018	839
Riverdale High	160 Roberts Drive	1766	1325

Source: Clayton County Department of Education

Outside the city limits, but serving many of the children who live inside the city, are five additional schools. These are: 1) E. W. Oliver Elementary, 2) West Clayton Elementary, 3) Pointe South Junior High, 4) North Clayton Junior High and 5) North Clayton Senior High.

Although Clayton County is the third smallest county in geographic size in Georgia, the county's public school system is the 6th largest. The school system reported a total enrollment of 50,367 students for the 2003-2004 academic year; 49 % of these students are in elementary school, with 25% and 26% in middle and high school respectively. In 1994, the school system projected a 2003 enrollment of 48,000 students, due to the county's growth this enrollment level was reached by 2001. Since 1994 the school system's total enrollment has increased by almost 40%. The recent population growth in the county has brought an average of 1,200 new students, nearly enough to fill a standard high school, to the county each year. Current projections provided by Clayton County Public Schools show total enrollment reaching 56,000 during the 2007-2008 school year. The Clayton County Public School's available and projected facilities and capacity are shown in the Tables 6.9 and 6.10.

Table 6.9 School Capacity, Riverdale Area Schools

Type	Average Student Capacity per School	Current Capacity	Enrollment	Difference
Elementary Schools	618	31 Schools – 19,174	24,567	+28%
Middle Schools	792	12 Schools – 9,506	12,465	+31%
High Schools	1490	8 Schools – 11,925	13,335	+12%

Source: Clayton County School System

Table 6.10 Future School Capacity, Riverdale Area Schools

Type	Under Construction (2003-2004)	To be Built	Total Capacity 2008
Elementary Schools	2 ES #9 – 5885 Maddox Rd, Marrow ES #10 – 10990 McDonaugh Rd Hampton Capacity: 1540	9 Capacity: 6315	27,029
Middle Schools	1 MS #5 – 95 Valley Hill Rd, SW, Riverdale Capacity: 850	3 Capacity: 3677	14,033
High Schools	None – Mundy's Mill High School opened in 2003	2 Capacity: 2912	14,836

Source: Clayton County School System

The County also operates an alternative school, an evening high school for adults, and a special education center for students with special needs. Map 6.5 shows the locations of the county's public schools. Clayton County Public Schools is one of Clayton County's larger employers with 7,838 employees, an increase of almost 63% since 1994. Approximately 45% or 3,532 of the system's employees are teachers, this equates to a student/teacher ratio of 14 to 1. In comparison the average student to teacher ratio for Georgia Schools was 16 to 1 in 2001 as reported by the National Center for Education Statistics.

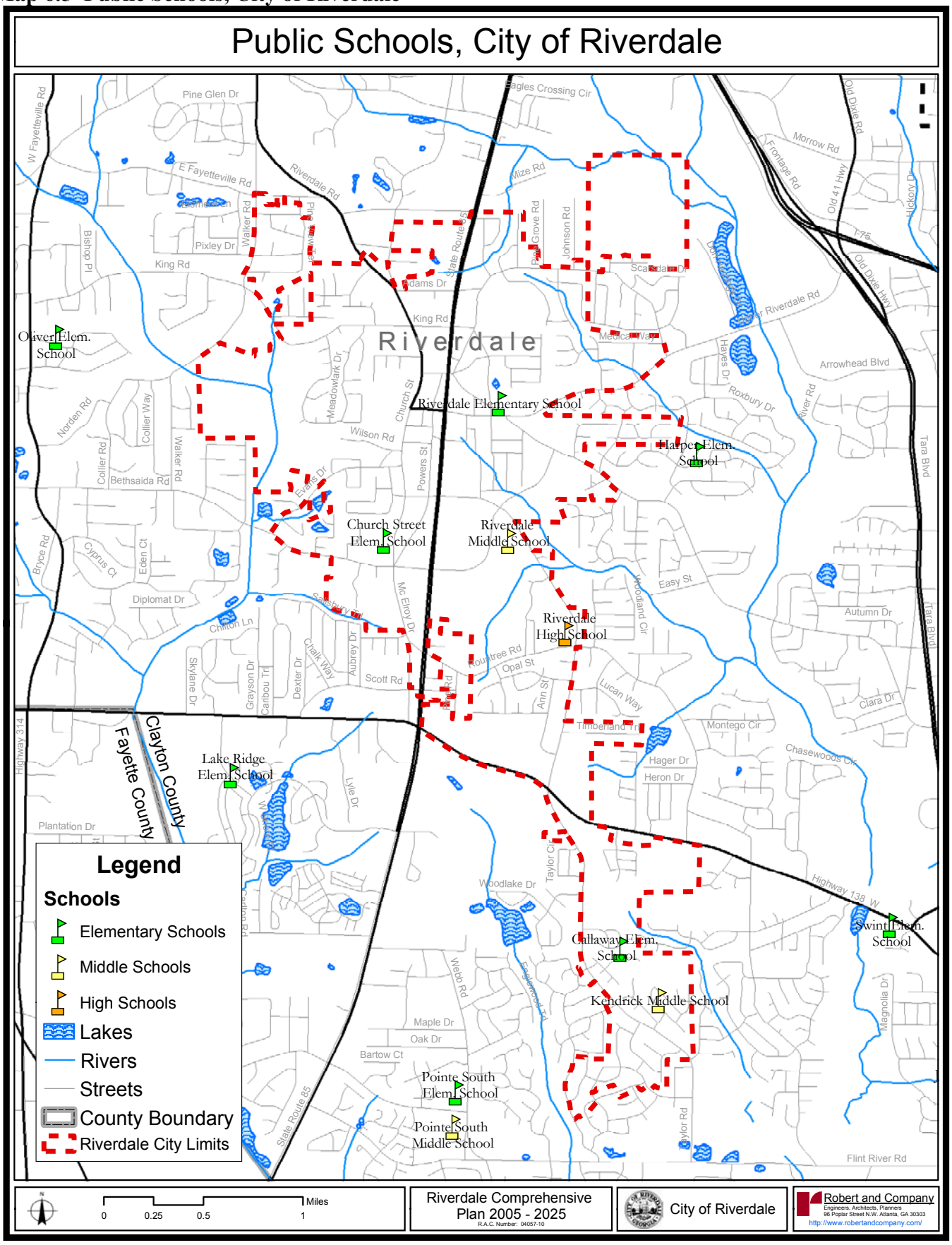
The Transportation Department of the Clayton County School System operates a fleet of 181 regular busses and 87 special education busses to transport all eligible children in the school system (i.e. those outside 1.5 miles of the school). The Department is also responsible for transporting additional children in hazardous situations. The department transports over 34,000 students, including 1,265 23 special education students (daily?). This number represents 85% of the school system's total enrollment.

According to data provided in Table 6.6 Clayton County's public schools are currently overcrowded. Additionally, the county's public schools have larger average enrollments than the averages for the state as reported by the National Center for Education Statistics.

In 2001 the average enrollments for elementary, middle, and high schools in Georgia were as follows, 607, 834, and 1,177. To remedy the current state of overcrowding, CCPS has an ambitious plan for constructing new schools. As shown in Table 6.7 the school system needs to construct 14 new schools in the next four years in order to provide adequate facilities to meet the needs of the projected 2008 enrollment.

CCPS has secured land for a handful of these future schools, as indicated in Table 6.8. In order to ensure that adequate land is available for the additional schools included in CCPS current building plan there is a need for coordination between CCPS and the county's planning and zoning department. A process must be developed for the provision of school capacity concurrent with the development of new housing developments that are anticipated to generate additional public school students. Additionally, CCPS and county officials should work together to identify and secure locations for future schools as early as possible.

Map 6.5 Public Schools, City of Riverdale



6.9 LIBRARIES AND OTHER CULTURAL FACILITIES

Clayton County constructed the Riverdale Branch Library in 1997. The 12,000 square foot facility is located at 420 Valley Hill Road in Riverdale. (Map 6.4) This library is one of five branches in the Clayton County Library System, including the headquarters library located in Jonesboro. The operations hours of the Riverdale Branch library are:

Monday - Tuesday 9:00 a.m. - 9:00 p.m.,
Wednesday - Friday 9:00 a.m. - 6:00 p.m.,
Saturday 9:00 a.m. - 5:00 p.m.

Services provided by the Clayton County Library System include books, audio tapes, video tapes and framed art prints to check out, weekly story time at the Headquarters Library for preschool children, BabyTalk! for children ages 0 - 24 months and parents/caregivers at the Headquarters Library, a Vacation Reading Program for young readers during the summer, and scheduled programs for school age children. Voter registration forms, income tax forms, free Internet access, a local history and genealogy room, and typewriters are also available for public use.

To assess the level of service provided by the Clayton County Library System the collections, staffing, and hours of operation of all the libraries in the system were compared to the Georgia Public Library Standards. These standards have a tri-level system for rating libraries ranging from a low of Essential to a high of Comprehensive. The Clayton County Library System provides 1.72 volumes per capita, which does not meet the Essential Level of Service that is defined as 2 volumes per capita. The libraries provide 2.39 subscriptions per 1000 population slightly exceeding the Essential Level Standard of 2 per 1,000. Totaling and averaging the hours and days per week all the libraries in the Clayton County system are open to the public resulted in total of 6.2 days per week and 61 hours. This falls between the ratings for systems with a population between 200,000 and 499,999, which are as follows Comprehensive 7 days/52 hours, Full 7 days/46 hours and Essential 6 days/40 hours. Table 6.11 shows the county's library needs in the future based upon population projections for Clayton County. This analysis shows that the County will need an additional 327,341 volumes and 90,929 sq. feet of library space to meet the minimum level of service for the projected 2025 population of 325,851.

In addition to collections needs, the need for greater computing capacity at the county's public libraries has also been identified. Many Clayton County residents do not have access to computers at home or at work. Due to this, one of the major roles the county's library system has taken on during the past five years is providing (free) public use computers with Internet and word processing at all its libraries. The county's library headquarters has twenty-five public access computers, used by 300 citizens on a typical day. Citizens use the library computers for email, job searches, resume writing, and personal and educational research. At the Riverdale branch library there are twenty new Gateway computers that also provide interactive GED study software (bought with a federal grant) and Internet access.

Table 6.11 Future Needs of Clayton County Libraries

Future Needs for Clayton County Public Libraries		
	2003 Population 253,500	**2025 Population 325,851**
Existing Volumes	324,361	324,361
Min Volumes	2 per capita = 507,000	2 per capita = 651,702
Excess or Deficit	-182,639	-327,341
Existing Sq. footage	71,997 (includes Lovejoy)	71,997
Minimum Square Footage	.5 sq. ft / person = 126,750 sq. ft.	.5 sq. ft / person = 162,926 sq. ft.
Excess or Deficit	- 54,753 sq. feet	- 90,929 sq. feet

Source: The Collaborative Firm

6.9.1 Museums or Public Auditoriums

There are no museums or public auditoriums for citizen usage at this time. Carmike Cinemas offers a motion picture theatre, which has been privately owned and operated since 1989.

6.10 COMMUNITY FACILITIES GOALS AND POLICIES

Goal 1 Serve the community by continuing to provide high quality, well maintained, community facilities and services in a cost effective manner to the citizens.

- Policy 1.1 Maintain up-to-date facilities for governmental, administrative, public safety, and human service delivery functions.
- Policy 1.2 Continue to monitor water supply services to assure that they continue to meet present and future supply demands.
- Policy 1.3 Continue to monitor sewer service and prepare plans for future phased additions to the service.
- Policy 1.4 Improve and/or replace public facilities in older sections of the City. Maintain a current list of such facilities and periodically update such lists.
- Policy 1.5: Maintain up-to-date plans for future police and fire services, facilities, and manpower requirements.
- Policy 1.6 Maintain up-to-date plans for present and future governmental facilities requirements.
- Policy 1.7 Continue to monitor the status of the solid waste collection and disposal system in Riverdale, including the current recycling program.

Goal 2 Provide adequate and cost effective parks and recreation facilities for all citizens, including specific needs groups, utilizing the natural environment and existing resources to the maximum extent.

- Policy 2.1 Develop additional walking paths throughout the city that link active and passive recreational areas.
- Policy 2.2 Continue to maintain joint use agreement with the Clayton County government for parks and recreational services.
- Policy 2.3 Encourage the joint use of public and private facilities
- Policy 2.4 Continue to maintain a joint-use agreement with the Clayton County Schools for the use of playgrounds and ballfields.
- Policy 2.5 Adapt public facilities to serve special client groups such as the handicapped.
- Policy 2.6 Develop new facilities to meet the needs of population groups that are expected to increase in proportion to the existing population, such as an indoor recreational center.
- Policy 2.7 Encourage the development of park and recreational facilities that capitalize on the positive features of natural areas.
- Policy 2.8 Update existing facilities in Riverdale Park to include an expanded recreational building.

CHAPTER 7 - TRANSPORTATION

INTRODUCTION

Effective January 1, 2004, Chapter 110-12-1 of the Rules of the Georgia Department of Community Affairs provides the Minimum Standards and Procedures for Local Comprehensive Planning. The Rules require a three step planning process that includes: (1) an inventory of existing conditions; (2) an assessment of current and future needs; and (3) the articulation of the community's vision, goals, and an associated implementation program. This transportation element will provide an inventory of the local transportation network; an assessment of the adequacy for serving current and future population and economic needs; and the articulation of community goals and an associated implementation program that provides the desired level of transportation facilities and services throughout the planning period.

7.1 EXISTING CONDITIONS

An accessible, efficient and safe transportation network is a vital component of a community's general well being. The transportation network enables residents to travel to work, receive services, obtain goods, and interact with others. Transportation is especially crucial in the area of economic development where access to transportation facilities plays a major role in a prospective industry's decision to locate in a particular area. An assessment of the existing transportation network throughout Clayton County, with a focus on the City of Riverdale, is provided to help determine future transportation needs.

7.1.1 Roadway Network and Facilities

The City of Riverdale is located in Clayton County, Georgia south of Atlanta along the I-75 corridor. The northern-most corner of Clayton County contains a 5.9 mile stretch of the I-285 Atlanta perimeter highway. Several interstate highways including I-75, I-85, I-675, and I-285 serve the county. I-75, SR 85, Riverdale Road (SR 139), SR 138, and other minor roads serve the City of Riverdale. Tables 7.1 and 7.2 provide a synopsis of road types by jurisdiction throughout Riverdale and Clayton County.

Riverdale's road inventory has grown by nearly 18% since the previous major revision of the ARC's base maps (which was used to derive base figures for Clayton County), mostly due to new subdivisions. In the ARC's latest 2004 revision of the regional street base map, approximately 10 miles of streets in Riverdale are mapped without proper documentation of street name, jurisdiction, or both.

Table 7.1-City of Riverdale Road Types

Riverdale Road Mileage As of 2004		
Road Type	Miles	Percentage
Total Roads	62.27	100%
State Roads	5.35	9%
County Roads	18.93	30%
City Streets	22.79	37%
New/Unclassified	15.20	24%

Source: DOT 441 Report 12/31/2002

Table 7.2- Clayton County Road Types

Clayton County Road Mileage		
Road Type	Miles	Percentage
Total Roads	992.90	100%
State Roads	101.01	10%
County Roads	749.99	76%
City Streets	141.09	14%

Source: DOT 441 Report 12/31/2002

In order to assess the adequacy of a transportation system, it is necessary to inventory various roadways according to the degree to which they fulfill two purposes: (1) movement of traffic and (2) access to property provided by driveways and curb cuts. These functions are inversely related in that the more traffic volume a roadway can accommodate, the less access it provides (and vice versa). A functional classification describes the degree to which a particular roadway provides mobility and access. The five functional classifications are as follows:

- **Interstate Principal Arterial:** An interstate principal arterial is a multi-lane controlled access road which only allows access at designated interchanges. The purpose of the interstate is to transport people and goods over long distances at high speeds with a minimum amount of friction from entering and exiting traffic. Freeways typically have average daily traffic volumes of over 100,000 vehicles per day.

- **Principal Arterial:** A principal arterial is used to transport large volumes of traffic at moderate speeds and are typically multi-lane. A principal arterial is usually a median divided highway with some controlled access. These roads provide immediate access to adjacent land uses through driveways and two-way turn lanes in the center of the multi-lane arterial. A principal arterial is designed for typical capacity of 45,000 to 75,000 vehicles per day.

- **Minor Arterial:** A minor arterial is designed to provide cross-town and cross-county street access. These roadways are usually multi-lane, although in some less developed areas they may be two lane roads. With access to development, there are often driveways that run directly into thoroughfares and, occasionally, on-street parking. Typical right-of-ways are between 70 and 90 feet, with traffic volumes between 20,000 and 50,000 vehicles per day.

- **Major Collectors:** A major collector is designed to move traffic from large residential areas and other local traffic generators such as schools, parks, office, and retail areas to principal and minor arterials. Generally these are two to four lane roads with frequent intersections. Traffic volumes are between 15,000 and 30,000 vehicles per day.

- **Minor Collectors:** Minor collectors are roads designated to collect traffic from local networks of city streets and county roads and transport this traffic to the arterial system. Collectors are typically two to four lane facilities with an average daily traffic between 7,500 and 15,000 vehicles.

- **Local Roads and Streets:** Local roads carry direct traffic from land uses and move them onto collectors. These roads exist primarily to provide access to adjacent land; and serve low-mileage trips compared to collectors or other higher systems. Use of these roads and streets for through traffic is usually discouraged. Local roads and streets constitute the mileage not classified as part of the principal arterial, minor arterial, or collector system.

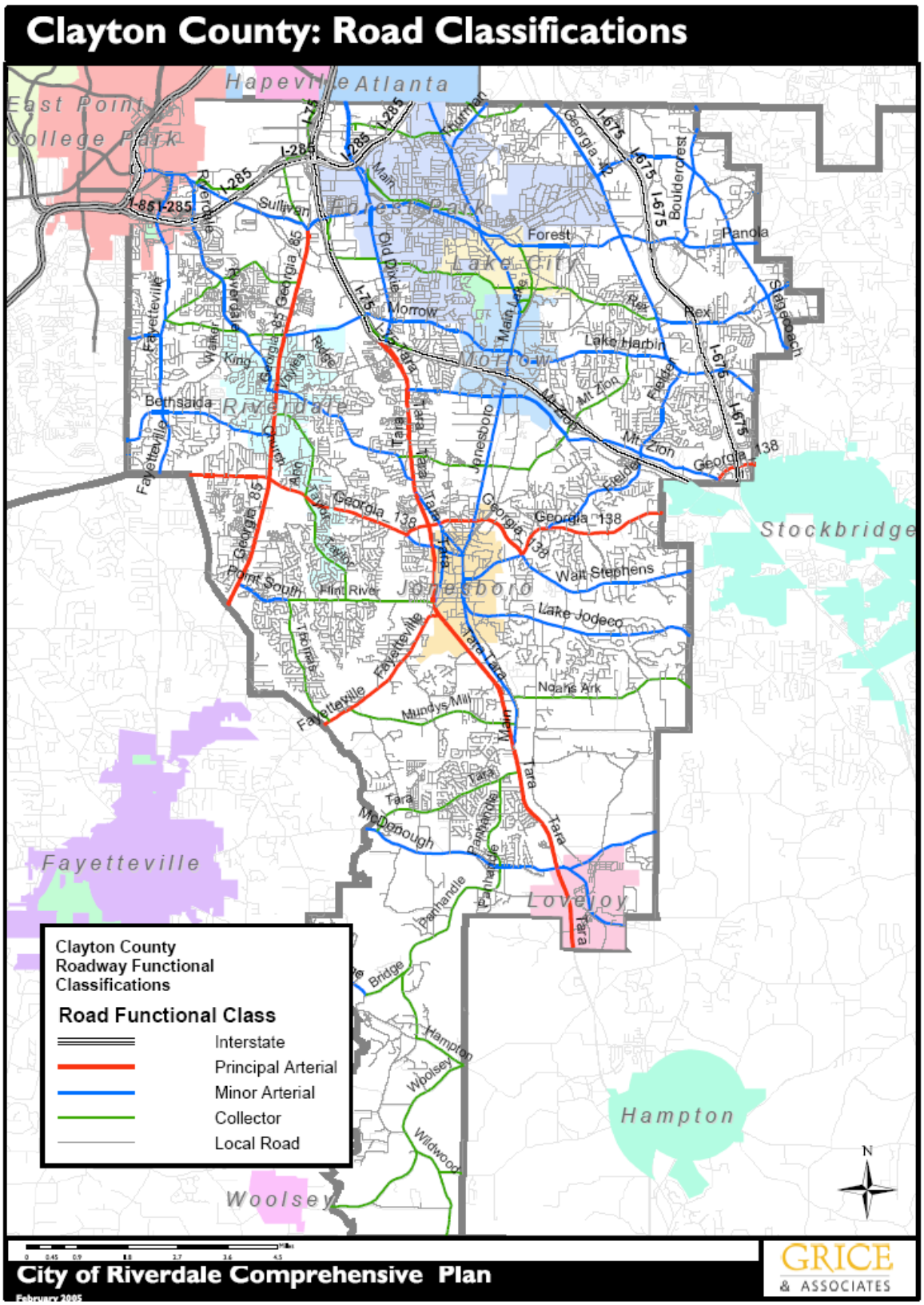
The roadway system in Clayton County is well developed. The network is comprised of Interstate highway access, state routes, county roads and city streets. Table 7.6**:** Vehicle Miles Traveled in Clayton County includes a breakdown of Mileage and Vehicle Miles Traveled grouped by jurisdiction for each functional classification. Table 7.3 lists the Clayton County roadways based on functional classification.

