

3.0 Existing Transportation Conditions

Extensive data was collected for the transportation facilities within Columbia County. This data collection effort included inventorying existing roadways, bicycle and pedestrian facilities, transit, freight, bridges, traffic collisions, rail and airport services. The following sections provide an overview of the existing transportation system. This information will form the basis for evaluating its performance and determining future improvements.

3.1 Existing Highway System

The roadway network for Columbia County is made up of several federal, state, county and local roads. These roadways are classified as interstates, primary and minor arterials and collectors with respect to their functionality in the County. Table 3.1.1 lists the major roadway facilities located within the County along with its functional classification. Roads with a higher functional class service more traffic and as a result receive additional scrutiny as part of this study.

**Table 3.1.1
Roadway Facilities**

Roadway	Functional Class	Service Area
I-20	Interstate	Primarily external trips
Appling Harlem Rd	Primary Arterial	Trips Between Appling and Harlem
Belair Rd	Minor Arterial	North-South access to I-20
Bobby Jones Expy	Primary Arterial	Access to Augusta
Lewiston Rd	Primary Arterial	Access to Grovetown
Old Evans Rd	Collector	Local trips in Augusta
Wheeler Rd	Collector	Local trips in Augusta
Hardy McManus Rd	Minor Arterial	New development occurring in County
Old Washington Rd	Minors Arterial	Local trips in Augusta
CR 223 (Wrightsboro Rd)	Primary Arterial	Trips from Harlem to Augusta
Harlem-Grovetown Rd	Minor Arterial	Trips between Harlem and Grovetown and into Augusta
CR 232 (Columbia Rd)	Primary Arterial	East-West access to Augusta
Evans to Locks Rd	Primary Arterial	Local trips in Augusta
Flowing Wells Rd	Minor Arterial	Local trips in Augusta
CR 28 (Fury's Ferry Rd)	Primary Arterial	Local trips, Trips to South Carolina
Hereford Farm Rd	Minor Arterial	Access to newly developed areas in County
Stevens Creek Rd	Minor Arterial	North-South trips into Augusta
SR 104 (Washington Rd)	Primary Arterial	Major thoroughfare for Columbia County
SR 47	Principle Arterial	North-South trips through western portion of County
US 278	Primary Arterial	Primarily external trips
Old Belair Rd	Collector	North-South trips into Augusta

Table 3.1.2 lists the characteristics by facility type for Columbia County.

**Table 3.1.2
Facility Type Characteristics**

Facility Type	2000 AADT	VMT ⁽¹⁾	Distribution
Interstates	168,034	666,086	37.59%
Principal Arterials	287,166	334,899	18.90%
Minor Arterials	233,959	592,917	33.46%
Collectors	74,552	178,253	10.06%
Total VMT	765,659	1,772,155	100.00%

(1): Observed values were obtained from GDOT report 445-2000.

3.2 Traffic Volumes

GDOT maintains an extensive traffic data collection program and TEI was able to capitalize on these data sets as part of this study. There are currently eighty-five (85) count stations within Columbia County. This information was used as input into the Columbia model for validation and calibration purposes. The traffic volume data can be found in the Appendix of the Existing Conditions Report (dated March, 2004).

3.3 Crash Data

The latest three years of available crash data from the Georgia Department of Transportation (1997, 1998 and 2001) was collected for state roads and analyzed for the entire study area. Additionally, crash data along the county roads was collected for 1999-2001. The crash data was used to determine locations with potential safety improvements through the study area.

Table 3.3 shows the number of crash records reviewed by jurisdiction and year.

**Table 3.3
Crash Data**

Year	# of Crashes
GDOT	
1997	2,815
1998	1,899
2001	3,313
Columbia County	
1999	738
2000	822
2001	810

3.4 Bridge Inventory

One of the critical concerns for the County was the condition of the numerous bridges through the study area. Columbia County bridges were evaluated to determine the need for potential improvement. Deficient bridges pose a major obstacle to a fully functional road network due to load limits or other deficiencies. The study area was reviewed to identify all bridges and assess the need for potential improvements.