Table 7.3-Roadway Function Classifications

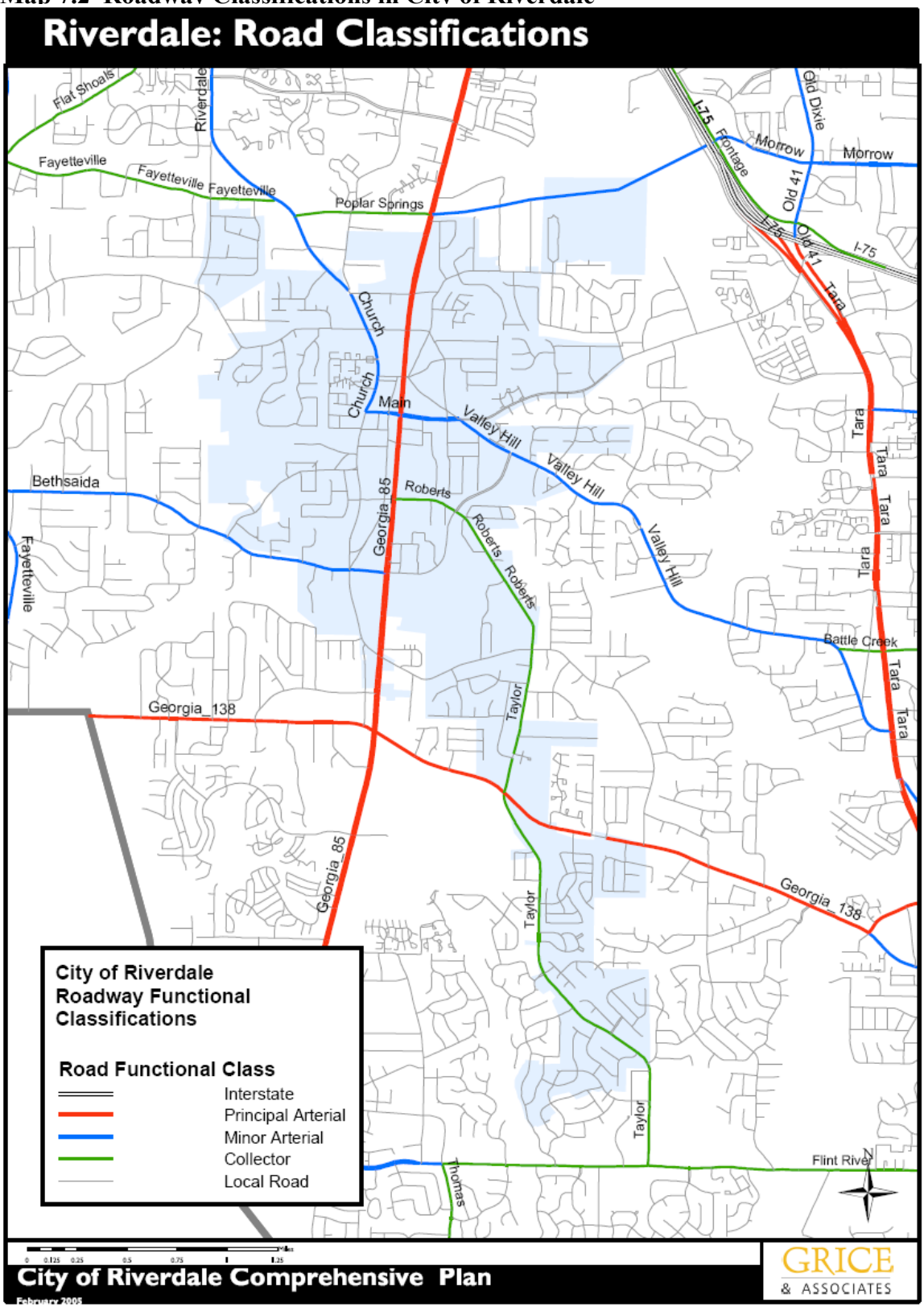
Roadway Classifications in Clayton County	
Classification	Roadways
Interstate Principal Arterials	Interstate 285
	Interstate 85
	Interstate 75
	Interstate 675
Principal Arterials	Fayetteville Rd
	State Route 85 south of Forest Pkwy
	SR 138
	Tara Blvd
Minor Arterials	Old Dixie Hwy (US 19, US 41, SR 3)
	SR 42 (US 23)
	Anvil Block Rd
	Bethsaida Rd
	Bouldercrest Rd
	Church St (From Riverdale Rd to Main St. in Riverdale)
	Ellenwood Rd
	Fayetteville Rd (Jonesboro)
	Fielder Rd
	Flat Shoals Rd (West of Fayetteville Rd)
	Forest Pkwy (SR 33)
	Jodeco Rd

	Jonesboro Rd (N. Main St. in Lake City and Morrow)
	Lake Harbin Rd (Morrow Rd in Morrow)
	McDonough Rd
	McDonough St
	Morrow Industrial Blvd
	Mt. Zion Rd
	N Bridge Rd (West of Hampton Rd)
	North Ave (From SR 138 to N. McDonough St)
	Panola Rd
	Pointe South Pkwy
	Rex Rd (East of SR 42)
	Riverdale Rd (SR 135)
	S Main St (Jonesboro)
	Stockbridge Rd (From McDonough St to SR 138)
	Sullivan Rd
	Valley Hill Rd (Main Street in Riverdale)
	Walt Stephens Rd
	West Fayetteville Rd (SR 314)
Major Collectors	Hampton Rd (East of Panhandle Rd)
	N Bridge Rd (East of Hampton Rd)
	Panhandle Rd (From N Bridge Rd to Hampton Rd)
	Wildwood Rd (From Woolsey Rd to Fortson Rd)
	Woolsey Rd
Minor Collectors	Airport Loop Rd
	Mount Zion Boulevard
	Battle Creek Rd
	Clark Howell Hwy
	Conley Rd
	Fayetteville St
	Flat Shoals Rd
	Flint River Rd
	Harper Dr
	Huie Rd
	I-75 access ramp
	Main St (Forest Park)
	Mt Zion Blvd (North of Battle Creek Rd)
	Mundy's Mill Rd
	Noah's Ark Rd
	Old Conley Rd
	Panhandle Rd (From Tara Rd to N Bridge Rd)
	Pine Ridge Dr
	Poplar Springs Rd
	Rex Rd (West of SR 42)
	Reynolds Rd
	Rock Hill Dr
	Tara Rd
	Taylor Rd (Roberts Dr in Riverdale)
	Thomas Rd
	Wildwood Rd (South of Fortson Rd)

Map 7.1 Roadway Classifications in Clayton County



Map 7.2 Roadway Classifications in City of Riverdale



The roadway system in the City of Riverdale is well developed. The network is comprised of Interstate highway access, state routes, county roads and city streets. . Georgia 85 and Georgia 138 are the principal arterials that run in the city. Riverdale Road, Main Street and Valley Hill Road are the minor arterials serving the City. The minor collectors in the City of Riverdale include Robert Drive, and Taylor Road. All other roadways within the City are local roads that feed traffic onto major roads.

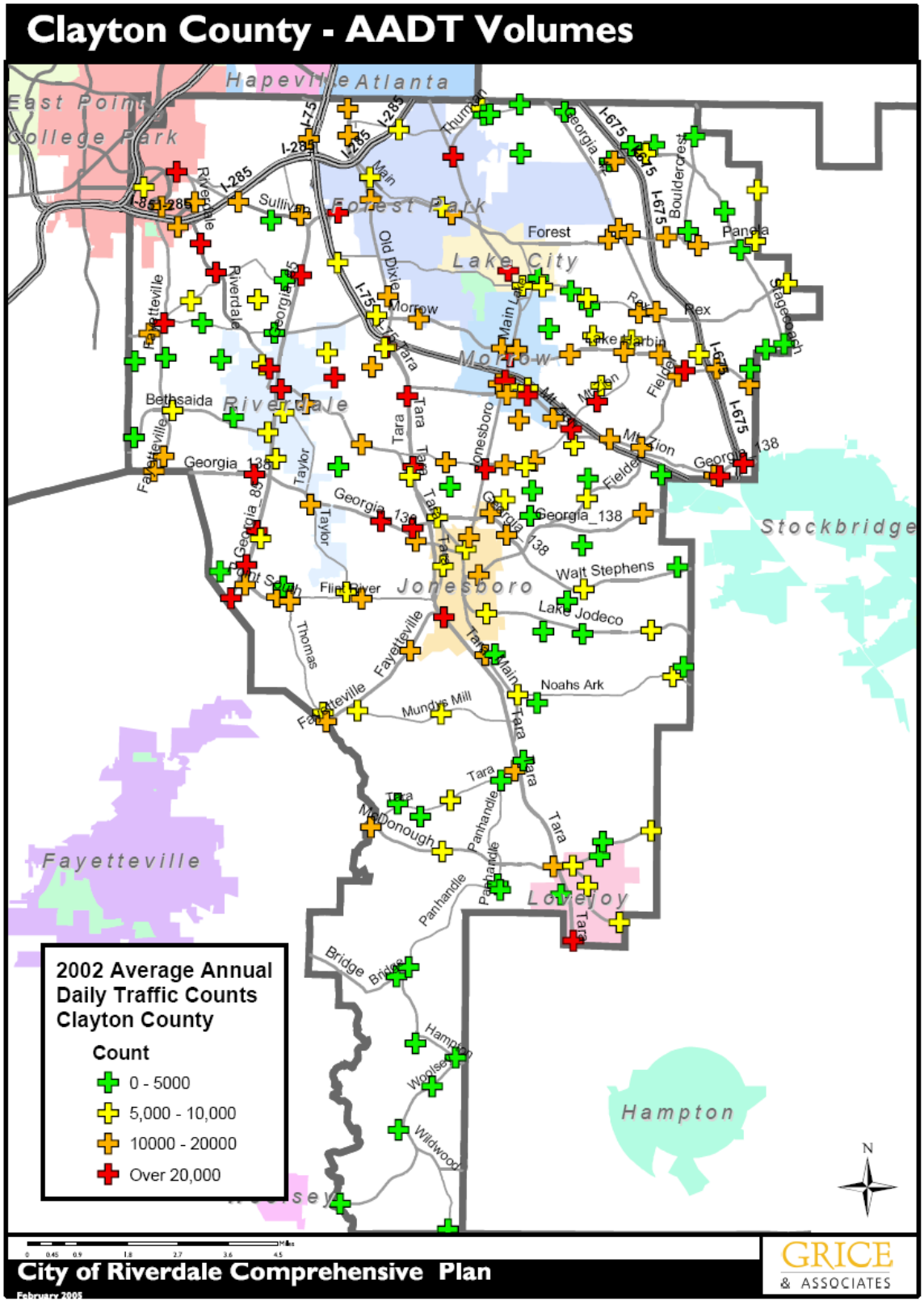
Prior to conducting a Level of Service (LOS) Analysis on the roadway network, an inventory of roadway link geometry, including functional class, number of lanes, capacity, and volumes was conducted. The Atlanta Regional Commission (ARC) travel demand model was used for this purpose. Additionally, Clayton County currently maintains an extensive traffic volume data collection database. 2002 Average Annual Daily Traffic volume counts for Clayton County and City of Riverdale in are illustrated graphically in Maps7.3 and 7.4 respectively.

Because of the City of Riverdale's size and shape, the Average Annual Daily Traffic (AADT) levels for Riverdale's roadways must be estimated using count stations located beyond the city's boundaries. The heaviest traffic volumes in the city of Riverdale were recorded on the following roadways:

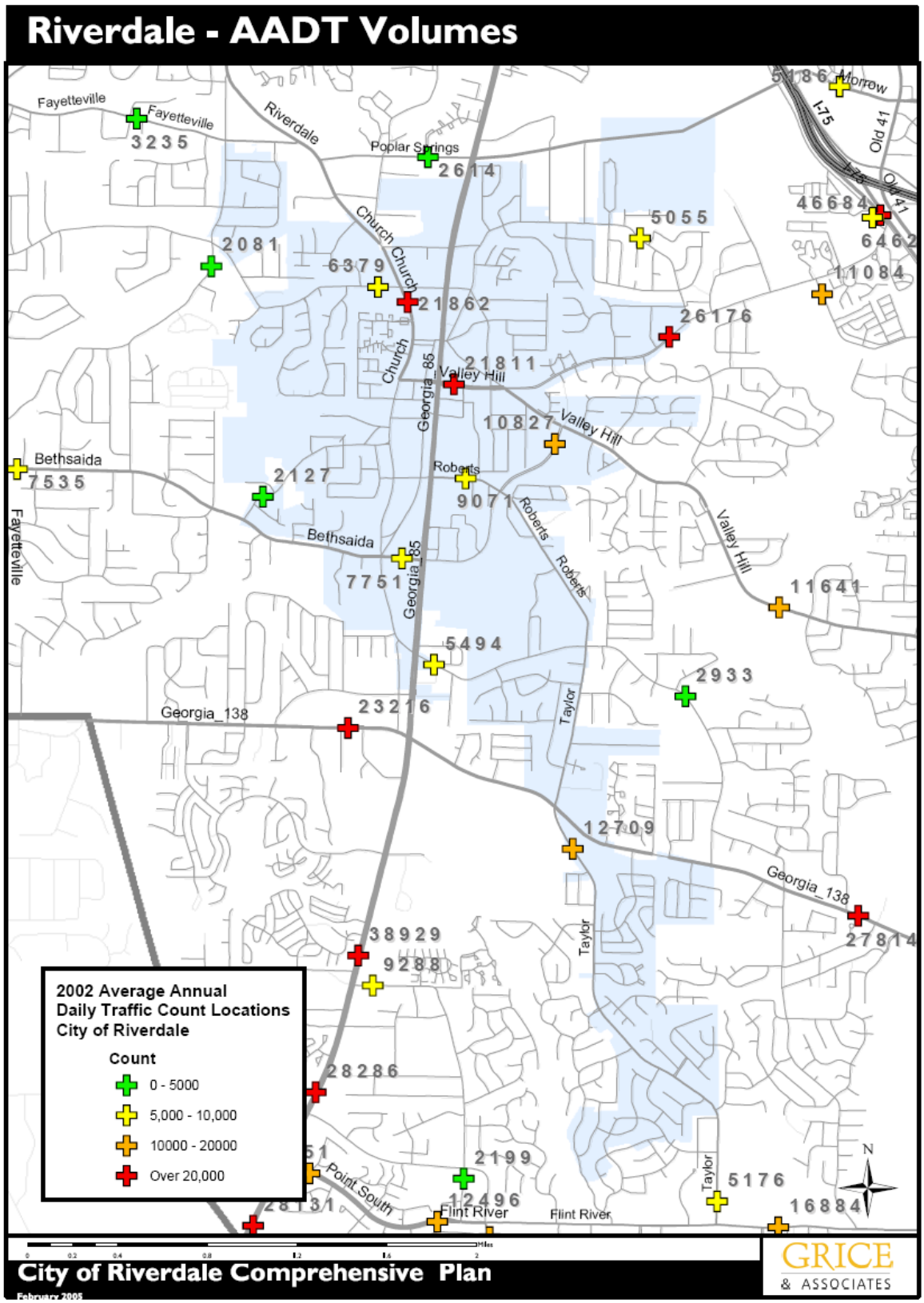
Table 7.4 2002 AADT Counts in City of Riverdale

Roadway	**AADT**
SR 85 at Main St	35,500 (est)
Upper Riverdale Rd at Professional Pl.	26,176
SR 138 at Taylor St.	26,000 (est)
Church St. at King St	21,862
Valley Hill Rd. at SR 85	21,811
Taylor St. near SR 128	12, 709
Lamar Hutcheson Pkwy near Valley Hill Dr.	10,827
Roberts St. near SR 85	9.074
Bethsaida Rd. near SR 85	7,751

Map7.3 Clayton County 2002 AADT



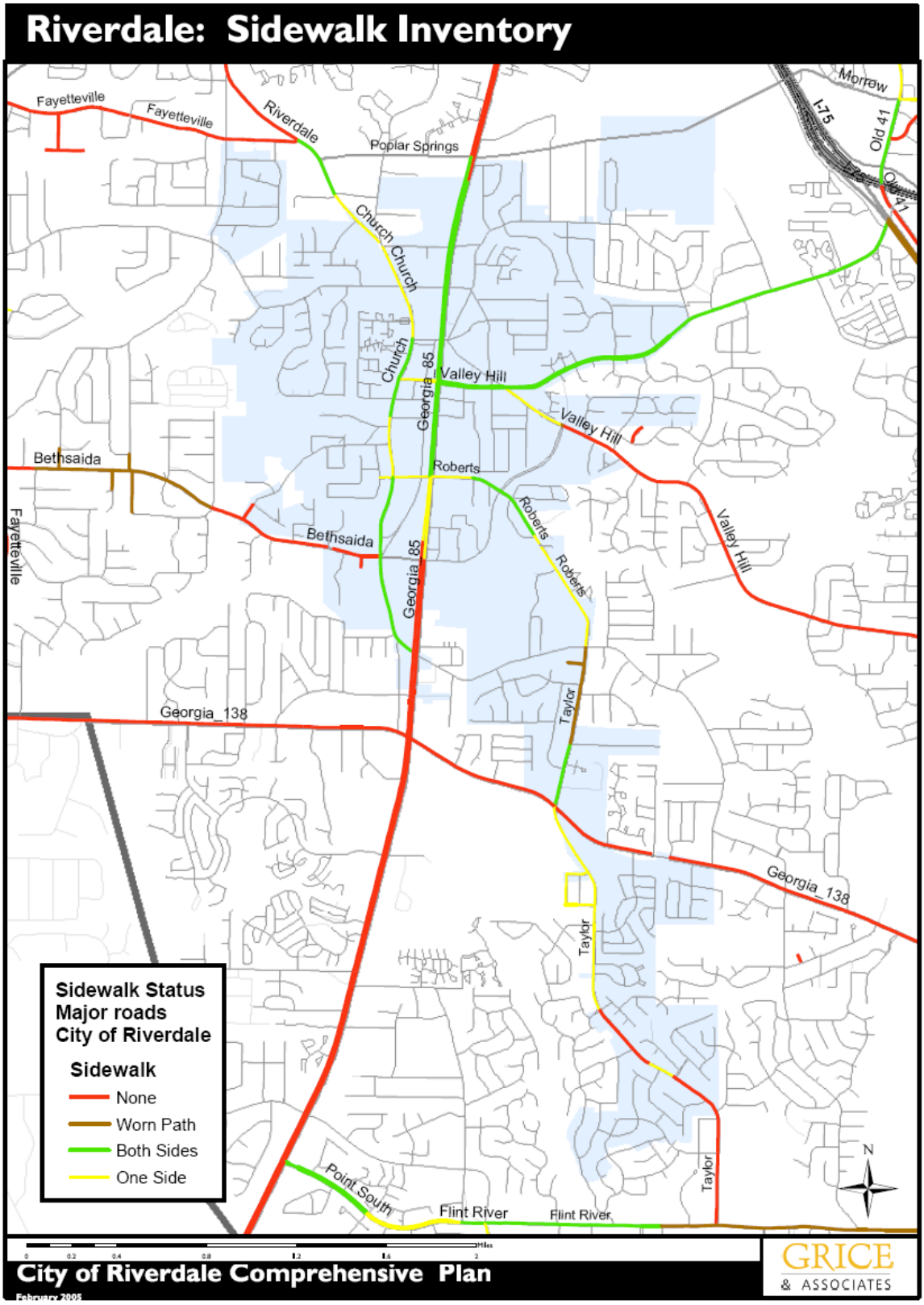
Map 7.4 City of Riverdale 2002 AADT



7.1.2 Pedestrian Network and Facilities

An inventory of sidewalks was conducted for the six major functional classes of roadways within the City of Riverdale. A field survey was conducted throughout the City of Riverdale to determine if sidewalks were present on one side, both sides, or neither side. The results of this survey are presented in Map7.5.

Map 7.5 Riverdale Sidewalk Inventory



The sidewalk inventory map illustrates that sidewalks are generally not present on the major functional classes of roadways throughout Clayton County. However, in City of Riverdale, sidewalks are present for the most part on major roadways. Sidewalks are present on both sides or on one side of all major roadways in the city including Georgia 85, Riverdale Road, Main Street, Valley Hill Road, Upper Riverdale Road, and Roberts Drive. Sidewalks were not observed along a section Georgia 85 south of Bethsaida Road. Worn paths were seen along Taylor Road from Rountree Road to Timberland Trail. It should be noted that the areas illustrating worn paths should be targeted for sidewalk installation, as there is evidence of pedestrian activity at these locations.

7.1.3 Bicycle Network and Facilities

The City of Riverdale currently has no designated bicycle routes or facilities. A review of countywide and region plans shows no proposed or programmed bicycle routes or facilities within the City of Riverdale. The Atlanta Regional Commission's 2002 Regional Bicycle Transportation and Pedestrian Walkways plan recommended a 2.5 mile "Signed Shared Roadway" project on Rountree Rd between Main St and SR 138 for network year 2002 (CL-AR-BP0005), but this was not adopted into the 2025 or 2030 RTP.

7.1.4 Public Transit Network and Facilities

7.1.4.1 C-Tran

Transit service in Clayton County is provided by C-Tran, a contracted transit service managed by the Georgia Regional Transportation Authority. C-Tran began providing service in 2001. The fare for a single passenger is $1.50, and transfers, which are accepted by MARTA, are free. C-Tran connects with the MARTA bus and rail systems at two points: Hartsfield-Jackson International Airport, and the Lakewood Transit Center.

Currently, C-TRAN operates five routes, illustrated in Map 7.6 and detailed below:

Route 500 - Airport Loop

Weekday:	Peak and midday from Southlake Mall north:	30 minutes
	Peak and Midday from Southlake Mall south:	60 minutes
	Evening (entire route)	60 minutes

Route 501 - Forest Park/Justice Center/Jonesboro

North End: *Airport*
South End: *Justice Center*
Major Destinations Include: Delta Maintenance Facility, Forest Park City Hall, Clayton College & State University, Southlake Mall, Southlake Festival, Tara Stadium, Justice Center, Jonesboro Courthouse.

Weekday:	Peak and midday from Southlake Mall north:	30 minutes
	Peak and Midday from Southlake Mall south:	60 minutes
	Evening (entire route)	60 minutes
Saturday:	Entire route all day:	60 minutes
Sunday:	Entire route all day:	60 minutes

Route 502 - Jonesboro/Courthouse

North End: *Airport*
South End: *Jonesboro/Courthouse*
Major Destinations Include: Delta Maintenance Facility, Forest Park City Hall, Clayton College & State University, Southlake Mall, Southlake Festival, Tara Stadium, Justice Center, Jonesboro Courthouse.

Weekday:	Peak and midday from Southlake Mall north:	30 minutes
	Peak and Midday from Southlake Mall south:	60 minutes
	Evening (entire route)	60 minutes

Route 503 - Riverdale/Mt. Zion Parkway

North End: *Airport*
South End: *Mt. Zion Rd & Mt. Zion Parkway*
Major Destinations Include: Southern Regional Medical Center, Southlake Mall (@ Market Place or Kelly), Mt Zion Road Corridor, Kaiser Permanente, GA Dept of Labor, Performing Arts Center, & Fielder Road.

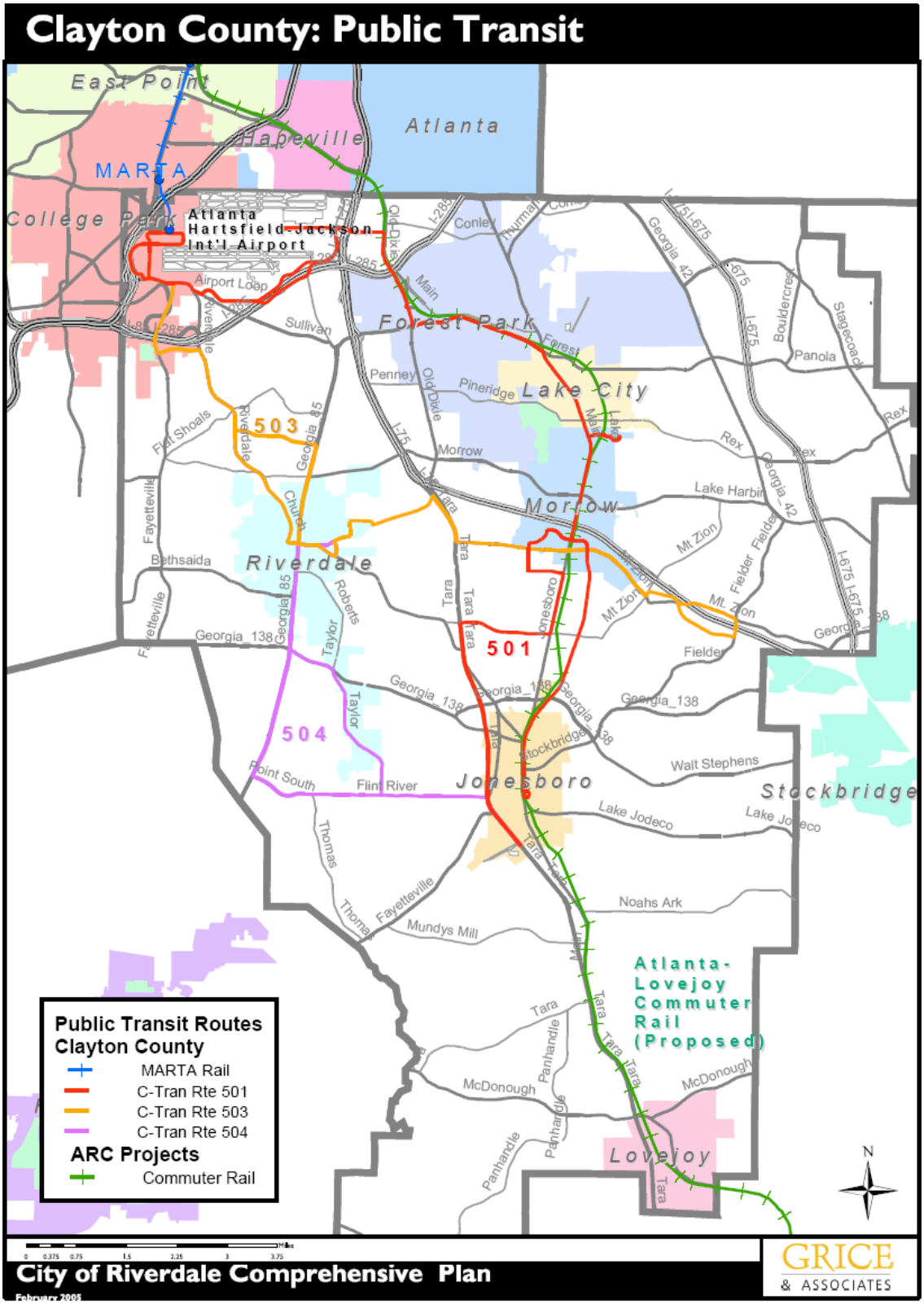
Weekday:	Peak and Midday (Alternating trips using Gardenwalk & Riverdale)	30 minutes
	Evening (after 7 pm) [Gardenwalk segment only]	60 minutes
Saturday:	All day (Gardenwalk segment only - no service on alternate Riverdale segment)	60 minutes
Sunday:	All day (Gardenwalk segment only - no service on alternate Riverdale segment)	60 minutes

Route 504: Riverdale/Highway 85/Flint River

North End: *Airport*
South End: *Justice Center*
Major Destinations Include: Riverdale Library, Hwy 85 corridor south of Upper Riverdale to Pointe South Parkway, Flint River corridor to Tara Blvd, Taylor Road to Hwy 138 junction, Justice Center.

Weekday:	Peak and Midday (alternating trips using Taylor Road & Hwy 85)	30 minutes
	Evening (after 7:45pm) [Hwy 85 segment only]	60 minutes
Saturday:	All day (Hwy 85 segment only - no service on alternate Taylor Road segment)	60 minutes
Sunday:	All day (Hwy 85 segment only - no service on alternate Taylor Road segment)	

Map 7.6 Clayton County Public Transit Routes



A field survey evaluated the transit and pedestrian amenities at C-Tran stops in the city of Riverdale. While bus stops are consistently marked with signs, transit amenities such as bus shelters, system maps & schedules, sidewalks, benches, and trashcans were absent at most stops.

Routes 503 and 504 both serve Riverdale. The two routes meet in central Riverdale at the intersection of Main Street and State Route 85. There is no consolidated transfer station between the two routes, however, and passengers wishing to transfer from one route to the other are required to cross a busy street and walk approximately 50 yards between stops.

Based on a review of the Existing Land Use Map and C-Tran ridership information, it can be concluded that the major transit generators and attractors in Clayton County are currently Hartsfield Jackson International Airport and the Southlake Mall area. The airport is a major employment center in the Atlanta area and there is also an existing MARTA rail line at that airport that provides access to a number of additional major employment centers such as downtown and midtown Atlanta, the Buckhead area, the Medical Center area north of Buckhead, and the Perimeter Center area. There is currently a C-Tran terminal area at the airport where patrons can transfer between Routes 501 and 503 to the MARTA rail line. Additionally, C-Tran riders can currently transfer between Routes 501 and 503 at Kelly Avenue at Mount Zion Road and Mount Zion Road at Southlake Parkway near Southlake Mall. Transfers are available between Routes 501 and 504 at the Clayton County Justice Center and at the intersection of Flint River Road and Tara Boulevard. Routes 503 and 504 intersect at Lamar Hutcheson Parkway at Valley Hill Road and Lamar Hutcheson Parkway and State Route (SR) 85. Additionally, C-Tran patrons can transfer between Route 501 and MARTA Route 77 at the intersection of Forest Parkway and West Street.

7.1.4.2 Commuter Rail Service

A regional Commuter Rail line connecting Atlanta to Lovejoy has been approved as project AR268F, scheduled for Network year 1020 in the ARC's 2005-2010 RTP. Additional Operating funds for the Commuter Rail line have been approved in the same RTP under project 344 AD. Long term plans for the commuter rail service include route extension to Macon. The closest stop to Riverdale will be Jonesboro and Forest park. It is likely that C-Tran will alter its route structure to serve Clayton County's commuter rail stations

7.1.4.3 Southern Crescent and Mountain View

In addition to commuter rail, the Southern Crescent Transportation Service Center (SCTSC) is a multi-modal transit-oriented district (TOD) which is apart of the Mountain View Redevelopment in Clayton County is proposed. The TOD will include office, retail, hotel, industrial and green space land uses. The SCTSC is proposed to meet regional transportation needs through the integration of commuter rail, MARTA, community buses, shuttles and taxis, with a direct connect to the new East International Terminal at Hartsfield.

7.1.5 Air Transportation and Facilities

7.1.5.1 Hartsfield-Jackson International Airport

Clayton County is located adjacent to Atlanta's Hartsfield-Jackson International Airport, the largest air carrier facility in the southeast.

Hartsfield-Jackson International Airport's regional impact is vital to Riverdale. Short and long term improvement projects planned for the Airport sill have a significant impact on Riverdale's

economic base and transportaion network. In 2000, the Airport began a ten-year, $5.4 billion capital improvement project.

There are four key elements to this project including: (1) construction of a consolidated rental agency complex for rental cars; (2) enhancements to the airports central terminal; (3) construction of a fifth runway; and (4) building a new terminal.

Due to the increasing demands upon the existing on-airport car rental facilities, the need for a consolidated rental car structure has become necessary. Traffic flow around the airport and air quality will benefit from the consolidation of these facilities. The new Consolidated Rental Agency Complex (CONRAC) will be located south of Camp Creek Parkway and west of Interstate 85. The facility will accommodate the ten existing rental car companies operating at Hartsfield-Jackson (with room for expansion in the future) and will provide for approximately 8,700 ready and return spaces. Additionally, this project will include accommodations for customer service centers, storage and minor maintenance areas, wash lane facilities and vehicle fueling positions to support the quick turn around operation used by the rental car agencies. The CONRAC project also includes an Automated People Mover (APM) System to ferry passengers to and from the Central Passenger Terminal Complex (CPTC) and the CONRAC. There will be three proposed transport stops for the passengers, along with an elevated rail line over I-85.

A new four-lane airport access road will connect from the airport roadway system to the CONRAC providing vehicular access both coming and going to the facility. The roadway includes bridges to cross Interstate 85, CSX Railroad and MARTA tracks.

The Central Passenger Terminal Complex will be enhanced to accommodate the rising number of travelers passing through Hartsfield-Jackson. To enhance passenger service, improvements will include upgrades to curbside services, security checkpoints, ticket counters, interior finishes, concessions, baggage, baggage claim areas, vertical transportation, moving sidewalks and expansion of existing concourses. Further modification plans include taxiway enhancements as well as the expansion of Air Cargo and Aircraft Maintenance facilities.

The new Jackson International Terminal (JIT) will be "Atlanta's global gateway to the world." Hartsfield-Jackson Atlanta International Airport officials are constantly reviewing and implementing enhanced features to accommodate passengers and employees as securely as possible. The completion of the innovative East International Terminal project is a part of realizing that goal. In 2006, Atlanta will proudly unveil its new, state-of-the-art, "front door" through which the world comes to Atlanta.

In order to meet the increased demand for air travel and reduce current delays, the airport began construction on a new $1.2 Billion, 9,000 foot Fifth Runway (Runway 10/28) in 2000. The runway is schedule to be commissioned in May 2006. It will be a full-length parallel taxiway with dual north/south taxiways having two bridges capable of sustaining large aircraft. The two bridges will overpass the 18-lane I-285 highway.

7.1.5.2 Tara Field

The local airport for Clayton County is Tara Field, located at 474 Mt. Pleasant Road about three (3) miles west of the City of Hampton, just west of the Atlanta Motor Speedway. Although the airport is physically located in Henry County, Clayton County acquired the airport in 1992.

The operation of Clayton County Airport-Tara Field over the past three (3) years has provided by the county with about $20,000 in profits. The money comes from aircraft gas sales and storage and parking fees; property taxes go to Henry County. The airport maintains a runway that is 4503 feet long by 75 feet wide. There are 143 aircraft based at the field, 126 single engine planes, 10 multi-engine planes, and seven (7) jets. The airport averages 82 aircraft operations per day, 57% of which are transient general aviation, 37% local general aviation and 6% air taxi services. Most of the air traffic at Tara involves propeller aircraft and helicopters with jets using the facility mainly on the two big race weekends at the speedway.

Due to increased security concerns following the September 11th terrorist attacks there are many security measures that have been implemented at Tara Field and more are planned for the near future. Recently a fence was erected to enclose about 70% of the airport's property off of US 19/41 near the Atlanta Motor Speedway. Other changes include new runway landing lights and taxiway lights. Additional lighting also will be installed in the lots where planes are parked, and all vehicle entrances to the 200-acre airport soon will be gated.

The Federal Aviation Administration (FAA) FY 2002 Airport Improvement Program (AIP) Grants gave priority to the acquisition of 63 acres of land for development and 0.9 acre for approaches and runway rehabilitation at Tara Field. Approximately $1.4 Million in federal funds was appropriated for this effort.

7.1.6 Rail transportation and Facilities

The City of Riverdale has no active Railroad lines.

Two railroad corridors service Clayton County providing industrial railway service north to the major rail hub of Atlanta and south to Macon. The Norfolk Southern Railway line extends approximately 6.5 miles across the northeast corner of the county. The Norfolk Southern Railway enters Clayton County in the north near Georgia Highway 42 and exits the county in the southeast near Big Cotton Indian Creek. The Norfolk Southern Railway line maintains the highest level of freight traffic in the county with 23 trains per day. The Central of Georgia Railroad, a subsidiary of Norfolk Southern Railway, enters Clayton County at the northern boundary near Interstate 75 and bisects the county for nearly 20 miles until it enters Henry County. The Central of Georgia line maintains only slight freight traffic with one train per day. There is also a rail network inside Fort Gillem. However, it is underutilized and not maintained. There are no railroad crossings within the City of Riverdale.

A regional Commuter Rail line connecting Atlanta to Lovejoy has been approved as project AR268F, scheduled for Network year 1020 in the ARC's 2005-2010 RTP. Additional Operating funds for the Commuter Rail line have been approved in the same RTP under project 344 AD. Long term plans for the commuter rail service include route extension to Macon. The closest stop to Riverdale will be Jonesboro and Forest park. It is likely that C-tran will alter its route structure to serve Clayton County's commuter rail stations

7.1.7 Bridge Inventory

There are a total of four bridges in the City of Riverdale – Map 7.9 shows their locations, which are as follows:

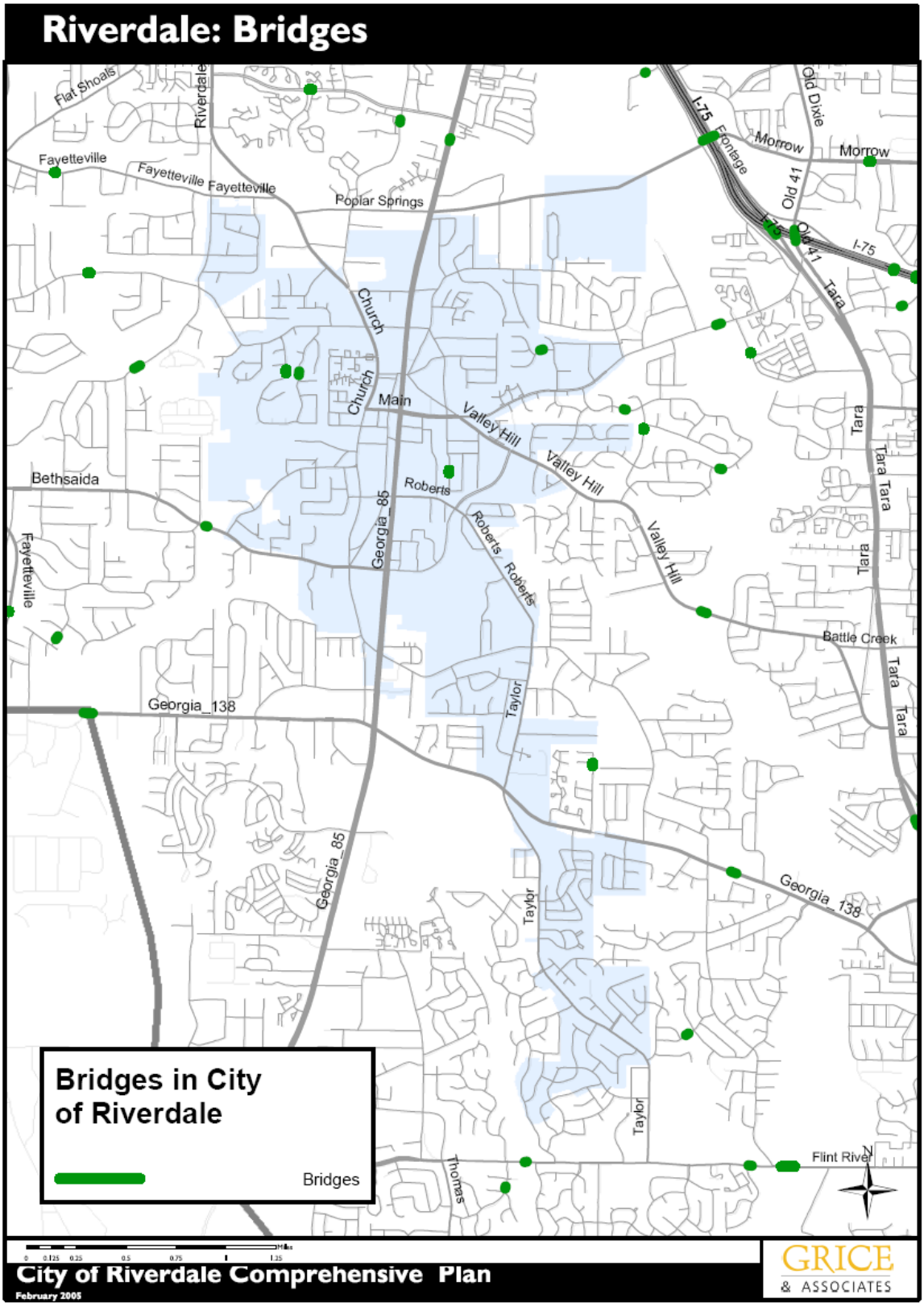
- River Oak Drive west of River Park Drive

- River Glen Drive south of River stone Center
- Meadowlark Drive north of Canary Center
- Delta Drive south of Pine Place.

None of these bridges are in poor condition.

The Clayton County road network contains a total of 211 bridges. The vast majority of these bridges are in sound structural condition.

Map7.7 Riverdale Bridge Inventory



7.2 ASSESSMENT OF CURRENT AND FUTURE NEEDS

7.2.1 Demographics, Growth Trends and Travel Patterns

Growth trends and travel patterns and interactions between land use and transportation, and the compatibility between the land use and transportation elements were examined. As the population, housing, and economic development elements of this comprehensive plan illustrate, Clayton County has experienced rapid growth over the last 20 years. Similar rapid growth trends were observed in the City of Riverdale. The following sections elaborate on these trends. While the county has recently started the bus transit system C-TRAN, travel by private automobile remains the primary mode of transportation in the county.

7.2.1.1 Vehicles Per Household

Tables 7.5 and 7.6 illustrate that both the number of housing units and associated vehicles have grown significantly between the years 1990 and 2000.

Table 7.5 Number of Vehicles Per Household in Riverdale (1990)

1990 Vehicles per Household by Ownership Type	Owner occupied Units	%	Renter Occupied Units	%	Total Units	%
Total Occupied Housing Units	1629		2022		3651	
Units with no vehicle available	43	2.6%	164	8.1%	207	5.7%
Units with Units with 1 vehicle available	293	18.0%	865	42.8%	1158	31.7%
Units with 2 vehicles available	794	48.7%	824	40.8%	1618	44.3%
Units with 3 vehicles available	390	23.9%	143	7.1%	533	14.6%
Units with 4 vehicles available	68	4.2%	26	1.3%	94	2.6%
Units with 5 or more vehicles available	41	2.5%	0	0.0%	41	1.1%

Source: U.S. Census Bureau, 1990 Census of Population and Housing

Table 7.6 Number of Vehicles Per Household in Riverdale (2000)

2000 Vehicles per Household by Ownership Type	Owner occupied	%	Renter Occupied Units	%	Total Units	%
Total Occupied Housing Units	2156		2230		4386	
Units with no vehicle available	87	4.0%	164	7.4%	251	5.7%
Units with Units with 1 vehicle available	682	31.6%	1261	56.5%	1943	44.3%
Units with 2 vehicles available	917	42.5%	667	29.9%	1584	36.1%
Units with 3 vehicles available	319	14.8%	124	5.6%	443	10.1%
Units with 4 vehicles available	114	5.3%	8	0.4%	122	2.8%
Units with 5 or more vehicles available	37	1.7%	6	0.3%	43	1.0%

Source: U.S. Census Bureau, 1990 Census of Population and Housing

7.2.1.2 Vehicle Miles Traveled

Table 7.7 shows the daily vehicle miles traveled in Clayton County. This data is compiled on a county-wide basis and is not available for the city of Riverdale

Table 7.7 Vehicle Miles Traveled in Clayton County

Mileage and Vehicle Miles Traveled (VMT) by Road Classification and Jurisdiction								
	State Route		County Road		City Street		Totals	
	Mileage	VMT	Mileage	VMT	Mileage	VMT	Mileage	VMT
Urbanized Interstate	25.7	3,077,714.1	0.0	0.0	0.0	0.0	25.7	3,077,714.1
Urbanized Freeway	0.1	1,279.2	0.0	0.0	0.0	0.0	0.1	1,279.2
Urbanized Principal Arterial	30.2	1,103,532.0	0.0	0.0	0.0	0.0	30.2	1,103,532.0
Urbanized Minor Arterial	35.7	759,799.0	59.5	635,421.2	1.5	12,810.0	96.7	1,408,030.2
Urbanized Collector	0.0	0.0	39.3	350,775.4	2.9	19,092.0	42.2	369,867.4
Urbanized Local	0.0	0.0	586.7	915,198.6	132.3	207,115.6	719.0	1,122,314.2
Urbanized Total	**91.6**	**4,942,324.3**	**685.4**	**1,901,395.2**	**136.8**	**239,017.6**	**913.8**	**7,082,737.1**
Rural Principal Arterial	3.9	138,330.0	0.0	0.0	0.0	0.0	3.9	138,330.0
Rural Major Collector	5.5	57,515.0	9.5	20,334.0	1.6	15,484.0	16.6	93,333.0
Rural Minor Collector	0.0	0.0	4.1	18,751.5	0.0	0.0	4.1	18,751.5
Rural Local	0.0	0.0	57.9	41,861.4	3.8	2,782.4	61.7	44,643.8
Rural Total	**9.4**	**195,845.0**	**71.4**	**80,946.9**	**5.3**	**18,266.4**	**86.2**	**295,058.3**
Total	**101.0**	**5,138,169.3**	**756.8**	**1,982,342.1**	**142.1**	**257,284.0**	**999.9**	**7,377,795.4**

Work Travel Destinations

As shown in the Economic Development Chapter 4 of this comprehensive plan update, Clayton County workers are traveling outside of the county at a growing rate. The percentage of employees who lived and worked in Clayton County decreased from 46% in 1990 to 38% in 2000. The most popular destination by far for Clayton County workers commuting outside of the county is Fulton County with over half of the out of county workers destined there. Other destinations include DeKalb County, Henry County, Cobb County, Fayette County, and Gwinnett County. Conversely, workers from outside of Clayton County hold over half of the jobs in Clayton County, with workers traveling from Rockdale County, Douglas County, Gwinnett County, Spalding County, Coweta County, Cobb County, DeKalb County, Fayette County, Fulton County, Henry County, and even outside of Georgia. This phenomenon is consistent with Clayton County being a part of a major metropolitan area with major employment centers such as Delta Airlines being located in the county, and conversely, major employment centers such as downtown and midtown Atlanta, Buckhead, and the Perimeter Center area being located outside of Clayton County. The inter-county commuting patterns help fuel the increased VMT mentioned previously as workers travel ever-increasing distances to access employment. The increased VMT leads to congestion along freeways such as I-75 and major arterials such as Tara Boulevard (US 41/19) and SR 85 in Clayton County.

7.2.1.3 Means of Transportation to Work

When compared to the surrounding counties in the Atlanta metropolitan area, Clayton County is at the median for workers traveling alone by autos, trucks and vans. Approximately three out of four (3/4) workers age 16 and over drive to work alone compared to over eighty percent (80%) in Fayette and Henry Counties and just over seventy percent (70%) in Fulton and DeKalb Counties. This reflects the more suburban nature of Fayette and Henry Counties and the more urban nature of DeKalb and Fulton Counties when compared to Clayton County.

Table 7.8 shows the Clayton County and City of Riverdale work commute travel modes in 2000 respectively. The City of Riverdale had a high percentage of residents who traveled by vehicle to work with over ninety four percent (94.2%) of Riverdale residents over age 16 using automobile, truck, or van to get to work. However, it should be noted that a similar percentage (18.6% versus 18.2%) of Riverdale residents traveled in carpools to work when compared to Clayton County overall.

Thus, there is an opportunity for greater transit use. In fact, the Macon-Atlanta commuter rail service with three stops in Clayton County was selected by the State of Georgia in June 2001. The Federal Transit Administration (FTA) issued a Finding of No Significant Impact (FONSI) clearing the way for partial funding in the 2003-2005 Atlanta Regional Commission (ARC) Transportation Improvement Plan.

Table 7.8 Means of Transportation to Work, For Workers 16 Years and Over in Riverdale and Clayton County, 2000

MEANS OF TRANSPORTATION AND CARPOOLING	City of Riverdale	%	Clayton County	%
Workers 16 and over	5,588		112,580	
Car, truck, or van	5,265	94.2%	106,472	94.6%
Drove alone	4,225	75.6%	85,944	76.3%
Carpooled	1,040	18.6%	20,528	18.2%
In 2-person carpool	741	13.3%	14,421	12.8%
In 3-person carpool	215	3.8%	3,265	2.9%
In 4-person carpool	47	0.8%	1,460	1.3%
In 5- or 6-person carpool	32	0.6%	1,103	1.0%
In 7-or-more-person carpool	5	0.1%	279	0.2%
Public transportation	51	0.9%	1,683	1.5%
Bus or trolley bus	8	0.1%	799	0.7%
Streetcar or trolley	0	0.0%	0	0.0%
Subway or elevated	8	0.1%	587	0.5%
Railroad	0	0.0%	77	0.1%
Ferryboat	0	0.0%	19	0.0%
Taxicab	35	0.6%	201	0.2%
Motorcycle	0	0.0%	148	0.1%
Bicycle	0	0.0%	118	0.1%
Walked	103	1.8%	1,586	1.4%
Other means	74	1.3%	858	0.8%
Worked at home	95	1.7%	1,715	1.5%

Source: U.S. Census Bureau, Census 2000 Summary File 3, Matrices P30, and P35

7.2.1.4 Travel Time to Work

Travel time to work is a function of distance traveled and levels of congestion. A worker may have to travel only a short distance, but if in congested conditions, travel time can still be higher than average. The average commute time was generally about thirty (30) minutes in the year 2000 in metropolitan Atlanta. Tables 7.8 and 7.9 illustrate three distinct groups in travel time to work within the City of Riverdale. The first group, between ten (10) and twenty four (24) minutes constitute over forty four percent (44.2%) of total trips. The second group falls between twenty five (25) and thirty nine (39) minutes, which constitutes over twenty nine percent (29.3%) of total trips, and the third group, workers traveling between forty-five (45) and eighty nine (89) minutes

constitute almost fifteen percent (15%) of total trips. Riverdale's close proximity to downtown and midtown Atlanta is consistent with the significant percentage of moderate travel times between ten (10) and thirty-four (34) minutes. The higher travel times are most likely associated with workers accessing more remote employment centers such as the Perimeter area and Buckhead, where most routes, such as I-285 are heavily congested during large portions of the day.