To facilitate the completion of this effort GDOT provided bridge condition reports for each bridge within the study area. A general measure of the condition of each bridge is the sufficiency rating. The sufficiency rating is used to determine the need for maintenance, rehabilitation or reconstruction of a bridge structure. With adequate maintenance any structure with a sufficiency rating of above 75 should maintain an acceptable rating for at least 20 years. Structures with a rating between 65 and 75 are less satisfactory and structure with a sufficiency rating of 65 or lower have a useful life of less than twenty years and will require major rehabilitation or reconstruction work during this period.

Fifty-seven (57) bridges currently exist within the County. Table 3.4 displays the collected information for all of the bridges in Columbia County.

**Table 3.4
Bridge Condition Summary**

Road	Feature	Location	Sufficiency Rating
SR 232*	Crawford Creek	4.4 mi NE of Grovetown	36.54
SR 223	Kiokee Creek	5.8 mi NW of Harlem	51.53
SR 47*	Keg Creek	6.9 mi N of Appling	54.17
CR 576/Louisville Rd.	I-20	5.2 mi NW of Grovetown	54.65
SR 232*	Walton Branch	4 mi NE of Grovetown	56.34
CR 253/Baker Place Rd.	I-20	3.7 mi NW of Grovetown	59.03
SR 223	Uchee Creek	2.2 mi NW of Grovetown	61.44
CR 238/Chamblin Rd.	I-20	2.4 mi NW of Grovetown	62.09
SR 104	Kiokee Creek	6.2 mi NE of Appling	66.63
CR 27/Dozier Rd.	Greenbriar Creek	2.0 mi NW of Appling	67.61
SR 47	Greenbriar Creek	2.5 mi NE of Appling	73.90
CR 580/North Belair Rd.*	CSX Railroad	9.1 mi NE of Grovetown	75.39
CR 227/Sir Galahad Dr.	Betty's Branch	0.8 mi W of Evans	77.73
SR 388/Lewiston Rd.	I-20	2.1 mi N of Grovetown	78.00
SR 47	I-20	5.7 mi N of Harlem	79.00
SR 104	Betty's Branch	4.7 mi NW of Martinez	79.47
CR 578/Tubman Rd.	Kiokee Creek	3.0 mi NE of Appling	79.79
US 221	Clark Hill Dam	10.6 mi NE of Appling	80.18
SR 104	Little Kiokee Creek	6.6 mi NE of Appling	81.57
CR 562/Covered Bridge Rd.	Betty's Branch	2.0 mi NW of Evans	84.64
CR 986/Ray Owens Rd.	Greenbriar Creek	2.0 mi N of Appling	86.14
SR 402/I-20 EBL	Uchee Creek	2.7 mi NW of Grovetown	86.42
SR 402/I-20 WBL	Uchee Creek	2.7 mi NW of Grovetown	86.42
SR 104	Long Branch	7.8 mi E of Appling	86.72
SR 402/I-20 EBL	Kiokee Creek	6.1 mi NW of Harlem	86.73
SR 402/I-20 WBL	Kiokee Creek	6.1 mi NW of Harlem	86.73
SR 232	Uchee Creek	4.2 mi NW of Grovetown	86.85
SR 383/Belair Rd.	I-20	4.5 mi NE of Grovetown	87.00
SR 232	Benton Branch	1.1 mi SE of Appling	87.56
CR 1/ County Line Rd.	Mollie Creek	4.8 mi NW of Harlem	89.23
CR 1/County Line Rd.	Kiokee Creek	5.0 mi NW of Harlem	89.23
CR 647/Watervale Rd.	Reed Creek	1.3 mi NE of Martinez	89.26
SR 104	Uchee Creek	5.2 mi NW of Martinez	89.61
SR 28	Jones Creek	3.6 mi NW of Martinez	90.45
SR 47	Kiokee Creek	0.2 mi S of Appling	90.61
SR 223	Little Kiokee Creek	4.6 mi NE of Harlem	91.05
CR 570/White Oak Rd.	Satterwhite Creek	2.6 mi W of Appling	91.20
US 221	Boggy Gut Creek	2.4 mi S of Harlem	91.59