Table 7.9 Travel Time to Work, Workers 16 Years and Over in Riverdale, 2000

TRAVEL TIME TO WORK	WORKERS	%
Total:	5,588	100.0
Did not work at home:	5,493	98.3
Less than 5 minutes	88	1.6
5 to 9 minutes	152	2.7
10 to 14 minutes	582	10.4
15 to 19 minutes	1,008	18.0
20 to 24 minutes	885	15.8
25 to 29 minutes	343	6.1
30 to 34 minutes	1,026	18.4
35 to 39 minutes	269	4.8
40 to 44 minutes	215	3.8
45 to 59 minutes	491	8.8
60 to 89 minutes	338	6.0
90 or more minutes	96	1.7
Worked at home	95	1.7

Source: U.S. Census Bureau, Census 2000 Summary File 3, Matrix P31

Table 7.10 Time Leaving Home to Go to Work, Workers 16 Years and Over in Riverdale, 2000

TIME LEAVING HOME TO GO TO WORK, RIVERDALE, GA	WORKERS	%
Total:	5,588	100.0
Did not work at home:	5,493	98.3
12:00 a.m. to 4:59 a.m.	208	3.7
5:00 a.m. to 5:29 a.m.	297	5.3
5:30 a.m. to 5:59 a.m.	303	5.4
6:00 a.m. to 6:29 a.m.	605	10.8
6:30 a.m. to 6:59 a.m.	673	12.0
7:00 a.m. to 7:29 a.m.	784	14.0
7:30 a.m. to 7:59 a.m.	526	9.4
8:00 a.m. to 8:29 a.m.	502	9.0
8:30 a.m. to 8:59 a.m.	185	3.3
9:00 a.m. to 9:59 a.m.	173	3.1
10:00 a.m. to 10:59 a.m.	160	2.9
11:00 a.m. to 11:59 a.m.	70	1.3
12:00 p.m. to 3:59 p.m.	484	8.7
4:00 p.m. to 11:59 p.m.	523	9.4
Worked at home	95	1.7

Source: U.S. Census Bureau, Census 2000 Summary File 3, Matrix P34

The City of Riverdale has relatively short travel times to work with close to half of the workers over 16 years of age traveling less than twenty nine (29) minutes to work on an average day. The shorter travel times are consistent with Riverdale being located approximately thirteen (13) miles from downtown Atlanta. As shown in Table 7.9, most Riverdale workers 16 and over leave home to go to work between 6:00 AM and 8:30 AM with a peak period from 6:30 AM to &:30 AM.

7.2.2 Existing Model Network Roadway Levels of Service

A key element of the roadway design process is the provision of acceptable traffic operations and sufficient capacity for flexible operations. The key performance measures to assess design options consist of traffic LOS, intersection delay, and the intersection volume to capacity ratio. Delay is expressed in seconds per vehicle and provides a measure of driver frustration that could lead to unsafe gap acceptance behaviors, and traffic violations such as red light running. The LOS is a qualitative rating of intersection performance that is related to the average total delay per vehicle.

The roadway system LOS analysis was conducted using the methodology developed by the Florida Department of Transportation and accepted by the Georgia Regional Transportation Authority (GRTA). The Florida DOT methodology factors in the intersection performance measures mentioned above to determine link volume thresholds that correspond with a particular LOS. The volume thresholds are segregated by functional class, area type, and number of lanes for a particular facility.

Traffic Volume, Capacity, and Level of Service (LOS) are all interrelated. Capacity is the quantity of traffic that can be moved past a location in an interval; and the LOS is a measure of traffic service being provided by the traveling public. Thus, Capacity is the maximum number of vehicles that can be carried at a given LOS during a given time period on a particular roadway

under a specified set of environmental and traffic demand conditions. Capacity is the maximum rate of traffic flow and the Volume is the actual rate of traffic flow. The LOS is also used to describe operations where the actual volumes are below the maximum.

Table 7.11 Level of Service Criteria for Roadway Segments[(1)]

Level of Service	Interpretation	Nominal Range to Volume-to-Capacity Ratio
A	Low volumes; primarily free-flow operations. Density is low, and vehicles can freely maneuver within the traffic stream. Drivers can maintain their desired speeds with little or no delay.	0.00 - 0.60
B	Stable flow with potential for some restriction of operating speeds due to traffic conditions. Maneuvering is only slightly restricted. The stopped delays are not bothersome, and drives are not subject to appreciable tension.	0.61 - 0.70
C	Stable operations; however, the ability to maneuver is more restricted by the increase in traffic volumes. Relatively satisfactory operating speeds prevail, but adverse signal coordination or longer queues cause delays.	0.71 - 0.80
D	Approaching unstable traffic flow, where small increases in volume could cause substantial delays. Most drivers are restricted in their ability to maneuver and in their selection of travel speeds. Comfort and convenience are low but tolerable.	0.81 - 0.90
E	Operations characterized by significant approach delays and average travel speeds of one-half to one-third the free-flow speed. Flow is unstable and potential for stoppages of brief duration. High signal density, extensive queuing, or progression/timing are the typical causes of the delays.	0.91 - 1.00
F	Forced-flow operations with high approach delays at critical signalized intersections. Speeds are reduced substantially, and stoppages may occur for short or long periods of time because of downstream congestion.	1.010+

[(1)] Source: *Highway Capacity Manual*, Transportation Research Board Number 212, January 1990.

The ARC travel demand model was utilized in the highway systems analysis for existing and future year conditions. Prior to the analysis, the Average Daily Traffic (ADT) in the travel demand model was compared to the ADT at Georgia Department of Transportation (GDOT) count stations and the Clayton County traffic volume map for validation purposes.

Volumes were compared on the five major functional classes summarized previously in the Transportation Inventory: Interstate Principal Arterial, Principal Arterial, Minor Arterial, Major Collector, and Minor Collector. Where ARC volumes were significantly lower than the collected volumes, the highest volume between the Clayton County map and the GDOT count station was used in the analysis. In cases where there was only one GDOT count station or Clayton County volume available within a series of roadway links in the travel demand model, the adjacent links represented in the ARC model were adjusted upward accordingly until a point was reached along the roadway corridor where the ARC forecast volume was within the acceptable range of the GDOT and/or Clayton County count. In areas where there were no existing count data available, the ARC volume was used.

While absolute criteria for assessing the validity of all model systems cannot be precisely defined, a number of target values have been developed. These commonly-used values provide excellent guidance for evaluating the relative performance of a particular travel demand model when compared to actual traffic count data. Observed versus estimated volumes should be checked by facility type and geographic area. As per the US Department of Transportation Model Validation and Reasonableness Checking Manual, the Federal Highway Administration (FHWA) and Michigan Department of Transportation define targets for daily volumes by facility type as shown in Table 7.11 below.

Table 7.12 Percent Difference Targets for Daily Traffic Volumes by Facility Type

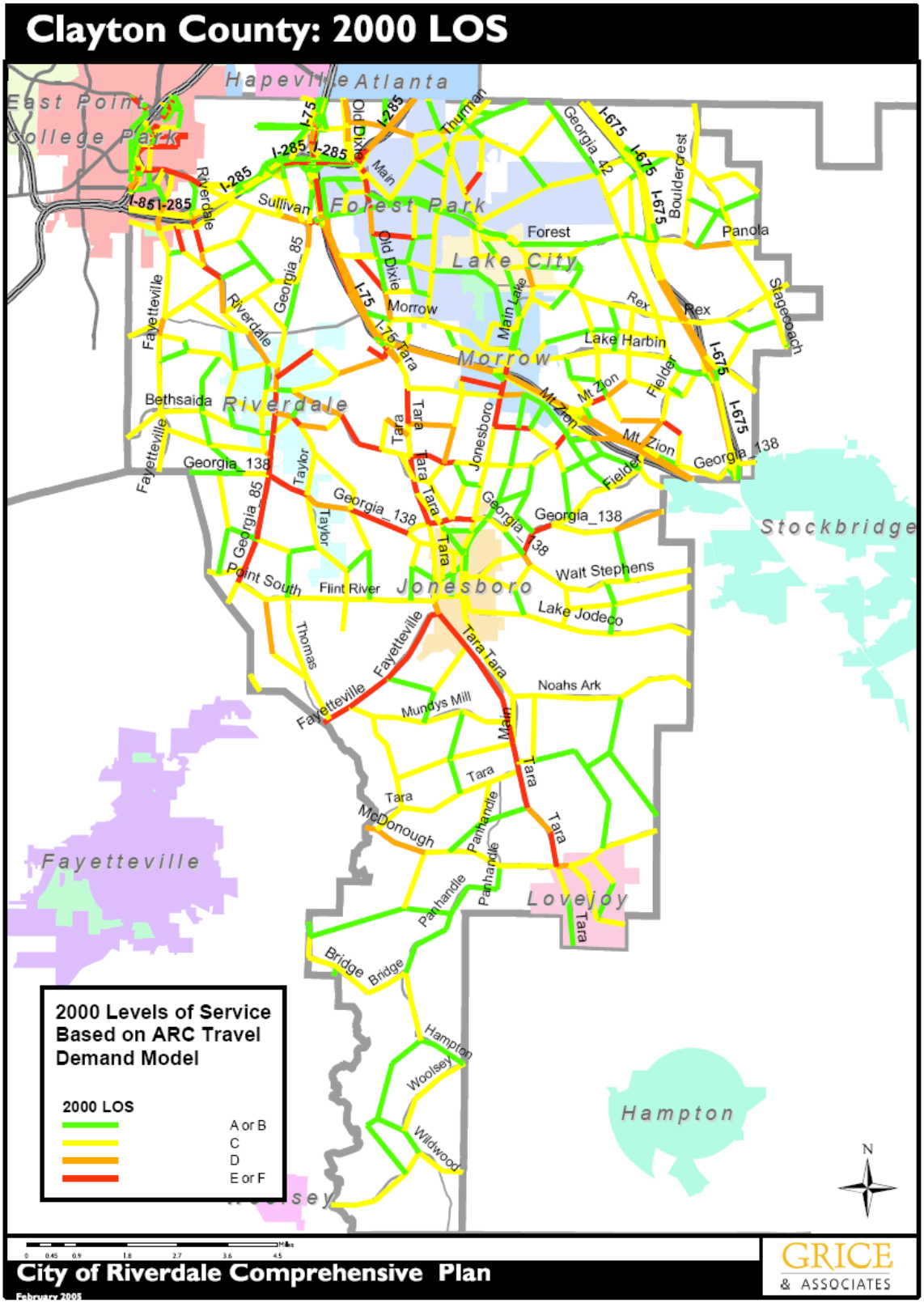
Facility Type	FHWA Targets	MDOT Targets
Freeway	+/- 7%	+/- 6%
Major Arterial	10%	7%
Minor Arterial	15%	10%
Collector	25%	20%

Sources: FHWA Calibration and Adjustment of System Planning Models, 1990;
Michigan Department of Transportation (MDOT),
Urban Model Calibration Targets, June 10, 1993

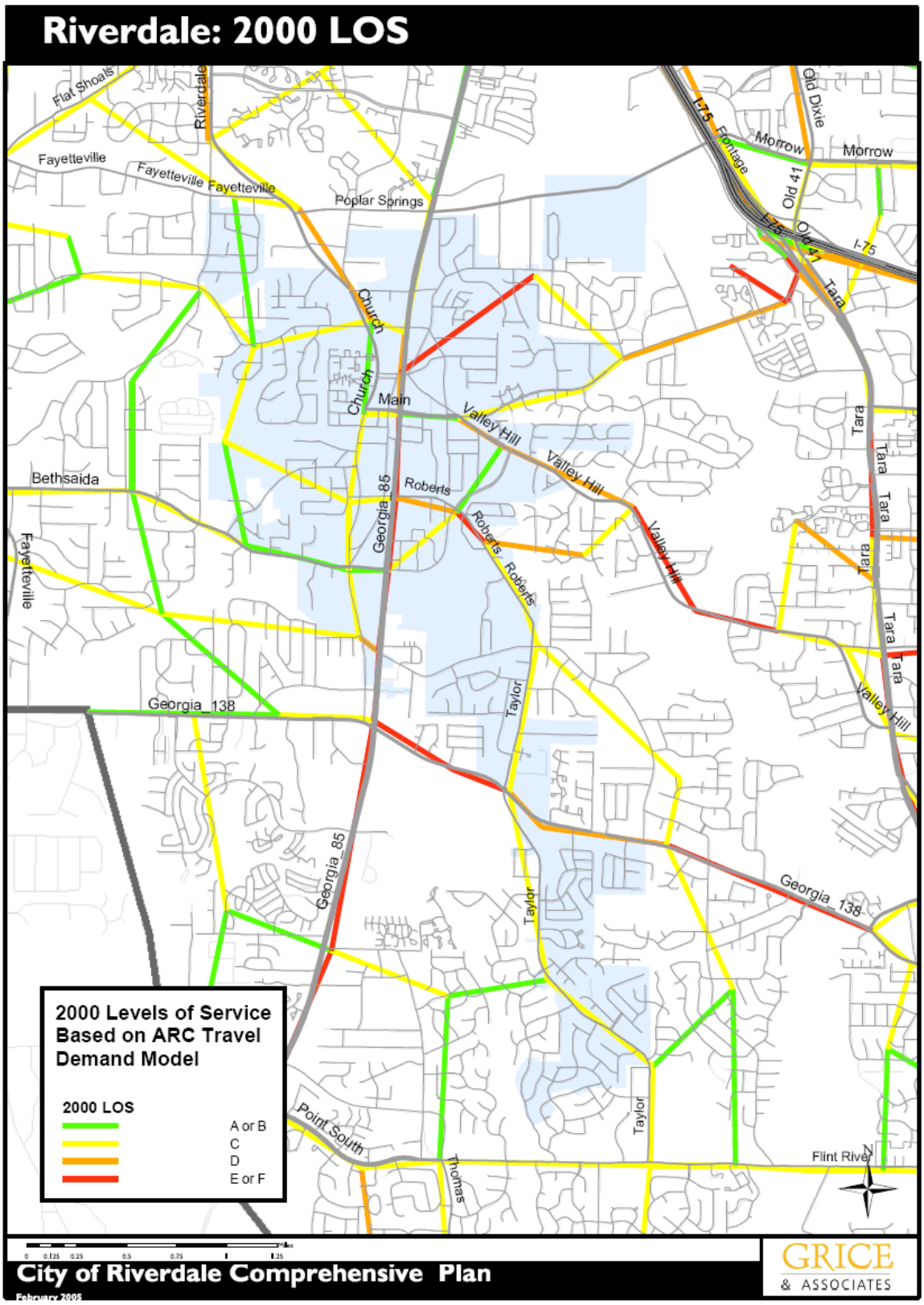
A the federally adopted standard for travel demand model validation.guidelines, these guidelines were used for this study

The existing transportation system Levels of Service (LOS) for Clayton County and Riverdale, based upon existing design and operating capacities, are illustrated in Maps 7.10 and 7.11 for Clayton County and City of Riverdale respectively..

Map 7.8 Clayton County 2000 Roadway Level of Service



Map 7.9 Riverdale 2000 Roadway Levels of Service



As expected, most of the roadways within the City are operating at LOS C or better. However sections of Georgia 85, Riverdale Road, Valley Hill Road, Roberts Drive and Denham Street operate with LOS D or below. Georgia 85 south of Main Street Operates at LOS E and F. This can be attributed to heavy traffic volumes and the large number of driveways and curb cuts with and without traffic signals that interrupt traffic flow on these major arterials. Interstate 75 near I-285 also experiences failing Level of Service, which can be attributed to heavy travel demand and the interchange with I-285 currently operating over capacity, which leads to acute congestion during the AM and PM peak hours at this location. Additionally there are short segments of West Fayetteville Road just south of Flat Shoals Road and just north of I-285, I-285 just west of I-75, Riverdale Road near I-285, I-85 just north of I-285, and Valley Hill Road west of Tara Boulevard that also experience an LOS below the accepted standard of D.

As the Metropolitan Atlanta area is currently in on-attainment status for air quality, the federal government will fund only those projects that eliminate safety, congestion and bottleneck issues and will not fund roadway expansion projects on freeways and major arterials that could potentially increase traffic volumes. However, as mentioned in the Level of Service Standards section of the report, a comprehensive access management plan can improve roadway capacity by as much as forty percent (40%) according to the 1985 *Highway Capacity Manual,* by the Florida Department of Transportation. Applying access management strategies to major arterials such as SR 85 can be a lower cost alternative that could garner federal funding support versus the addition of lanes.

Most of the minor roadways that were analyzed within the City of Riverdale are currently experience acceptable Levels of Service. However, majority of SR 85, sections of SR 138 east of SR 85, Valley Hill Road, Roberts Drive east of SR 85, Riverdale Road west of SR 85, and Cargile Road in north Riverdale City, are operating at LOS D are below.

7.2.3 Future Model Network Roadway Levels of Service

Several steps were undertaken to validate the volumes and geometries in the future year ARC travel demand model. The link geometry was reviewed to ensure that all TIP projects had been incorporated into the future year model. Additionally, the future year model was reviewed to verify if widening projects listed in the Clayton County SPLOST program had been incorporated into the roadway geometries in the model. In situations where roadway improvements were not coded into the model and these improvements were deemed significant in terms of traffic diversion, a screen-lining methodology based on the National Cooperative Highway Research Program (NCHRP) 255 Report entitled *Highway Traffic Data for Urbanized Area Project Planning and Design* was implemented to redistribute the volumes to new and/or improved roadway segments prior to analysis.

A similar review of the ARC travel demand model was conducted on the land use elements to verify that the proposed Land Use plan, including major employment centers and updated land uses proposed in the Land Use and Economic Development sections of this comprehensive plan update were reflected in the travel demand model. Where discrepancies were discovered, a manual adjustment to forecast volumes was conducted in those areas to more accurately reflect the projected volumes based on the land use in the area.

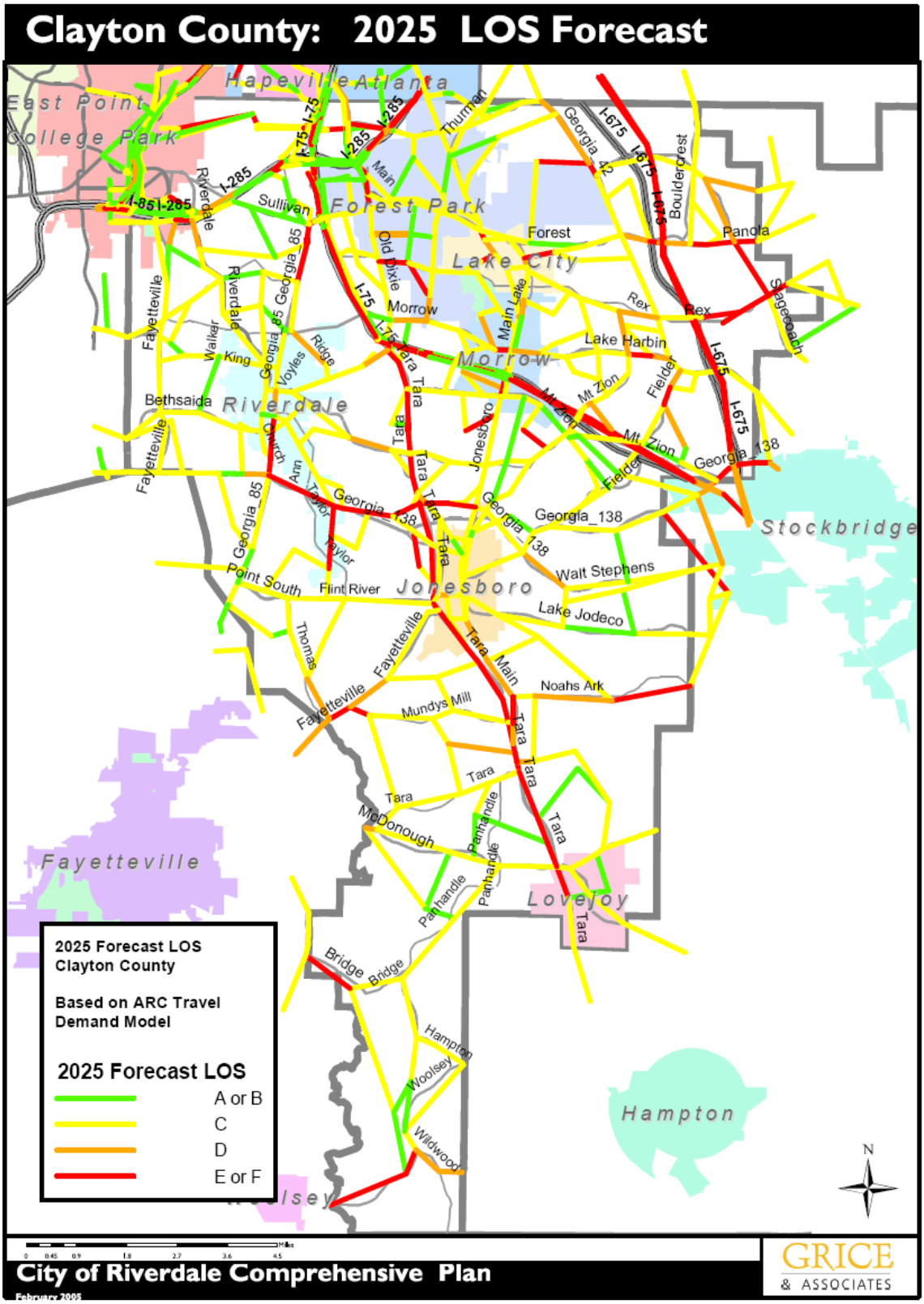
Additionally, GDOT historical trends were evaluated on major principal arterials, such as Tara Boulevard and I-75 to compare to the model forecast results. In situations where the historical

trends were much greater than the model forecasts (without exceeding the capacity of the future roadway segments), the historical forecast volume was used instead of the travel demand model forecast volume.

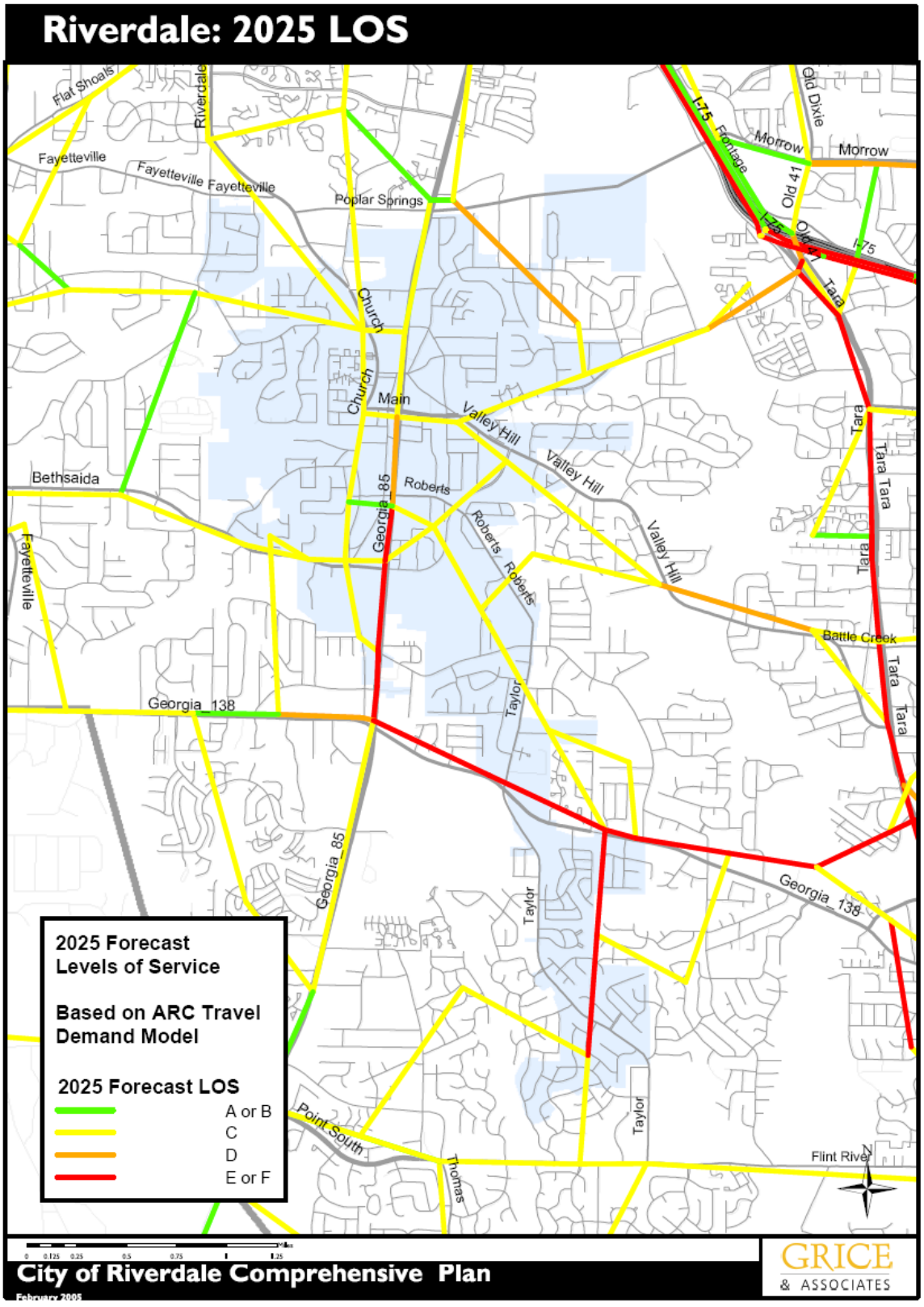
At locations where the volumes in the existing condition travel demand model had been replaced by existing counts, the future year ARC model was used to calculate the appropriate growth factor to apply to the existing counts in lieu of using the forecast volume in the ARC model.

Maps 7.12 and 7.13 indicate the forecast 2025 levels of service for Clayton County and Riverdale, based on the ARC's 2025 travel demand model.

Map 7.10 Clayton County 2025 Forecasted Roadway Levels of Service



Map 7.11 Riverdale 2025 Forecasted Roadway Levels of Service



Based on the ARC 2025 travel demand model, most of the roadways within the City of Riverdale continue to operate at LOS C or better. However sections of Georgia 85 South of Main Street operate with LOS D or below. This can be attributed to increase in traffic volumes on these major arterials under future condition.

7.2.4 Interaction Between Land Use and Transportation

Land-uses in the City of Riverdale tend to be single-use and segregated, meaning that different activities, such as work, shopping, and recreation are usually isolated from residences, increasing the need for vehicle trips for those who live and work in the city. Similarly, housing is not often located within or in convenient walking distance to employment centers, thus requiring vehicle use when public transit is not available A more diverse and progressive pattern of mixed land-uses would have the effect of reducing vehicle trips and, by extension, reducing congestion while Improving safety and air-quality.

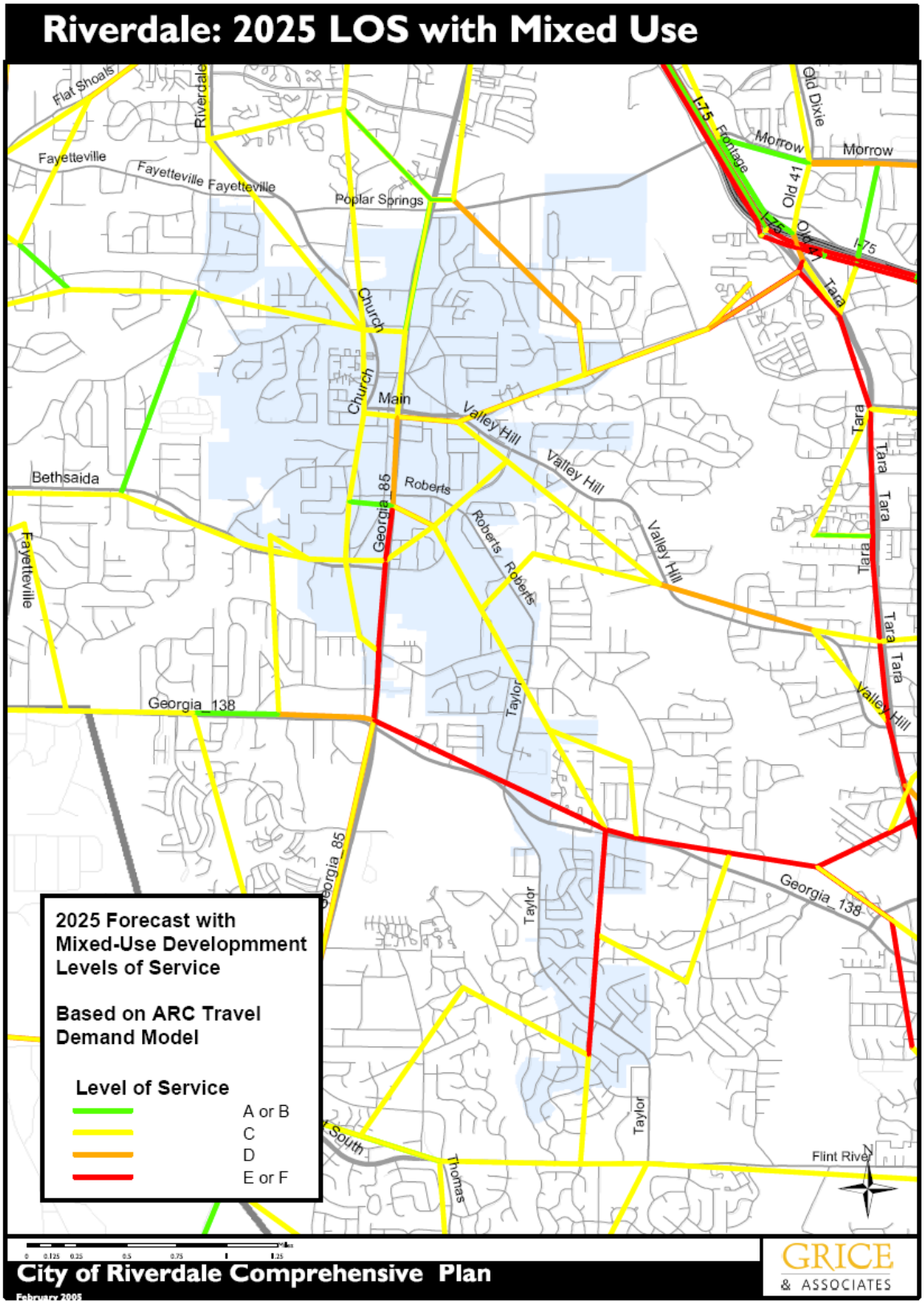
7.2.4.1 Proposed Land Use Actions

The Clayton County Comprehensive Plan update adopted in 2005 includes proposed land use actions to increase mixed use developments. Developments that combine a mix of land uses promote the wider objectives of reducing the need to travel and reliance on the car. Mixed-use developments include closely integrated or closely linked residential uses with other uses such as a mix of housing, employment and community activities in order to encourage travel by walking and cycling between them. All developments must be fully accessible to public transport, cyclists, pedestrians and the car. On larger mixed-use developments, non-residential uses could generate significant numbers of vehicular traffic. Thus, high concentrations of vehicular traffic need to be located within clearly identified areas. It is necessary to consider the individual roads and transport requirements for each use. To improve service along these routes, the long-term promotion of public transit, bicycle, and pedestrian facilities is required.

Proposed areas of increased mixed-use development in the Riverdale area include areas adjacent to Southern Regional Medical Center and Upper Riverdale Road.

Map 7.14 illustrates the forecasted roadway level of service (LOS) ratings with the addition of mixed use development as proposed in the Clayton County Comprehensive Plan.

Map 7.12 Riverdale: Forecasted LOS With Projected Mixed-Use Development



7.2.4.2 Livable Centers Initiative Program

The Atlanta Regional Commission began the Livable Centers Initiative program in 1999 to promote and fund the planning and implementation of efforts that encourage increased residential development, mixed-uses and connectivity in activity and town centers while recognizing the relationship between land use patterns/densities and travel behavior. In Clayton County, recently conducted LCI studies have addressed land use and transportation issues similar to those faced by Riverdale.

7.2.5 Assessment of Safety Needs

7.2.5.1 Vehicular Crashes

The crash rate of a corridor has implications beyond roadway safety. A corridor's crash rate can also be indicative of roadway design and operational problems, access management problems, or congestion issues. Crash records compiled by GDOT from the most recent four years, 2000 through 2003, were compiled and mapped. Crashes within each corridor were than aggregated and a the total number of crashes within each ¼ mile segment of all corridors was compared against estimated daily traffic volume counts for the segment as determined by GDOT, to produce the segment's rate of crashes-per-million vehicle miles traveled . A threshold was developed based on the distribution of the data to facilitate the interpretation of the crash data. Road segments were divided into the following crash rate classes based on the number of crashes-per-million VMT:

- More than 30 Crashes/Million VMT: SEVERE
- 10-30 Crashes/Million VMT: VERY HIGH
- 5-10 Crashes/Million VMT: HIGH
- Fewer than 5 Crashes/Million VMT: MODERATE to LOW

A road segment with a crash-rate ranking of Very High or Severe warrants further study to determine strategies to decrease the crash rate and improve safety. Riverdale's crash-rate ratings are illustrated in Map 7.15.

Within the City of Riverdale, the following road segments received crash rate rankings of severe (over 30 crashes per VMT):

- Evans Rd. from Bethsaida Rd. to Cottonwood Trl.
- Church St from Main St. to SR 85
- Lamar Hutcheson Pkwy from ST 85 to Roberts Dr.
- Roberts Dr. from Lamar Hutcheson Pkwy. to SR 138
- SR 85 from Adams Dr. to Main St.
- Roy Huie Rd. from Havenridge Dr.to Upper Riverdale Rd.
- SR 138 near Roberts Dr./Taylor Rd.

DOT crash data was also analyzed to determine the volumes of crashes for specific locations in Riverdale. This data is illustrated in Map 7.16. Although the crash rate is adjusted to account for variations of traffic volumes, the crash volumes data is not adjusted. Thus crash volumes show a close correlation with aggregate traffic volumes. However, this data is useful for determining which intersections pose the greatest safety hazards.

Locations with a severe volume of vehicular crashes in Riverdale (over 30 per year) included:

- SR 85 at Main St.
  Adams Dr.
  Rountree Rd.
  SR 138

Locations with a high volume of vehicular crashes in Riverdale (10-30 per year) included:

- SR 85 at: King Rd.
  Howard St.
  South of Upper Riverdale Rd.
  Springdale Dr.
  Roberts Dr
  Lamar Hutcheson Pkwy/Bethsaida Rd.
  Scott Rd.
- Church St at Powers St.
  South of King Rd
- Main St. at Church St.
- Upper Riverdale Rd at Camp St.
  Valley hill Rd.
  Roy Huie Dr.

Several locations with severe crash volumes (over 30 per year) fall just outside of Riverdale's City limits but are worth noting.

- SR 138 near Georgia Power facility
- SR 138 at Kendrick St

- Riverdale Rd at Walker Rd
- SR 85 at Garden Walk

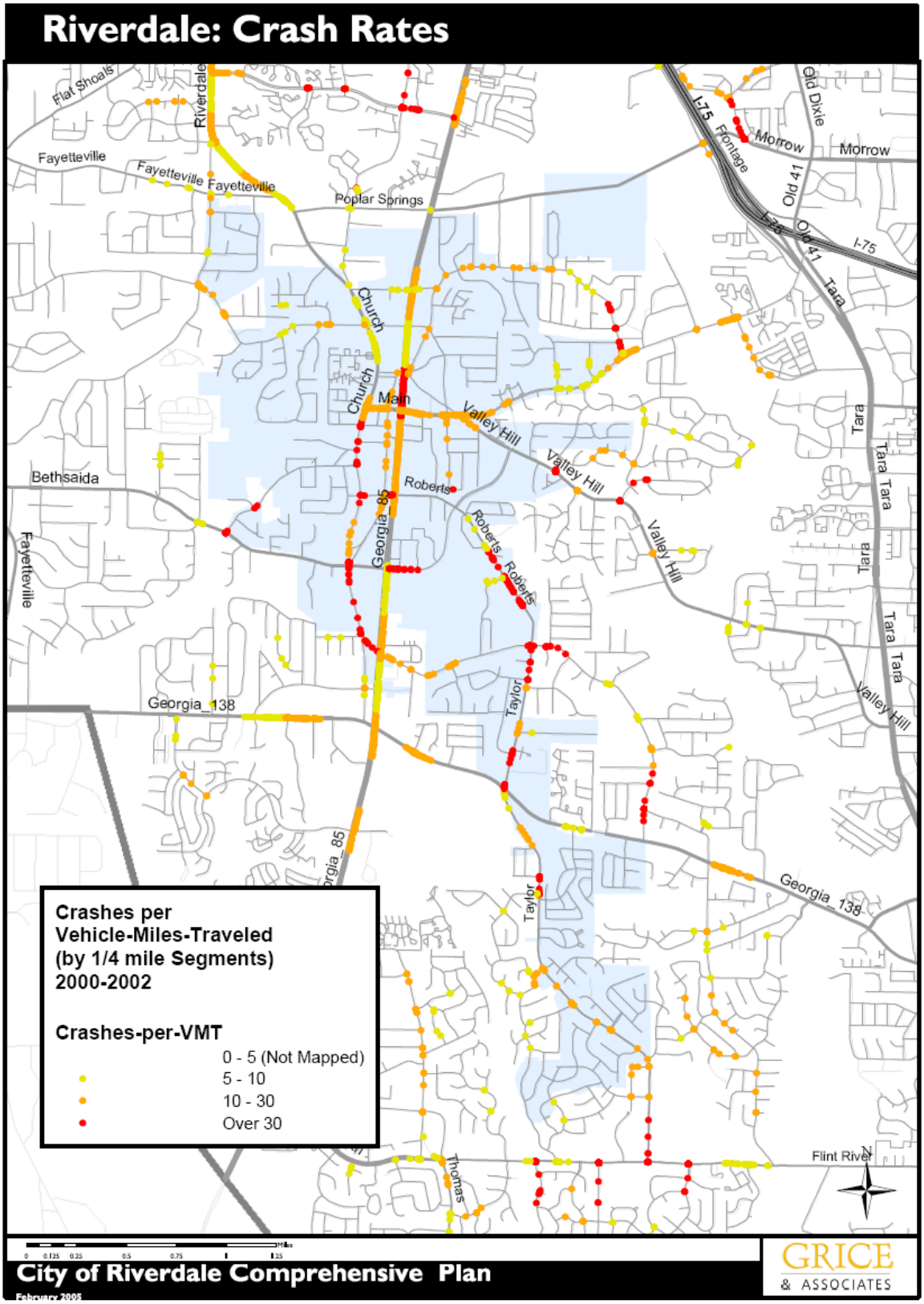
7.2.5.2 Pedestrian Crashes

GDOT Crash data was also analyzed to determine locations of vehicular crashes involving pedestrians. The results of this analysis are illustrated in Map 7.17.

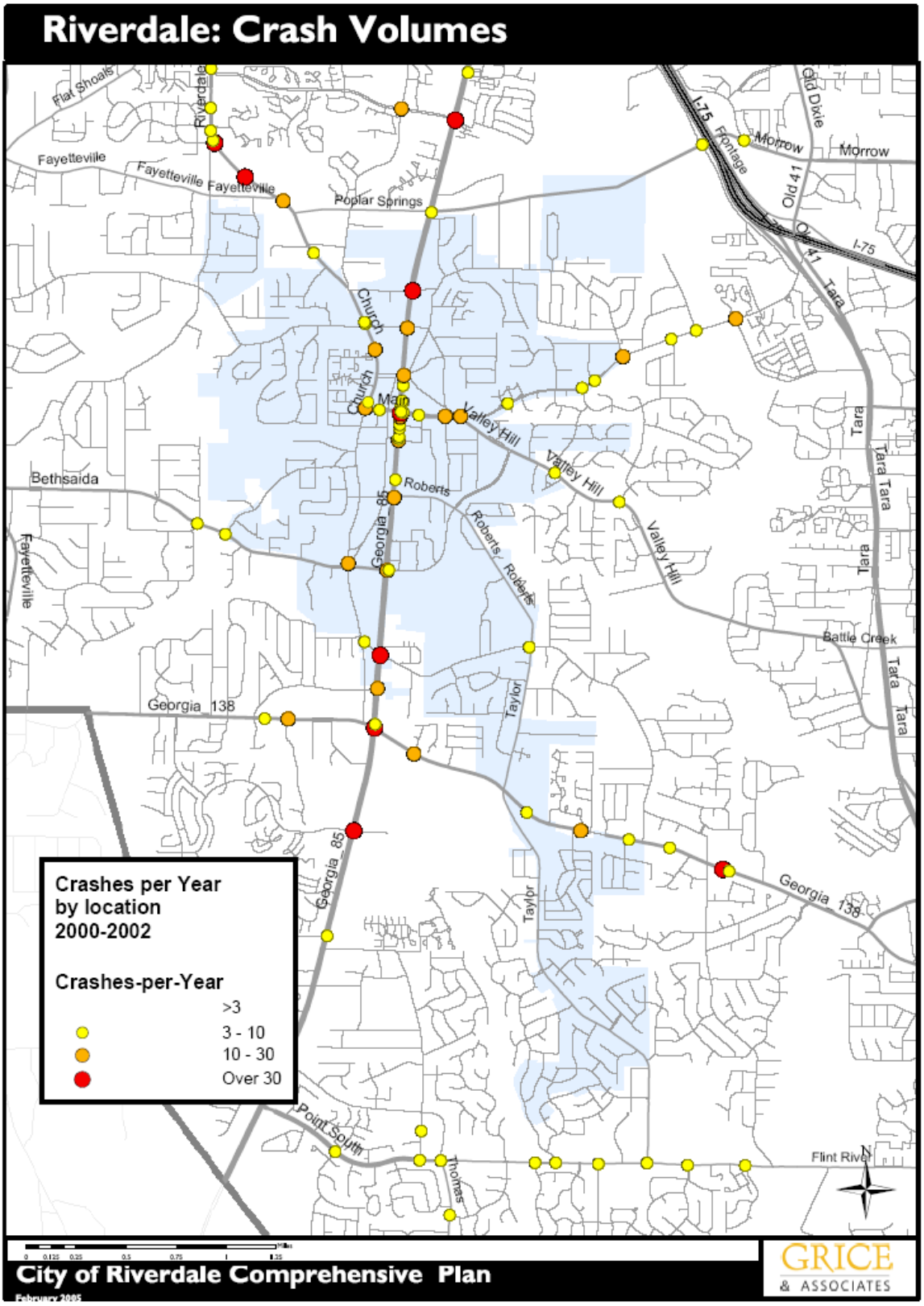
7.2.5.3 Public Safety & Evacuations

Since Clayton County is not a coastal region, there is a low probability of flooding and hurricane risk. Nevertheless, Riverdale is well served by Interstates I-75, I-675 and I-285 which can be used in the event of the need for evacuation.

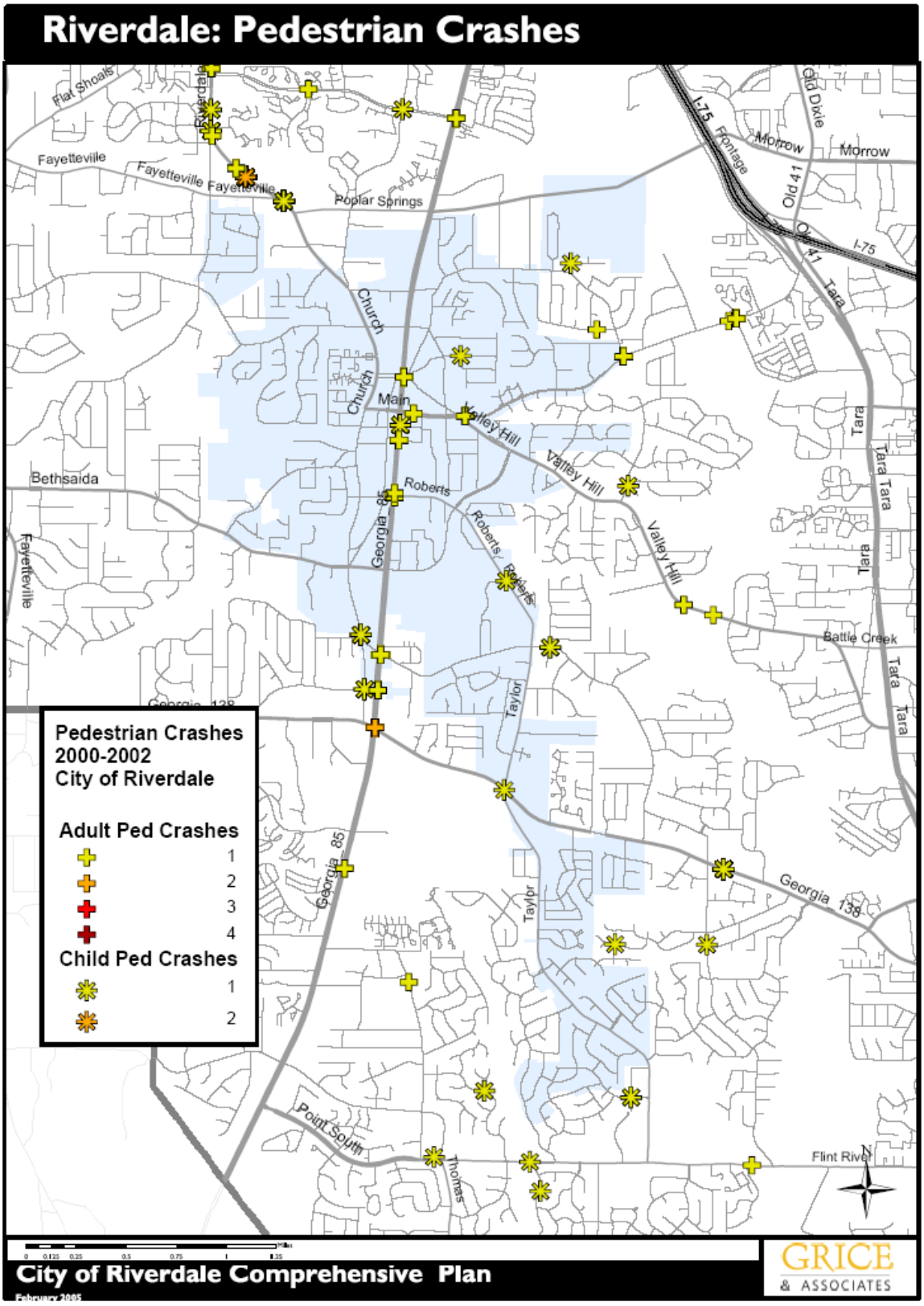
Map 7.13 Riverdale Crash Rates



Map 7.14 Riverdale Crash Volumes



Map 7.15 Riverdale Pedestrian Crashes



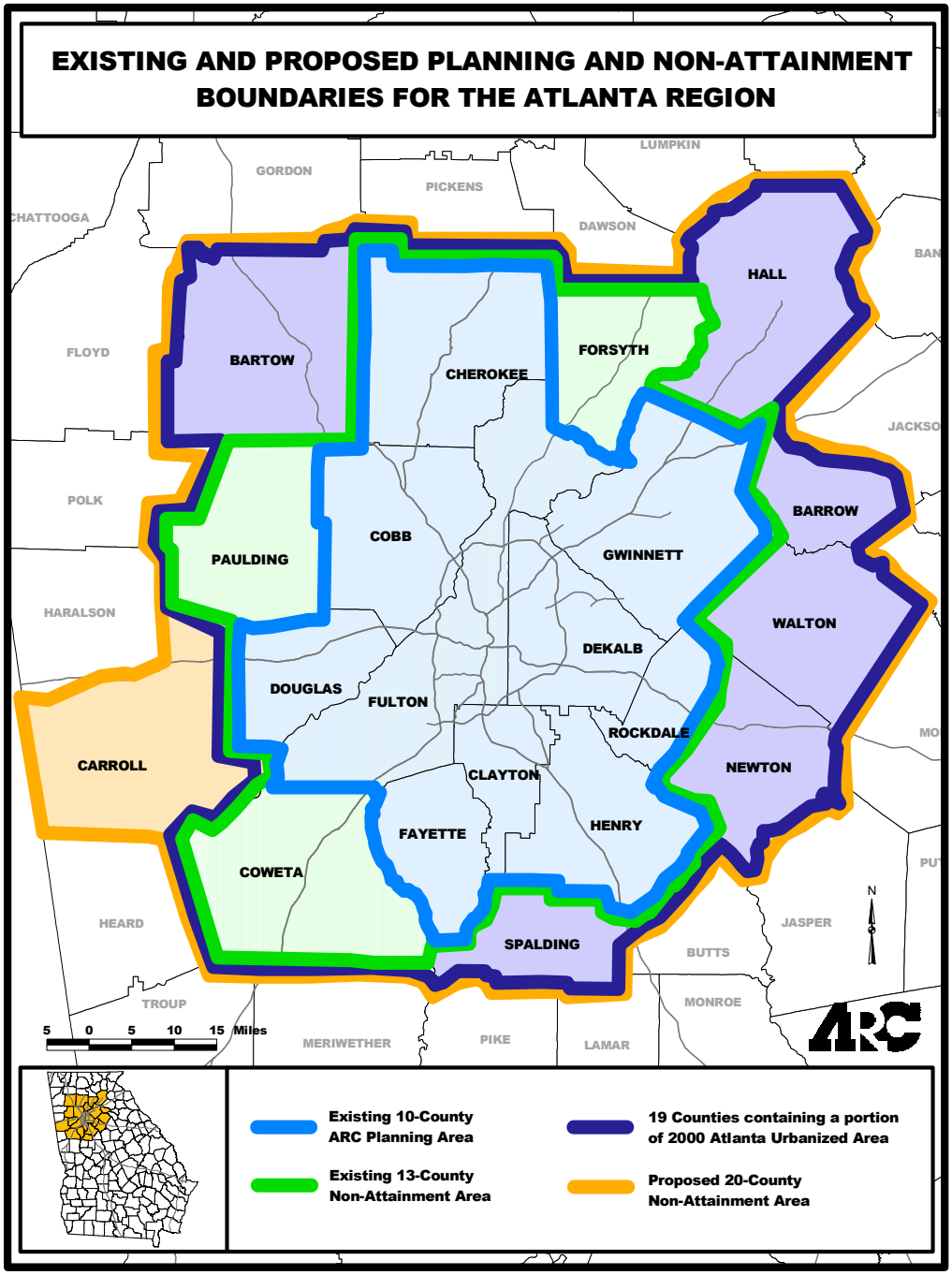
7.2.6 Air Quality

7.2.6.1 Transportation Requirements for Non-Attainment Areas

This section provides a discussion of the severity of any violations contributed by transportation-related sources that are contributing to air quality non-attainment; and identification of measures, activities, programs, and regulations that the City of Atlanta will implement consistent with the Statewide Implementation Program (SIP) for air quality through the Atlanta comprehensive plan implementation program, as per the Intergovernmental Coordination Element of the DCA Rules. See Figure 12.