Road	Feature	Location	Sufficiency Rating
CR 575/Harlem-Grovetown Rd.	Uchee Creek	1.7 mi NE of Harlem	91.87
CR 176/Old Evans Rd.	Reed Creek	1.0 mi SE of Evans	91.90
CR576/Louisville Rd.	Little Kiokee Creek	4.8 min NW of Grovetown	92.01
CR 102/Hereford Farm Rd.	Tudor Branch	3.5 mi W of Evans	92.01
US 221	Greenbriar Creek	3.6 mi NE of Appling	92.10
CR 627/Blue Ridge Dr.	Reed Creek	1.3 mi E of Evans	92.20
CR818/Stevens Way	Reed Creek	1.7 mi NE of Martinez	92.26
CR 27/Dozier Rd.	Buggs Creek	3.5 mi NW of Appling	92.32
CR 852/The Pass	Reed Creek	1.4 mi NW of Martinez	92.35
SR 232	Reeds Creek	6.4 mi NE of Grovetown	93.82
SR 232	Little Kiokee Creek	5.9 mi NW of Grovetown	95.50
SR 104	Reeds Creek	2.6 mi NW of Martinez	95.89
CR 92/Hardy McManus Rd.	Betty's Branch	5.5 mi NW of Martinez	96.17
SR 28	Reeds Creek	1.6 mi N of Martinez	96.83
CR 575/Harlem-Grovetown Rd.	Uchee Creek	2.0 mi W of Grovetown	98.65
CR 986/Ray Owens Rd.	Harris Branch	2.2 mi N of Appling	99.25
US 221	Kiokee Creek	4.8 mi NW of Appling	99.64
CR 320/Old Washington Rd.	Little Kiokee Creek	5.7 mi NE of Appling	99.88
CR 238/Chamblin Rd.	Uchee Creek	3.0 mi NW of Grovetown	99.89

Source: *GDOT*

* These bridges are currently part of the 2003 – 2008 Work Program

Based on the sufficiency rating, a majority of the bridges are in good condition and not in need of any major maintenance or upgrade activities. The bridge located on SR 232 at Crawford Creek has a sufficiency rating below 50. This bridge is currently programmed for improvement in the 2003-2006 STIP. Additionally, there are ten (10) bridges that have a sufficiency rating below 75 and should be considered candidates for maintenance and rehabilitation.

3.5 Bicycle and Pedestrian Facilities

Columbia County currently has two multi-use trails for bicyclists and pedestrians recognized in the Georgia Department of Transportation Statewide Bicycle and Pedestrian Plan. The longer of these two facilities is the Augusta Link Corridor. It travels east-west across Columbia County in seven segments from McDuffie County to Richmond County covering approximately 19.6 miles. Three segments of this trail, totaling 4.7 miles, are part of the Georgia State System. The second multi-use trail in Columbia County is Phase I of the Evans-to-Locks Road facility. This first phase of the trail extends from Savannah Rapids Pavilion to Fury’s Ferry Road.

Columbia County is currently developing priorities for enhancing their bicycle and pedestrian facilities. The County’s goal is to provide a bicycle and pedestrian network to serve the local and regional needs of the communities. It is also the intent of the County to promote these facilities as a safe and healthy transportation option throughout the region for potential users.

The Augusta Richmond Transportation Study (ARTS), which serves the urbanized portion of Columbia County, recently completed a Bicycle and Pedestrian Plan. The Plan recommends additional facilities for Columbia County including installation of “Share the Road” signs, restriping existing bicycle lanes, and creating new bicycle lanes along roadways. Table 3.5 displays the recommended bicycle and pedestrian facilities for Columbia County.

**Table 3.5
Bicycle and Pedestrian Improvements**

Year	Location	Description	Facility Type	Linear Feet
2013	Columbia Rd	From Belair Rd to Lewiston	Rural Bike Lane	18,790
2008	Ronald Reagan Dr	From Washington Rd to N Belair Rd	Urban Bike Lane	2,131
2013	Cox Rd/Gibbs Rd	From Washington Rd to Hereford Farm Rd	Urban Bike Lane	7,450
2013	Wrightsboro Rd	From S Belair Rd to Study Area Boundary	Share the Road	33,730
2018	Columbia Rd/SR 232	From Hereford Farm Rd to Study Area Boundary	Share the Road	35,965
2018	Belair Rd/SR 383	From Washington Rd to Wrightsboro Rd	Restriping	25,403
2013	William Few Pkwy	From Columbia Rd to Washington Rd	Rural Bike Lane	27,826
2008	Old Petersburg Rd/CR 145	From Washington Rd/Old Evans to Riverwatch Pkwy	Urban Bike Lane	12,985
2008	Washington Rd/Old Evans Rd/CR 176	From Belair Rd to Old Petersburg Rd	Urban Bike Lane	6,496
2013	Baston Rd	From Old Petersburg Rd to Fury’s Ferry Rd	Restriping	3,873