For air-quality modeling purposes, three (3) additional counties are included in ARC's planning efforts, Coweta, Paulding, and Forsyth Counties. All of Clayton County is within the nationally designated ambient air quality standards non-attainment area of metropolitan Atlanta. Therefore, compliance of Clayton County's transportation element with the Federal Clean Air Act is required. Severity of violations are discussed and addressed on a regional basis in the state implementation plan for air quality attainment. The 13 counties previously classified as a serious non-attainment area have been downgraded to severe non-attainment status as of January 2004. Measures that the county and cities will implement to comply with the state implementation plan include encouraging transportation demand management, provision of an extensive sidewalk system, and certain efforts to promote public transit. Clayton County has recently undertaken significant steps in transportation demand management by implementing a regional bus transit system with the assistance of GRTA, and by passing a Special Purpose Local Option Sales Tax (SPLOST); the proceeds of which will help fund the installation of ninety-six (96) miles of sidewalks on forty-seven (47) miles of roads in Clayton County.

Map 7.16 Nonattainment Areas, Atlanta Metro Region



7.2.6.2 Alternative Transportation Strategies for Air Quality Improvement

Actions to bring into compliance any public transit facilities or services that are below an established LOS and/or other transportation performance measures include:

7.2.6.3 Development Regulations

Newly proposed land development regulations and incentives to ensure that new development does not cause the community's adopted LOS for an individual transportation facility to decline below the established transportation performance measures; to insure that transportation capital improvements or other strategies needed to accommodate the impacts of development are made concurrent with the development; and to protect or enhance transportation facilities, corridors, and sites to ensure that they can fulfill their identified functions include:

- All future development proposals are recommended to conduct comprehensive traffic studies to determine if the proposed development would cause any adjacent intersections to fall below the newly adopted Level of Service thresholds.

- Where proposed developments would cause any adjacent intersections to operate at LOS E or F, it is recommended that the city ensures that the developer take all necessary steps, including but not limited to paying for necessary roadway improvements, prior to approving the development plan.

7.2.6.4 Promotion of Bicycle & Pedestrian Usage

- Access control guidelines are recommended to be developed for each functional class of roadway in Riverdale to ensure that each roadway within the city fulfills its functional use in the future.

- Principal arterials are recommended to have access control guidelines that would consolidate access into multiple businesses as well as the consolidation of pedestrian crossings and the associated transit stops to maintain the principal arterial's function of providing mobility throughout Riverdale.

- Local collectors could have more liberal access and multiple pedestrian crossings including raised pedestrian crossings to calm traffic in residential areas.

- Bicycle lanes could also be implemented in conjunction with new construction of these types of roadway classes to provide for safer, multi-modal corridors where practical throughout the city.

7.2.6.5 Alternative Roadway LOS Improvements:

- Employer sponsored flex-time schedules

- Employer sponsored telecommuting programs

- Transit Subsidies with tax incentives for employers and employees

- Modifications to land use, for example, mixed use developments

- Local Shuttle Services

7.2.7 Public Input

Between January 11 and January 20, 2005, The Riverdale Comprehensive Plan Consultant team conducted four public meetings in the city of Riverdale to solicit public input. The meetings followed the following format:

Introduction:

- Description of Comprehensive Planning Process
- Written Survey
- Visual Preference Survey
- General question & answer and comments
- Breakout table question & answer and comments

Below is a summary of the comments and suggestions pertaining to transportation issues offered by participants in these meetings. Comments that are relevant to more than one category are repeated in each of those categories.

7.2.8 Comments

7.2.8.1 Comments Pertaining To Roadways:

- SR 85 is too congested.
- Improve streetscape, character of SR 85: more pedestrian friendly, less car-dependent
- Taylor Rd between Rountree (Riverdale HS) and SR 138 needs pedestrian and roadway safety improvements due to presence of children and high concentration of Day-Care facilities in area.
- Intersection of SR 138 and Taylor is dangerous, especially for pedestrians, due to geometry, sight lines, proximity to Schools and convenience stores.
- SR 138 is dangerous for cars exiting subdivisions at Bridlewood and Abington.
- Use Meridien MS, as model for Downtown street configuration: specifically paired 1-way connectors.
- Consider making Church St. 1-way, southbound & Powers St. 1-way northbound.
- Improve capacity of Church St. South of Main St.
- Acquire wide ROW on both sides of SR185 to build linear park/bike/pedestrian network

- Consider traffic impacts of residential development outside city boundary on east side of City. Specifically near Taylor Rd and SR 138

7.2.8.2 Comments Pertaining to Intersections:

- Intersection of Roberts and Church is dangerous, needs pedestrian improvements.
- Rear exit of Publix (SR 85 & SR 138) is difficult for cars trying to turn left onto SR 138 EB. Consider traffic signal.
- Intersection of SR 138 and Taylor is dangerous, especially for pedestrians, due to geometry, sight lines, proximity to Schools and convenience stores.
- Intersection configuration at SR 138 and Taylor encourages pedestrians to walk & loiter in median.
- SR 138 is dangerous for cars exiting subdivisions at Bridlewood and Abington.
- SR 138 is dangerous and congested for cars entering and exiting the Atlanta Gas Light facility on the south side of SR 128 between SR 85 and Taylor.
- Intersection is dangerous, awkward, or confusing: Denham & Lassiter & Cargile
- Intersection is dangerous, awkward, or confusing: Camp & Valley Hill & Upper Riverdale Rd
- Intersection is dangerous, awkward, or confusing: SR 138 & Taylor

7.2.8.3 Comments Pertaining To Pedestrian Issues and Facilities:

- Riverdale needs better and more sidewalks (frequently cited)
- Pedestrian conditions on all corridors, especially SR 85, SR 138 Roberts, & Taylor are bad
- SR 85 needs improved pedestrian crossings, specifically pedestrian overpasses.
- Improve streetscape, character of SR 85: more pedestrian friendly, less car-dependent
- Intersection of Roberts and Church is dangerous, needs pedestrian improvements.
- Improve pedestrian facilities adjacent to Schools
- Taylor Rd between Rountree (Riverdale HS) and SR 138 needs pedestrian and roadway safety improvements due to presence of children and high concentration of Day-Care facilities in area.
- Intersection of SR 138 and Taylor is dangerous, especially for pedestrians, due to geometry, sight lines, proximity to Schools and convenience stores.

- Intersection configuration at SR 138 and Taylor encourages pedestrians to walk & loiter in median.

- Provide better pedestrian and bike access to schools and recreation facilities for children.

- Explore undeveloped linear lot East of Cargile St adjacent to King street and consider developing as bike/pedestrian path

- Acquire wide ROW on both sides of SR185 to build linear park/bike/pedestrian network

7.2.8.4 Comments Pertaining To Bicycling Issues and Facilities

- Create City-wide bicycle network

- Provide better pedestrian and bike access to schools and recreation facilities for children.

- Explore undeveloped linear lot East of Cargile St adjacent to King street and consider developing as bike/pedestrian path

- Build Bike paths along Valley Hill/Upper Riverdale.

- Acquire wide ROW on both sides of SR185 to build linear park/bike/pedestrian network

7.2.8.5 Comments Pertaining To Transit Issues and Facilities

- City of Riverdale needs an internal transit shuttle/circulator bus

- C-Tran stops need better signage, standardization, shelters

- C-Tran service needs better publicity, maps, schedules

- C-Tran service needs improved frequency, longer service hours

- C-Tran needs better schedule coordination with MARTA

- C-Tran needs better connection facilities in central Riverdale

- C-Tran needs more direct service to Airport, Jonesboro, Medical Center.

- C-Tran needs wider coverage area.

- Bus shelters should be designed and installed to provide consistent “southern” identity

- Consider amending C-Tran service to accommodate proposed Lovejoy commuter rail.

- Bus shelters already purchased have not been installed

7.2.8.6 Comments Pertaining To Land Use, Design and Other Issues

- Improve streetscape, character of SR 85: more pedestrian friendly, less car-dependent
- Intersection is dangerous, awkward, or confusing: SR 138 & Taylor
- Use street names and transportation facilities to enhance city identity:
- Riverwalk Pkwy should be called Riverdale Pkwy to enhance city identity
- Bus shelters should be modulated to provide consistent "southern" identity
- Use Meridien MS, as model for Downtown street configuration: specifically paired 1-way connectors.
- Maintain small-town, rural flavor of Church St south of Main St.
- Plan for impacts of new development East of SR 85 between Lamar/Hucheson and Rountree.
- Explore undeveloped linear lot East of Cargile St adjacent to King street and consider developing as bike/pedestrian path
- Bring the "River" back to Riverdale: create or improve system of rivers or canals to promote development and city identity
- Acquire wide ROW on both sides of SR185 to build linear park/bike/pedestrian network

7.3 TRANSPORTATION ASSESSMENT AND RECOMMENDATIONS

7.3.1 Programmed Improvements

Below is a current list of projects in and around City of Riverdale.

7.3.1.1 ARC TIP and RTP Projects

The following projects are listed under the Atlanta Regional Commission Transportation Improvement Plan (TIP). These projects are scheduled for the 2005 – 2010 planning period.

ARC Project Number – CL - 235
GDOT Project Number – 731885
SR 85 and SR 138 at Pointe South Parkway to SR 331 (Forest Parkway) and From SR 85 to North Avenue

- Description – This project will comprise of signal improvements on SR 85 and SR 138 from SR 331 and SR 85 to Pointe South Parkway and North Avenue. The improvements would enhance traffic operation and flow in this corridor and improve congestion.
- Service Type – ITS-Other
- Completion Date – 2005
- Corridor Length – 6.62 miles
- Total funding commitment - $1,374,000
- Funding Source – Q23-Surface Transportation Program

ARC Project Number – CL - 243
GDOT Project Number – N/A
Valley Hill Road from Upper Riverdale Road to Battles Creek Road

- Description – Widen Roadway from two through lanes to four through lanes
- Service Type – Roadway Capacity
- Completion Date – 2015
- Corridor Length – 2.36 miles
- Total funding commitment - $9,620,000
- Funding Source – FEDAID – 2011-2030

ARC Project Number – CL - 020
GDOT Project Number – 751810
Flint River Road from Glenwoods Drive to Kendrick Road

- Description – This project will involve widening Flint River Road from 2 to 4 lanes from Glenwoods Drive to Kendrick Road and add center turn lanes. The project

will improve safety and reduce delays in the corridor with heavily populated residential area.

- Service Type – Roadway Capacity
- Completion Date – 2008
- Corridor Length – 1.2 miles
- Total funding commitment - $2,600,000
- Funding Source – GRB – Guaranteed Revenue Bonds

ARC Project Number – CL - 014
GDOT Project Number – 721550
SR 85 from Adams Drive to I-75 south including interchange at Forest Parkway

- Description – Construction of an interchange on SR 85 at Forest Parkway and widening SR 85 from Adams Drive to I-75 South from 4 to 6 lanes.
- Service Type – Roadway Capacity
- Completion Date – 2020
- Corridor Length – 2.68 miles
- Total funding commitment - $14,709,000
- Funding Source – FEDAID – 2011-2030

ARC Project Number – CL - 015
GDOT Project Number – 721290
SR 85 from SR 279 (Old National Highway) in Fayette County to Roberts Drive in City of Riverdale

- Description – This is a Phase I of the SR 85 widening project from SR 279 to Roberts Road from 4 to 6 lanes. The improvements will enhance travel in this corridor, improve traffic flow and relieve congestion along this portion of SR 85.
- Service Type – Roadway Capacity
- Completion Date – 2020
- Corridor Length – 4.11 miles
- Total funding commitment - $7,838,000
- Funding Source – Q24-Surface Transportation Program

7.3.1.2 Clayton County SPLOST Programmed Projects

Projects from the Clayton County SPLOST list that are relevant to the City of Riverdale have been highlighted in this section

SPLOST Project Number – 4
Construction of Flint River Road widening from Kendrick Road to Tara Boulevard

- Description – Construction is under way for the widening of Lee from Kendrick Road to Tara Boulevard. The Flint River Road project is widening the existing two lane roadway to a four lane divided roadway with curb and gutter and sidewalk. This construction project will improve pedestrian access and the overall functionality of the roadway system.

- Completion Date – March 2005

SPLOST Project Number – 6
Traffic and Pedestrian Study at seventeen Clayton County Schools

- Description – This project includes the investigation and study of vehicular and pedestrian access at County schools. This study will generate a priority list of improvements at each School which Clayton County will use for program future SPLOST construction projects. The list of schools includes Riverdale Elementary school on Camp Street in Riverdale.

- Completion Date – December 2004

SPLOST Project Number – 8
Study of stormwater facilities in selected neighborhoods

- Description – The intent of this study is to provide GIS database information and stormwater infrastructure data at various locations in Clayton County. In addition, this study will identify potential problem areas and recommend improvements that can extend the service life of various older storm sewer systems throughout Clayton County. The recommendation report will be used to identify future SPLOST projects. The study includes Kendrick Road and Valley Hill Road.

- Completion Date – June 2005

SPLOST Project Number – 12
The Design of Signal Upgrades at Forty-four Intersections in Clayton County

- Description – This project will provide construction plans and bid documents for the traffic signal design at forty-four intersections which are necessary for the County to let to construction. The list included numerous intersections along SR 85 and SR 138 in City of Riverdale.

- Completion Date – April 2005

7.3.1.3 Clayton County SPLOST Recommended Projects

In addition to the above funded SPLOST projects, numerous other transportation improvement projects were recommended for funding through the Clayton County SPLOST program. These recommendations that were not approved for funding through SPLOST and are relevant to City of Riverdale are listed below.

Road Construction Projects:

- Gardenwalk Boulevard – Phase 1 – From Gardenwalk Boulevard at SR 85 to upper Riverdale Rd.

Road Widening and Improvement Projects:

- Rountree Road – Between Old Rountree Road and SR 138.
- SR 139 at SR 85 – Construct an eastbound right turn lane from SR 139 onto SR 85 southbound.
- Valley Hill Road – From Battlecreek Road to Upper Riverdale Road.
- West Lee's Mill Road – From Gardenwalk Boulevard to Rock Hill Drive.
- Warren Drive – From Warren Drive dead end to SR 85.

Intersection Improvements:

- Upper Riverdale Road at Arrowhead Boulevard – Add an eastbound right turn lane.

7.3.1.4 ARC Projects With Indirect Impact On City of Riverdale

Roadway Capacity and Intersection Upgrade Projects:

- Widening SR 85 including interchange at Forest Parkway (SR 331) from Adams Drive to I-75 ramp west of the City of Forest Park.
- Widening SR 314-Fayetteville Rd from Norman Dr/CR 255 to SR 139/Riverdale Rd.
- Widening I-75 South add two lanes southbound only from I-285 south to US 19/41-SR 3-Old Dixie Hwy.
- Interchange capacity expansion at I-75 south new interchanges and 4-lane collector/distributor system.

Pedestrian Facility Expansion and Improvements:

- Riverdale sidewalks around school facilities.
- Transit-oriented pedestrian improvements from I-75 south to US 19/41-SR 3.

7.3.2 Recommendations Based On Needs Assessment

7.3.2.1 SR 85 Corridor Study

Due to Riverdale's small size and linear shape, State Route 85 has a major impact on transportation conditions throughout the City. Nearly every conceivable transportation improvement in the city will either impact, or be impacted by conditions along the SR 85 corridor. For this reason, it is crucial that this corridor be studied as a complete transportation system, and that all specific elements and improvements along this corridor be considered in terms of their impacts and contributions to the entire system.

SR 85 is the source of most of Riverdale's transportation and land use deficiencies, needs and opportunities because of its conflicting dual roles as both a regional arterial and a local main street. As a state-designated arterial route, SR 85 is responsible for carrying a high volume of through traffic as part of the regional transportation system. As the nearest alternate north-south arterials are Fayetteville Rd, 2 miles to the west, and Tara Blvd., 2 miles to the east, SR 85 must be maintained as an arterial, and improvements and recommendations that reduce capacity along this route will be difficult to justify. As a state-maintained arterial, SR 85 is also subject to numerous requirements regarding operation configurations and road geometry that severely limit the range of potential improvements.

SR 85 however, also serves as the "main street" of Riverdale. A significant portion of the city's businesses face this road, and nearly all local trips between destinations within the city involve traveling along, or crossing SR 85. Extra care must be taken to reconcile this corridor's dual role, determine the best balance of functional usage, and devise and implement improvements which achieve this balance.

The study team recommends that the City of Riverdale pursue opportunities to fund and conduct a corridor Study of SR 85, from Poplar Springs Rd on the North to SR 138 on the south, including all land and roads within a one-quarter mile buffer to the east and west. This study should consider:

- Roadway functional class and purpose
- Capacity improvements
- Intersection improvements
- Operational Improvements
- Access Management
- Signalization & ITS improvements
- Pedestrian crossings
- Sidewalks & pedestrian amenities
- Transit facilities

This study should be used to guide all future transportation improvements, land use and zoning decisions within this corridor.

7.3.2.2 Recommended Intersection Improvements

Based on the technical and field analysis, operational, safety, and alignment problems were identified at numerous intersections. Several studies and improvement projects have already been programmed which address aspects of these problem intersections, particularly along SR 85 and SR 138, and these studies should be considered to and deferred to where possible.

The following intersections are recommended that operational and safety improvements be designed and implemented at the following intersections:

- Every intersection of SR 85 within or near the City of Riverdale experienced notably high crash volumes and congestion. It is recommended that all of these intersections be considered for improvement together as part of a SR 85 corridor Study.
- Roberts Dr./Taylor St. and Rountree Rd.
- Valley Hill Rd & Upper Riverdale Rd.
- Taylor RD. & SR. 138

7.3.2.3 Recommended Operational Improvements

Church St. is the only continuous north-south route other than SR 85 in the City of Riverdale. North of Main St., Church St. is classified as a minor arterial, and experiences heavy traffic volumes from Riverdale Rd. to the north. South of Main Street, Church St. becomes a 2-lane local road for 1.3 miles until it merges into SR 85. This portion of Church St. receives higher traffic volumes than it was designed for and as a result, experiences significantly high crash rates.

The segment of Church Street between Main Street and SR 85 is recommended for operational and roadway improvements including the following:

- Intersection improvements
- Operational Improvements
- Possible capacity improvements
- Access Management
- Signalization & ITS improvements
- Pedestrian crossings
- Sidewalks & pedestrian amenities

7.3.2.4 Recommended Pedestrian & Bicycle Improvements

Several areas of Riverdale are in severe needs of pedestrian improvements.

- Sidewalks on both sides of the street and crosswalk improvements are recommended for all streets within ½ mile of all schools and recreation facilities. This is currently being studied several schools at a time on a county-wide basis by Clayton County, and it is recommended that city of Riverdale coordinate with this study, but also conduct independent assessment to ensure coverage of all schools and recreation centers.
- Sidewalks along SR 85 should be upgraded in concert with a SR 85 Corridor Study.

- Safe pedestrian crossing facilities across SR 85 should be made a priority and reviewed in concert with a SR 85 Corridor Study.

- Adequate sidewalks and pedestrian facilities should be provided in the vicinity of all transit stops.

- It is recommended that improved sidewalk facilities be included with all future roadway improvements.

Riverdale currently has no designated on or off-street bicycle facilities or plans. It is recommended that the city coordinate with Clayton County and the Atlanta Regional Commission to ensure that Riverdale's bicycle access needs are adequately represented in county-wide and regional bicycle plans.

7.3.2.5 Recommended Transit Improvements

Riverdale's transit mobility and access can be improved with the following recommendations:

- Riverdale should coordinate with C-Tran and GRTA to advocate more direct linkages between Riverdale and Jonesboro, Atlanta Airport, and the Marta transit system.

- Riverdale should support proposals to provide express buses between Riverdale and Downtown Atlanta

- Amenities should be provided at bus stops within Riverdale, including:

    - Adequate signage

    - Adequate Sidewalks

    - Bus Shelters

    - Transit Information

    - Benches

    - Trash Receptacles

- An upgraded transit facility for central Riverdale would increase the desirability of transit in the area by facilitating transfers between C-Tran routes and regional transit services such as a proposed GRTA commuter bus. A location near the intersection of SR 85 and Upper Riverdale road with enhanced transit facilities would serve this purpose.

7.4 TRANSPORTATION GOALS AND POLICIES

Goal 1 Provide accessibility and mobility for people and goods.

- Policy 1.1 Identify congested areas and develop strategies to alleviate congestion.
- Policy 1.2 Identify connectivity issues and develop strategies to enhance connectivity.
- Policy 1.3 Identify deficiencies for all modes of travel and address them.
- Policy 1.4 Ensure that all citizens have adequate mobility and access to transportation services.
- Policy 1.5 Balance needs of local and through traffic.
- Policy 1.6 Provide adequate public transit services and amenities.

Goal 2 Attain or exceed regional air quality goals.

- Policy 2.1 Provide adequate services and facilities to ensure that low-emission travel modes are safe, convenient, and pleasant.
- Policy 2.2 Encourage transportation demand management strategies.
- Policy 2.3 Consider a full range of options to reduce congestion.
- Policy 2.4 Provide adequate public transit services and amenities.

Goal 3 Improve coordination of land use and transportation.

- Policy 3.1 Encourage compact development such as mixed-use and new urbanism to reduce automobile trips.
- Policy 3.2 Coordinate bicycle/pedestrian access with public facilities such as parks and schools.

Goal 4 Maintain and improve transportation system performance, safety, and preservation.

- Policy 4.1 Improve dangerous intersections and roadways.
- Policy 4.2 Improve sidewalk and pedestrian crossing facilities.
- Policy 4.3 Maintain and improve transit facilities, stops, and shelters.
- Policy 4.4 Address congested roadways by implementing improvements or other congestion mitigation techniques.
- Policy 4.5 Maintain or improve roadways and intersections to maximize efficient operational performance.
- Policy 4.6 Provide sidewalks, bicycle paths, and facilities near schools, libraries, parks, and other places used by children.
- Policy 4.6 Develop access control guidelines for each functional class of roadway to ensure that each roadway achieves the optimum balance of mobility and accessibility.

Goal 5 Protect and improve the environment and the quality of life.

- Policy 5.1 Ensure that sidewalks are safe, continuous, and in good condition.
- Policy 5.2 Provide streetscaping amenities to enhance the physical appearance the city's streets and make sidewalks more pleasant and functional.

Policy 5.3 Enhance public health by providing safe, pleasant and convient pedestrian and bicycle facilities that encourage walking and cycling instead of driving.

Policy 5.4 Maintain the city's streets and sidewalks to enhance public pride and ownership.

Goal 6- Develop and maintain a transportation planning framework to facilitate the planning and maintenance of Riverdale's transportation network

Policy 6.1 Develop and adopt a thoroughfare plan which categorizes each roadway by its appropriate function within the city's overall road system.

Policy 6.2 Classify and size roadways according to existing and future demand and develop access standards based on these functions.

Policy 6.3 Develop and adopt a citywide sidewalk plan that promotes the improvement of pedestrian sidewalks in residential areas.

Policy 6.4 Align existing plans and performance measures with any future plans to achieve more detailed transportation goal and policy development.

Policy 6.5 Ensure that measures to manage or control land uses and natural resources are included in the city's transportation planning process.

Policy 6.6 Develop design standards for each roadway classification to preserve the appropriate balance between its traffic service and land use functions.

Policy 6.7 Coordinate transportation planning activities with county, regional, and state agencies.

CHAPTER 8 – LAND USE

8.1 PURPOSE OF THE LAND USE ELEMENT

There are two purposes for the land use section of the Comprehensive Plan: 1) to inventory the city's existing land use patterns; 2) to recommend policies for future development that are consistent with the city's character. Land use patterns of a community have a major influence on transportation, energy consumption, property taxes, compatible or conflicting adjacent land uses, and possibilities for future growth.

The inventories will highlight existing land use patterns and trends. Recommendations will guide and direct future patterns of growth based on community needs and desires; and develop goals, policies, and strategies for future land use. These land use goals and policies will support and reflect the economic, housing, community service and natural and cultural goals and policies of the plan. The Future Land Use Plan will identify areas that should be considered affecting land use patterns for future needs. It should be remembered, however, that the Land Use Plan is subject to change as the city grows and may be amended at any time following the necessary public hearings and justification for such amendments.

The land use section, in particular, serves as a guide for the city regarding private development proposals and decisions on the location of public facilities. The land use section of the Comprehensive Plan also serves as the foundation for zoning and subdivision regulations and the Capital Improvements Program, which put the Goals and Policies into action. The Land Use Plan is used primarily as a general and long-range policy guide to decisions concerning future land development. Future changes in zoning or subdivision policies must be based on the land use patterns shown on the future land use map.

The adoption of these policies by the city establishes their dominance as a guide for land use decisions; and, they may be changed only by amending the plan. The land use plan shall also be used as a forecast of the future land needs of the city. Although the land use forecasts are for 20 years in the future, the life expectancy of the land use plan, for accuracy and applicability is five to six years. This emphasizes the need to revise the plan every five years; although it is only state mandated for updating every ten years.

Certain requirements are set forth by the Georgia Department of Community Affairs, which outlines a standard land category system that should be shown for different land uses. These are outlined below.

8.2 LAND USE CLASSIFICATION CATEGORIES

The Department of Community Affairs (DCA) recommends that land use classification in local plans be consistent with the standard system established for the State of Georgia. Local governments are free to develop additional, more detailed categories; however they

must be grouped under one of these nine standard categories. These categories are as follows.

Agriculture: This category is for land dedicated to farming (fields, lots, pastures, farmsteads, specialty farms, livestock production, etc.) or other similar rural uses such as pasture; land is not used for commercial purposes.

Forestry: This category includes land dedicated to commercial timber or pulpwood harvesting and woodlands not in commercial use.

Commercial: This category is for land dedicated to non-industrial business uses, including retail sales, office, service, and entertainment facilities. Commercial uses may be located as a single use in one building or grouped together in a shopping center or office building.

Industrial: This category is for land dedicated to manufacturing facilities, processing plants, factories, warehousing and wholesale trade facilities, mining or mineral extraction facilities or other similar uses.

Parks/Recreation/Conservation: This category is for land dedicated to active or passive recreational uses. These areas may be either publicly or privately owned and may include playgrounds, public parks, nature preserves, wildlife management areas, national forests, golf courses, recreation centers, and similar uses.

Public/Institutional: This category includes certain state, federal, or local government uses and institutional land uses. Examples of institutional land uses include colleges, churches, cemeteries, and hospitals. Government uses in this category include City halls or government building complexes, police and fire stations, libraries, prisons, post offices, schools and military installations.

Residential: The predominant use of land within the residential category is for single family and multi-family dwellings.

Transportation/Communication/Utilities: Also referred to as "TCU," this category encompasses various land use types associated with transportation, communication, and utilities. This category includes major transportation routes, public transit stations, power generation plants, railroad facilities, radio towers, airports, water authority facilities and similar uses. However, it should be noted that much of the TCU acreage is accounted for in other categories, particularly roads and their right-of-ways, which are absorbed into the context of a more dominant land use.

Riverdale does not use all of these categories, as they are not applicable in all cases. For example, there is no agricultural land use in Riverdale.

8.3 EXISTING LAND USE

8.3.1 Methodology

The Existing Land Use Map illustrates present land use patterns in the city and provides a basis for the development of the future land use plan and future zoning map. An existing land use survey was conducted to update and verify the land use types within the City of Riverdale. This comprehensive survey of existing land uses first reviewed aerial photos of the city taken in early 2003, which are considered reasonably current and accurate. Data was then verified by doing a field inventory that involved site visits to land parcels throughout Riverdale. The field work was recorded on tax parcel maps and aerial photos, and each parcel was coded according to its present primary land use and then transferred to a large base map. This became the updated existing land use map. The Existing Land Use Map was presented to the public for review and final comment during the public involvement workshops.

8.3.2 Existing Land Uses

The primary existing land use in Riverdale is residential, over 49% of the total land mass is made up of residences; of that, 43.1% are single family residential. Most of the multi-family units are located in the central and northern portions of the city. Only one large multi-family development is located in the southern panhandle of the city.

The following categories are shown on the City of Riverdale Existing Land Use Map and are in accordance with State DCA guidelines:

Single-Family Residential – This category includes individual homes, many of which are located within organized subdivisions.

Multi-Family Residential- This includes all attached residential buildings that are not owner occupied. Developments in this category contain at least two units per structure.

Commercial – The main concentration of commercial developments are found along Highway 85, Highway 138 and Upper Riverdale Road. This is the second largest category on the map and is anticipated to grow over the next 10 years as the vacant lands along Highway 85 are developed.

Predominant uses for this category include establishments that offer goods or merchandise for sale, or rent and other commercial uses that do not operate in office settings. Much of Riverdale's commercial growth has been developed into strip shopping centers and large retailers. Conversion of homes into commercial uses has also become more and more common along the major corridors.

Public Institutional - State, federal, local government uses and quasi-public institutions are included in this category. Governmental uses include: police, fire, City Hall, public works, libraries, post office, and public schools. Institutional uses include churches, cemeteries and other private non-profit uses.

These uses are dispersed throughout the city. City Hall and the adjoining police and fire department buildings are located off Main Street. See the Community Facilities and Services chapter for locations and descriptions of activities within the buildings.

Most of the schools are located within or adjacent to residential areas. Most of the areas do have sidewalks that lead to the schools. This does create a walkable environment for children from their homes to school.

Industrial - This category is for land dedicated to manufacturing facilities, processing plants, factories, warehousing and wholesale trade facilities, mining or mineral extraction activities, or other similar uses.

Riverdale has very little industrial uses within its city limits; however one large portion of the city has been affected by mining and extraction activities. Industrial development within Riverdale is reflected through light industrial uses. Nearly all industrial activities take place to the north and northeast portions of the city.

Light Industrial - This category is for land dedicated to body repair shops, contractor, building and/or equipment operator's office, warehouse and storage facilities, heavy equipment, truck and ancillary service establishments, mini-warehouses. These areas are not to emit large amounts of noise, dust, dirt, vibrations, odors, objectionable light or glare beyond the premises. Most of these areas are located off Lees Mill Road. Many of the buildings constructed for industrial use are now vacant in this area. Another area largely influenced by dirt mining/excavation is located in the north eastern tip of the city includes 148.1 acres and is currently used to transport dirt to the Hartsfield International Airport for the construction of the fifth runway.

Transportation/Communication/Utilities - This category includes such uses as power lines, transmission towers, highways, telephone switching stations, and right of way along roadways.

Parks/Recreation/Conservation - Areas included in this category include city parks, land donated to the city from Private Developers, and land acquired through the State greenspace program. These lands are owned by the local government and protected and or created for recreational enjoyment of the citizens.

Vacant/Unused - Included areas that have been untouched by development and/or underutilized areas. The largest vacant parcels are owned by private citizens. There are two large vacant parcels that are located in the western portion of the city limits

primarily surrounded by residential neighborhoods and off State Route 85 between Dahlonega Drive and Rountree Road.

Vacant/Transitional - Areas were identified as areas undergoing development. Specific site visits to these sites were made to investigate the type of development that was taking place and any rezoning classifications they may have undergone over the last several years.

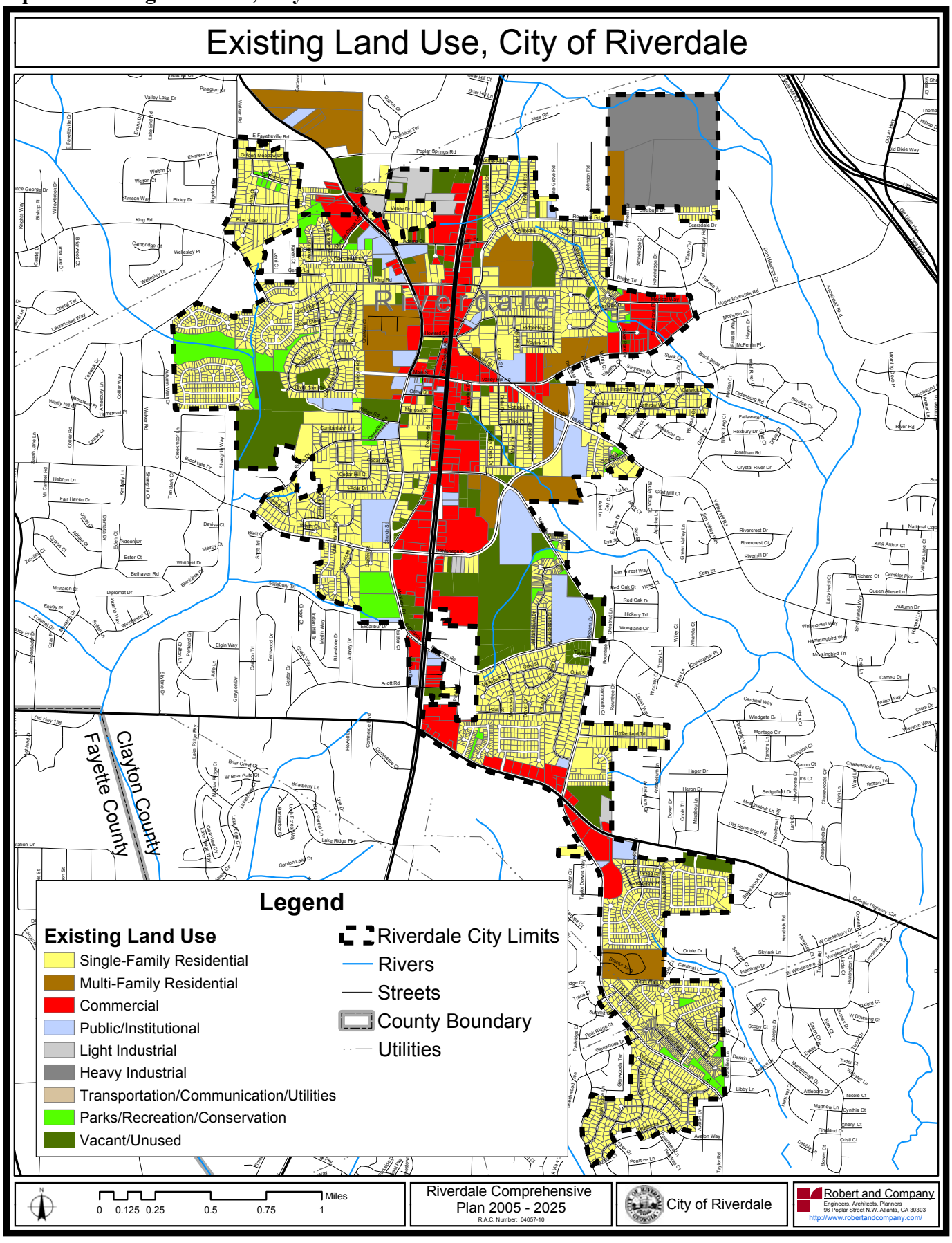
The existing land use distribution is included below. Land use categories have been depicted in acres, and each category is expressed as a percentage of the total city area. This survey is useful for pointing out existing estimated land use acreage and potential available land for future development. In addition, a map of existing land uses is provided in Map 8.1.

Table 8.1 Existing Land Use Acreage Totals, City of Riverdale

Land Use	Acres	%
Single-Family Residential	1,276.0	43.3%
Multi-Family Residential	183.4	6.2%
Commercial	350.8	11.9%
Public/Institutional	160.3	5.4%
Light Industrial	28.4	1.0%
Heavy Industrial	148.1	5.0%
Transportation/Communication/Utilities (Excluding Road R.O.W.)	0.6	0.02%
Road Right of Way (Transportation/Communication/Utilities)	411.3	14.0%
Parks/Recreation/Conservation	100.0	3.4%
Vacant/Unused	286.3	9.7%
TOTAL	2,945.2	100.0%

Source: City of Riverdale, Updated and verified with land use survey by The Collaborative Firm.

Map 8.1 Existing Land Use, City of Riverdale



8.3.3 Historical Factors for Current Development Patterns

The City of Riverdale has long been influenced by differing modes of transportation including the wagon, the railroad, the automobile, and airplanes. Settlers moved to the area now known as the City of Riverdale long before the Civil War came to Georgia in the 1860's. In 1887, however, a railroad track was built from Atlanta to Fort Valley. This mode of transportation became a staple for the community that provided jobs, housing and became a main stop on the route.

The railroad track route is still heavily traveled today, but by automobile, not train. Years ago the railroad tracks were removed. State Route 85, the main transportation artery through Riverdale today, runs along the same north/south route as the railroad, before it was removed. This transportation route is a major influence for the city bringing citizens and visitors in and out of the city daily. The geographic make-up of the city shows that State Route 85 literally bisects the city in half from east to west. In turn, the affect on growth patterns for the city is found to be primarily commercial running along the 85 Corridor and on each side are residential components.

Another major influence on Riverdale is its proximity to one of the nation's busiest airports. Located about five miles south of Atlanta's Hartsfield International Airport, Riverdale is in a unique position to benefit from the airport's economic impacts.

During the past 5 years, the city has experienced rapid changes to its land uses. Primarily, the city's single-family residential development has increased at a rapid rate. There have been over 1,000 housing units constructed over the past five years and there is little indication the pace of construction will decrease at any noticeable rate as long as tracts of vacant land are still available. The overall infrastructure is still able to accommodate this growth, but certain areas, including smaller collector streets, should be examined carefully by the local government to ensure that future development will not outpace current capacity. The main areas having experienced the highest rate of single family residential growth was from King Road south to Wilson Road.

Other vacant lands that have experienced development are along State Route 85. Commercial development has continued along this corridor. By 2010, most all of the land along this major arterial will be fully developed if current development proposals are fulfilled. The majority of the land has large named developments planned including major retailers such as Home Depot. Wal-Mart also expanded its original store built in 1985 by 70,000 square feet in 2004. The grand opening for this Supercenter was October 20, 2004.

8.4 FUTURE LAND USE

8.4.1 Purpose of the Land Use Plan

The Future Land Use Plan preparation largely consisted of two major work elements. The first work element involved determining quantities of various land use categories needed to sustain anticipated future growth through the planning period. The second major work element involved selecting areas of the city that are best suited for a particular type of land use activity.

This Comprehensive Plan includes a future land use map that will be used to guide where land uses are to be developed. The future land use plan should be used as a guide in the decision-making process for future modifications to the zoning ordinance, consideration of development proposals, rezoning requests, variance requests or any other planning and development concerns that may arise in the city.

8.4.2 The Importance of the Land Use Plan

The future land use plan is a representation of how the city should appear when fully developed. It does not imply that all of the changes should occur at once. Development will proceed in a manner and timeframe that is consistent with policies on the environment, infrastructure, and other matters.

The plan is not a legal tool; however, because it forms the basis for the zoning ordinance, the subdivision regulations and other implementation documents, it does carry some legal weight. The plan should serve as a guide for consideration of amendments to the Zoning Ordinance, the Official Zoning Map, the Subdivision Ordinance, the public improvements program, and capital improvements budget.

Deviations from the future land use map should be carefully considered to ensure that consistency is maintained when making decisions on planning and development matters. Decisions that are in direct conflict with the future land use map that could undermine the long-term objectives of the community if approved should also be avoided. Deviations from the future land use map may be appropriate when it can be justified by more detailed information, changes to conditions or in cases where the deviation is not contrary to the overall intent and purpose of the Plan. The future land use map will require updating in cases where proposed deviations would significantly alter the direction set by the Plan. An amendment to the future land use map will be required in the case of developments that are not consistent with the adopted future land use map.

Although the land use forecasts are for at least 20 years in the future, the realistic life expectancy of the Land Use Plan, in a rapidly growing area, for accuracy and applicability is five to six years. Essentially, it is necessary to review plans periodically in light of unforeseen events. This provides an opportunity to adjust the plan well before the target year is reached.

8.4.3 Methodology

In order for the Land Use Plan to be useful as a policy tool for guiding land use decisions, it must be carefully composed. In drafting the Future Land Use Plan and Map, the following factors were considered:

- Existing land use patterns and growth trends,
- Existing zoning patterns,
- Projected future land use needs based on projected future population and employment converted to the number of acres needed to accommodate projected growth levels,
- Flood plains, excessive slopes (over 20 percent), and soil types,
- Location of major streets/roads and open space,
- Public Input
- Building permit trends, and
- Land use policies.

8.4.4 Future Land Use Guiding Principles

Location criteria are guiding principles and standards used in the placement of activities on the land. These principles and standards have evolved over time within the planning profession and are recognized for their universal application. These criteria involve numerous considerations including danger from floods and other health and safety standards; the vulnerability of important environmental processes to urban activities; the proximity of one land use from another in time, distance and cost; the social, economic, and environmental compatibility of adjacent land uses; and physical characteristics of individual locations, their suitability for development, and the pattern of land values. General principles relating to the location of land uses customarily identify five major functional areas: the work areas, the living areas, the shopping and leisure time areas, the community facility systems and environmentally critical areas of land and water. These principles can be expressed as follows:

Work areas

Employment should be located in convenient proximity to living areas where energy efficient interconnecting transit and thoroughfare routes can be designed to insure easy access back and forth. The spatial distribution of work areas should harmonize with interurban patterns of firm interaction.

Living areas

Residences should be located in convenient proximity to the work and leisure-time areas and where there are nearby transit and thoroughfare routes to insure easy access. The spatial configuration of residential communities should take the activity and residential preference patterns of various categories of households into account. Living areas should be in convenient proximity to large open spaces and should include smaller open spaces,

with residential areas within easy walking distance of community facilities. They should be located in areas protected from traffic and incompatible uses; in areas that are economic, energy-efficient, and attractive to develop; and where desirable residential densities with a range of choice can be ensured.

Shopping areas and entertainment centers

Shopping malls, restaurant areas, cultural centers and educational complexes should be in convenient proximity to living areas. They should be in centrally located areas and on sites adequate for their purposes.

Community facilities

Systems should be designed around the underlying service-delivery concepts of each such system and its program, with service levels appropriate to the user groups of each facility. Recreational facilities, schools, libraries, medical care facilities, law enforcement and fire stations, and other community facilities should be in locations convenient to user groups and on sites economically feasible to develop.

Open-space system and environmental protection

Major parks and large open spaces should be located so as to take advantage of, as well as protect, natural processes and unusual landscape features and to provide for a variety of outdoor recreational and other activities. Environmentally critical areas of land and water should be protected from incompatible uses and from pollutants generated by urbanization in the vicinity. Wooded areas that serve a functional purpose in climate, noise, light, and pollution control should be preserved as part of a rural forest and open-space system. Vulnerable urban-type development should not be located in areas of natural hazards to life and property such as floods, slides, and unstable soils. Present and future water supply drainage basins should receive only urban development compatible with protection of the water quality.

8.5 DEVELOPMENT ISSUES

Based on the analysis of the existing conditions, socio-economic statistics, and public input, several planning assumptions were made and listed below indicating the anticipated and desired future land use trends and requirements for Riverdale over the next 20 years. There are several factors that will influence the land use patterns including the existing land use patterns, redevelopment opportunities, public service and facilities, environmentally sensitive areas, future growth projections and land needs.

8.5.1 Development Patterns

During the overall review of existing land use, several land use patterns emerged:

- Extensive single use districts
- Automobile oriented community
- Declining strip commercial development
- Strong separation between the west and east of the city due to Highway 85

Extensive single use districts

There are no land use districts within Riverdale that allow mixed-uses or transitional zones of development with residential and non-residential units combined. The city has a commercial transitional zone in their ordinance. The purpose of this district is to assure compatibility between new restricted commercial development and adjacent/surrounding residential uses. This further delineates the separation of land uses and promotes an automobile oriented environment.

Land use zones are more pedestrian oriented and safe when there are transitional zones that allow a mix of residential and non –residential developments, and the workplace and commerce centers allow mixed commercial, employment and limited residential uses.

Automobile Oriented Community

Nearly all development within Riverdale requires an automobile. Pedestrian and bicycle friendly environments do not exist between uses such as residential to commercial uses. Since there are essentially no neighborhood commercial uses within Riverdale, residents must get into their cars and drive to any service including commercial, recreational, or cultural.

Physically Divided City

It must be noted that Riverdale is separated into East and West. Highway 85 runs north to south through the center of the city; thereby, causing a major division between the two halves of the city. Highway 85 is not a negative factor within Riverdale. On the contrary it has served to bring economic development along this major corridor. But it should be

noted that this corridor has determined how the city's development has occurred to a great extent.

8.5.2 Redevelopment Opportunities.

The public identified several areas as being in need of redevelopment, rehabilitation, or reuse. Residential, Commercial and Industrial land uses were identified showing areas of decline or in need of repair.

8.5.2.1 Residential

Single-family residential units were viewed by the public as generally well maintained. However, isolated houses exist with substantial problems. Most of these homes were identified as aging homes that were in need of repair. Overall, the citizens felt that redevelopment and rehabilitation of older city neighborhoods should be a very high planning priority for the City of Riverdale. Riverdale wants to maintain the balance of housing for upper, middle, moderate and low-income households and feels this is important to keep a balance in their community. For the most part, residential redevelopment areas were primarily identified to be located in aging multi-family properties.

8.5.2.2 Commercial

Most of the redevelopment needs for the commercial areas were identified off State Route 85, yet no one large corridor or section of the city was identified by numerous persons. Overall, there were sporadic strip retail centers and strip commercial developments that were found to be aging, and visually unattractive. Other areas that were found as unappealing were Upper Riverdale Road and areas along Church Street and Riverdale Road. Left untouched, these areas can pose a loss of revenue for the city through disinvestment. Conversely, redevelopment of these areas can lead to maximizing the resources and capitalizing on the advantages such as existing infrastructure (water, sewer, roads) for the community. Nearly all of these areas are on highly visible roadways for the consumer, providing an ideal situation for real estate purposes and reinvestment.