Year	Location	Description	Facility Type	Linear Feet
2008	N. Belair Rd/CR 580	From Washington Rd to Fury's Ferry Rd	Restriping	13,078
2008	Hardy McManus Rd	From Washington Rd to Fury's Ferry Rd (includes the future William Few Pkwy extension)	Rural Bike Lane	20,272
2018	Flowing Wells Rd	From Columbia Rd to Wheeler Rd	Urban Bike Lane	7,408
2018	Wheeler Rd	From S Belair Rd to Flowing Wells Rd	Share the Road	7,290
2018	Washington Rd/SR 104: Phase III	From Study Area Boundary to Cumberland Dr	Rural Bike Lane	14,866
2008	Washington Rd/SR 104: Phase II	From Cumberland Dr to Silver Lake Dr	Rural Bike Lane	12,936
2008	Washington Rd/SR 104: Phase I	From Silver Lake Dr to Ronald Reagan	Rural Bike Lane	10,402
2013	SR 388/Lewiston Rd	From Wrightsboro Rd to Columbia Rd	Rural Bike Lane	29,884
2008	Hereford Farm Rd	From Columbia to Belair Rd	Rural Bike Lane	19,586
2008	Evans-To-Locks Rd: Phase II	From existing facility to Blue Ridge Dr	Multiuse	7,119
2008	Evans-To-Locks Rd: Phase III	From Blue Ridge Dr to Belair Rd	Multiuse	7,647
2018	Fury's Ferry Rd/CR 92: Phase II	From Hardy McManus to Blackstone Camp Rd	Urban Bike Lane	12,069
2018	Fury's Ferry Rd/CR 92: Phase III	From Hardy McManus to County Line/Study Area Boundary	Rural Bike Lane	6,959
2018	Columbia Rd	From Belair Rd to Flowing Wells Rd	Urban Bike Lane	10,938
2013	Pleasant Home Rd/CR 177	From Flowing Wells to Washington Rd	Restriping	16,534
2008	Walton Way Extension/Davis	From Skinner Mill to Washington Rd	Restriping	8,025

3.6 Existing Transit Programs and Services

Limited transit services are provided in Columbia County, where there are two available types of transit facilities. The first transit facility available is Columbia County's Rural Public Transit. This transit system consists of vans which operate on an appointment basis for transport to the following destinations within Columbia and Richmond Counties, north of Gordon Highway:

- Fort Gordon;
- Educational Facilities;
- Employment Centers;
- Shopping Facilities;
- Medical Facilities; and,
- Recreational Facilities.

24-hour notice is required for appointments, and operating hours are from 8:00 AM to 5:00 PM, Monday through Friday. Although this system is available to all Columbia County residents, riders who are not physically able to manage themselves, including those in wheelchairs, must have an escort.

Another public transit facility available to Columbia County residents is Augusta Public Transit. Route 5 of this fixed bus route system services a limited area of Columbia County. The service area includes Washington Road, Davis Road, and Pleasant Home Road in Augusta. This facility operates weekdays from 6:30 AM to 7:00 PM and Saturdays from 7:00AM to 7:00 PM, excluding holidays

The Georgia Statewide Transportation Plan and Process (published in November 2000) states that between 1994 and 1998 there was a 21% decrease in annual Urban Revenue Miles for Augusta Public Transit. In addition, between 1994 and 1998 there was a 15% decrease in Augusta Transit ridership. In 1999, Augusta Public Transit prepared short-range and long-range transit plans. The primary recommendation included in these plans is a vehicle replacement schedule. Additionally, the Augusta-Richmond MPO has no plans for expansion of fixed route transit services in Columbia County.

3.7 Freight and Rail

Several companies utilize freight operations in Columbia County. A majority of these freight operation involve trucks, however some of the businesses are located along the railroads and utilize trains for the movement of their freight. These companies are listed in Table 3.7. All of these companies were contacted as part of this study to identify existing and future deficiencies and needs.