8.5.2.3 Industrial

The largest portions of industrial lands are located in the northeast corner of the city and have been used for a single purpose: to extract and supply dirt for the site to construct the fifth runway. This area was one of several located in the Atlanta area utilized by the Hartsfield-Jackson International Airport. Florida Rock has mined this site and its current usability for future projects is uncertain.

Because it is such a large tract of land with a prime location, it must be considered for redevelopment opportunities in the future. This tract of land is northwest of the hospital and was included in the Upper Riverdale Road Corridor Redevelopment Concept Plan 2002, with recommendations for professional medical offices, commercial components with mixed uses, and high quality residential units for the employees. Much of this redevelopment plan does touch the city. This current industrial site has the ability to

create a synergy that can build off the new development by creating additional opportunities for housing, commercial, recreational, and new educational facilities.

Overall, the community has several opportunities to encourage infill development, mixed use developments, and neighborhood commercial developments that will service existing residential neighborhoods. To date, there are no local development policies or zoning regulations that will allow these types of developments. Some areas that have redevelopment potential, including commercial strip centers and existing houses that are in need of repair or development, are ideal locations to concentrate neighborhood commercial services for residential areas.

8.5.2.4 Public Services/Facilities

Public services and facilities include the full array of governmental functions and operations necessary to support existing and new development whether provided by The City of Riverdale, the county, or some other third party contractual agreement. These services involve both physical improvements such as infrastructure for streets, utilities, schools, parks, fire stations, and programs or services such as education, public safety, and recreational services. The timing and location of these facilities and services are crucial in shaping future land use patterns. Collectively, these facilities and services represent a portfolio of city/county investments in future development addressing the needs of citizens and businesses. Major areas of concern are the following public facility related issues:

- **Adequate Public Facilities:** In its land use planning context, the term "adequate public facilities" generally refers to governmental strategies for assuring that all infrastructure required to meet the service demands of a particular development is available as development occurs. Such strategies can, where permitted by statute, require that the costs for all or a portion of such infrastructure be borne by the developer (ultimately the consumer), and not the general public. Riverdale is well served by public infrastructure and utilities, including water, sewer, police and fire protection, and public recreation, cultural and social facilities. Expansion and maintenance of infrastructure will be ongoing. This should provide for a positive development environment.
- **School Crowding:** Schools can both attract growth and be severely impacted by it. Since schools are provided by the Clayton County School Board, and not by the City of Riverdale, there is a critical need to carefully coordinate school location and enrollment capacity with residential development to avoid such negative impacts as school crowding. There are four schools located within Riverdale. See the community facilities chapter for more detail.
- **Parks and Recreation Facilities:** Parks and recreational facilities are both part of the public infrastructure system and essential ingredients of a desirable quality of life. Riverdale has a reasonable amount of conservation/open space at this time. There are just over 16 acres of active recreational space for the City of Riverdale. As the city continues to be developed, the overall demand for recreational facilities will go up. The city will need an additional 101.71 acres to accommodate their projected population growth by the year 2025.

8.5.2.5 Environmentally Sensitive Areas

The accelerated development trend in the Riverdale area over the past five years has resulted in an increasing public awareness and concern for the environment including the need to preserve the city's trees, open space and other natural resources. There are no protected mountains, rivers or virgin forestlands in Riverdale; however, there are certain environmental factors that will affect the city's future land use patterns and topography.

- **Tree Preservation:** Currently, Riverdale's Development Ordinance provides for limited tree preservation. Enforcement of tree preservation measures within Riverdale must prove effective, and supported. Workable tree preservation devices including incentive-based approaches are needed and recommended within the city. There is the need for greater tree preservation within street rights-of-way, all new developments, and for additional street trees within older established neighborhoods. The use of tree buffers to separate conflicting land uses should also be encouraged.
- **Watershed/Wetland Protection:** The entire City of Riverdale lies within the Greater Flint River Watershed. There are several streams that run through the city that are protected by state mandated and locally mandated buffer zones. No impervious surface may be constructed within a 150-foot setback area on both sides of the stream and no septic tanks or septic tank drain fields are permitted. Riverdale is built along a ridge line, and only a few small wetlands exist within the city limits. Most wetlands in the city consist of small lands and ponds. Although these lakes and ponds are typically man-made, they constitute important marine and land wildlife habitat, and require the equal amount of protection for naturally occurring and larger scale wetland areas. Map 5.2 in the Natural and Cultural Resources Chapter identifies these areas.
- **Slopes:** There are no 25% slopes within the city, but several areas within Riverdale do have moderately steep slopes, having a grade of over 15%. While the topography does not represent a significant development constraint in Riverdale, some consideration of slope should be taken for the location of land uses. For example, intensive uses such as commercial and industrial uses should be encouraged to develop primarily in areas of reasonably level land with slopes that do not exceed a 5% slope. Furthermore, residential development to be constructed on land in excess of 12 % slope should be carefully planned to prevent excessive street grades, unmanageable building lots, and excessive drainage problems. Map 5.5 of the Natural and Cultural Resource areas identifies these slopes.

8.6 PROJECTED LAND USE NEEDS

8.6.1 Projected Residential Acreage Needs

Population projections are useful in developing quantitative recommendations for each broad land use category. Residential densities reflected in the Land Use Plan include low density of 5 or less units per acre, medium density of 6 to 10 units per acre, and high

density at more than 10 units per acre. Much of this land use plan identifies areas for higher density infill development that were identified as blighted areas or are adjacent to neighborhood commercial areas.

In order to determine future residential acreage, it is necessary to use a projected persons per household ratio. The ratio projection for 2025 is 2.80. This number is consistent with the current house size. The projections show a decrease from 2005-2020, with the house size increasing back to a constant number of 2.80 persons per household by 2025. One reason for this decline is that family sizes over the last two decades decreased from 1980 to 1990, and that trend is anticipated to take place again over the next decade with a constant number being recompensed over the next twenty years.

Using a projected persons per household ratio of 2.80 and applying it to the projected increase in the city's population of 6,190 from 2000 to 2025, 1,460 additional dwelling units will be needed in Riverdale by 2025. Assuming that the present citywide dwelling units per acre ratio will remain the same in 2025, this ratio (3 dwelling units per acre) is applied to the number of projected additional dwelling units (1,460) needed to accommodate the additional city population of 4,080 for 2025. Applying these numbers yields 518 additional residential acres needed in 2025 over that which exists today. If a constant number or ratio remains for the housing types, the number of acres needed will be as follows:

Table 8.2 Future Residential Acreage Needs 2000 – 2025, City of Riverdale

	2000	2005	2010	2015	2020	2025	Change 00-25	Acres Needed
Projected Households	4,389	5,136	5,533	5,913	6,262	6,576	2,187	
Housing Units	4,533	5,305	5,715	6,107	6,467	6,792	2,259	
Single Family detached units	2,351	2,751	2,964	3,167	3,354	3,523	1,172	387
Single Family attached housing	346	405	436	466	494	518	172	34
Multi-Family Units	1,819	2,129	2,293	2,451	2,595	2,725	906	95
Manufactured Homes	17	20	21	23	24	25	8	2

The amount of land needed to accommodate the projected residential growth at current density levels is clearly not available in the city. Therefore, it is imperative that Riverdale plan for future residential and mixed use areas that are of greater density than the current average.

8.6.2 Projected Commercial/Industrial Acreage Needs

Since a growth in population also creates a corresponding growth in employment, projections of commercial and industrial acreage needs are based upon the premise that the future need for commercial and industrial acreage is proportionate to the growth of the population of the city. The current commercial and industrial acreage is 388.3 acres.

The current job per acre ratio on commercial and industrial land is 11.3 jobs per acre. The projected employment growth excluding government is 1,235 jobs. This places the projected new commercial and industrial land needs at 109.3 acres.

To estimate commercial land use needs for 2025, it is necessary to determine the current ratio of commercial employees per commercial acre with the presupposition that the same ratio will apply in 2025. This presupposition recognizes the fact that percentages of different land uses tend not to vary greatly over time. The problem in calculating the employees per acre ratio is that the 2000 Census Employment by Industry Sector figures reflects only the employment of County residents; therefore, the census tract level data was extrapolated to find the estimated employment projections based on industry. However, there is no data available to determine these numbers with any degree of accuracy. For the purposes of this plan, it is also assumed that the future commercial employment needs of the population in the study area will be met within that study area.

8.7 Future Land Use Classifications:

There were eleven land use classifications used to describe future land use recommendations for Riverdale. The land use classifications are represented by color coding, as depicted on the Future Land Use Map (Map 8.2). Pictures scored favorably in the visual preference survey conducted as part of the Riverdale Comprehensive Plan have been included as a means of illustrating the desired pattern of growth in the city. The land use classifications include:

COMMUNITY COMMERCIAL (pink): This district is intended for a variety of retail and service businesses. The uses in this district are not intended to compete with larger shopping or employment areas found in other areas of the city that serve Riverdale residents. Instead, they are primarily intended to serve city residents that do not wish to drive to the more distant commercial/office centers for their convenience and daily shopping needs. Typical uses would include smaller general merchandising/retail establishments such as banks, drycleaners, video rental shops, salons, and drug stores. It is anticipated that the Riverdale Zoning Ordinance will set a maximum limit on the amount of square footage for these uses.

HIGHWAY COMMERCIAL (red): Businesses that rely on and serve a broader customer-base including the entire city, surrounding County residents, and pass-by traffic, are included in this designation. Appropriate uses include auto dealerships, professional and medical offices, grocery stores, restaurants and large retail centers. Special consideration needs to be given to these highway commercial uses to minimize their impact on adjacent land uses, to accommodate the volumes of vehicular traffic generated, their potential impact on the aesthetics of the site and surrounding area, and the need to ensure compatibility between vehicular and pedestrian traffic. These areas are appropriate for non-industrial business uses, including retail sales, office, service, and entertainment facilities.

HIGH DENSITY RESIDENTIAL (brown): Can include single family detached, single family attached, apartments, town homes, and condominiums at more than 10 units per acre. All existing multi-family dwellings were coded as high density residential.

MEDIUM DENSITY RESIDENTIAL (orange): Includes single-family detached, single family attached, apartments, townhomes and condominiums within the city at 6-9 units per acre.

LOW DENSITY RESIDENTIAL (yellow): Includes single-family detached unit residential development at the lowest density within the city at less than 5 units per acre.

LIGHT INDUSTRIAL (light grey): Includes land dedicated to manufacturing facilities, processing plants, factories, warehousing and wholesale trade facilities, mining or mineral extraction activities, or other similar uses.

MIXED USE/TOWN CENTER (purple): Allows for a mixture of retail, residential and office uses in a traditional neighborhood or main street fashion. Uses include neighborhood friendly retail commercial uses such as drugstores, grocery stores, banks, etc. may front on commercial streets with a mixture of residential units include condominiums, apartments, town homes, and smaller single family detached residential units and/or offices located above or behind.

MIXED USE PLANNED DEVELOPMENT (beige): For tracts of land that are large enough to be seen as whole versus a part, this concept will allow flexibility for several types of uses to be planned for development at one time to accomplish maximum compatibility versus being segmented.

A PUD should accomplish the following:

- Provide flexible design to respond to the unique characteristics of the site.
- Coordinate development on larger sites within the designated lands.

- Preserve significant natural features in a more coordinated and comprehensive manner.
- Provide alternatives for developing plans on land that may exhibit difficult physical constraints, and where an improved design can provide the developer and the community with benefits.
- Ensure public infrastructure and road improvements are made concurrent with the development.
- Provide the opportunity to mix compatible land uses such as residential, greenspace, schools, and community commercial uses.

OFFICE/PROFESSIONAL (dark blue): This classification is envisioned as a planned business environment incorporating office uses such as, research and development, finance, insurance, real estate and medical offices, limited retail directly associated with professional uses in a campus like setting.

PLANNED COMMERCIAL (light purple): Intended to provide areas for new commercial development that is structured and designed to accommodate potential traffic to the site, with an emphasis on the visual impact on the development, and harmony with surrounding uses. Planned commercial development can become a regional economic engine serving as a future generator of jobs and revenue. Such planned commercial development can attract employment opportunities other than retail commercial and capitalize on the city's proximity to Atlanta Hartsfield Jackson International Airport.

PUBLIC/INSTITUTIONAL (light blue): Overall, the concept for this land use category is to maintain and enhance existing public and institutional uses and facilities and provide additional uses and facilities based on anticipated needs. Appropriate uses in this category include churches, schools, major institutional uses, cemeteries, etc. It is the intent of this Plan that these uses continue throughout the planning period.

RECREATION/PASSIVE (green): Includes land dedicated to active or passive recreational uses such as playgrounds, public parks, nature preserves, recreation centers, and similar uses as well as floodplains, lakes, streams, and other natural resources.

Map 8.2 Future Land Use, City of Riverdale

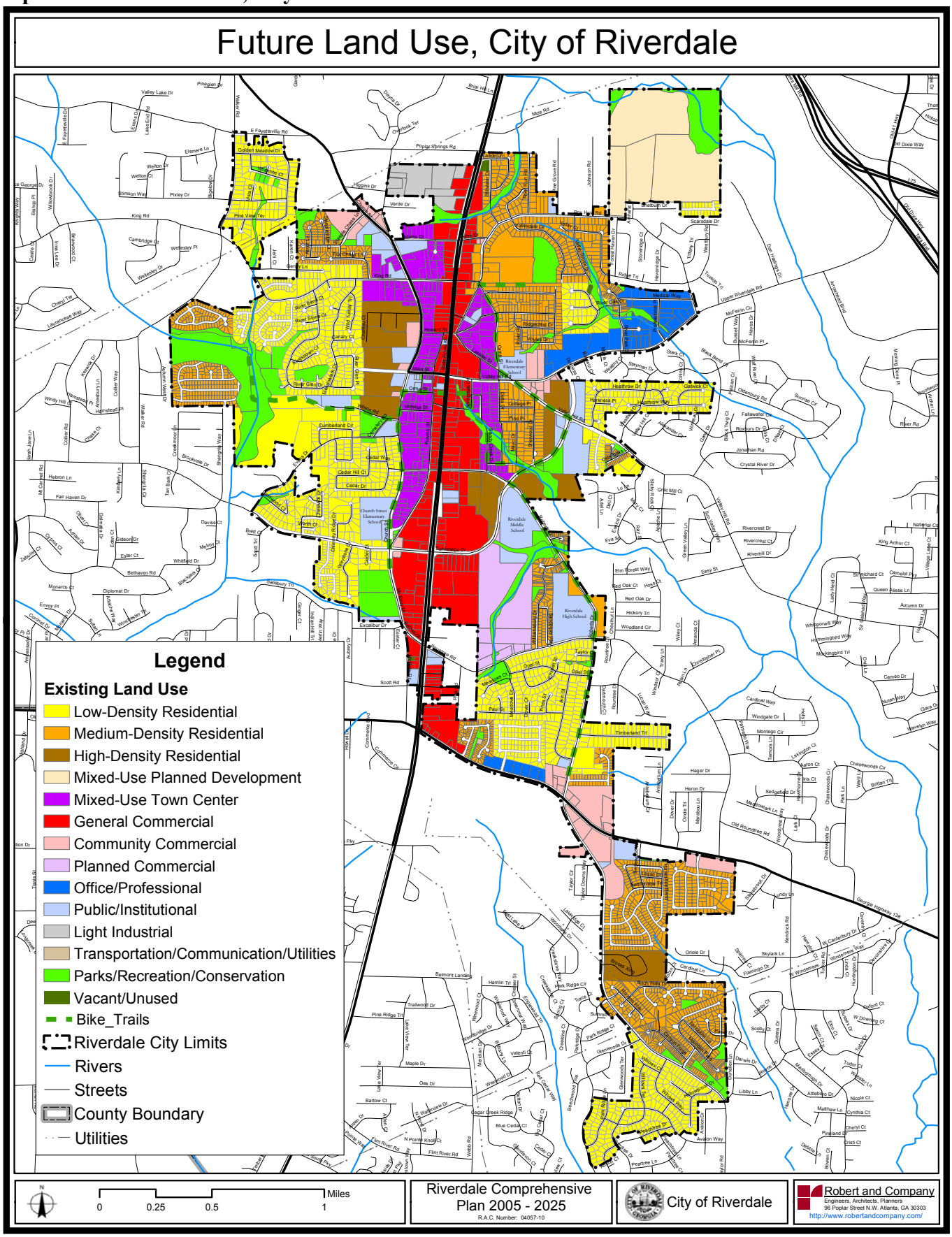


Table 8.3 specifies the land use type, acreage, and total percentage of usage per category.

Table 8.3 Future Land Use Acreage Totals, City of Riverdale

Land Use	Acres	%
Low-Density Residential	812.4	27.6%
Medium-Density Residential	452.3	15.4%
High-Density Residential	132.1	4.5%
Mixed-Use Planned Development	163.0	5.5%
Mixed-Use Town Center	154.3	5.2%
Highway Commercial	242.1	8.2%
Community Commercial	90.1	3.1%
Planned Commercial	70.5	2.4%
Office/Professional	70.3	2.4%
Public/Institutional	160.3	5.4%
Light Industrial	47.1	1.6%
Transportation/Communication/Utilities (Excluding Road R.O.W.)	0.6	0.0%
Road Right of Way (Transportation/Communication/Utilities)	411.3	14.0%
Parks/Recreation/Conservation	138.9	4.7%
TOTAL	2,945.2	100.0%

8.7 LAND USE GOALS AND POLICIES

Goal 1.0 Provide for the coordination of planning efforts among local citizens, adjacent jurisdictions, the city and the region.

- Policy 1.1 Participate in and support cooperative and combined efforts between the county and cities which contribute to the future development and better living conditions throughout the county.
- Policy 1.2 Periodically review zoning regulations and, when appropriate, institute newer and more innovative methods and practices as have proven beneficial in other similar communities
- Policy 1.3 Revise current city zoning regulations to encourage transit-oriented, pedestrian-oriented and mixed-use developments along Church Street, Main Street, Orme Street and Roberts Drive.
- Policy 1.4 Revise city zoning regulations to encourage neighborhood commercial businesses and services to be located in close proximity to residential developments to encourage pedestrian oriented environments.
- Policy 1.5 Periodically review the status of services provided to the city by state, county and any other outside agencies. Require changes where necessary to better serve the needs of the community.
- Policy 1.6 Encourage increased involvement of citizens in the planning and zoning process, particularly associated with key activity centers and corridors.

Goal 2.0 To promote orderly growth and development based on physical, social, economic, and environmental considerations and the ability of the city's tax base and services to supervise, support, and to facilitate this growth and development while striving to maintain the *"small town"* character of the city.

- Policy 2.1 Provide up-to-date development regulations that protect the health, safety, and welfare of the residents of Riverdale.
- Policy 2.2 Plan for growth to occur in an orderly manner within the city.
- Policy 2.3 Ensure compatibility between land uses when making land development decisions.
- Policy 2.4 Promote compact rather than sprawled and scattered development.

Goal 3.0 Establish appropriate planning procedures and innovative planning tools to guide Riverdale's growth and development.

- Policy 3.1 Enforce adherence to the zoning ordinances.
- Policy 3.2 Provide clarity, efficiency, equity, and consistency in city department policies and procedures relating to land development review.
- Policy 3.3 Actively seek the participation of residents in the planning and development process.

Goal 4.0 Encourage all development be located, sited, and designed to carefully fit its surrounding environment and promote health, safety and general welfare of Riverdale residents.

- Policy 4.1 Encourage pedestrian oriented developments that promote compatible uses and focus on enhanced architectural designs which create uniformity.
- Policy 4.2 Encourage the building of industrial sites retain as much of the surrounding natural environment into its design and placement
- Policy 4.3 Plan and program improvements to city recreational facilities as suitable for all age groups and interests in the city.
- Policy 4.4 Encourage the provision for recreational and open space areas in new developments within the city.
- Policy 4.5 Continue to require minimal disturbance of development sites and replacement of trees and vegetation where appropriate
- Policy 4.6 Discourage development in locations that would conflict with environmentally sensitive areas of the city
- Policy 4.7 Strive for a balanced distribution of land uses within the city by encouraging compatible land uses. Encourage use of transitional zones and buffers between residential and non-residential development.

Goal 5.0 Provide for orderly, balanced, and high quality development which responds to the physical and economic conditions of the city.

- Policy 5.1 Institute site plan standards and a review process to guide the design and construction of industrial, commercial, and all types of residential developments..
- Policy 5.2 Provide for adequate and equitable administration and enforcement of the city's zoning and subdivision ordinances and other development regulations.
- Policy 5.3 Preserve the single-family residential character of Riverdale's neighborhoods.
- Policy 5.4 Preserve and enhance the current quality of residential life and affordability for family lifestyles within Riverdale.

Goal 6.0 Preserve and enhance the neighborhoods while providing for transition from residential land uses to commercial neighborhood land uses which enhance the quality of life while not jeopardizing the quality of the neighborhoods.

- Policy 6.1 Designate those areas in Riverdale in which the land use transition is encouraged to occur.
- Policy 6.2 Encourage improvements to housing and neighborhoods in Riverdale and protect residential areas from any negative influences due to past or potential redevelopment.

Policy 6.3 Provide high quality community services to neighborhoods in Riverdale.
Policy 6.4 Provide for adequate and timely infrastructure improvements.
Policy 6.5 Emphasize new homeowner education and code enforcement to address issues associated with Riverdale's increasingly diverse resident population

Goal 7.0 Provide sufficiently available, safe and varied housing opportunities for existing and future residents.

Policy 7.1 Maintain a current database on existing housing units and proposed residential developments.
Policy 7.2 Facilitate housing development in selected areas of the city through eligible state and federal programs to meet the housing needs of households which cannot afford housing in the private market.
Policy 7.3 Adopt and enforce appropriate regulations which serve to provide for maintenance of quality housing and housing opportunities.
Policy 7.4 Encourage infill and higher density multi-family housing where appropriate.
Policy 7.5 Maintain the integrity and viability of stable single-family neighborhoods from the negative impacts of encroachment by incompatible land uses.
Policy 7.6 Facilitate mixed use (residential/commercial) development in appropriate areas by modifying current zoning codes and promoting development opportunities

Goal 8.0 Provide for the development of adequate commercial facilities in appropriate areas on both city-wide and neighborhood levels.

Policy 8.1 Promote a central core (downtown Riverdale) that is compact and distinct from other commercial development and that is viewed as a desirable place to provide a wide range of mixed retail, entertainment, cultural, and office uses which benefit from proximity to each other.
Policy 8.2 Promote Highway 85 as a general commercial throughfare that promotes retail and shopping availability for the city, county and regional needs.
Policy 8.3 Promote a Commercial attraction that will promote regional economic and cultural activities within the City of Riverdale.
Policy 8.4 Promote commercial development which contains compatible and complimentary uses, and which does not detract from the residential character of the city.
Policy 8.5 Promote safe and adequate ingress and egress from commercial development and require adequate land for off-street parking and internal vehicular circulation.

Policy 8.6 Restrict encroachment into stable residential areas.
Policy 8.7 Implement design standards for development to minimize adverse impacts on adjacent land uses.

Goal 9.0 To retain existing office and professional businesses and to provide for the development of suitable areas for business.

Policy 9.1 Encourage reuse and revitalization of obsolete office and commercial facilities.
Policy 9.2 Ensure that commercial developments are designed for adequate buffering, parking, and open space.
Policy 9.3 Wherever possible, promote compact and planned rather than strip commercial development.
Policy 9.4 Provide safe and adequate pedestrian access from nearby areas to commercial and other activity centers.
Policy 9.5 Locate neighborhood commercial uses in areas convenient to existing and future residential development.

Goal 10.0 To encourage industrial development in areas set aside specifically for that type of land use.

Policy 10.1 Encourage reuse and revitalization of obsolete industrial facilities.
Policy 10.2 Encourage the development of clean, environmentally safe industry within industrial land use zones.
Policy 10.3 Ensure that industrial sites are designed for adequate buffering, parking, and open space.
Policy 10.4 Locate industrial uses to ensure access to major thoroughfares.
Policy 10.5 Discourage industrial uses which are incompatible with surrounding uses.