**Table 3.7
Freight Companies**

Company	City	Location
Club Car	Evans	Commerce Ct
Quebecor	Evans	Evans to Lock Rd
John Deere	Grovetown	Horizon South
Serta	Grovetown	Horizon South
Martin Marietta	Grovetown	Columbia Rd
Rinker Materials	Grovetown	Columbia Rd
Georgia Iron Works	Grovetown	Wrightsboro Rd

The major commodities moved by the railroads that originate or terminate within the study area are Rock products and Clay/Concrete/Glass/Stone products. Overall, the State Freight Plan predicts a 1.3% annual growth rate for Concrete/Glass products and an annual growth rate of -1.6% for Pulp and Paper products. Local trains handle these products. However, most traffic on the county's rail lines, six of the daily trains on the Harlem route and two of the daily trains on the Greenwood route, is through traffic comprised on intermodal shipments to the ports of Charleston and Savannah, mixed freight trains, and merchandise trains.

There are currently two active rail lines within the study area, The Atlanta-Augusta Line and the Augusta-Greenwood Line. Columbia County is well served by these lines in the north-south direction and east-west direction. The two lines through the area are part of the CSX national system and carry mainly through traffic to and from the ports of Charleston and Savannah. Consequently, the overall direct impact of the rail lines on the study area is minimal. Traffic on these lines is likely to grow concurrent with any growth in the ports. There is limited local traffic on the lines in the county with natural resources playing an important part along the east-west line through Harlem with the north-south line serving the manufactures in eastern Columbia County. There are no currently active rail yards in the study area, though some sidings are provided to allow businesses to access the rail lines. CSX Transportation operates the two rail lines in the study area. The information presented below comes from either the GDOT Office of Intermodal Programs, particularly the 1998 (the most recent) Rail Freight Plan, and the Georgia Geographic Information System (GIS) Clearinghouse.

Atlanta-Augusta Line

The CSX mainline between Atlanta and Augusta runs through the southern part of Columbia County. The line parallels US 78 and runs through the town of Harlem just north of Fort Gordon. This line bisects downtown Harlem and there are a number of at-grade crossings from Harlem east to the McDuffie County line. According to the

Georgia Freight Rail Plan this line carries 14 million gross ton-miles per mile (MGTM/M) annually. At least eight trains use this line Monday through Friday according to the latest available CSX schedule. Six trains use this line on the weekends and one additional rock train runs as needed.

Augusta - Greenwood, SC

This CSX also operates another major line between Augusta and Greenwood, SC that passes through Columbia County. This line enters the County parallel to SR 104 on the border with Richmond County and runs approximately due north before crossing the Savannah River into South Carolina. There are few at-grade crossings along this line, though the northern portion of this line runs adjacent to several residential subdivisions, a school, and the public boat ramp and park. The rest of the line passes through the center of an industrial park and then parallels the commercial strip along SR 104 into Augusta. According to the Georgia Freight Rail Plan this line carries 17 MGTM/M annually. Three trains use this line daily according to the latest available CSX schedule. One additional train runs Sundays, Tuesdays, and Thursdays.

The east-west line passes through the historic areas of Columbia County, particularly through downtown Harlem. Care should be taken to make sure that any increases in traffic along this line do not negatively impact Harlem. The north-south line between Greenwood, SC and Augusta is located in a more recently developed area that does not focus on the rail line, except for the industrial businesses and the commercial strip along SR 104. As the northern area of this line in Columbia County is developed, care should be taken to ensure that the development surrounding the rail line is compatible with rail activity.

Rail traffic is an important element in the industrial base of the study area. Care should be taken to make sure that any increases in rail traffic do not adversely impact historic areas and residents and that increases in freight traffic are managed well so that the rail lines continue to be a valuable transportation asset for the study area. Special attention should also be paid to managing the impacts of freight traffic on the other travel modes in the study area so that the rail lines continue to be a valuable transportation asset for the study area. Between January 2000 and September 2003, there were no incidents reported to the Federal Railroad Administration (FRA) on any of the lines operated in Columbia County.

3.8 Airport Facilities

Columbia County does not currently have a major airport, the closest one being the Augusta Airport located in Richmond County. The Augusta Airport is a Level I (Daniel Field) and Level III (Augusta Regional at Busch Field) facility. The service area for these facilities includes Columbia County.

Review of the Georgia Aviation Systems Plan shows that there are currently no plans for an airport in Columbia County.